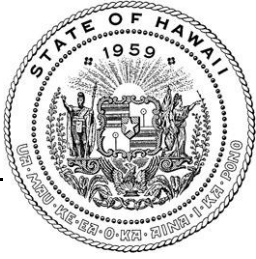


SB571

Measure Title:	RELATING TO RENEWABLE ENERGY.
Report Title:	Renewable Energy; Gas; Renewable Portfolio Standard
Description:	Require gas utility companies to establish renewable energy portfolio standards for gas. Provides means for gas utility companies to achieve the renewable energy portfolio standards for gas. Requires the public utilities commission to conduct a study of the renewable portfolio standards.
Companion:	HB1242
Package:	None
Current Referral:	CPH/EET, WAM
Introducer(s):	K. RHOADS



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
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Statement of
MIKE MCCARTNEY
Director

Department of Business, Economic Development, and Tourism

before the

**SENATE COMMITTEE ON COMMERCE, CONSUMER PROTECTION AND HEALTH
AND**

SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

Monday, February 11, 2019

2:45 PM

State Capitol, Conference Room #414

In consideration of

SB 571

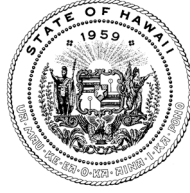
RELATING TO RENEWABLE ENERGY.

Chairs Baker and Wakai, Vice Chairs Chang and Taniguchi, and members of the Committees. The Department of Business, Economic Development, and Tourism (DBEDT) **offers comments** on SB 571, which establishes gas renewable portfolio standards (RPS) of 25% by 2025, 40% by 2030, 70% by 2040, and 100% by 2045 based on total sales, inclusive of sales from the gas utility's corporate parent and affiliated entities.

DBEDT is supportive of renewable gas and establishing a renewable gas RPS. DBEDT also is supportive of applying the renewable gas RPS to the portion of gas that is used for grid connected electricity generation to level the playing field with electric utilities' RPS requirements. However, this should be done in parallel with closing the gap on the definition of RPS so that it is based on generation (as is being proposed by HB 550) not sales (as it is being proposed by this measure). We recommend the Legislature add requirements to SB 571 ensuring the regulated gas utility cannot use its non-regulated operations to serve its customer's needs for grid-connected electricity generation and that all grid-connected energy systems shall be 100% renewable energy systems by 2045 (as being proposed under HB 550, page 9, lines 9-11).

DBEDT sees merit in extending the gas RPS beyond grid connected electricity generation for both the regulated and unregulated portion of the gas utility's businesses as it would support Hawaii's clean energy vision. However, care must be taken to ensure the gas RPS provides a strong incentive for the utilities to move forward while minimizing unintended consequences (e.g. ensuring the policy is not encouraging non-utility gas competitors to take advantage of the lack of regulation).

Thank you for the opportunity to testify.



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
Senate Committee on Energy, Economic Development, and Tourism
and
Senate Committee on Commerce, Consumer Protection, and Health**

**Monday, February 11, 2019
2:45 p.m.
State Capitol, Conference Room 414**

**On the following measure:
S.B. 571, RELATING TO RENEWABLE ENERGY**

Chairs Wakai and Baker and Members of the Committees:

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 gas utility companies to establish renewable energy portfolio standards for gas and provides means for gas utility companies to recover incurred costs to achieve the renewable energy portfolio standards for gas. The bill also requires the Public Utilities Commission (Commission) to conduct a study of the renewable portfolio standards (RPS).

The Division supports the State's clean energy goals. The proposed RPS for regulated gas utilities does raise concerns that if the proposed language establishing the RPS for gas utilities is adopted as-is, it could, among other things, significantly

increase the gas utilities' costs. Given that the technology to create renewable gas is less developed than the technology for renewable electricity (e.g., the Honouli`uli biogas facility has only recently begun operations), and the renewable gas market does not enjoy the same support that renewable electricity enjoys (e.g., lack of significant tax credits for renewable gas technologies), adopting the language used for the RPS for the electric industry, including the interim goals, will likely result in significant increases in gas costs for all customers. In particular, the proposed RPS may cause the regulated gas utility to incur significant costs, which ratepayers would ultimately bear.

The Division has previously testified on other similar measures that, if an RPS were to be imposed on the gas utility, it should be imposed on both regulated and unregulated sales to avoid the unintended consequence of driving utility gas customers to find non-regulated gas sources to avoid the cost increases, which would defeat the intent of a gas RPS. This bill would calculate the RPS based on both regulated and unregulated gas sales, thereby decreasing the risk of the regulated utility having an incentive to adopt a model that uses its non-regulated operations to serve customers' needs. The Division believes that this holistic approach should better align the proposed statutory mechanism with the stated goals to reduce Hawaii's contribution to carbon production and greenhouse gases.

It should be noted, however, that while this measure would better address concerns as it relates to any regulated utility company and any affiliated non-regulated operations, it would not address unregulated gas competitors that would continue to be able to sell gas that did not comply with the gas RPS.

Finally, in Hawaii Revised Statutes section 269-B(c), the proposed language would allow a regulated gas company to recover "the gas company's revenue requirement resulting from . . . the renewable portfolios of the gas utility company and its gas utility affiliates." This language might be interpreted to mean that any and all costs, even if some of the costs are not reasonable, would be recoverable per se. This may also saddle gas utility ratepayers with significant infrastructure costs for both the regulated and unregulated operations, which could require utility consumers to subsidize non-regulated customers and also allow the non-regulated affiliate to take

Testimony of DCCA

S.B. 571

Page 3 of 4

advantage of the subsidies in the unregulated gas market. Therefore, the Division recommends language that makes clear that only reasonable costs attributable to regulated gas operations can be recovered from gas utility customers.

Thank you for the opportunity to testify on this bill.

Testimony of DCCA
S.B. 571
Page 4 of 4

[Continue text here.]

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

TO THE
SENATE COMMITTEES ON
COMMERCE, CONSUMER PROTECTION, AND HEALTH
AND
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

February 11, 2019
2:45 p.m.

Chairs Baker and Wakai and Members of the Committees:

MEASURE: S.B. No. 571

TITLE: RELATING TO RENEWABLE ENERGY.

DESCRIPTION: Require gas utility companies to establish renewable energy portfolio standards for gas. Provides means for gas utility companies to achieve the renewable energy portfolio standards for gas. Requires the public utilities commission to conduct a study of the renewable portfolio standards.

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).

If the Legislature establishes an RPS for gas utilities, the Commission respectfully recommends that the Legislature consider the early years of the electricity RPS in setting specific RPS goals. The electricity RPS started with relatively modest targets in the early years, which were increased over time as studies of the economic and technical feasibility of more aggressive targets were completed. This approach provided a strong incentive for the utilities to move forward while enabling all stakeholders to gain confidence and experience as the market for renewable technologies developed.

Thank you for the opportunity to testify on this measure.

**TESTIMONY BEFORE SENATE COMMITTEES ON
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM
&
COMMERCE, CONSUMER PROTECTION, AND HEALTH**

S.B. 571

Relating to Renewable Energy

Monday, February 11, 2019
2:45pm, Agenda Item #3
State Capitol, Conference Room 414

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

Chair Wakai and Chair Baker, Vice Chair Taniguchi and Vice Chair Chang, and Members of the Committees:

My name is Chris Lau and I am testifying on behalf of Hawaiian Electric Company and its subsidiary utilities Maui Electric Company and Hawai'i Electric Light Company (collectively, "the Hawaiian Electric Companies") in support of S.B. 571, Relating to Renewable Energy.

S.B. 571 establishes a Renewable Portfolio Standard, commonly known as "RPS", for the gas utilities of 100% of total sales by 2045 with interim goals of 25% by 2025, 40% by 2030, and 70% by 2040 to align with the State's policy to transition away from fossil fuels and toward renewable energy. The bill references total sales to include the sale of all gas in the State by a gas utility, its corporate parent, by its corporate parent's subsidiaries, partners, joint ventures and affiliates to ensure that the RPS captures the sale of gas by regulated and unregulated entities.

The Hawaiian Electric Companies support this bill to create parity between the electric and gas utilities as the State transitions toward a renewable energy future and offer the following comments for consideration:

- By including both regulated and unregulated gas entities, the RPS accounts for all gas use in the State similar to how the electric utility RPS accounts for all sources of electrical energy generation including customer sited, grid connected sources. Interim goals to meet the 100% RPS in 2045 mirror similar goals required of the Companies. This definition of a gas RPS would treat the RPS requirements of the gas and electric utilities in a fair and even manner.
- Although there may be limited availability of local renewable gas today, it is a resource that can be developed in the State. The gas utility has demonstrated that it can capably produce renewable gas through its partnership with the City and County of Honolulu, Department of Environmental Services at the Honouliuli Wastewater Treatment Plant.
- If the committees wish to provide some additional time to develop renewable gas resources, we suggest that at least the 2030 40% RPS requirement be the starting point for compliance. If necessary, renewable gas could be imported to augment that which is produced locally.
- The establishment of a gas RPS would reduce the Companies' risk of non-compliance with its own RPS as customers who choose to invest in fossil fueled customer-owned generation would eventually become renewable over a similar timeline as the Companies and not deter future achievement on renewable goals.

Accordingly, the Hawaiian Electric Companies support S.B. 571 in its current form. Thank you for this opportunity to testify.



Email: communications@ulupono.com

SENATE COMMITTEES ON ENERGY, ECONOMIC DEVELOPMENT, & ENVIRONMENTAL TOURISM
AND COMMERCE, CONSUMER PROTECTION, & HEALTH
Monday, February 11, 2019 — 2:45 p.m. — Room 414

Ulupono Initiative has Comments on SB 571, Relating to Renewable Energy

Dear Chair Wakai, Vice Chair Taniguchi, Chair Baker, Vice Chair Chang, and Members of the Committees:

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 has comments on SB 571, which adds a renewable energy portfolio standard for gas.

While Ulupono is supportive in concept of having the gas utility move towards renewable energy as well, it is important to note that the commercial availability and price competitiveness of renewable gas is significantly behind that of renewable electricity. Solar, wind, geothermal, and other sources of renewable electricity are generally more widely available and more cost competitive with fossil fuel based electricity. For example, much of the renewable electricity in Hawaii comes from customer sited (rooftop) PV. We are aware of no commercially available technologies for customers to generate their own renewable gas at home. Renewable natural gas technologies certainly exist but pushing the gas utility to go to renewable sources as quickly as the electric utility (100% by 2045) ignores current market and technological realities. Establishing an RPS for the gas utility should be done after careful study and that effort should not be used as a reason to delay fixing the electric utility RPS definition.

As Hawai'i's energy issues become increasingly complex and challenging, we appreciate these committees' 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

SB-571

Submitted on: 2/9/2019 4:23:54 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Robert Edmondson	Testifying for 350 Hawaii	Support	No

Comments:

Aloha, I strongly support SB571 which requires the gas utility companies to establish renewable energy portfolio standards for gas. This bill promotes fairness and alignment in Hawaii's transition to one hundred per cent renewable energy and ensures a transition toward increasing renewable energy.

However, there are two important amendments needed to support the intent of this bill.

First, there is a flaw in the current RPS definition that needs to be addressed, or this flaw be transferred to the gas utility. The current RPS calculation allows a company to achieve a RPS of 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from energy sales to energy generation.

Second, the UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, SB571 should be further amended to accelerate the target to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

This bill with these amendments is in the best interests of the people of Hawaii. Scientists from NASA just announced that 2018 was the Earth's fourth warmest year since record-keeping began about 140 years ago. The warmest of all was 2016, followed in order by 2017 and 2015, the fifth-warmest was 2014. The UN IPCC report makes clear we must limit warming to 1.5 degrees Celsius, and that to do this, it requires a major and immediate transformation across all sectors to achieve the needed emissions reductions.

To continue to expand our use of fossil fuels, which Hawaii Gas is pushing for us to do, makes no sense. Hawaii Gas uses natural gas, which is 90% methane, a global warming gas 84 times as potent as CO2. Continuing to use natural gas, let alone pushing to increase its use, is literally suicide.

That is why we need SB571. The science is clear. We must move away NOW from our use of natural gas and its climate destroying emissions. Our grandchildren and great-grandchildren will judge us by how well we meet the challenge. Please pass SB571!
Mahalo



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

COMMITTEE ON COMMERCE, CONSUMER PROTECTION, AND HEALTH
Senator Rosalyn H. Baker, Chair
Senator Stanley Chang, Vice Chair

DATE: Monday, February 11, 2019
TIME: 2:45 p.m.
PLACE: Conference Room 414

SB 571 RELATING TO RENEWABLE ENERGY

STRONG SUPPORT

Aloha Chairs Wakai and Baker, Vice Chairs Taniguchi and Chang, and Members of the Committees

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.

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 Company is owned by climate change deniers.

But that shouldn't affect Hawaii requirements that everyone participate in saving the planet.

Mahalo
Henry Curtis, Executive Director

SB-571

Submitted on: 2/10/2019 1:34:04 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

Strongly support SB571 which requires the gas utility companies to establish renewable energy portfolio standards for gas. This bill promotes fairness and alignment in Hawaii's transition to one hundred per cent renewable energy and ensures a transition toward increasing renewable energy.

However, there are two important amendments needed to support the intent of this bill.

First, there is a flaw in the current RPS definition that needs to be addressed, or this flaw be transferred to the gas utility. The current RPS calculation allows a company to achieve a RPS of 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from energy sales to energy generation.

Second, the UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, SB571 should be further amended to accelerate the target to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

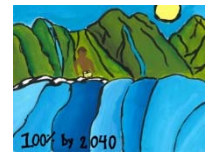
This bill with these amendments is in the best interests of the people of Hawaii. Scientists from NASA just announced that 2018 was the Earth's fourth warmest year since record-keeping began about 140 years ago. The warmest of all was 2016, followed in order by 2017 and 2015, the fifth-warmest was 2014. The UN IPCC report makes clear we must limit warming to 1.5 degrees Celsius, and that to do this, it requires a major and immediate transformation across all sectors to achieve the needed emissions reductions.

To continue to expand our use of fossil fuels, which Hawaii Gas is pushing for us to do, makes no sense. Hawaii Gas uses natural gas, which is 90% methane, a global warming gas 84 times as potent as CO2. Continuing to use natural gas, let alone pushing to increase its use, is literally suicide.

That is why we need SB571. The science is clear. We must move away NOW from our use of natural gas and its climate destroying emissions. Our grandchildren and great-grandchildren will judge us by how well we meet the challenge. Please pass SB571!

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

www.WeAreOne.cc



**SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT & TOURISM
SENATE COMMITTEE ON COMMITTEE ON COMMERCE,
CONSUMER PROTECTION, AND HEALTH**

February 11, 2019, 2:45 P.M.

Room 414

(Testimony is 7 pages long)

TESTIMONY IN STRONG SUPPORT OF SB 571

Aloha Chairs Wakai and Baker, and members of the Committees:

Blue Planet Foundation **strongly supports SB 571**, a measure to expand the benefits of the renewable portfolio standard to natural gas utility companies. This measure is critical if we hope to achieve our state’s clean energy and climate goals—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 a policy for gas, Hawaii could remain dependent on fossil fuels for decades and fail to achieve its critical climate goals.

Senate Bill 571 is important for three key reasons:

1. Natural gas has significant climate impacts;
2. Despite efforts, gas utility renewable progress is severely lagging in the absence of standards; and
3. Opportunities abound for sustainable alternatives.

Natural gas has significant climate impacts

Despite marketing, the myth that natural gas is somehow a “clean energy” resource has been scientifically debunked. “Natural” gas is comprised primarily of methane (CH₄). Methane is a potent greenhouse gas—more potent than CO₂. According to the U.S. EPA, “methane emissions released to the atmosphere (without burning) are about 21 times more powerful than CO₂ in terms of their warming effect on the atmosphere.”¹ This is critical, because natural gas production is known to release large quantities of methane into the atmosphere, long before the natural gas reaches the power plant or engine to be burned. For example, on January 3, 2013,

¹ See <http://www.epa.gov/cleanenergy/energy-resources/refs.html>

the highly respected scientific journal *Nature* reported on findings presented by NOAA scientists who measured methane leakage rates from natural gas wells. The title of that report is “Methane leaks erode green credentials of natural gas.”² Among other things, the report notes that the NOAA scientists measured methane leakage from natural gas wells in Utah equating to 9% of well production. This is approximately three times higher than “the 3.2% threshold beyond which gas becomes worse for the climate than coal.”³ Studies of other well fields and natural gas systems have similarly reported methane leakage exceeding the 3.2% threshold.⁴

While the “smokestack” greenhouse gas emissions from burning natural gas (in a powerplant, gas range, vehicle, etc.) are lower than emissions from burning coal per unit of energy, the overall lifecycle greenhouse gas emissions may be much higher.

Fossil fuel natural gas is simply not part of Hawaii’s clean energy future, and its continued use jeopardizes the achievement of our critical climate goals.

Despite efforts, gas utility renewable progress is severely lagging in the absence of renewable standards

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.⁵ The plant is expected to produce 800,000 therms of 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.

² See Tollefson, Methane Leaks Erode Green Credentials of Natural Gas, *NATURE* (January 3, 2013) (reporting “alarmingly high” leaks of 9% of well production).

³ See Alvarez et al., Greater focus needed on methane leakage from natural gas infrastructure, *PROC. NAT’L ACAD. SCI.* (April 24, 2012).

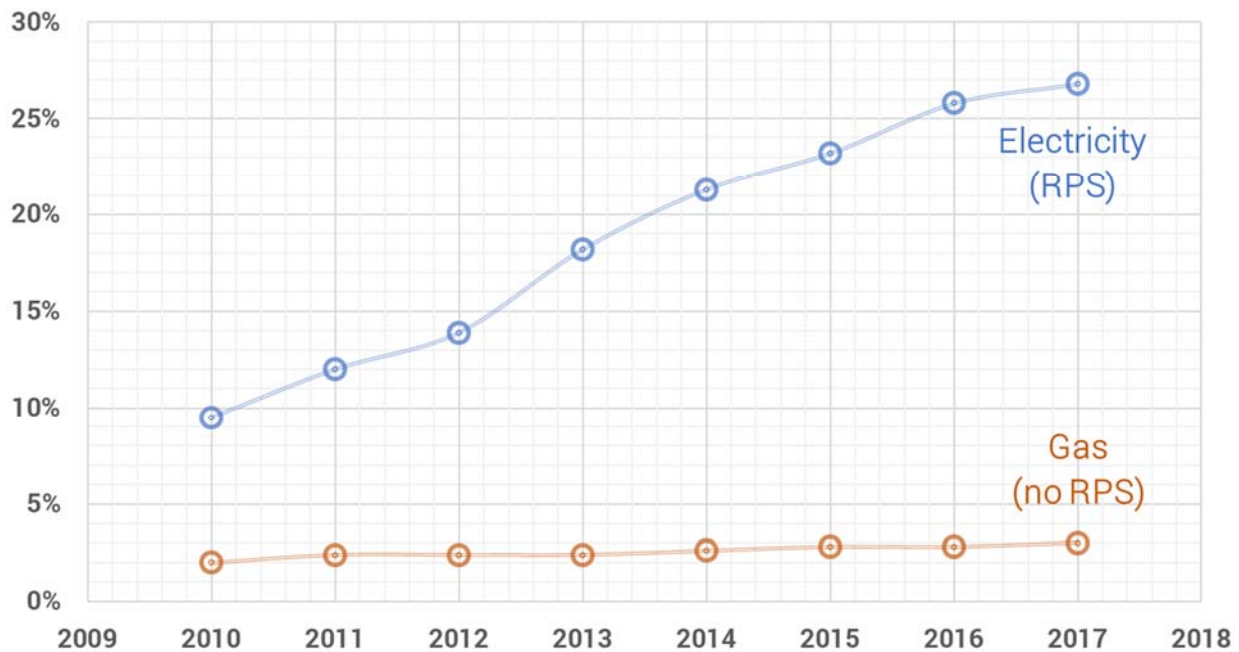
⁴ See, e.g., Pétron et al., Hydrocarbon emissions characterization in the Colorado Front Range: A pilot study, *J. GEOPHYS. RES.* 117; (2012); Howarth et al., Methane Emissions from Natural Gas Systems, Background Paper Prepared for the National Climate Assessment, Ref. no. 2011-0003, available at <http://www.eeb.cornell.edu/howarth/Howarth%20et%20al.%20--%20National%20Climate%20Assessment.pdf>

⁵ See <https://www.bizjournals.com/pacific/news/2018/12/20/hawaii-gas-completes-first-renewable-gas-facility.html>.

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, 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 continues to increase the amount of renewable gas in its 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,⁶ compares the renewable progress made by the electric utility versus the gas utility. The electric utility has steadily increasing renewable goals set forth by the RPS.

Effectiveness of RPS on renewable energy trend



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,

⁶ Renewable Energy Annual Reports filed with the Hawaii Public Utilities Commission, available at <http://puc.hawaii.gov/reports/energy-reports/>

including animal fat and plant oils that are locally produced.”⁷ The attached *Honolulu Advertiser* article from November 22, 2009 (with emphasis added) discusses 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 of our gas to 50 percent for the entire state within five years.”⁸ 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.

Opportunities abound for sustainable alternatives

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.⁹ 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

⁷ 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

⁸ *Id.*

⁹ Canberra Institute of Technology, “Nation’s first hydrogen test station at CIT Fyshwick,” December 4, 2018 (https://cit.edu.au/news/hydrogen_test_station).

program to 3.7 million homes and 400,000 businesses in Northern England could commence as soon as 2028.¹⁰

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 SB 571.

Thank you for the opportunity to testify.

Honolulu Advertiser

NOVEMBER 22, 2009

GAS COMPANY SETS PLANS TO TURN FAT INTO FUEL

By Greg Wiles

Hawaii's sole producer of synthetic natural gas is turning to the barnyard as it looks to go greener with renewable fuel sources.

The Gas Company is eyeing animal fats — some of it being tossed into landfills now — as a means to produce half of its synthetic natural gas by the year 2015.

It's drawn up plans to turn fats such as beef tallow, poultry fat and choice white grease from pigs into biomethane, a gas that's chemically identical to natural gas. Currently the company uses petroleum byproducts from local refineries for its feedstock.

"We hope to in five years be about 50 percent renewables in our system," said Jeffrey Kissel, president and chief executive officer of the Honolulu-based company.

"As we ramp up, I hope we create demand for local production so we can buy the majority of our material from local resources."

Already, 5 percent of the company's production at its Campbell Industrial Park plant is from agricultural feedstocks, with Kissel setting a goal of boosting it to 15 percent by the end of March.

By the end of the year, he wants 1 million gallons of the 20 million to 25 million gallons of feedstock used annually to be from renewable resources.

The effort is in keeping with goals by the state of weaning itself off petroleum for economic and security reasons. Oil accounts for almost 90 percent of all energy consumed in Hawai'i, making the state more dependent on imported petroleum than anywhere in the country. Three-quarters of the state's electricity is generated using oil as a fuel.

The problems with this addiction were apparent last year when crude oil spiked to \$147 a barrel in July 2008, sending Hawaii's nation-leading gasoline and electricity prices to record highs. The oil shock drove home an already stated goal by Gov. Linda Lingle

¹⁰ <https://arstechnica.com/science/2018/11/natural-gas-distributors-outline-proposal-to-convert-home-heating-to-hydrogen/>

of converting Hawai'i into a renewable energy model for others to emulate. Lingle set a target of having 70 percent of the state's energy come from renewables by 2030. Hawai'i's electric utilities have signed on to the effort, while there's been a jump in interest in solar photovoltaics, wind energy and geothermal endeavors. Not-so-well-known alternate energy technologies such as wave power and ocean thermal energy conversion are also receiving serious consideration.

"We need to create an energy system that will survive," said Ted Peck, state energy administrator.

"It makes sense from an energy security standpoint. At \$75 a barrel it makes sense from a business standpoint."

RENEWED INTEREST

The Gas Company isn't subject to renewable portfolio standards as are the state's utilities. But Kissel said the company and its parent, Macquarie Infrastructure Co., decided it made good business sense in that it would produce sustained returns on a long-term basis.

The project uses technology that's been around for years. But there's been renewed interest of late in using animal and other fats to produce fuels. Pacific Gas & Electric on the Mainland is looking at a pilot project, and in Louisiana, Tyson Foods and Syntroleum Corp. formed a company to produce biodiesel and jet fuels from chicken fat and other animal oils.

In Hawai'i, Hawaiian Electric Co. will do testing of its new \$137 million generator using biodiesel from Renewable Energy Group, an Iowa-based company that will provide fuel made from animal fats.

While Hawai'i's use of natural gas is lowest of any state, it still has a good market among hotels and restaurants that use the gas on O'ahu as a more efficient alternative for heating water and cooking compared to electricity. The Gas Co., formed in 1904, maintains 1,100 miles of pipelines that deliver synthetic natural gas to 28,000 customers.

Kissel said the company has the only operating SNG plant in the U.S. and provides an advantage for the renewable venture since The Gas Co. won't have to invest millions into building a plant. Instead, he said existing equipment will be converted to accommodate the new feedstock at a cost of less than \$10 million that will be funded out of the company's operations.

The company has formed a joint venture with energy and power industry contractor Primoris Services Co. of Lake Forest, Calif., to work out processes for the renewable project. Hawai'i's SNG customers pay the highest rates in the country, with local prices quoted by the U.S. Energy Information Administration being more than two times the next closest state's average.

Kissel said the project may actually lower prices for The Gas Co. customers depending on what it has to pay for the animal fat. The utility does not make a profit on feedstock prices, which are passed directly through to customers.

"We will not be raising rates as a result of this," Kissel said. He noted the price cuts will depend on what's paid for feedstock, with animal fats ranging between 5 percent and 20 percent less expensive than the current feedstock.

ISLES WOULD BENEFIT

Moreover, the venture could provide a catalyst for more cattle ranching or agriculture operations in the state. It also could take methane gas produced by landfills or use algae as a feedstock, Kissel said.

"If we provide a market for local commodities we'll be generating more jobs here and making Hawai'i more sustainable from a food-producing standpoint," he said.

Then there are the environmental benefits of reducing the state's carbon footprint by switching from oil. It won't process used restaurant oil that's currently refined by Pacific Biodiesel Inc. on Maui and O'ahu for transportation fuel. The initial concentration will be on use of animal and fish fats.

"If the Gas Company has found a local supply, we would look favorably on that," said Henry Curtis, executive director of Life of the Land, a nonprofit environmental group following the state's energy issues.

"It's important to reuse this material."

The renewable process will also produce propane that can eventually be sold to the company's customers on the Neighbor Islands, as well as hydrogen. Kissel said the surplus hydrogen is being investigated for possible uses as a transportation fuel or fuel cells.

"What the Gas Company is doing is just tremendously exciting," said Peck, the state's energy czar. "They're really moving and we're thrilled."

SB-571

Submitted on: 2/10/2019 2:27:20 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:



Testimony to the Senate Committees on Commerce, Consumer Protection & Health and Energy & Economic Development & Tourism

Monday, February 11, 2019, 2:45 p.m.
Conference Room 414, State Capitol
RE: Senate Bill 571

Chairs Baker and Wakai, Vice Chairs Chang and Taniguchi and Members of the Committees on Commerce, Consumer Protection & Health and Energy & Economic Development & Tourism

Hawaii Gas **opposes** SB 571 and provides the following **comments**:

SB 571 seeks to impose a prescriptive renewable portfolio standard on “each gas utility company that sells gas for consumption in the State.” It also unlawfully seeks to impose the same requirement on any unregulated affiliates including corporate parents, unregulated subsidiaries, unregulated partners, and unregulated joint ventures. Public utilities, like Hawaii Gas, have an obligation to serve all customers. Our business is capital-intensive with long lived assets. To raise capital in all market conditions and continue to make the ongoing capital investments to provide uninterrupted service, we have been granted a franchise to provide synthetic natural gas to the public. The public utilities commission stands in the place of competition and uses different regulatory mechanisms to produce a reasonable end result: safe, adequate, reliable, and secure service provided at prices that are “just and reasonable” and that reflect Hawaii Gas’ prudently incurred costs of meeting our obligation to serve. SB 571, however, attempts to reach even further and regulate Hawaii Gas’ unregulated propane distribution business as well. This violates both state and federal laws.

First, Hawaii Revised Statutes Section 269-1 grants the public utilities commission authority to regulate public utilities, only. Hawaii Gas’ unregulated propane distribution business is not regulated by the commission. It is not franchised or certificated -- for good reason. Robust competition exists in the propane distribution business making it unnecessary for the public utility commission to stand in the place of competition. Free markets and competition ensure that consumers benefit by allowing no competitor to raise prices, reduce output, unduly price-discriminate, or engage in anticompetitive behavior to earn excessive profits. If passed, SB 571 in its current form would trigger immediate legal challenge and contravene well-settled law.

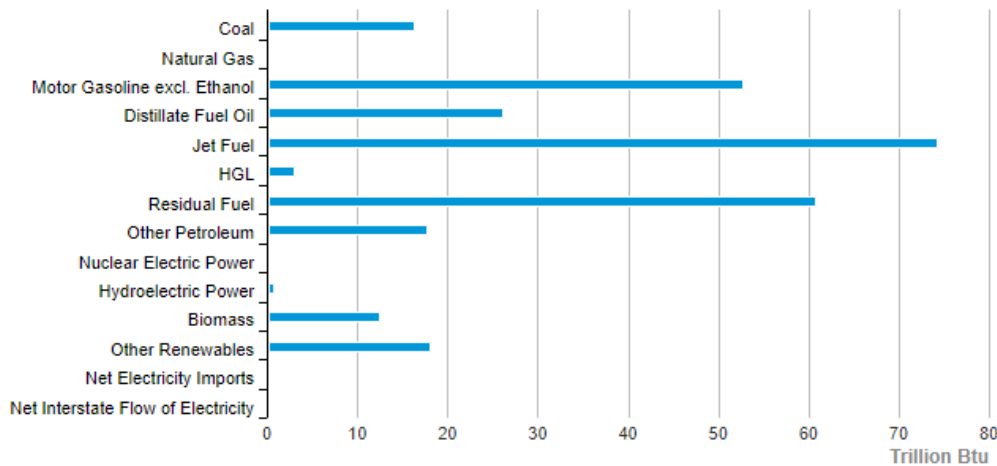
Second, applying this regulatory measure only to Hawaii Gas would constitute a regulatory taking under the U.S. Constitution’s Fifth Amendment’s Taking Clause. The Fifth Amendment to the United States Constitution prohibits private property to be taken for public use without just compensation. It was designed to prevent the government from taking from one individual something more and different from that which is taken from other members of the public. Regulatory measures that impose economic loss on one individual have consistently been found by the courts to be compensable under the Fifth Amendment’s Taking Clause. Here, there are other competitors that distribute propane within the state that are not subject to the proposed RPS. Accordingly, this measure would impose severe economic harm only to Hawaii Gas’s propane distribution business. As a result, this proposed measure violates federal law.



Third, the measure would not be effective in achieving the state’s purported purpose of ensuring all relevant entities are aligned in the goal of achieving one hundred percent renewable energy. Applying this proposed measure only to Hawaii Gas would merely shift Hawaii Gas’ propane market share to its competitors.

Hawaii Gas (HG) has been serving customers throughout the state for 115 years. Our company plays a small, but important role in Hawaii as a clean, cost-efficient and resilient energy source. **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

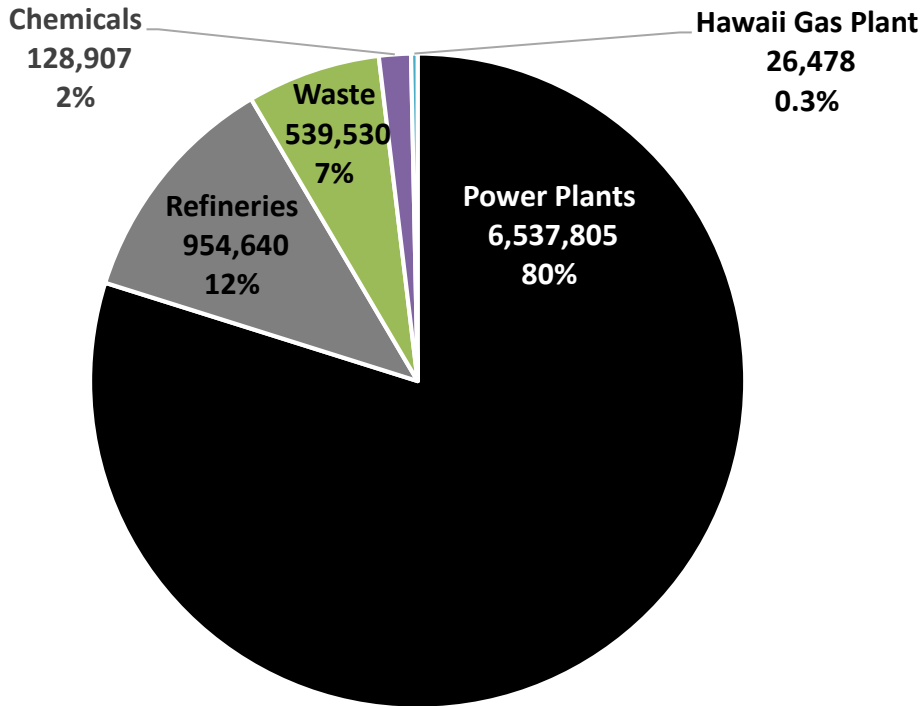


Source: Energy Information Administration, State Energy Data System

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
- Production of hydrogen through the manufacturing of synthetic natural gas from naphtha and recycled wastewater from Honouliuli wastewater treatment plant

While Hawaii Gas is pursuing the procurement of locally produced renewable natural gas, there is no existing reliable source that can produce the scale necessary to entirely service the energy needs of our entire state.

We respectfully **oppose** this legislation because there are a number of physical resource limitations, industry technical issues, lack of policy initiatives, competing state policy priorities and significant potential consequences to ratepayers that make this policy goal unachievable and impractical and need to be considered before imposing these mandates on a gas utility.



Physical Resources Limitations

- Lack of Local Supply – Very limited developable biogas resources currently exist in Hawaii and difficult to scale (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; Imported supplies of renewable natural gas are limited due to shipping costs and other logistical constraints

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 this bill supports an 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 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) – Mandates Hawaii to be 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 are already mandated to develop pathways to meet carbon neutral deadline and now must do so in the 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 are not readily available at scale with any assurance of reliability. We must balance all of these factors on behalf of our 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.

Finally, Hawaii Gas objects in the strongest possible terms to the legislature’s current practice of utilizing the word “finds” to characterize loosely held opinions and beliefs of the staff member or third party drafting the legislation, as opposed to actual findings of fact by the legislature. For instance, in the subject bill, the language “The legislature finds that the simplest, fairest, and most effective solution to this concern is to implement renewable portfolio standard targets for gas utilities that mirror those being achieved by electric utilities” implies that some organized effort or process was followed by the legislative body or staff to identify the “simplest, fairest and most effective solution” to its concern, where this clearly is not the case, as none of the drafting parties have ever conducted a study or process involving HG (the State’s chartered gas utility), its customers or other potential stakeholders to obtain their input into what the simplest, fairest or most effective solution would be.

Thank you for the opportunity to testify.

Sincerely,

Jeannine A. Souki
Director, Government Affairs and Corporate Communications

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

SB-571

Submitted on: 2/9/2019 11:50:03 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
David Albares	Individual	Support	No

Comments:

I strongly support SB571 which requires the gas utility companies to establish renewable energy portfolio standards for gas. This bill promotes fairness and alignment in Hawaii's transition to one hundred per cent renewable energy and ensures a transition toward increasing renewable energy.

However, there are two important amendments needed to support the intent of this bill.

First, there is a flaw in the current RPS definition that needs to be addressed, or this flaw be transferred to the gas utility. The current RPS calculation allows a company to achieve a RPS of 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from energy sales to energy generation.

Second, the UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, SB571 should be further amended to accelerate the target to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

This bill with these amendments is in the best interests of the people of Hawaii. Scientists from NASA just announced that 2018 was the Earth's fourth warmest year since record-keeping began about 140 years ago. The warmest of all was 2016, followed in order by 2017 and 2015, the fifth-warmest was 2014. The UN IPCC report makes clear we must limit warming to 1.5 degrees Celsius, and that to do this, it requires a major and immediate transformation across all sectors to achieve the needed emissions reductions.

To continue to expand our use of fossil fuels, which Hawaii Gas is pushing for us to do, makes no sense. Hawaii Gas uses natural gas, which is 90% methane, a global warming gas 84 times as potent as CO2. Continuing to use natural gas, let alone pushing to increase its use, is literally suicide.

That is why we need SB571. The science is clear. We must move away NOW from our use of natural gas and its climate destroying emissions. Our grandchildren and great-grandchildren will judge us by how well we meet the challenge. Please pass SB571!

SB-571

Submitted on: 2/9/2019 11:51:31 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dawn Morais Webster Ph.D.	Individual	Support	No

Comments:

If we are truly serious about our commitment to moving Hawaii to 100 percent renewable energy, we need to make sure everyone and every player in the industry takes steps to comply. Please pass this bill into law.

SB-571

Submitted on: 2/9/2019 12:08:40 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Ava Fedorov	Individual	Support	No

Comments:

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SB-571

Submitted on: 2/9/2019 12:10:30 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

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SB-571

Submitted on: 2/9/2019 12:13:48 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Joy Silver	Individual	Support	No

Comments:

SB-571

Submitted on: 2/9/2019 12:31:02 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Judith A Mick	Individual	Support	No

Comments:

Aloha- As Hawaii courageously moves towards 100 renewable energy status, is is important that we pass SB 571. Mahalo, Judy Mick, Kailua

SB-571

Submitted on: 2/9/2019 11:49:28 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
gabriel peckham	Individual	Support	No

Comments:

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SB-571

Submitted on: 2/9/2019 12:45:30 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
william metzger	Individual	Support	No

Comments:

No more gas for energy. Must move ASAP to renewables sun and wind.

SB-571

Submitted on: 2/9/2019 12:35:47 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Martha E. Martin	Individual	Support	No

Comments:

SB-571

Submitted on: 2/9/2019 12:59:21 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Emily Herb	Individual	Support	No

Comments:

SB-571

Submitted on: 2/9/2019 1:16:33 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Sara DiGrazia	Individual	Support	No

Comments:

I am writing to you in strong support of this bill. Please help us transition to renewable sources of energy now. Our very survival depends upon our actions today. Thank you,
Sara DiGrazia

SB-571

Submitted on: 2/9/2019 1:19:54 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Nathan Leo Braulick	Individual	Support	No

Comments:

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Nathan Braulick

2333 Kapiolani Blvd #1604

Honolulu Hawaii 96826

SB-571

Submitted on: 2/9/2019 1:06:04 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
David Mielke	Individual	Support	No

Comments:

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SB-571

Submitted on: 2/9/2019 1:46:33 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Elizabeth Winternitz	Individual	Support	No

Comments:

SB-571

Submitted on: 2/9/2019 2:27:55 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
noel kent	Individual	Support	No

Comments:

SB571 is a worthy bill which will help us reach our goal of 100% renewable energy by 2045. It is wholly rationale to require the gas utility companies to establish renewable energy standards which will help them to make the switch they need to make. An amendment to change the RPS calculations to expressly forbid use of fossil fuels would be a wonderful companion piece. Mahalo Noel Kent

SB-571

Submitted on: 2/9/2019 3:34:04 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

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SB-571

Submitted on: 2/9/2019 2:07:56 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Kanani Kai	Individual	Support	No

Comments:

SB-571

Submitted on: 2/9/2019 4:07:18 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

SB-571

Submitted on: 2/9/2019 3:50:41 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

We need to be completely renewable soon if our grandchildren are to have a future. We must all get on the Green New Deal train or we will not have a viable planet. Today our road is being washed over by waves. Is is only going to go downhill from here if we do not make a radical change, and be selfless and make personal sacrifices for the good of all. Laura Gray R.N.

SB-571

Submitted on: 2/10/2019 10:37:25 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Brittany Dennett	Individual	Support	No

Comments:

I strongly support SB571 which requires the gas utility companies to establish renewable energy portfolio standards for gas. This bill promotes fairness and alignment in Hawaii's transition to one hundred per cent renewable energy and ensures a transition toward increasing renewable energy.

However, there are two important amendments needed to support the intent of this bill.

First, there is a flaw in the current RPS definition that needs to be addressed, or this flaw be transferred to the gas utility. The current RPS calculation allows a company to achieve a RPS of 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from energy sales to energy generation.

Second, the UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, SB571 should be further amended to accelerate the target to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

This bill with these amendments is in the best interests of the people of Hawaii. Scientists from NASA just announced that 2018 was the Earth's fourth warmest year since record-keeping began about 140 years ago. The warmest of all was 2016, followed in order by 2017 and 2015, the fifth-warmest was 2014. The UN IPCC report makes clear we must limit warming to 1.5 degrees Celsius, and that to do this, it requires a major and immediate transformation across all sectors to achieve the needed emissions reductions.

To continue to expand our use of fossil fuels, which Hawaii Gas is pushing for us to do, makes no sense. Hawaii Gas uses natural gas, which is 90% methane, a global warming gas 84 times as potent as CO2. Continuing to use natural gas, let alone pushing to increase its use, is literally suicide.

That is why we need SB571. The science is clear. We must move away NOW from our use of natural gas and its climate destroying emissions. Our grandchildren and great-grandchildren will judge us by how well we meet the challenge. Please pass SB571!

SB-571

Submitted on: 2/9/2019 5:42:50 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
joe kassel	Individual	Support	No

Comments:

We as members of humanity that have a large carbon footprint and are also in a vulnerable state, must take every step we can to reduce and shift our impact on global warming.

SB-571

Submitted on: 2/9/2019 6:49:15 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

SB-571

Submitted on: 2/9/2019 8:03:03 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

SB-571

Submitted on: 2/9/2019 7:54:22 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

Aloha legislators,

Please support this bill to increase use of renewable energy,.

mahalo,

Cory Harden, Hilo

SB-571

Submitted on: 2/9/2019 8:27:55 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

I strongly support this bill. This legislation aligns with the state's goals of renewable energy dependence, and addresses an urgent existential crisis; protecting our environment.

Thank you.

SB-571

Submitted on: 2/9/2019 8:48:45 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
sherri carden	Individual	Support	No

Comments:

SB-571

Submitted on: 2/9/2019 8:57:08 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dylan P. Armstrong	Individual	Support	No

Comments:

SB-571

Submitted on: 2/10/2019 2:32:26 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Gilmer Borbo	Individual	Support	No

Comments:

I strongly support SB571 which requires the gas utility companies to establish renewable energy portfolio standards for gas. This bill promotes fairness and alignment in Hawaii's transition to one hundred per cent renewable energy and ensures a transition toward increasing renewable energy.

However, there are two important amendments needed to support the intent of this bill.

First, there is a flaw in the current RPS definition that needs to be addressed, or this flaw be transferred to the gas utility. The current RPS calculation allows a company to achieve a RPS of 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from energy sales to energy generation.

Second, the UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, SB571 should be further amended to accelerate the target to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

This bill with these amendments is in the best interests of the people of Hawaii. Scientists from NASA just announced that 2018 was the Earth's fourth warmest year since record-keeping began about 140 years ago. The warmest of all was 2016, followed in order by 2017 and 2015, the fifth-warmest was 2014. The UN IPCC report makes clear we must limit warming to 1.5 degrees Celsius, and that to do this, it requires a major and immediate transformation across all sectors to achieve the needed emissions reductions.

To continue to expand our use of fossil fuels, which Hawaii Gas is pushing for us to do, makes no sense. Hawaii Gas uses natural gas, which is 90% methane, a global warming gas 84 times as potent as CO2. Continuing to use natural gas, let alone pushing to increase its use, is literally suicide.

That is why we need SB571. The science is clear. We must move away NOW from our use of natural gas and its climate destroying emissions. Our grandchildren and great-grandchildren will judge us by how well we meet the challenge. Please pass SB571!

I strongly support SB571 which requires the gas utility companies to establish renewable energy portfolio standards for gas. This bill promotes fairness and alignment in Hawaii's transition to one hundred per cent renewable energy and ensures a transition toward increasing renewable energy.

However, there are two important amendments needed to support the intent of this bill.

First, there is a flaw in the current RPS definition that needs to be addressed, or this flaw be transferred to the gas utility. The current RPS calculation allows a company to achieve a RPS of 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from energy sales to energy generation.

Second, the UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, SB571 should be further amended to accelerate the target to achieve 100% renewable energy by 2030, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

This bill with these amendments is in the best interests of the people of Hawaii. Scientists from NASA just announced that 2018 was the Earth's fourth warmest year since record-keeping began about 140 years ago. The warmest of all was 2016, followed in order by 2017 and 2015, the fifth-warmest was 2014. The UN IPCC report makes clear we must limit warming to 1.5 degrees Celsius, and that to do this, it requires a major and immediate transformation across all sectors to achieve the needed emissions reductions.

To continue to expand our use of fossil fuels, which Hawaii Gas is pushing for us to do, makes no sense. Hawaii Gas uses natural gas, which is 90% methane, a global warming gas 84 times as potent as CO₂. Continuing to use natural gas, let alone pushing to increase its use, is literally suicide.

That is why we need SB571. The science is clear. We must move away NOW from our use of natural gas and its climate destroying emissions. Our grandchildren and great-grandchildren will judge us by how well we meet the challenge. Please pass SB571!

SB-571

Submitted on: 2/10/2019 8:05:46 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Robert Culbertson	Individual	Support	No

Comments:

SB-571

Submitted on: 2/10/2019 4:55:44 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Noel Morin	Individual	Support	No

Comments:

Aloha,

Please support SB571. It will help ensure that natural gas distribution is also considered as we plot our sustainable future.

Natural gas is largely methane which more powerful than CO2 as a global warming gas. Its production is also controversial – fracking is commonly used to produce/harvest it and this has been implicated in egregious environmental issues, e.g., contamination of water tables. By requiring compliance with a proper Renewable Portfolio Standard (RPS), we can help ensure that we promptly wean ourselves from this fossil energy source.

SB571 is a great start. However, I think that we should also fine-tune the definition of the RPS so that it considers the overall lifecycle of the product (emissions/fossil energy mix, from generation/production through distribution). As currently defined, we might have companies that are 100% compliant but still depend on fossil energy.

It should also be more aggressive. 2045 is too far into the future. The last UN IPCC report indicates that we have a little over a decade to make meaningful changes that will help us avoid an even more disastrous climate. A more aggressive timeline will force innovations in companies that currently depend on oil and gas. It will help them transition to new technologies and business models that can satisfy profit motives and shareholders while helping us achieve a sustainable future.

Please pass this bill SB571.

Thanks,

Noel Morin

SB-571

Submitted on: 2/10/2019 9:25:18 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dyson Chee	Individual	Support	No

Comments:

As a 16 year old high schooler, I am in strong support of SB571. I believe that this bill promotes fairness and alignment in Hawaii's transition to one hundred per cent renewable energy.

However, there are two important amendments needed to support the intent of this bill.

First, there is a flaw in the current RPS definition that needs to be addressed, or this flaw be transferred to the gas utility. The current RPS calculation allows a company to achieve a RPS of 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from energy sales to energy generation.

Second, the UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. I am implore you to amended and accelerate the target to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 will be too late for my generation.

I strongly belive that we should not continue any use of fossil fuels. What Hawaii Gas is pushing for us to do makes no sense. Hawaii Gas uses natural gas, which is 90% methane, a global warming gas 84 times as potent as CO2. Continuing to use natural gas, let alone pushing to increase its use, is self destructive and will burden the next line of children even more.

That is why we need SB571. It is not just a matter of environmental protection, especially for younger generations. For my generation, it is literally a game of survival. The stakes are very high, and the problem will only get worse as we leave it unsolved. It is like a cancer, and, if we fail to address it now, will haunt us for as long as we live. Please pass SB571!

Mahalo for your consideration

SB-571

Submitted on: 2/10/2019 10:22:25 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dean Cail	Individual	Support	No

Comments:

Please keep Hawaii a leader in renewable energy!

SB-571

Submitted on: 2/10/2019 8:32:05 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Lana Brodziak	Individual	Support	No

Comments:

Please support SB571. This action is a very critical step in moving towards our State renewable energy goals.

We need to take swift, proactive steps to reduce our greenhouse gas emissions, especially in a State so prone to sea level rise and hurricanes.

These efforts will help fulfill conservative long-term financial goals, as well as, moral responsibilities.

Mahalos for your support in helping take actions that will help mitigate global climate change.

SB-571

Submitted on: 2/10/2019 11:12:34 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

Aloha,

I strongly support SB571 which requires the gas utility companies to establish renewable energy portfolio standards for gas. This bill promotes fairness and alignment in Hawaii's transition to one hundred per cent renewable energy and ensures a transition toward increasing renewable energy.

However, there are two important amendments needed to support the intent of this bill.

First, there is a flaw in the current RPS definition that needs to be addressed, or this flaw be transferred to the gas utility. The current RPS calculation allows a company to achieve a RPS of 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from energy sales to energy generation.

Second, the UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, SB571 should be further amended to accelerate the target to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

This bill with these amendments is in the best interests of the people of Hawaii. Scientists from NASA just announced that 2018 was the Earth's fourth warmest year since record-keeping began about 140 years ago. The warmest of all was 2016, followed in order by 2017 and 2015, the fifth-warmest was 2014. The UN IPCC report makes clear we must limit warming to 1.5 degrees Celsius, and that to do this, it requires a major and immediate transformation across all sectors to achieve the needed emissions reductions.

To continue to expand our use of fossil fuels, which Hawaii Gas is pushing for us to do, makes no sense. Hawaii Gas uses natural gas, which is 90% methane, a global warming gas 84 times as potent as CO2. Continuing to use natural gas, let alone pushing to increase its use, is literally suicide.

That is why we need SB571. The science is clear. We must move away NOW from our use of natural gas and its climate destroying emissions. Our grandchildren and great-

grandchildren will judge us by how well we meet the challenge. Please pass SB571!
Mahalo nui!!

SB-571

Submitted on: 2/10/2019 11:42:49 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Javier Mendez-Alvarez	Individual	Support	No

Comments:

SB-571

Submitted on: 2/10/2019 12:36:28 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Vivien Lee	Individual	Support	No

Comments:

SB-571

Submitted on: 2/10/2019 1:05:33 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
janice palma-glennie	Individual	Support	No

Comments:

Aloha,

I ask that you please support SB571., This bill is critical to our state's goal of energy self-sufficiency. As you know, it requires that gas utility companies establish renewable energy portfolio standards for gas. This bill promotes fairness and alignment in Hawaii's transition to one hundred per cent renewable energy and ensures a transition toward increasing renewable energy.

the Public also asks that you amend this bill to make it stronger by:

1) Fix the flaw in the current RPS definition. The current RPS calculation allows a company to achieve a RPS of 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from energy sales to energy generation.

2) The UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid severe climate destruction. SB571 should be further amended to accelerate the target to achieve 100% renewable energy by 2030, as is already being proposed nationally in the Green New Deal. 2045 is far too late.

Please help pass SB571 before it's too late -- if it isn't already.

Mahalo and sincerely,

janice palma-Glennie

kailua-kona

SB-571

Submitted on: 2/10/2019 1:44:02 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

I strongly support SB571 which requires the gas utility companies to establish renewable energy portfolio standards for gas. This bill promotes fairness and alignment in Hawaii's transition to 100% renewable energy and ensures a transition toward increasing renewable energy.

However, there are two important amendments needed to support the intent of this bill.

First, there is a flaw in the current RPS definition that needs to be addressed, or this flaw be transferred to the gas utility. The current RPS calculation allows a company to achieve an RPS of 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from energy sales to energy generation.

Second, the UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. SB571 should be further amended to accelerate the target to achieve 100% renewable energy by 2030, as is already being proposed nationally in the Green New Deal. 2045 IS TOO LATE!

The UN IPCC report makes clear we must limit global warming to 1.5 degrees Celsius and that in order to achieve this, it requires a major and immediate transformation across all sectors.

To continue to expand our use of fossil fuels, which Hawai'i Gas is pushing for us to do, makes absolutely NO SENSE. Hawai'i Gas uses *natural gas*, sure it does, *which is 90% methane, a global warming gas 84 times as potent as CO2!* Continuing to use natural gas, let alone pushing to increase its use, is literally suicide for us all.

It is abundantly clear that we have reached the end of the low hanging fruit when it comes to extracting fossil fuels. We must currently dig deeper, work harder, invest more man-power and destroy more of the Earth's natural spaces, in order to find and extract it. Resulting in habitat destruction, species extinction and pollution of our air, soil and water.

There are only 2 paths for society and only ONE of them makes any sense. We are currently at the peak of the fossil fuel mountain. We have been determinedly plodding along this peak for decades now. A peak does not go on indefinitely, sooner or later, we will come down. We can continue clumsily stumbling our way along the peak of the mountain, never really knowing when we will tumble down the other side. Or we can use the science and technology we have to safely traverse our way down the mountain and align mankind with the rest of the natural world. We can save our soil, water and air for the other species we inhabit the Earth with and for our own future generations.

That is why we need SB571. The science is clear. **WE MUST MOVE AWAY FROM OUR USE OF NATURAL GAS AND ITS CLIMATE DESTROYING EMISSIONS NOW!** Our children and grandchildren are relying on us to fix this problem NOW. It will be too late for them to do anything about it later. **PLEASE, PASS SB571**

SB-571

Submitted on: 2/10/2019 2:11:52 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dain Christensen	Individual	Support	No

Comments:

SB-571

Submitted on: 2/10/2019 2:20:15 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

Dear Honorable Committee Members:

Please support SB571. Hawaii's valuable coastlines are eroding and our coral reefs are dying due to climate change, which 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

SB-571

Submitted on: 2/10/2019 11:49:16 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

Thank you for allowing me to submit testimony in support of SB571.

I strongly support SB571 which requires the gas utility companies to establish renewable energy portfolio standards for gas. This bill promotes fairness and alignment in Hawaii's transition to one hundred per cent renewable energy and ensures a transition toward increasing renewable energy.

However, there are two important amendments needed to support the intent of this bill.

First, there is a flaw in the current RPS definition that needs to be addressed, or this flaw be transferred to the gas utility. The current RPS calculation allows a company to achieve a RPS of 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from energy sales to energy generation.

Second, the UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, SB571 should be further amended to accelerate the target to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

This bill with these amendments is in the best interests of the people of Hawaii. Scientists from NASA just announced that 2018 was the Earth's fourth warmest year since record-keeping began about 140 years ago. The warmest of all was 2016, followed in order by 2017 and 2015, the fifth-warmest was 2014. The UN IPCC report makes clear we must limit warming to 1.5 degrees Celsius, and that to do this, it requires a major and immediate transformation across all sectors to achieve the needed emissions reductions.

To continue to expand our use of fossil fuels, which Hawaii Gas is pushing for us to do, makes no sense. Hawaii Gas uses natural gas, which is 90% methane, a global warming gas 84 times as potent as CO2. Continuing to use natural gas, let alone pushing to increase its use, is literally suicide.

That is why we need SB571. The science is clear. We must move away NOW from our use of natural gas and its climate destroying emissions. Our grandchildren and great-grandchildren will judge us by how well we meet the challenge. Please pass SB571!

Mahalo

Janet

SB-571

Submitted on: 2/10/2019 2:47:53 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Pablo Beimler	Individual	Support	No

Comments:

I strongly support SB571 which requires the gas utility companies to establish renewable energy portfolio standards for gas. This bill promotes fairness and alignment in Hawaii's transition to one hundred per cent renewable energy and ensures a transition toward increasing renewable energy.

However, there are two important amendments needed to support the intent of this bill.

First, there is a flaw in the current RPS definition that needs to be addressed, or this flaw be transferred to the gas utility. The current RPS calculation allows a company to achieve a RPS of 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from energy sales to energy generation.

Second, the UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, SB571 should be further amended to accelerate the target to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

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To continue to expand our use of fossil fuels, which Hawaii Gas is pushing for us to do, makes no sense. Hawaii Gas uses natural gas, which is 90% methane, a global warming gas 84 times as potent as CO2. Continuing to use natural gas, let alone pushing to increase its use, is literally suicide.

That is why we need SB571. The science is clear. We must move away NOW from our use of natural gas and its climate destroying emissions. Our grandchildren and great-grandchildren will judge us by how well we meet the challenge. Please pass SB571!

SB-571

Submitted on: 2/10/2019 3:20:26 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Charles K. Burrows	Individual	Support	No

Comments:

I strongly support SB571 however there are two important ammendments that need to be addressed and included in this bill.

Mahalo,

Charles K. Burrows

SB-571

Submitted on: 2/10/2019 3:37:06 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:



SIERRA CLUB OF HAWAI'I

MĀLAMA I KA HONUA. *Cherish the Earth.*

SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

SENATE COMMITTEE ON CONSUMER PROTECTION AND HEALTH

February 11, 2019 2:45 PM Room 414

In SUPPORT of SB 571: Relating to Renewable Energy

LATE

Aloha Chair Wakai, Chair Baker, and members of the committees,

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i **supports SB 571**, which requires gas utility companies to establish renewable energy portfolio standards for gas, provides means for gas utility companies to achieve the renewable energy portfolio standards for gas, and requires the public utilities commission to conduct a study of the renewable portfolio standards.

Hawai'i Revised Statutes section 269-92 (HRS 269-92) mandates a 100% renewable energy portfolio standard by year's end 2045. The gas utility should not have a lower standard than the electric utility. This bill enables a fair playing field in the transition to a renewable energy based State.

Not all gas is clean and renewable, which the gas utility should be held accountable to. Liquefied natural gas (LNG), one of the gas utilities primary sources of natural gas sold to local customers, is mostly composed of methane^{1,2}. Methane is one of the most potent and toxic gases emitted into the atmosphere, almost 30 times as strong as carbon dioxide³. LNG will be the biggest source of carbon emission growth for the world's top oil and gas companies by 2025⁴. It is a simple fact that *LNG should not be a primary source of energy for the State.*

Hawai'i Gas already estimates the necessary infrastructure to increase LNG imports upwards of \$200 million⁵. Allocating resources to import LNG is wasteful and should be directed to fund truly renewable energy infrastructure such as grid modernization, energy storage, and increased energy efficiency.

¹<http://www.hawaiiigas.com/clean-energy/liquefied-natural-gas/>

² <https://www.pgworks.com/uploads/pdfs/LNGSafetyData.pdf>

³ <https://www.sciencedaily.com/releases/2014/03/140327111724.htm>

⁴<https://www.reuters.com/article/lng-emissions/lng-growth-to-propel-oil-and-gas-industrys-carbon-emissions-woodmac-idUSL5N1LZ4K9>

⁵ http://www.hawaiiigas.com/media/1301/hawaii-gas_report_the-facts-about-lng-for-hawaii.pdf

We ask that the committees consider amending SB 571, Section 2d, which establishes the events and circumstances that are beyond a gas utility's reasonable control and may result in a waiver of otherwise applicable penalties. **We recommend removal of Part 8** (page 5 lines 12-16), that says "inability to acquire sufficient renewable gas to meet the renewable portfolio standard goals for 2040 and for years beyond in a manner that is cost-effective or beneficial to Hawai'i's economy in relation to comparable fossil fuel resources." We believe that **this provision may create a loophole that would allow the gas utility to circumvent the 100% RPS goal if it is not cost-effective to switch to renewable gas sources.** We assert that the costs of cheap, dirty sources of natural gas is only a fraction of the climate change mitigation efforts the state will have to pay for, that the investment in fossil fuels must stop by 2045, and that we must transition to truly clean sources of energy--regardless of the cost comparison.

The support of natural gas continues our reliance on imported energy, ironically goes against the State's energy goals by emitting the most harmful greenhouse gas, and distracts us from the truly renewable sources of energy necessary to combat climate change. The gas utilities should be well aligned in their standards and commitments to effectively transition to 100% by 2045.

Thank you very much for this opportunity to provide testimony in **support of SB 571.**

Mahalo,

A handwritten signature in cursive script that reads "Jodi Malinoski".

Jodi Malinoski, Policy Advocate



To: The Senate Committees on Commerce, Consumer Protection, and Health; and Energy, Economic Development, and Tourism
From: Brodie Lockard, Hawaii State Climate Lead, Organizing for Action
Date: Monday, February 11, 2019, 2:45 pm

In strong support of SB 571

Dear Chairs Baker and Wakai, Vice Chairs Chang and Taniguchi, and members:

LATE

Organizing for Action Hawaii strongly supports SB 571, with two amendments.

First, there is a flaw in the current RPS definition that must be addressed, lest it be transferred to the gas utility RPS. The current RPS calculation allows a company to achieve an RPS as high as 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from "energy sales" to "energy generation."

Second, November's UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions and avoid irreversible climate change. SB 571 should also be amended to accelerate the target for 100% renewable energy to 2030, as is already being proposed nationally in the Green New Deal. 2045 is far too late.

Hawaii Gas says LNG is a 'clean burning bridge fuel'. But it's 90% methane [1], a global warming gas 84 times as potent as CO2 over a 20-year period[2]. About 25% of the manmade global warming we're experiencing today is caused by methane emissions. And the largest source of industrial methane emissions is the oil and gas industry[2].

No matter where it is mined, LNG hurts the environment right here by worsening climate change. It leaks at drilling sites, along pipelines, at compression stations, at storage facilities and throughout the networks of piping that carry it to homes[3]. Washington, D.C. alone has 5,893 natural gas leaks[4]. And transporting LNG to Hawaii burns fuel, producing even more greenhouse gases.

LNG is **not cost-effective** over the long term. The price of renewables like wind and solar, and battery storage, continues to plummet. The necessary infrastructure to increase LNG imports, as Hawaii Gas is now doing, will cost \$200 million by their own estimate [5], and they've already applied for a rate hike. It is misguided for Hawaii to invest in more fossil fuel infrastructure and projects that ultimately contribute to our own demise. The long-term cost of delaying full use of renewable energy—that is, more rapid climate change—is already very clear in our state, and we'll soon be paying more for climate resiliency and mitigation efforts.

LNG is not needed to diversify Hawaii's fuel supply. We have wind, solar, geothermal, hydroelectric, deep sea water chilling, and biomass, with ocean thermal and wave energy on the way. All we need are batteries and resolve. LNG is not renewable and should just fade away as we reach for our goal.

Finally, LNG is not safe. Fracking to obtain it contributes to all manner of calamities from breast cancer to flammable tap water to earthquakes[6]. It's no wonder that Vermont, New York, Maryland, several

European countries and Hawaii County have all banned the practice.

Any effort and expense to use LNG, RNG or SNG here is far better put toward reaching our renewables goal. LNG imports are a direct obstacle to that goal. Gas has no place in Hawaii's clean energy future. Imposing a gas RPS is an important first step in eliminating gas from Hawaii's fuel mix.

[1] https://energy.gov/sites/prod/files/2013/04/f0/LNG_primerupd.pdf

[2] <https://www.edf.org/methane-other-important-greenhouse-gas>

[3] <https://fivethirtyeight.com/features/methane-is-leaking-all-over-the-place/>

[4] <http://pubs.acs.org/doi/full/10.1021/es404474x>

[5] http://www.hawaiigas.com/media/1301/hawaii-gas_report_the-facts-about-lng-for-hawaii.pdf

[6] <https://www.pbs.org/newshour/science/earthquakes-triggered-by-fracking>



Healthy Climate
Communities

LATE

Testimony in support of SB571

**SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT AND TOURISM
SENATE COMMITTEE ON COMMERCE, CONSUMER PROTECTION AND HEALTH**

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

Aloha Chairs Wakai and Baker and Committee Members,

I am writing in strong support of SB571 which requires businesses selling gas in Hawaii to establish renewable portfolio standards.

Exempting gas from the RPS requirements placed on electric utilities is unfair 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 the gas “loophole.”

Mahalo,

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



To: The Senate Committee on Commerce, Consumer Protection, and Health
and
The Senate Committee on Energy, Economic Development, and Tourism
From: Sherry Pollack, 350Hawaii.org
Date: Monday, 2/11/19

LATE

In strong support of SB571

Aloha Chairs Baker and Wakai, Vice Chairs Chang and Taniguchi, and members of the CPH and EET committees,

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 **strongly supports SB571** which requires the gas utility companies to establish renewable energy portfolio standards for gas. This bill promotes fairness and alignment in Hawaii's transition to one hundred per cent renewable energy and ensures a transition toward increasing renewable energy.

However, there are two important amendments needed to support the intent of this bill. First, there is a flaw in the current RPS definition that needs to be addressed so that it is not transferred to the gas utility. The current RPS calculation allows a company to achieve a RPS of 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from energy 'sales' to energy 'generation.'

Second, the UN IPCC report makes clear we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, SB571 should be further amended to accelerate the target to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

This bill with these amendments is in the best interests of the people of Hawaii. Scientists from NASA just announced that 2018 was the Earth's fourth warmest year since record-keeping began about 140 years ago. The warmest of all was 2016, followed in order by 2017 and 2015, the fifth-warmest was 2014. The UN IPCC report spells out why we must limit warming to 1.5 degrees Celsius, and that to do this, it requires a **major and immediate transformation** across all sectors to achieve the needed emissions reductions.

To continue to expand our use of fossil fuels, which Hawaii Gas is pushing for us to do, makes no sense. Hawaii Gas uses natural gas, which is 90% methane, a global warming gas 84 times as potent as CO2. Continuing to use natural gas, let alone pushing to increase its use, is literally suicide.

The gas utility has known for a very long time that the lifecycle emissions associated with liquefied natural gas (LNG) are destroying our planet. Rather than voluntarily focusing their full efforts into

transforming their company into one that provides non-climate destroying energy, they have instead chosen to expand their use of LNG and work against legislative efforts that would help us move away from natural gas.

Hawaii Gas has cited *concern* for ratepayers who are struggling to make ends meet and that if a RPS is imposed on the gas utility they warn it might have *significant potential consequences* as a result. Yet they fail to mention renewable energy is now cheaper than any other source of power in most parts of the United States. As mentioned in the Transcending Oil report, the Rhodium Group recently concluded that accelerating clean energy adoption could save Hawaii residents up to \$7 billion dollars. Thus, it makes economic and environmental sense to strengthen Hawaii's renewable goals to ensure we're truly focused on 100% renewable energy.

Further, if we are to discuss concern about economic costs to the people of Hawaii, we need to discuss the estimated \$19 billion from loss of land and flooded structures due to sea level rise, according to the data from the Hawaii Sea Level Rise Vulnerability and Adaptation Report. This is the price tag resulting when Hawaii suffers the more than three-foot sea-level rise that scientists say we are in store for by mid-century **as a result of the greenhouse gases *already* emitted**. And it must be remembered that \$19 billion is only a partial cost, and does not factor in the many other devastating economic impacts climate change is having and will have on our islands. Any discussion about economic costs should include the full picture and what is at stake for Hawaii as a whole.

We need SB571. The science is clear. The window for action is closing. We must move away ***now*** from our use of natural gas and its climate destroying emissions.

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."

Climate change is an existential threat and the most important issue of all. Let Hawaii set an example for others around the globe and show what true climate leadership means. Let us act boldly and step up to do what is necessary. Our grandchildren and great-grandchildren will judge us by how well we meet the challenge.

Thank you for the opportunity to testify in strong support of this very important bill.

Sherry Pollack

Co-Founder, 350Hawaii.org

SB-571

Submitted on: 2/10/2019 3:54:22 PM

Testimony for CPH on 2/11/2019 2:45:00 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

SB-571

Submitted on: 2/10/2019 3:57:22 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

SB-571

Submitted on: 2/10/2019 4:05:47 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

SB-571

Submitted on: 2/10/2019 4:29:11 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

SB-571

Submitted on: 2/10/2019 4:23:38 PM

Testimony for CPH on 2/11/2019 2:45:00 PM



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

Comments:

I strongly support SB571 which requires the gas utility companies to establish renewable energy portfolio standards for gas. But there are two important amendments needed to support the intent of this bill.

First, there is a flaw in the current RPS definition that needs to be addressed. The current RPS calculation allows a company to achieve a RPS of 110% while still buying and selling fossil fuel. This loophole can be fixed by changing the RPS calculation from energy sales to energy generation.

Second, the UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid climate catastrophe. Therefore, SB571 should be further amended to accelerate the target to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is far too late.

This bill with these amendments is in the best interests of the people of Hawaii. Hawaii Gas uses natural gas, which is 90% methane, a global warming gas 84 times as potent as CO2. Continuing to use natural gas, let alone pushing to increase its use, is literally suicide.

We must move away NOW from our use of natural gas and its climate destroying emissions. Our grandchildren and great-grandchildren will judge us by how well we meet the challenge. Please pass SB571!

SB-571

Submitted on: 2/10/2019 4:39:38 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

SB-571

Submitted on: 2/10/2019 4:48:55 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

SB-571

Submitted on: 2/10/2019 5:13:45 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

SB-571

Submitted on: 2/10/2019 5:25:16 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
EDWIN SAWA	Individual	Oppose	No

Comments:

SB-571

Submitted on: 2/10/2019 5:33:02 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
Ryan Yoshida	Individual	Oppose	No

Comments:

SB-571

Submitted on: 2/10/2019 5:55:52 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

SB-571

Submitted on: 2/10/2019 5:27:53 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

SB-571

Submitted on: 2/10/2019 6:05:25 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

Hello,

I am writing in STRONG SUPPORT of this bill. We need to think about better renewable energy options for Hawai'i.

Thank you,

Nanea Lo

SB-571

Submitted on: 2/10/2019 6:48:15 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

SB-571

Submitted on: 2/10/2019 6:13:58 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

Dear Legislators,

I strongly support SB571, a bill which will implement renewable portfolio standard targets for gas utilities. All energy sectors in Hawaii should implement such targets if we are to achieve 100% renewable energy as soon as possible. The timeline in the bill gives gas companies ample time to make this transition as it mirrors those being achieved by electric utilities.

Liquid natural gas is not a renewable form of energy and counts against us in our quest to reduce fossil fuel emissions and repair our planet. I understand that transitions of this type can be difficult for businesses, but the consequences of inaction are unacceptable.

Please support SB571 and require an RPS for Hawaii's gas utilities.

Sincerely,

Jan Pappas

Aiea, Hawaii

SB-571

Submitted on: 2/10/2019 9:39:54 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

Aloha,

Please support SB571.

We need to require gas utility companies to establish renewable energy portfolio standards for gas.

Mahalo,

Caroline Kunitake

SB-571

Submitted on: 2/10/2019 10:05:54 PM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

SB-571

Submitted on: 2/11/2019 1:08:12 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

SB-571

Submitted on: 2/11/2019 1:42:20 AM

Testimony for CPH on 2/11/2019 2:45:00 PM



Submitted By	Organization	Testifier Position	Present at Hearing
Kim Coco Iwamoto	Individual	Support	No

Comments:

I support SB571 with amendments. SB571 requires the gas utility companies to establish renewable energy portfolio standards for gas. This bill promotes fairness and alignment in Hawaii's transition to one hundred per cent renewable energy and ensures a transition toward increasing renewable energy.

However, there are two important amendments needed to support the intent of this bill. First, there is a flaw in the current RPS definition that needs to be addressed, or this flaw be transferred to the gas utility. The current RPS calculation allows a company to achieve a RPS of 110% while still buying and selling fossil fuel. This existing loophole can be fixed by changing the RPS calculation from energy sales to energy generation.

Second, the UN IPCC report says we have 10 years to drastically reduce greenhouse gas emissions to avoid Climate Hell. Therefore, SB571 should be further amended to accelerate the target to achieve 100% renewable energy **by 2030**, as is already being proposed nationally in the Green New Deal. 2045 is woefully too late.

This bill with these amendments is in the best interests of the people of Hawaii. Scientists from NASA just announced that 2018 was the Earth's fourth warmest year since record-keeping began about 140 years ago. The warmest of all was 2016, followed in order by 2017 and 2015, the fifth-warmest was 2014. The UN IPCC report makes clear we must limit warming to 1.5 degrees Celsius, and that to do this, it requires a major and immediate transformation across all sectors to achieve the needed emissions reductions.

To continue to expand our use of fossil fuels, which Hawaii Gas is pushing for us to do, makes no sense. Hawaii Gas uses natural gas, which is 90% methane, a global warming gas 84 times as potent as CO2. Continuing to use natural gas, let alone pushing to increase its use, is literally suicide.

That is why we need SB571. The science is clear. We must move away NOW from our use of natural gas and its climate destroying emissions.

SB-571

Submitted on: 2/11/2019 6:13:52 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
donovan egloria jr	Individual	Oppose	No

Comments:

SB-571

Submitted on: 2/11/2019 6:45:58 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

SB-571

Submitted on: 2/11/2019 7:04:31 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

I oppose RPS for gas utilities due to the fact that gas has a lower carbon footprint, it is resilient, reliable, and it is cost effective for our state. We need to have diversified energy sources for our islands for economic sustainability. This will allow Hawaii to align itself correctly for a economic, clean, sustainable future.

SB-571

Submitted on: 2/11/2019 7:15:20 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

SB-571

Submitted on: 2/11/2019 7:27:54 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

SB-571

Submitted on: 2/11/2019 7:41:23 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

SB-571

Submitted on: 2/11/2019 8:00:43 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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.

SB-571

Submitted on: 2/11/2019 7:59:23 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
Malachy Grange	Individual	Support	No

Comments:

The main producers of greenhouse gases are the energy-producing corporations. To protect our children and future generations, please hold them accountable to move to green operations. Do the right thing and help us all to move to a sustainable sustainable future.

Mahalo, Malachy Grange



Chamber of Commerce HAWAII

The Voice of Business

**Testimony to the Senate Committees on Energy, Economic Development, and
Tourism, and Commerce, Consumer Protection, and Health
Monday, February 11, 2019, 2019 at 2:45 P.M.
Conference Room 325, State Capitol**

LATE

RE: SB 571 RELATING TO RENEWABLE ENERGY

Chairs Wakai and Baker, Vice Chairs Taniguchi and Chang, and Members of the Committees:

The Chamber of Commerce Hawaii ("The Chamber") **opposes** SB 571, which requires gas utility companies to establish renewable energy portfolio standards for gas. This bill also requires the public utilities commission to conduct a study of the renewable portfolio standards.

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.

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 Senate Committees on Energy, Economic Development, and Tourism,
Consumer Protection and Health

Monday, February 11, 2019 2:45 p.m.
Conference Room 414, State Capitol

LATE

RE: SB 571 – Relating to Renewable Energy

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

Chair Baker, Vice Chair Chang, and members of the Senate Committee on Commerce,
Consumer Protection, and Health

The Hawaii Teamsters and Allied Workers, Local 996 stands opposed to SB 571.

SB 571 would inflate both utility and non-utility costs for our members, and other consumers by imposing similar Renewable Portfolio Standards language related to electric utility companies onto gas utility companies. The proposal regarding the application of RPS language is unfair because no policies have been created in respect to the gas industry specifically. Furthermore, no other gas companies have RPS mandates nationwide and studies show that RPS standards implied on electric utilities have shown to increase utility and non-utility costs for consumers.

Gas companies play a very small but vital role in Hawai'i. They provide only 2% of energy in the Hawai'i, and have a carbon footprint of 1/3 or 1 percent. In recent years the gas companies have shown effort in tapping into clean renewable energy in cases of the production methane from Honouliuli waste water treatment plant, and conversion of naphta (a waste product of petroleum) into clean renewable energy.

Gas based technologies have been an affordable, reliable, and resilient energy and have provided for the State of Hawai'i's growing population for many generations, especially during times of natural disasters. We feel the implementing RPS would consequently raise gas utility, and non-utility costs and hurt already struggling Hawai'i residents by reducing the Gas industry's competitiveness.

.Thank you for the opportunity to testify on SB 571

Sincerely,

Cody Sula
Government Affairs Liaison

Hawaii Teamsters and Allied Workers, Local 996

SB-571

Submitted on: 2/11/2019 8:14:11 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

SB-571

Submitted on: 2/11/2019 9:40:41 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
Laurie Chun	Individual	Oppose	No

Comments:

I oppose this bill, please vote NO. thank you

SB-571

Submitted on: 2/11/2019 8:24:42 AM

Testimony for CPH on 2/11/2019 2:45:00 PM



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

Comments:

This requirement is impossible to achieve, locally. Bringing in renewable gas would increase the utility costs for everyone (residential and commercial customers). Business operating costs will increase and everything always gets passed through to the customer. These types of regulations are just increasing the cost of living and making it more difficult for businesses.

Natural Gas and Propane emit low emissions and are affordable.

Every cause and effect to any regulation/decision should be considered, especially if it affects the local people.

SB-571

Submitted on: 2/11/2019 8:46:19 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

SB-571

Submitted on: 2/11/2019 8:48:01 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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.

LATE

SB-571

Submitted on: 2/11/2019 9:21:38 AM

Testimony for CPH on 2/11/2019 2:45:00 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.

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
www.MauiCounty.us

February 11, 2019

LATE

Kelly King

TO: The Honorable Glenn Wakai, Chair
Senate Committee on Energy, Economic Development, and Tourism
The Honorable Rosalyn H. Baker, Chair
Senate Committee on Commerce, Consumer Protection, and Health

FROM: Kelly T. King
Council Chair

SUBJECT: **HEARING OF FEBRUARY 11, 2019; TESTIMONY IN SUPPORT OF SB 571, RELATING TO RENEWABLE ENERGY**

Thank you for the opportunity to testify in **support** of this important measure. The purpose of this measure is to require gas utility companies to establish renewable energy portfolio standards for gas and to provide means for the companies to meet those standards.

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 State of Hawai'i is committed to achieving an energy portfolio consisting of 100 percent affordable energy by 2045. Achieving this goal will require concerted effort from everyone, including gas utility companies.
2. If gas utilities are not required to achieve 100 percent renewable energy, then a disparity will grow between gas utilities and electric utilities, which do have this requirement. Furthermore, not requiring gas utilities to also achieve the State's energy goals violates the intent of our renewable energy commitment.
3. Gas utilities already have options that can help them transition to renewable energy. As the science of renewable energy progresses, the amount of options for gas alternatives will only continue to grow.

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

SB-571

Submitted on: 2/11/2019 9:29:21 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:

SB-571

Submitted on: 2/11/2019 9:48:51 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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

Comments:



January 29, 2019

Senator Rosalyn H. Baker, Chair
Senator Brian T. Taniguchi, Vice Chair
Senate Committee on Commerce, Consumer Protection, and Health

LATE

Senator Glenn Wakai, Chair
Senator Stanley Chang, Vice Chair
Senate Committee on Energy, Economic Development, and Tourism

Comments and Concerns in Opposition and Proposed Amendments to SB 571, Relating to Renewable Energy (Gas Renewable Portfolio Standards)

Monday, February 11, 2019, 2:45 p.m., in Conference Room 414

The Land Use Research Foundation of Hawaii (LURF) is a private, non-profit research and trade association whose members include major Hawaii landowners, developers, resort operators 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.

SB 571. The purpose of this bill is to is to promote fairness and alignment in Hawaii's transition to one hundred per cent renewable energy and ensure that the State's market for gas embraces and supports the State's transition toward increasing renewable energy. This measure would require gas utility companies to establish renewable energy portfolio standards (RPS) for gas; provide means for gas utility companies to achieve the RPS; and requires the Public Utilities Commission to conduct a study of the RPS.

LURF's Position. LURF supports the State's goal of 100% renewable energy by 2045, and supports the general purpose and intent of this measure. However, under the present circumstances, we must respectfully **oppose the current version of SB 571**, and **propose the following amendments:**

- 1. Sections 2, 3 and 4 should be deleted, to await a report by the PUC and/or the Hawaii Natural Energy Institute of the University of Hawaii.** With all due respect, the Legislature should utilize the expertise of the PUC and the University of Hawaii (UH) in establishing the RPS for gas and accompanying definitions. LURF respectfully recommends the **deletion of Sections 2, 3 and 4**, as the PUC and/or

the UH Hawaii Natural Energy Institute could provide its expertise and recommendations relating to establishing a RPS for gas;

- 2. Section 5: Amendments to broaden the study to include gas utilities.** The facts, issues and timing of a new RPS for gas utilities should be reviewed and studied by experts, including the PUC and UH, and the PUC and UH should make a recommendation to the Legislature relating to the establishment of an RPS for gas. LURF respectfully recommends an **amendment to appropriate funds to the UH and PUC to, among other things, study the feasibility of establishing a RPS for gas utility companies in Hawaii and report to the Legislature next year;** and
- 3. Section 5: Amend the reference to panel of experts to include experts regarding gas utilities.**

Thank you for the opportunity to provide LURF's **comments and concerns in opposition and proposed amendments to SB 571,**



Hawaii Solar Energy Association
Serving Hawaii Since 1977

**TESTIMONY OF THE HAWAII SOLAR ENERGY ASSOCIATION
IN REGARD TO SB 571, RELATING TO RELATING TO RENEWABLE
ENERGY
BEFORE THE
SENATE COMMITTEE ON ENERGY ECONOMIC DEVELOPMENT, AND
TOURISM
AND THE
SENATE COMMITTEE ON COMMERCE, CONSUMER PROTECTION, AND
HEALTH
ON
MONDAY, FEBRUARY 11, 2019**

Chair Wakai, Chair Baker, and members of the committee, my name is Will Giese and I represent the Hawaii Solar Energy Association, Inc. (HSEA)

HSEA SUPPORTS SB 571. This measure requires gas utility companies to establish renewable energy portfolio standards for gas. Provides means for gas utility companies to achieve the renewable energy portfolio standards for gas. Requires the public utilities commission to conduct a study of the renewable portfolio standards.

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.

No more excuses.

We **SUPPORT SB 571** and we urge this committee to pass this measure.

Thank you for the opportunity to testify.



Testimony to the Committees on
Energy, Economic Development, and Tourism &
Commerce, Consumer Protection, and Health
Monday, February 11, 2019 at 2:45 p.m.
State Capitol Conference Room 414

LATE

RE: OPPOSITION FOR SB 571 – Relating to Renewable Energy

Dear Chair Wakai, Chair Baker, Vice-Chair Taniguchi, Vice-Chair Chang, and Distinguished Members of the Committee:

The Kaua`i Chamber of Commerce respectfully opposes SB 571, which stipulates the state have a 100-percent renewable energy portfolio by December 31, 2045 on all gas sold for grid connected electrical energy generation. 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. This legislation introduces a strict regulation of private industry in order to comply with another burdensome government mandate to the existing renewable standard portfolio timeline. Additionally, this bill will negatively impact private consumer choice.

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" or similar initials.

Mark Perriello
President & CEO
Kaua`i Chamber of Commerce

LATE

SB-571

Submitted on: 2/11/2019 10:29:02 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

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

Comments:

I oppose the 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 technical and economics do not exist for the gas utility.

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

SB-571

Submitted on: 2/11/2019 10:08:15 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
Rick Martin	Individual	Oppose	No

Comments:

No like

SB-571

Submitted on: 2/11/2019 10:44:58 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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 technical and economics do not exist for the gas utility.

SB-571

Submitted on: 2/11/2019 10:55:34 AM

Testimony for CPH on 2/11/2019 2:45:00 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.

SB-571

Submitted on: 2/11/2019 11:05:40 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
Jordan Moniuszko	Individual	Support	No

Comments:

I support this measure. Aloha

SB-571

Submitted on: 2/11/2019 10:09:28 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
Andrew Chun	Individual	Oppose	No

Comments:

We need diverse energy sources. Vote NO. Thank you

SB-571

Submitted on: 2/11/2019 10:58:27 AM

Testimony for CPH on 2/11/2019 2:45:00 PM

LATE

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.

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

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