

HB-1143

Submitted on: 2/2/2021 1:38:42 PM

Testimony for EEP on 2/4/2021 9:00:00 AM

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

Comments:

Dear Honorable Committee Members:

Please support HB1141.

Thank you,

Andrea Quinn



**Hawaiian
Electric**

**TESTIMONY BEFORE THE HOUSE COMMITTEE ON
ENERGY & ENVIRONMENTAL PROTECTION**

H.B. 1143

Relating to Renewable Energy

Tuesday, February 4, 2021
08:30 am, Agenda Item #15
State Capitol, Conference Room 325

Marc Asano
Director, Transmission and Distribution Planning
Hawaiian Electric

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

My name is Marc Asano and I am testifying on behalf of Hawaiian Electric Company. We appreciate the opportunity to provide comments **in opposition to Section 3 and in support of Section 7** of H.B. 1143, Relating to Renewable Energy.

H.B. 1143 amends the definition of renewable portfolio standard for electric utility companies to be a percentage of electrical energy generation, rather than sales. It also defines a renewable portfolio standard for gas utility companies.

While Hawaiian Electric supports the intent of Section 3 of the bill to change the RPS definition for an electric utility from a percentage of sales to a percentage of generation, it has concerns that the change in definition will unfairly penalize Hawaiian Electric if customers choose to generate their own electricity using fossil fuels as customer-sited fossil fuel generation would count towards total generation, making it impossible for Hawaiian Electric to achieve 100% RPS. If the RPS definition is changed, Hawaiian Electric respectfully requests that the definition exclude customer-sited fossil generation from the total generation calculation.

In addition, the proposed change in the RPS definition would effectively increase the amount of renewable generation required by statute for 2030, 2040 as well as 2045 if the same percentage requirements in these years remain. Any such statutory increases should be considered when considering other bills related to land use, setbacks, and other important matters that could impact the pace and amount of renewable energy that could be added in the near future.

Furthermore, with the recent performance based regulation decision and order issued by the Public Utilities Commission, the Company will be financially rewarded over the next five years to accelerate RPS achievement (in excess of current RPS milestones) based on an RPS calculation similar to the one proposed in H.B. 1143, where RPS is calculated as a percentage of net electricity generation instead of sales. To that end, the Company is already taking steps to increase its renewable generation through the recent renewable energy procurements that will bring approximately 666 MW of solar online in the next few years. Therefore, given the Company's recent progress towards accelerating RPS and the Public Utilities Commission's recently approved performance based regulation framework, changes to the RPS definition for an electric utility are not necessary at this time.

Instead, the Company first recommends a study to evaluate the feasibility and impacts of achieving 100 percent RPS as contemplated in H.B. 1143. A study such as the one proposed by S.B. 243 Part II, Section 4 may assist the legislature and other stakeholders on how best to achieve the State's goal of 100% renewable energy. For example, grid infrastructure upgrades needed to achieve 100 percent renewables, land use and availability requirements, off-shore resource feasibility, and other factors could be considered in such a study.

Hawaiian Electric supports Section 7 of the bill to establish a RPS for a gas utility that includes sales of gas by its corporate parent, corporate parent's subsidiary entities, partners, joint ventures, and affiliate entities consistent with State policy to achieve 100 percent renewable energy and reduce greenhouse gas emissions.

Accordingly, Hawaiian Electric opposes Section 3 and supports Section 7 of H.B. 1143. Thank you for this opportunity to testify.

HB-1143

Submitted on: 2/2/2021 5:48:34 PM

Testimony for EEP on 2/4/2021 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Carl Campagna	Hawaii Bioeconomy Trade Organization	Oppose	No

Comments:

Aloha Chairs and Committee Members,

Thank you for your time and consideration.

The Hawaii Bioeconomy Trade Organisation stands in strong opposition to this measure. We would like to emphasize that there is an absolute need for the proper support (subsidies and policies) to be in place before placing any arbitrary mandates. Once these exist, we can support the phased process, but not before. Our Hawaii Green Fuels Initiative resolution from 2017 confirms our commitment.

We need sufficient studies to lay out a planned transition. We must consider the consequences and impacts to the residents and businesses of Hawaii.

The Hawaii Bioeconomy Trade Organization was founded in 2019 by PAR Hawaii, Pacific Biodiesel, Hawaii Gas, PVT Land, Simonpietri Enterprises and Kalaeloa Partners. We have since added IES and CH4Ag. We are dedicated to advancement of integrated biologically-based systems which produce products and services to re-use waste and make renewable fuel, local food, and value-added products in Hawaii. <https://hawaiibioeconomy.org/>



Chamber of Commerce HAWAII

The Voice of Business

**Testimony to the House Committee on Energy & Environmental Protection
Thursday, February 4, 2021 at 8:30 A.M.
Via Videoconference**

RE: HB 1143, RELATING TO RENEWABLE ENERGY

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

The Chamber of Commerce Hawaii ("The Chamber") offers **comments and has concerns on HB 1143**, which amends the definition of renewable portfolio standard for electric utility companies to be a percentage of electrical energy generation, rather than sales; defines a renewable portfolio standard for gas utility companies; and requires gas utility companies to establish renewable energy portfolio standards and provides a means for gas utility companies to achieve the renewable energy portfolio standards.

The Chamber is Hawaii's leading statewide business advocacy organization, representing 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 supports the benefits of clean energy and having a more sustainable future; however, we are concerned with the effects such legislation could have of imposing renewable portfolio standards for the gas utility that are identical to those imposed on the electric utility. Given the state's economic recession, we must first consider adverse impacts broad industry standards, such as renewables, will have to prevent consumers and businesses from having to absorb higher costs.

The Chamber respectfully asks that the legislature defer this measure, and respectfully ask for an economic and technical feasibility study of the use of renewable gas by gas utility companies. Through this study, the legislature would be able to review and use substantive data to justify and adjust to market conditions such as the proposed renewable energy standards on the gas utility.

Thank you for this opportunity to provide testimony.



Email: communications@ulupono.com

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Thursday, February 4, 2021 — 8:30 a.m.

Ulupono Initiative supports the intent of HB 1143, Relating to Renewable Energy.

Dear Chair Lowen and Members of the Committee:

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

Ulupono supports the intent of HB 1143, which amends the definition of renewable portfolio standard (RPS) for electric utility companies to be a percentage of electrical energy generation rather than sales; establishes an RPS for the gas utility; and, requires the gas utility to establish a renewable energy portfolio standard and provide a means to achieve the established standard.

As stated in years prior, Ulupono is supportive of amending the RPS definition to more accurately reflect the percentage of renewable energy use in the State by adding customer-sited generation distributed energy resources (DER) into the denominator of the RPS calculation. Under the current RPS definition, customer-sited, grid-connected DER is only included in the numerator. This overstates the electric utility's actual progress on renewable energy adoption. Pursuant to Act 97, SLH 2015, for the year 2020, Hawai'i was to generate 30 percent of the state's electricity from renewable resources. According to Hawaiian Electric's 2019 RPS Status Report, under the current RPS definition, the utility reported a consolidated RPS of 28.4 percent, of which customer-sited generation accounted for 49.4 percent of the consolidated total. In comparison, if the corrected RPS definition was applied for 2019, Hawaiian Electric's consolidated RPS would be 24.9 percent.ⁱ

If passed, this measure would more accurately reflect the legislative intent of Act 97, SLH 2015, and would be appropriately aligned with the Public Utilities Commission's (PUC) recent decision in the Performance-Based Regulation docket, to provide the electric utility with financial rewards for exceeding interim year RPS targets based on the corrected RPS percentage.ⁱⁱ

Investing in a Sustainable Hawai'i

Regarding the RPS for the gas utility, UluPono is supportive of a diverse renewable energy portfolio that leverages the abundant natural resources, including but not limited to, solar, wind, and geothermal available throughout the state. However, noting the use of natural gas in Hawai‘i, it is reasonable to expect the gas utility to commit to an RPS to ensure sustained progress towards Hawai‘i’s energy policy goals. However, prior to establishing an RPS for the gas utility, UluPono believes it is necessary for the gas utility to provide the PUC with an integrated resource plan (IRP). The purpose of the IRP would be to provide more information on the gas utility’s future plans, renewable natural gas, and its economic and technological feasibility compared to fossil fuels and in-state renewable resources. This effort will help decisionmakers set realistic targets for the RPS that are based on actual market and technological conditions, and also provide valuable information to inform future activities related to the gas utility.

With that said, UluPono does not believe that correcting the RPS definition for the electric utility and establishing an RPS for the gas utility needs to be done simultaneously. As such, UluPono recommends the committee consider these two efforts separately, correcting the well-known defects in the RPS definition for the electric utility, and further investigating the appropriate process to establish a well-informed RPS for the gas utility.

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

Thank you for this opportunity to testify.

Respectfully,

Micah Munekata
 Director of Government Affairs

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Electrical Energy Generated Using RE Sources	Oahu	Hawaii	Maui	Total	Percentage of Total
Biomass (including municipal solid waste)	414,357	0	0	414,357	16.7%
Geothermal	0	0	0	0	0.0%
Photovoltaic and Solar Thermal	194,661	4,224	19,172	218,057	8.8%
Hydro	0	35,414	0	35,414	1.4%
Wind	148,296	142,675	236,916	527,887	21.3%
Biofuels	52,645	6,409	942	59,996	2.4%
Customer Sited, Grid Connected	845,669	175,956	202,954	1,224,579	49.4%
Total Renewable Generation	1,655,628	364,678	459,984	2,480,290	100.0%
Total Energy Sales	6,563,104	1,049,542	1,127,338	8,739,984	

ⁱⁱSee Hawai‘i Public Utilities Commission, Docket 2018-0088 – Instituting a Proceeding to Investigate Performance Based Regulation, Decision and Order 37507 at 116. “The structure of the [Renewable Portfolio Standard-Accelerated] PIM is as follows...the metric will be the Companies’ annual compliance with the RPS (% and year-based milestone), on a consolidated basis. The PIM will utilize a “corrected” methodology, where the RPS will be calculated based on the total system renewable generation divided by total system generation of electricity, rather than division by net sales.”

HB-1143

Submitted on: 2/2/2021 10:09:33 PM

Testimony for EEP on 2/4/2021 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Ted Bohlen	Climate Protectors Coalition	Support	No

Comments:

To: The House Committee on Energy and Environmental Protection (EEP)

From: Climate Protectors Coalition

Hearing Date: Thursday, February 2, 2021, 9:00 am

In support of HB1143 RELATING TO RENEWABLE ENERGY

Aloha Chair Lowen, Vice Chair Marten, and Energy and Environmental Protection Committee members:

The Climate Protectors Coalition **supports HB1143.**

The Climate Protectors Coalition is a group inspired by the Mauna Kea Protectors but focused on reversing the climate crisis. As a tropical island State, Hawaii will be among the first places harmed by the global climate crisis, with more intense storms, loss of protective coral reefs, food insecurity, and rising sea levels destroying our shorelines. We must do all we can to reduce our carbon footprint and become at least carbon neutral as soon as possible.

This bill would require that the renewable portfolio standard for electric utilities be calculated as a percentage of net generation, rather than sales. It also requires that gas utility companies establish renewable energy portfolio standards.

The Climate Protectors ask that you pass this bill. Mahalo!

Climate Protectors Coalition (by Ted Bohlen)

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

TO THE
HOUSE COMMITTEE ON
ENERGY & ENVIRONMENTAL PROTECTION

February 4, 2021
9:00 a.m.

Chair Lowen and Members of the Committee:

MEASURE: H.B. No. 1143

TITLE: RELATING TO RENEWABLE ENERGY.

DESCRIPTION: Amends the definition of renewable portfolio standard for electric utility companies to be a percentage of electrical energy generation, rather than sales. Defines a renewable portfolio standard for gas utility companies. Requires gas utility companies to establish renewable energy portfolio standards and provides a means for gas utility companies to achieve the renewable energy portfolio standards.

POSITION:

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

COMMENTS:

The Commission appreciates the intent of Part II of this measure, which proposes to calculate RPS achievement based on electricity generation, rather than utility sales. Calculating RPS achievement in the proposed manner will present a more accurate picture of how much of the state’s electricity is produced from renewable energy sources, ensuring alignment with the intent of the renewable portfolio standards goals.

The Commission notes that expressing RPS requirements in terms of electricity generation rather than utility sales will require a higher level of renewable generation to achieve the same target level. Hawaiian Electric currently has a major procurement solicitation underway and multiple customer programs that will help to achieve these goals if the Legislature amends the definition as proposed.

With respect to the proposed gas utility renewable portfolio standard described in Part III of the measure, the Commission has discussed this measure with the Division of Consumer Advocacy and the Hawaii State Energy Office and has agreed in principle on the following recommendations.

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.

In addition, the Commission intends to open a proceeding to establish an integrated resource plan (IRP) for Hawaii Gas. The Commission agrees with the Division of Consumer Advocacy and the Hawaii State Energy Office that this approach would effectively address the uncertainty regarding the gas utility's ability to meet more aggressive, longer-term RPS targets and address ongoing risks to the utility's fuel supply security. An approved IRP could also be used to inform future RPS targets to be established by the Legislature for the gas utility.

Thank you for the opportunity to testify on this measure.

HB-1143

Submitted on: 2/2/2021 11:16:26 PM

Testimony for EEP on 2/4/2021 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
David Mulinix	Our Revolution Hawaii	Support	No

Comments:

Aloha Kakou Members of the Energy & Environmental Protection committee

On behalf of our 7,000 supporters and members statewide, Our Revolution Hawaii strongly supports HB 1143.

It is essential that the state amend the definition of renewable portfolio standards for electric utility companies to be the percentage of electrical energy generation, rather than sales. This change will provide a more accurate accounting of the amount of renewable energy Hawaii's electric utility companies are actually supplying their customers.

It is also essential that the state define renewable portfolio standards for gas utility companies, that requires gas utility companies to establish renewable energy portfolio standards. Currently the gas utility has an unfair advantage due to their lower standard than the electric utility. This bill ensures a fair playing field in the transition to a renewable energy.

Malama Pono, Dave Mulinix,

Statewide Community Organizer

Our Revolution Hawaii



To: The House Committee on Energy and Environmental Protection
From: Sherry Pollack, 350Hawaii.org
Date: Thursday, February 4, 2021, 9:00 am

In support of HB1143

Aloha Chair Lowen, Vice Chair Marten, and Energy and Environmental Protection Committee members,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org supports **HB1143**. This bill would amend the renewable portfolio standard (RPS) to more accurately reflect the percentage of renewable energy penetration in the State. It also establishes a RPS and targets for gas utility companies that mirrors those set for electric utility companies, in addition to accelerating our adoption of renewable energy.

We need to fix the critical flaws in our RPS that would prevent us from ensuring a full and fair transition to clean energy. We must not undermine our own efforts to achieve our 100% renewable energy goal.

350Hawaii agrees that requiring electric utilities but not gas utilities to increase their reliance on renewable energy may unintentionally harm consumers by promoting suboptimal long-lived investments in fossil fuels. Establishing a RPS for the gas utility is the simplest, fairest, and most effective solution to this concern.

350Hawaii recommends a critical amendment regarding the targets set to achieve 100% renewable energy. 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. That said, I emphatically recommend that we further accelerate our adoption of renewable energy with a target of 100% clean energy by 2030. The science tells us that 2045 is woefully too late, and that we all can and must do better, or suffer the extinction of thousands of species on this planet, including our own.

Previous efforts to align our RPS with our clean energy goals have been thwarted by special interest groups led by climate deniers and delayers. Don't let them once again obstruct this important legislation. Let Hawaii set an example for others around the globe and show what true climate leadership means. This is for our own sake, and for that of everything else on this planet.

Mahalo for the opportunity to testify in **support** of this very important bill with the recommended amendment stated.

Sherry Pollack
Co-Founder, 350Hawaii.org



Testimony to the Committee on Energy and Environment Protection

Thursday, February 4, 2021

8:30 AM

VIA Video Conference

Conference Room 325, Hawaii State Capitol

HB 1143

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

Hawaii Gas offers comments on HB 1143, which amends the definition of renewable portfolio standard for electric utility companies to be a percentage of electrical energy generation, rather than sales. Defines a renewable portfolio standard for gas utility companies. Requires gas utility companies to establish renewable energy portfolio standards and provides a means for gas utility companies to achieve the renewable energy portfolio standards.

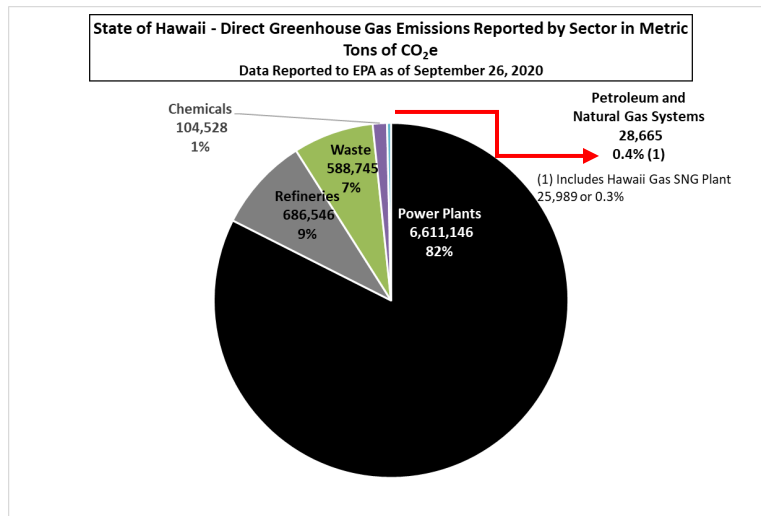
We understand that the legislature finds fairness and simplicity to be essential to this pursuit (page 3, lines 7-8). In establishing HRS §269-92 (State support for achieving renewable portfolio standards), a renewable portfolio standard (RPS) for electric utilities, the state passed many enabling statutes to provide assistance to the electric utilities and to help guide the policy makers and regulators to enact the best policy decisions. Over the course of time, after validating facts, industry progress, and federal policies, 269-92 has been amended many times. Some examples of the policy assistance include HRS §196-41, which directed DLNR and DBEDT to facilitate the private sector's development of renewable energy projects by providing meaningful support such as creating a recurring catalog of potential sites for renewable energy projects, expediting planning and permitting of renewable projects, and work with federal agencies to develop research, development, demonstration funding and technical assistance to support Hawaii and the utility to achieve the RPS. HRS §269-95 (Renewable portfolio standards study) directed the public utilities commission to gather, review and analyze empirical data to develop a ratemaking structure, incentives for the electric utilities to use cost-effective renewable energy resources found in Hawaii to meet the renewable portfolio standards and to use special funds to contract with the Hawaii natural energy institute to conduct independent studies with reviews by the US Department of Energy, National Renewable Energy Laboratory, Electric Power Research Institute, and the Hawaii electric utility companies. That study, required every 5 years, established the blueprint from which meaningful, science-driven, attainable, and sustainable changes could be made by the electric utilities and provided the electric utility an over 40-year runway to meet the 2045 goals.

As was true with the electric RPS, a gas RPS should be supported by similar enabling policies before any valid standards can be established. Requiring a gas RPS before conducting studies, creating a regulatory framework and having relevant state departments such as DBEDT, HSEO, DLNR, DOA, PUC, HNEI and DOE as well as federal DOE, NREL and other recognized experts along with the utility, understand what is needed to create and achieve an RPS is contradictory,

counterproductive and costly to the consumers, ratepayers and taxpayers who are funding it. Therefore, we strongly oppose the amendments Part III SECTION 6 and SECTION 7 as it applies to the gas utility company. Instead, we ask the state create enabling legislation to partner with the gas utility to co-develop solutions, policies and incentives that can accelerate the path to achieve shared goals for Hawaii ratepayers.

SMALL CARBON FOOTPRINT, NATIONAL LEADER DESPITE CHALLENGES

While we represent less than 2% of the state's energy demand and less than 1% of its carbon emissions, we are committed to decreasing the company's carbon footprint to advance the state's 2045 carbon neutrality goal, together, in an affordable, resilient, and sustainable way for our ratepayers and Hawaii's communities.



The pathways to renewable gas are laden with unknowns, such as:

- **Source materials** are illusive to obtain, not under HG control, and are in limited supply.
- **Land use** costs are unknown due to the high demand for limited land between state priorities of housing, food production, electric renewable energy like solar and wind, biofuel crops for electric generation, and crops for renewable gas production.
- **Local Long-term skilled labor** pipeline is not developed for the for the production and operation of renewable gas.
- **High cost of development, including entitlements and permitting**, plagues all
- **Technology is yet to be discovered; R&D** remains costly, resources are scarce, and production efficiency standards are unknown.
- **Community opposition** to renewable projects is fierce and ever-present.
- **Federal and state tax incentives** do not exist, which are necessary for the adoption of new technologies (similar to that which benefited wind and solar)
- **Production of renewable gas must be at utility-scale** and cannot be supplemented by decentralized residential producers (like rooftop solar)



Because of the lagging technology and the unknowns, no other state in the nation has mandated a renewable portfolio standard like those proposed in this bill. Despite these challenges, we lead the industry in renewable gas, including RNG and hydrogen fuel, in the U.S. We are also collaborating with other utilities and research groups who are pushing the industry towards new technology and new opportunities. We already have renewable gas and hydrogen in our underground pipeline network and are in active negotiations with parties to pursue additional renewable gas in our pipeline. We've made it clear through our words and with our actions that we are committed to moving Hawaii Gas towards a clean energy and carbon neutral future by 2045, if not sooner.

Most important to all of these pathways is our pipeline, which is the heart of our distribution and reliability. Maintaining that pipeline and ensuring the viability of renewable products within it is essential.

Our pipeline is agnostic to the gas energy that flows through it, meaning that Hawaii Gas is able to focus on decarbonizing its fuel source within its existing infrastructure. Hawaii Gas is not beholden to its own generation source since we do not have generation technology as part of our company's business model. Fuel costs are a pass through to the users. Our primary concern is the safety and reliability of what flows through that pipeline, and, of course, ensuring continued affordability for our customers.

HAWAII VS THE MAINLAND

As with many issues we face in Hawaii, the work and research from the mainland doesn't adequately inform our unique conditions and circumstances. The mainland's renewable gas R&D and usage has focused on transportation alternatives and heating solutions, not utilizing renewable gas in the pipeline. We lead the nation in moving hydrogen through our pipeline safely, more than any other gas utility in the country, and our renewable gas development is some of the nation's most innovative.

Our primary source of energy in our pipeline is synthetic gas, which is produced locally, not fracked. HG purchases the feedstock (naphtha) to make the synthetic gas from Par Hawaii Refining (PAR), which produces transportation, electric generation fuels, and other refined products. Those processes create a byproduct of the refining process, which would otherwise need to be disposed of. Hydrogen is also created through this process and has long been a critical element of Hawaii Gas's operations and pipeline. Today, Hawaii Gas leads the gas utility industry in the ability to safely and reliably utilize hydrogen in its pipeline.

During COVID, the interconnectivity of the energy sector was laid bare, highlighting how we depend on one another to meet the state's needs. When the hotels and restaurants shutdown due to the COVID-19 lockdown, the demand for our product plummeted. We were forced to downsize our demand for naphtha feedstock from PAR, creating a scenario in which the feedstock might need to be flared, which would release emissions and, for obvious reasons, a situation everyone wanted to avoid. Through frequent and transparent communications, we



were able to safely turndown our plant to handle the lower volumes and avoid any additional issues.

Similarly, our RNG partnerships felt a significant hit once COVID struck. With fewer toilets flushing in Waikiki, the waste product at the Honouliuli waste water treatment plant was dramatically reduced, adversely impacting our RNG output.

These upstream and downstream impacts create tremendous volatility in our island industry, impacting consumers and the environment and reminding us how fragile and interconnected our energy systems and island communities are.

GAS AND OUR STATE'S RESILIENCY

It is important to understand the vital role natural gas plays in our state's resiliency solutions to ensure public safety, health, and recovery. From lava flows to Hurricanes Iniki, Lane, and others, our residents stock up on vital supplies, including gas for cooking, water heating, and especially in rural areas of the state, Hawaii Gas is the lifeblood that keeps these communities cooking, heating water, and self-sufficient.

With one exception during the bombing at Pearl Harbor in 1941, our pipelines have never experienced a shutdown in over 115 years.

THE GAS UTILITY, REGULATORS, AND POLICY MAKERS' OBLIGATION TO THE RATEPAYER

The benefits of renewable gas are many. But it's ultimately the obligation of the gas utility, policy makers, and regulators to responsibly analyze the significant impacts on the generation sources, pipeline, consumers, resiliency, reliability and safety for consumers.

We know that the transition to renewable gas fuel sources must be carefully studied so that the transition can occur in a responsible, reliable, and cost-effective way for the people of Hawaii. Just as the legislature wisely understood for the electric utility, sound science, market forces, innovation, and incentives spur innovation. Mandates established before the research is done to determine feasibility, best courses-of-action, supportive policy and incentives, technology, and other critical factors create chaos and leave the burden on the back of the consumers through higher costs and instability.

VISIONARY GOALS AND LESSONS LEARNED

Like many, we've made the visionary mistake, learning the hard lessons about speaking boldly before science and feasibility support the statements. A former executive testified in 2009 that the company was committed to 50% renewable content within five years, when in fact, the science had not been clearly charted and tested.

We ask that the legislature consider enabling legislation such as a study, as was done for the electric utilities in establishing its RPS. The gas utility has never been afforded a locally focused study, and it is critically important to assess the feasibility as well as the true cost and impact on ratepayers. Does Hawaii have the resources in-state to create reliable renewable natural gas



and hydrogen, and are those resources available to the gas utility? With the state's limited prime lands in high and competitive demand by agriculture, solar, affordable housing, and energy crops, what are the impacts of the competing demands and the numerous legislative priorities that establish land use policy?

APPLES AND ORANGES: RENEWABLE ELECTRICITY AND RENEWABLE GAS

While independent renewable electric power producers (including homeowners with roof top solar) enjoy federal and state tax credits and can access abundant potential resources for renewable electricity, readily available resources to create renewable gas in Hawaii are sparse.

On the Mainland, there are four known ways to create renewable gas:

- capture methane produced from dairy farm manure,
- capture methane produced from wastewater treatment plants and landfills,
- produce hydrogen from renewable sources, or
- grow crops and process them through biodigesters.

In Hawaii, those options narrow to three with the loss of our dairy farms. Local production requires access to local resources such as methane, land, water, farmers, labor and curtailed renewable energy. For scalable projects to be feasible, sustainable access to these source materials and the support of state and local government to create necessary incentives and opportunities are required.

HAWAII GAS INNOVATION: RENEWABLE GAS AND HYDROGEN

Hawaii Gas is proud of our standing as a national leader in innovation in the renewable gas field, and we are working towards an ultimate goal of a carbon neutral gas utility for future clean energy initiatives. This bold work includes

- renewable gas,
- hydrogen,
- alternative fuels for both commercial and consumer transportation,
- clean fuel to power electric generators (replacing fossil fuels), and
- long last energy grid storage (replacing lithium ion batteries).

Hawaii Gas is investing resources with national and international partners to solve the economic, scientific, and technical barriers to hydrogen, including projects and studies across the world to advance the increase production of hydrogen from renewable sources and the utilization of hydrogen at the utility scale.

We have also been recruited as a partner in a nationwide research study led by NREL (National Renewable Energy Laboratory) to provide the data and findings from our innovative work to lay the pathway to safely increase hydrogen in pipelines around the country.

OTHER RENEWABLE PROJECTS AND POSSIBILITIES



The renewable gas development at Honolulu’s City and County Honouliuli waste water treatment plant is an award-winning facility that has demonstrated great promise in utilizing waste product to create renewable gas. Very few gas utilities have embarked on waste water treatment projects to inject into the pipeline, and this one has been called a “win-win” by all knowledgeable stakeholders. Unfortunately, that competitively procured supply contract expires in 2024, essentially eliminating this precious resource needed to produce renewable gas and thwarting our progress.

We are working with the City and County of Honolulu’s new administration to secure this project and pursue other possible pilots, including at Sand Island Treatment Plant and Waimanalo Gulch landfill, to gain access to raw material essential to natural gas production.

Recognizing that developable renewable resources are scarce in Hawaii, Hawaii Gas is expecting to enter into two pilot projects, utilizing local renewable production focused on waste and agriculture crops. One project proposed grows an agricultural crop to biodigest for renewable gas, while the other project extracts methane from waste product to produce renewable gas. It is our intent that these projects provide the best GHG reduction benefits while also informing us on the yield, feasibility, reliability, sustainability, scale, costs and affordability of such locally sourced ventures.

it is our goal that these projects can be provisioned by 2025 and can then start providing needed data.

WE NEED TO WORK TOGETHER. WE OWE IT TO CONSUMERS.

Renewable gas development is contingent on raw materials over which we have no control. These pilot projects are a step in the right direction but also another example of the need for policy that supports our work.

The gas utility needs public policy initiatives and incentives to spur innovation just as the electric utility has depended on in its quest to carbon neutrality. We ask your help in developing and implementing such policies, including but not limited to

- Tax incentives
- Favorable land use policies, clarity, and priorities
- Favorable water resource policies
- Sustainable source material access
- Education pathways in our K-16 schools to create a work force prepared for the high-skilled, high-tech jobs required
- Incentives for farmers to grow biocrops
- Incentives for interisland transport
- Expedited planning and permitting and entitlements
- Studies
- Facilitation of national resources, policies, incentives and intellectual knowledge

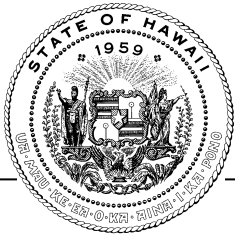


Our long-term success hinges on the work created through sound study and the public policy incentives that make such innovative work possible, just as was the case for the electric utility. We respectfully ask the committee to consider these needed public policy initiatives that address many of the unknowns we face on this journey.

We know that Hawaii residents face dire economic struggles, even in normal times. Today, those struggles are even greater, with unemployment, food insecurity, and an uncertain future hanging over us, especially our most vulnerable. Parity and fairness should be focused on the ratepayer, and we can't afford to have an adverse impact on their pocketbooks without a clear vision of what's possible and what benefits they derive.

The COVID-19 pandemic has given us this opportunity to think about new opportunities, and we are excited about what the future holds. But we can't stand up these exciting new opportunities alone. We ask that we work together, bringing public and private resources to bear, to make this clean energy future a reality.

Thank you for the opportunity to testify.



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

DAVID Y. IGE
GOVERNOR

SCOTT J. GLENN
CHIEF ENERGY OFFICER

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Testimony of
SCOTT J. GLENN, Chief Energy Officer

before the
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Thursday, February 4, 2021
9:00 AM
State Capitol, Conference Room 325

Comments in consideration of
HB 1143
RELATING TO RENEWABLE ENERGY.

Chair Lowen, Vice Chair Marten, and Members of the Committee, the Hawaii State Energy Office (HSEO) offers comments on HB 1143, which (1) amends the calculation of renewable portfolio standard (RPS) for electric utility companies so that it will be based on the percentage of electrical energy generation, rather than sales; and (2) establishes a renewable portfolio standard for gas utility companies.

HSEO supports the revision to the electricity RPS proposed by Part II of the bill, which would replace the word “sales” with “generation” for future increases in the RPS. This will increase the amount of renewable energy required and better align the RPS with the zero emission clean economy target as set forth in Section 225P-5, Hawaii Revised Statutes (HRS), “as quickly as practicable, but no later than 2045.”

Regarding the provisions of Part III, establishing an RPS for Hawaii’s regulated gas utilities, HSEO agrees that an RPS for utility gas service is consistent with Hawaii’s goals. HSEO has discussed possible solutions with the Public Utilities Commission (PUC) and the Consumer Advocate. The HSEO respectfully recommends to establish an initial target for renewable gas and to allow a plan for meeting that target to be developed and discussed during a docketed process under the purview of the PUC.

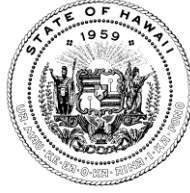
Establishing such an objective in statute, with the PUC managing the evaluation and discussions of that objective in a rigorous and public process, is an effective approach in support of the goal of reduced fossil-fuel dependency in a realistic and cost-effective manner. This would allow for a deliberative and thorough proceeding, with analysis and recommendations that would consider a variety of issues, consequences, and potential legislative and regulatory requirements, in a structured process.

Beginning with an initially modest gas RPS would be similar to the process used to develop the original RPS for the electricity sector, such as expressed in Act 272, Session Laws of Hawaii 2001. Further, a docket could explore the integration of the zero emission clean economy target to achieve a net-negative emissions result in addition to examining renewable resource switching.

HSEO notes that although there are many similarities between electricity and gas utilities, there are also substantial differences. A variety of entities, not only subsidiaries of the gas utility company, provide fuels (for example, methane, propane, butane, hydrogen, gasoline, and diesel) for use in gas and propane appliances and other equipment, vehicles, and generators; not all are regulated by the PUC; and many are not affiliates of the regulated gas service provider. Interactions among the various parts of Hawaii's energy ecosystem, both regulated and unregulated, are expected to be important topics of discussion.

In addition, interactions among the fossil fuel providers as gas shifts to a renewable pathway might have unanticipated impacts that affect the resilience of our energy system as it transitions to renewable energy. The interlinkages of these systems and their vulnerability to supply and demand disruption require careful planning and the protection of confidential information, which could occur in the context of the PUC process.

Thank you for the opportunity to testify.



DAVID Y. IGE
GOVERNOR

JOSH GREEN
LT. GOVERNOR

**STATE OF HAWAII
OFFICE OF THE DIRECTOR
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CATHERINE P. AWAKUNI COLÓN
DIRECTOR

JO ANN M. UCHIDA TAKEUCHI
DEPUTY DIRECTOR

Testimony of the Department of Commerce and Consumer Affairs

**Before the
House Committee on Energy & Environmental Protection
Thursday, February 4, 2021
8:30 a.m.
Via Videoconference**

**On the following measure:
H.B. 1143, RELATING TO RENEWABLE ENERGY**

Chair Lowen and Members of the Committee:

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

The purposes of this bill are to: (1) amend the definition of renewable portfolio standard for electric utility companies to be a percentage of electrical energy generation, rather than sales; (2) define a renewable portfolio standard for gas utility companies; and (3) require gas utility companies to establish renewable energy portfolio standards and measures for gas utility companies to achieve the renewable energy portfolio standards.

The Department continues to support the State's goal of 100% renewable energy on its electric grids by 2045. Accordingly, the Department supports the bill's replacement of "sales" with "generation" in the renewable portfolio standards (RPS) calculation in Hawaii Revised Statutes (HRS) section 269-91. This modification will eliminate the existing "loophole" that could allow the State to achieve a 100% RPS but

still have a significant contribution from fossil-fueled generation sources; it will also allow for more than 100% of generation from renewable energy.

The Department appreciates the bill's intent to create an RPS for gas utilities, which should align more relevant entities in the State's push towards 100% renewable energy across sectors. Shifting the definitions of "cost-effective" and "renewable portfolio standard" from section 269-91 to section 269-92 is an efficient way to allow for the addition of gas utility renewable portfolio standards without conflict.

The proposed RPS for regulated gas utilities does, however, raise concerns that it could, among other things: (1) significantly increase the gas utilities' costs; (2) unintentionally create an incentive for the regulated utility to adopt a model that uses its non-regulated operations to serve customers' needs, as well as allow unregulated gas competitors to take advantage of the lack of regulation; and (3) cause regulated and unregulated gas customers to experience significant bill increases.

Since the technology to create renewable gas is less developed than the technology for renewable electricity, and since 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 of the electric utilities RPS, including the interim goals, may not be achievable and, even if they are, will likely result in significant increases in costs to provide gas. These cost increases may create a favorable market for customers to rely on unregulated gas to meet their gas needs. The proposed RPS may also cause the regulated gas utility to incur significant costs, which ratepayers would ultimately bear.

In discussing possible solutions with the Hawaii Public Utilities Commission (Commission) the Hawaii State Energy Office, and the Department believes that rather than creating a RPS for gas utilities that is based on the electric utilities RPS, it would be reasonable to: (1) establish an initial target for renewable gas similar to how the RPS for electric utilities were established; and (2) allow the Commission to use its docketed process to require the development of a plan, such as an integrated resource plan, that would enable the Commission to establish an RPS or that would inform future legislative efforts to establish interim and final renewable targets. This proposal would affirm the

State's encouragement of the gas utilities to migrate toward renewable resources, where the initial target would be set at a reasonable target. In conjunction with that initial target or set of targets, the long-range plan developed within the Commission's docketed process could address outstanding issues, such as: (1) feasibility and availability of different technologies to meet long-term needs; (2) potential targets for renewable gas; (3) potential impacts on customers' bills; and (4) reliability and availability of regulated utility gas service throughout long-term planning efforts. This approach would support future efforts to enable the evolution of an RPS for gas utility companies, just as the electric utility RPS has evolved.

Thank you for the opportunity to testify on this bill.



HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

February 4, 2021, 9:00 A.M.

Video Conference

TESTIMONY IN SUPPORT OF HB 1143, SUGGESTED AMENDMENTS

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

Blue Planet Foundation **supports HB 1143, updating Hawai'i's renewable energy law and requiring that gas utility companies in Hawai'i achieve the same renewable energy targets as Hawai'i's electric utilities.** Given the existential threat of climate change to Hawai'i's economy and way of life, it is time to set an expiration date on all fossil fuel use in Hawai'i—not just certain companies or certain sectors. This measure is essential for **accelerating progress** and ensuring **consistency, fairness, and consumer confidence** in Hawai'i's 100% renewable energy target. We offer two clarifying amendments to HB 1143 at the end of this testimony.

The success and importance of the RPS law

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

The 100% RPS has set market expectations. Hawai'i is now securing 100% renewable energy projects, able to provide energy at any time of day or night, for a stable cost that is substantially less than the cost of fossil fuel. Recent renewable energy contracts between developers and the electric utility are set to deliver clean energy at record low prices, proving it is possible to generate clean electricity far cheaper than from fossil fuels.¹ The power from these projects will be as low as 8 cents per kilowatt-hour (kWh), with most coming in below 10 cents per kWh.

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

Even the highest-priced project is substantially lower than the 15 cents per kWh average cost to produce electricity from fossil fuels. By comparison, just a few years ago, Hawai'i was considering importing liquefied natural gas (LNG)—another fossil fuel—to generate electricity for 15 to 20 cents per kWh.

100% RPS for gas utilities is critical

House Bill 1143 establishes a renewable portfolio standard requiring that 100% of gas sold by gas utility companies in the state be produced from renewable sources by 2045. Expanding Hawai'i's 100% RPS to apply to gas utility companies is a necessary next step if we hope to achieve our ambitious clean energy and climate targets—particularly meeting the commitment to the Paris Climate Agreement (Act 32 of 2017) and target of net carbon neutral by 2045 (Act 15 of 2018). **Simultaneously, such a policy would fix the current unfairness in the energy market**, which requires electric utilities, but not gas utilities, to comply with a renewable portfolio standard. Without an RPS policy for gas, Hawai'i could remain dependent on fossil fuels for decades and fail to achieve its critical climate goals.

Consumers sometimes confuse “natural gas” with renewable energy. As most commonly used, natural gas is “natural” in the same way that oil and coal are “natural.” **Natural gas is a fossil fuel.** It is not renewable, and it is inconsistent with a shift to 100% renewable energy. On the mainland, natural gas is now responsible for more climate-heating emissions than coal is. Globally, fossil gas is the fastest-growing source of climate change emissions, according to study published in Environmental Research Letters in 2019.²

Hawai'i's renewable gas percentage is far behind renewable electricity

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

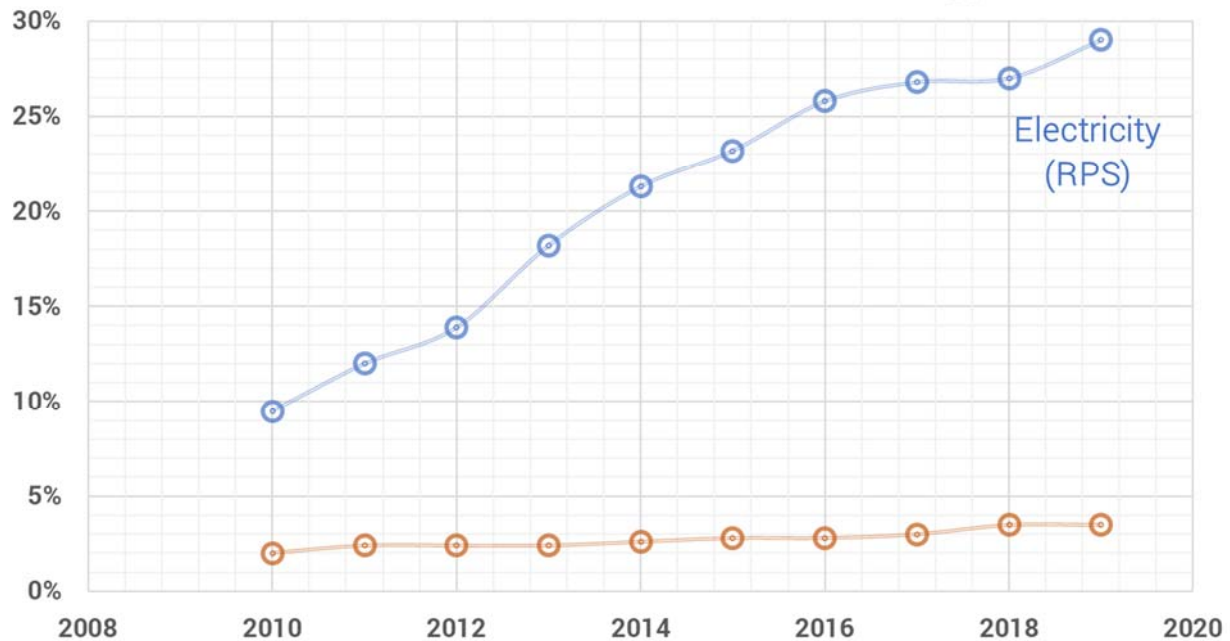
Hawaii Gas previously stated that they plan to “diversify our feed stock to include gas from renewable resources such as landfill gas and bio-methane, and other renewable sources, including animal fat and plant oils that are locally produced.”⁴ A *Honolulu Advertiser* article from November 22, 2009 discussed the Gas Company's plans and their belief that integrating high

² R B Jackson, et al. 2019. Environmental Research Letters. 14, 121001

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

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

Effectiveness of RPS on renewable energy trend



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

Fossil natural gas is being banned throughout the country

An increasing number of cities across the country are banning natural gas for new buildings because of its threat to climate and health. Berkeley, California, was the first, followed in the state by San Jose, Mountain View, Santa Rosa and Brisbane. On the East Coast, Brookline, Massachusetts, last November became the first city in the state to ban new gas hookups. Dozens of other cities, from Cambridge and Newton in Massachusetts to Seattle, are considering similar bans.

Renewable gas options are available

Blue Planet recognizes that Hawaii Gas has started 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.⁶ The

⁵ *Id.*

⁶ See <https://www.bizjournals.com/pacific/news/2018/12/20/hawaii-gas-completes-first-renewable-gas->

plant is expected to produce 800,000 therms energy per year, which is equivalent to about 15,000 barrels of oil. Previously, this gas was flared (i.e. burned) at the plant. With this project, the City and County of Honolulu will now derive revenue by selling the gas, rather than wasting it, and bring RNG on O'ahu to roughly 5% of the total gas supply. This is an admirable win-win solution. Blue Planet Foundation strongly supports these efforts to transition to renewable gas.

Scaling this will require the development of additional renewable natural gas sources—particularly identifying new 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.

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.⁷ In the United Kingdom, three natural gas distributors have detailed plans to convert the UK's residential gas system to a hydrogen delivery system. UK firms Northern Gas Networks and Cadent, as well as Norwegian gas firm Equinor, suggested an initial roll-out of the program to 3.7 million homes and 400,000 businesses in Northern England could commence as soon as 2028.⁸

Establishing an RPS for gas in Hawai'i 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.

facility.html.

⁷ Canberra Institute of Technology, “Nation's first hydrogen test station at CIT Fyshwick,” December 4, 2018 (https://cit.edu.au/news/hydrogen_test_station).

⁸ <https://arstechnica.com/science/2018/11/natural-gas-distributors-outline-proposal-to-convert-home-heating-to-hydrogen/>

In the interest of achieving our state's critical clean energy and climate goals, robust state energy policy, fairness, and unlocking innovation, Blue Planet Foundation strongly supports establishing a gas RPS via HB 1143.

Suggested amendments

Blue Planet recommends that this committee make two clarifying amendments to HB 1143:

1. Clarifying that sales are measured in British thermal units on page 11, lines 11 – 14:
For the purpose of this section, "total sales" shall mean the sales, measured in British thermal units, of all gas in the State by a gas utility company, by its corporate parent, and by its corporate parent's subsidiary entities, partners, joint venturers, and affiliate entities.
2. Clarifying the definition of "renewable portfolio standard" for gas on page 14, lines 3 – 5:
"Renewable portfolio standard" means the percentage of gas sales, measured in British thermal units, that is represented by fuels derived from renewable energy or biofuels, or by hydrogen produced from renewable energy.

Conclusion

Blue Planet strongly supports HB 1143, with the suggested amendments, to help **accelerate Hawai'i's clean energy progress, increase fairness across the energy sectors, and spur innovation and development in new, locally produced, renewable fuels**. This is an important measure for ensuring consistency, fairness, and consumer confidence in Hawai'i's 100% renewable energy target.

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

Thank you for the opportunity to provide testimony.

LATE



February 1, 2021

The Honorable Nicole E. Lowen, 6th District
415 South Beretania Street
Hawaii State Capitol, Room 425
Honolulu, HI 96813

RE: HB 1143 (Lowen) –Renewable Natural Gas - SUPPORT

Dear Representative Lowen,

The Coalition for Renewable Natural Gas (RNG Coalition) writes in **SUPPORT** of **HB 1143 (Lowen)**, legislation that would require each gas utility company to establish a renewable portfolio standard starting at twenty-five per cent of total sales by December 31, 2025 and increasing to one hundred per cent of total sales by December 31, 2045.

We represent and provide public policy advocacy and education for the renewable natural gas industry across North America. Our organization is comprised of 281 members – cities, counties, airports, ports, municipalities, colleges, universities and leading companies operating in each sector of the industry - including producers of greater than 95% of all Renewable Natural Gas (RNG or Biomethane) produced in the United States and Canada.

RNG is a pipeline-quality gas derived from methane captured as organic waste decomposes naturally at landfills, from diverted organic materials, from municipal solid waste, wastewater treatment plants, livestock and agricultural operations. Unless RNG projects are developed, the methane will be flared (combusted and wasted) at each of these facilities, or worse, escape into the atmosphere as a short-lived climate pollutant and greenhouse gas that is up to 86 times more potent than carbon. Instead, this methane can be captured and converted to RNG, which is fully interchangeable with and can be used as a replacement for conventional natural gas - but with an ultra-low

and even carbon negative (better than zero) greenhouse gas profile - to generate renewable electricity, transportation fuel or provide renewable heat in homes and businesses.

The adoption of a renewable portfolio standard for gas utilities in Hawai'i provides an excellent opportunity to decarbonize pipeline infrastructure in the building sector while simultaneously improving environmental quality, diversifying our fuel supply and growing Hawai'i's green economy by generating demand for RNG. The development of additional RNG production facilities in Hawai'i would support improved management of organic waste streams - thereby reducing the potential air, soil, and water impacts of that inevitable waste. They would also result in substantial economic benefits. According to a study conducted by ICF, RNG production facilities attract between \$10-\$100 million in capital investment per project and the creation of up to 173 direct and indirect jobs per project.¹

The RNG Coalition would like to acknowledge your hard work and due diligence in proposing this legislation. We look forward helping the state of Hawai'i meet its environmental and economic goals through the adoption of this important legislation. Please feel free to contact me directly at (916) 588-3033 with any questions or concerns.

Sincerely,



Nina Kapoor Oliveira
Director of State Government Affairs
Coalition for Renewable Natural Gas
Nina@RNGCoalition.com

¹https://static1.squarespace.com/static/53a09c47e4b050b5ad5bf4f5/t/59077544ebbd1ad192d13ff6/1493660998766/ICF_RNG+Jobs+Study_FINAL+with+infographic.pdf



SIERRA CLUB OF HAWAI'I

LATE

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

February 4, 2021 9:00 AM

COMMENTS to HB 1143: Relating to Renewable Energy

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

On behalf of our 27,000 members and supporters, the Sierra Club of Hawai'i **provides comments on HB 1143**. We support language that fixes the calculation of Hawai'i's renewable portfolio standards, but oppose incentivizing the production of renewable natural gas from any source under the renewable portfolio standards.

HRS section 269-92 mandates a 100% renewable energy portfolio standard (RPS) by 2045. This means that the State must transition away from imported fuels and toward renewable energy sources to provide clean and secure electricity. It is important that there is no overestimation in the delivery of this goal or potential loopholes to keep us hooked on natural gas.

We support fixing the calculation of the RPS:

This bill provides a simple, yet necessary correction to how the RPS is calculated by changing reference to energy "sales" to energy "generation", helping to correct the overestimation of renewable energy produced in the state and also accounting for energy losses that occur from energy transmission.

We oppose codifying "renewable natural gas" in the RPS:

We are firmly committed to a strong RPS and would like to preface our opposition by saying we laud the goal behind the bill, which at its core appears to be centered around meeting the state's RPS goal and moving us forward on climate solutions.

Our opposition to HB 1143 stems from codifying the use of gas in our renewable portfolio standard. "Renewable natural gas" (RNG) is mostly methane and almost identical to fracked gas. RNG primarily comes as "biomethane" from landfills, Concentrated Animal Feeding Operations (CAFOs), wastewater treatment facilities, or is produced as syngas through power-to-gas processes.

HB1143 expands the potential use of synthetic gas. Recognizing that naphtha is the primary component of synthetic gas today, this bill would simply swap one form of fossil gas for another.



SIERRA CLUB OF HAWAI'I

Additionally, it would preference our continued reliance on gas as a fuel source and lock us into the infrastructure and expense of syngas from other sources.

Allowed under HB1143 would be landfill gas. Landfills produce methane gas as organic matter decomposes. Periodically the landfill is opened and wetted to restart methane generation. Continued production of methane is incredibly harmful in addressing the challenges of climate pollution. Current science shows that methane is 84 times more potent as a greenhouse gas pollutant than carbon dioxide¹. We should take every opportunity to halt additional production of methane rather than incentivizing production. We could avoid the question around capturing methane from landfills all together by diverting organic matter to composting facilities rather than landfills.

While RNG can play a limited role in carbon abatement, the analysis shows that RNG is (1) limited in supply and scalability, (2) very costly, (3) has detrimental environmental and air quality impacts, especially on frontline communities, and (4) in some cases, end up increasing greenhouse gas emissions.

Rather than fuel swapping and locking us into a long-term future that involves gas via the RPS, we would urge you to consider efforts to wean us away from gas through efficiency measures.

Mahalo for your consideration of our testimony on HB 1143.

¹ https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf