DAVID Y. IGE GOVERNOR

SCOTT J. GLENN CHIEF ENERGY OFFICER

(808) 587-3807

Testimony of SCOTT J. GLENN, Chief Energy Officer

before the HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Thursday, March 12, 2020 8:30 AM State Capitol, Conference Room 325

In SUPPORT of SB 2818, SD2 RELATING TO RENEWABLE ENERGY.

Chair Lowen, Vice Chair Wildberger, and Members of the Committee, the Hawaii State Energy Office (HSEO) supports, with amendments, SB 2818, SD2, provided that its passage does not replace or adversely impact priorities indicated in the Executive Budget. The study would assess the potential quantity and cost of renewable gas that could be produced in Hawaii, or imported to Hawaii, for distribution by Hawaii's gas utility companies. The study proposed in this bill is similar to that proposed in Section 4 of HB 1242, HD1.

Renewable natural gas is currently produced and used in Hawaii, providing valuable energy services, utilizing waste products, and capturing and diverting methane, a potent greenhouse gas, for beneficial use. It is our understanding that the Hawaii Natural Energy Institute is working on preliminary assessments.

We appreciate the statement in the preamble of SB 2818, SD2, "it is important that all relevant entities are aligned..." and look forward to assisting in these efforts as part of our new responsibilities, established by Act 122 of 2019 and now in Sections 196-71 and 196-72 of the Hawaii Revised Statutes, including:

From Section 196-71(b)(1):

Provide analysis and planning to actively develop and inform policies to achieve energy efficiency, renewable energy, energy resiliency, and clean transportation goals with the legislature, public utilities commission, state agencies, and other relevant stakeholders;

And, from Section 196-72(d):

- (1) Formulate, analyze, recommend ... policies, strategies, and plans, in coordination with public and private sector stakeholders, to cost-effectively and equitably achieve the State's energy goals;
- (5) Identify market gaps and innovation opportunities, collaborate with stakeholders, and facilitate public-private partnerships ... to encourage private and public exploration, research, and development of energy resources...
- (12) Act as the State's energy data clearinghouse by identifying, collecting, compiling, analyzing, publishing ... data and analyses;
- (16) Identify and recommend policies to align utility goals with those of ratepayers...

We do note that the list of tasks in the bill is quite extensive; we recommend removing some of the less easily quantified items on pages 6 and 7, to allow for a more timely and focused study.

Thank you for the opportunity to testify.



DAVID Y. IGE GOVERNOR

JOSH GREEN

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

CATHERINE P. AWAKUNI COLÓN DIRECTOR

JO ANN M. UCHIDA TAKEUCHI

335 MERCHANT STREET, ROOM 310 P.O. BOX 541 HONOLULU, HAWAII 96809 Phone Number: 586-2850 Fax Number: 586-2856 cca.hawaii.gov

Testimony of the Department of Commerce and Consumer Affairs

Before the
House Committee on Energy & Environmental Protection
Thursday, March 12, 2020
8:30 a.m.
State Capitol, Conference Room 325

On the following measure: S.B. 2818, S.D. 2, 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 supports this bill.

The purposes of this bill are to: (1) require a study to determine economic and technical feasibility of the use of renewable gas by Hawaii gas utility companies; and (2) appropriate funds for the study.

The Department supports studying the ability of Hawaii's gas industry to produce cost-effective renewable gas so that the potential impact of imposing a renewable standard on customers can be evaluated. This study could help inform reasonable goals that can be established in any future renewable gas portfolio standards.

The Department appreciates how subsection (b) of S.D. 2 outlines the expected findings, which shall include, but not be limited to: (1) the potential volume and costs to produce and/or import renewable gas to meet Hawaii's market needs; (2) an inventory

of currently available feedstock and acreage in Hawaii for renewable gas production; (3) currently available incentives to develop renewable gas sources in Hawaii and in other jurisdictions; (4) how the use of renewable gas could affect the production of greenhouse gas emissions; and (5) the barriers to producing and utilizing renewable gas in Hawaii and possible solutions to overcome the barriers.

The Department believes that the study should holistically analyze Hawaii's gas industry and review both the regulated and unregulated markets to understand the potential impact of both markets, as well as to avoid unintended consequences, such as encouraging customers to shift their purchases from the regulated entities to unregulated sales. A holistic approach would better align any useful findings in the study, mitigate the potential for unintended shifts in sales to unregulated operations, and any future proposed statutory mechanisms, with the goals of reducing Hawaii's contribution to carbon production and greenhouse gases. Thus, the Department respectfully suggests that the factors identified under subsection (b)(10) on page 6, line 1 to page 7, line 13 include an assessment of adopting renewable gas requirements for both the regulated and unregulated gas markets in Hawaii or, at a minimum, restore the language from S.D. 1 that included recognition of the regulated and unregulated markets in subsection (b)(10)(L).

The Department also prefers how S.D. 1 tasked the Hawaii State Energy Office (HSEO) as the state agency to contract with Hawaii Natural Energy Institute (HNEI) to conduct the proposed study instead of the state Public Utilities Commission (Commission), because the Department understands that in discussions between HSEO and the Commission, the entities concluded that HSEO could optimally bring together interested stakeholders, including both in the regulated and unregulated gas markets.

Thank you for the opportunity to testify on this bill.

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

TO THE HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

March 12, 2020 8:30 a.m.

Chair Lowen and Members of the Committee:

MEASURE: S.B. No. 2818 SD2

TITLE: RELATING TO RENEWABLE ENERGY.

DESCRIPTION: Requires a study regarding renewable gas to determine economic and technical feasibility of the use of renewable gas by gas utility companies.

POSITION:

The Public Utilities Commission offers the following comments for consideration.

COMMENTS:

The Commission supports this measure's intent to study the availability, feasibility, and costs of the use of renewable gas in Hawaii by gas utility companies. The Commission believes this type of study is important to inform how utilization of renewable gas can help achieve state energy goals.

The Commission notes that the list of requirements for the study is quite extensive and may require analysis that is extraneous to the purpose of the study, which is to evaluate "availability, feasibility, and cost of the use of renewable gas." Lines 18 and 19 on page 6, as currently written, grant the study's administrator the authority to analyze any additional factors that are deemed appropriate. Therefore, the study may be better served by focusing the requirements on a shorter list of important factors. In addition, the Commission recommends removing certain requirements in this measure that could be better addressed after completion of the study, including whether renewable gas projects should receive tax credits or other incentives, and the requirement that the study include

findings related to regulatory mechanisms to ensure cost recovery and encourage investment in renewable gas infrastructure.

For these reasons, the Commission recommends the following amendments:

- <u>Page 3, lines 14 to 20</u>: Delete the language beginning with "to be reviewed by a panel of experts" and ending with "conducting the study required by this section."
- Page 5, lines 14 to 21: Remove the requirement to conduct "a determination of whether renewable gas projects should have access to the same incentives other renewable energy projects are provided."
- Page 7, lines 14 to 18: Delete the language beginning with "a renewable gas policy framework" and ending with "gas utility companies."

In addition, the Commission notes that the appropriation language in previous versions of the bill is no longer present. After discussing with the Hawaii Natural Energy Institute (HNEI), the estimated cost for the renewable gas study is approximately \$150,000. HNEI has suggested that it may be able to supplement a legislative appropriation with funds from its barrel tax allotment if necessary. Accordingly, the Commission recommends inserting an appropriation from the general fund or another funding source to account for the costs of contracting with HNEI for this study.

Thank you for the opportunity to testify on this measure.

<u>SB-2818-SD-2</u> Submitted on: 3/10/2020 9:47:08 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Regina Gregory	EcoTipping Points Project	Support	No

Hawaii Bioeconomy Trade Organization

HOUSE OF REPRESENTATIVES / HAWAII STATE SENATE THE THIRTIETH LEGISLATURE REGULAR SESSION OF 2020

COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Rep. Nicole E. Lowen, Chair Rep. Tina Wildberger, Vice Chair

DATE: March 12, 2020
TIME: 8:30am
PLACE: Conference Room 325
State Capitol 415 South Beretania Street

TESTIMONY ON SENATE BILL NO. 2818 SD2, RELATING TO RENEWABLE ENERGY Position: Support

To the Honorable Rep Nicole Lowen, Chair; the Honorable Rep Tina Wildberger, Vice Chair; and Members of the Committee:

The Hawaii Bioeconomy Trade Organization, made up of the commercial stakeholders in the fuels sector in Haw aii, strongly supports this bill.

We, now as ever, believe that the path towards a renewable future for Hawaii necessarily includes fuels and gas es. However, in order to prevent price shocks, stalls and stoppages in service, and economic stress across many sectors, including Hospitality, we believe it is vital to perform a comprehensive study with a detailed scope of work prior to the assigning of arbitrary goals.

Though it may look on the surface that creating aggressive goals produces positive longterm outcomes, in this ca se, comparing Renewable Fuels to Renewable Electricity as a blanket approach would cause more harm than good.

The Supply Chain and infrastructure for Renewable Fuels must be considered and accommodated for, and include a program to invite investors and new technology, feedstock growth and an increase in local agriculture.

This measure when passed will require that a locally based, comprehensive study with a detailed scope of work be performed. The results of this study can then be used to define and then implement the responsible steps ne eded to achieve a successful Renewable Fuels Portfolio Standard specific to the needs, challenges and opportuni ties of the State of Hawaii.

Many thanks for your time and consideration.

Carl Campagna
Executive Director
Hawaii Bioeconomy Trade Organization
808-383-7699
carl@hawaiibioeconomy.org



Testimony to the House Committee on Energy and Environmental Protection Thursday, March 12, 2020 at 8:30 A.M. Conference Room 325, State Capitol

RE: SB 2818 SD2, RELATING TO RENEWABLE ENERGY

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

The Chamber of Commerce Hawaii ("The Chamber") **supports** SB 2818 SD2, which requires a study regarding renewable gas to determine economic and technical feasibility of the use of renewable gas by gas utility companies.

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.

Hawaii continues to play a leading role in protecting our environment and increasing energy efficiency. We believe in the benefits of a sustainable future, but we must ensure that solutions that would affect the business community do not impede or create unintended burdens on entrepreneurs. Policies need to be shaped to create common ground, especially so that businesses can have the flexibility to develop and create practical, reasonable and rational solutions to address these important issues. A comprehensive study on the feasibility of the use of renewable gas will provide lawmakers with valuable data regarding future policies and ensure that businesses and consumers are presented with accurate information.

Thank you for the opportunity to provide testimony in support of this measure.

Sustainable Energy Hawaii

421 Lama St. Hilo, HI 96720



March 11, 2020

Dear Chairs Lowen, Takumi, Luke,

Sustainable Energy Hawaii is in STRONG SUPPORT of SB2818 SD2.

Energy independence and low-cost energy for Hawaii residents are possible given our abundant natural resources. We have enough solar, wind, tidal, hydro, and geothermal – clean, emission-free energy sources – to address our energy needs. This includes the needs currently filled by syngas. This measure will allow us to determine the viability of renewable gas as a replacement for environment-toxic, fossil fuel-dependent syngas.

We believe that hydrogen offers us great potential and recommend that it be an added emphasis of this study. Hydrogen can not only be used for transport and energy storage for electricity generation, it can also be used for heating, cooking, and high-heat industrial processes.

Thank you for this opportunity to testify.

Richard Ha President

Sustainable Energy Hawaii

Sustainable Energy Hawaii, formerly Big Island Community Coalition (BICC), is an advocacy group that is dedicated to improving the quality of life of Hawaii residents through affordable energy, generated from local renewable resources.



TESTIMONY BEFORE HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

S.B. 2818 SD2 Relating to Renewable Energy

Thursday, March 12, 2020 8:30 am, Agenda Item #3 State Capitol, Conference Room 325

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

Chair Lowen, Vice Chair Wildberger, and Members of the Committee,

My name is Chris Lau and I am testifying on behalf of Hawaiian Electric **in support of S.B. 2818, SD2**, Relating to Renewable Energy. The bill requires the Public Utilities Commission to contract with the Hawai'i Natural Energy Institute (HNEI) to conduct a feasibility study of the use of renewable gas by the gas utilities.

Hawaiian Electric supports a study on the feasibility of renewable gas in Hawaii. Renewable gas could help to achieve the State's renewable and greenhouse gas emissions goals by ensuring customers who choose to generate their electricity using fossil fuels have the ability to become renewable over time. However, renewable gas would need to be available for all gas supplies, regulated gas pipelines and unregulated gas tanks, at cost effective quantities to accomplish this. The study proposed in S.B. 2818, SD2 takes the first step in assessing several important factors for the development of renewable gas in the State and should examine both regulated and unregulated gas supplies as part of its scope.

Hawaiian Electric remains committed to achieving a 100 percent renewable portfolio standard by 2045 and getting off fossil fuels but recognizes that achievement of this goal will require the collaborative efforts of many stakeholders. Renewable gas is a unique resource that sits at the nexus between the electricity sector and transportation sector where it can facilitate the addition of further renewables in the electricity sector, reducing emissions there, as well as reduce emissions in the transportation sector, where emissions have increased in recent years. Further study of the regulated and unregulated supply of this resource is warranted to better understand how it can help achieve the State's goals.

Accordingly, Hawaiian Electric supports S.B. 2818 SD2 in its current form. Thank you for this opportunity to testify.



Testimony to the Committee on Energy & Environmental Protection

Thursday, March 12, 2020 8:30 AM Conference Room 325, Hawaii State Capitol

Senate Bill 2818 SD2

Chair Lowen, Vice Chair Wildberger, and members of the Committee,

Hawaii Gas <u>strongly supports</u> SB 2818 SD2, which requires the Hawaii public utilities commission to conduct a study regarding the availability, feasibility, and costs of the use of renewable gas in Hawaii by gas utility companies.

We are committed to using as much renewable gas in our pipelines as possible, and we continue to do our part to meet Hawaii's 2045 carbon neutrality goal, together, in an affordable, resilient, and sustainable way for our ratepayers and Hawaii's communities.

We believe that the transition to renewable gas fuel sources must be carefully studied so that the transition can occur in a responsible and cost-effective way for the people of Hawaii.

HRS §269-95 required the Hawaii natural energy institute to study the capability of Hawaii's electric utility companies to achieve renewable portfolio standards in a cost-effective manner before any standards were advanced for the electric utilities. 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.

Renewable gas has never been afforded a locally focused study, and it is critically important to assess the true cost and impact on ratepayers. There is much we don't know: the availability and access to resources need to create renewable gas, the impact of the competing demands for land-use, the limited prime lands being considered for everything from housing to agriculture to power generaton. This bill provides for these items to be carefully studied.

In Hawaii, there are currently only three known ways to create renewable gas: capture methane produced from wastewater treatment plants and landfills, create renewable hydrogen through renewable energy developments (both of which are controlled by others), or grow crops and process them through biodigesters. Alternatively, renewable gas can be imported at potentially greater cost. Whether locally produced or imported, each option comes with availability, cost, feasibility and reliability of supply issues.

While sun, wind and biomass create limitless potential resources available to create renewable electricity, readily available resources to create renewable gas in Hawaii are sparse. For



renewable gas to be a scalable, viable source beyond what is available today, research and development is required. Local production would require access to local resources, such as methane, land, water, farmers, labor and curtailed renewable energy.

The renewable gas development at the City and County Honouliuli waste water treatment plant, for example, is an award-winning facility creating renewable gas. Unfortunately, that competitively procured supply contract expires in 2024, essentially eliminating this precious resource needed to produce renewable gas and thwarting our progress.

Similarly, Hawaii Gas is recognized as a leader in utilizing hydrogen in our pipeline, and we have more hydrogen in our distribution system than any other gas utility in the country. While more hydrogen could be created by curtailed renewable energy such as geothermal, wind, and solar, that curtailed energy is owned by other utilities and contractually not available to Hawaii Gas. The potential use of that inaccessible renewable energy would be part of this study.

We know that Hawaii residents are facing dire economic struggles. People struggle to make ends meet and find affordable housing, forcing many of them to leave Hawaii entirely. It's impossible to ignore the ALICE report's troubling finding that 37% face severe financial hardship and poverty. Parity and fairness should be focused on the ratepayer, and we remain mindful of our efforts on their pocketbooks.

Hawaii Gas has been committed to its employees and the people and communities of Hawaii for over 115 years. While we represent less than 2% of the state's energy demand and less than 1% of its carbon emissions, we take very seriously our critical role in the state's environment and resiliency in the event of natural disasters, and we understand all too well that our residential and commercial customers depend on us to provide this service at a cost they can afford.

Hawaii Gas supports an appropriate, objective, and science and technology driven study to explore the feasibility of using more renewable gas by gas utilities. These studied findings will be compiled and reviewed by energy utility experts and will address the many questions on availability, feasibility and cost that must be answered to inform the legislature.

For these reasons, we strongly support SB2818 SD2 and thank you for the opportunity to testify.



March 10, 2020

TESTIMONY SUPPORTING SENATE BILL 2818, SENATE DRAFT 2, RELATING TO RENEWABLE ENERGY

House Committee on Energy & Environmental Protection
The Honorable Nicole Lowen, Chair
The Honorable Tina Wildberger, Vice Chair

Thursday, March 12, 2020 at 8:30 a.m. State Capitol, Conference Room 325

Chair Lowen, Vice Chair Wildberger, and members of the Committee,

Thank you for this opportunity to submit written testimony in strong support of Senate Bill 2818, Senate Draft 2, Relating to Renewable Energy. My name is Lance Tanaka, vice president of government and public affairs for Par Hawaii. Par Hawaii, LLC and Par Hawaii Refining, LLC are subsidiaries of Texas-based Par Pacific Holdings, Inc. Par Hawaii operates the state's only petroleum refinery, markets fuels through a statewide network of Hele- and 76-branded retail locations, and distributes fuels via pipelines on Oahu and barges to all major harbors in the state.

SB 2818, SD 2 requires a study regarding renewable gas to determine economic and technical feasibility of the use of renewable gas by gas utility companies.

Par Hawaii supports this bill as written.

Thank you for allowing Par Hawaii the opportunity to present this testimony for the Committee's consideration.



183 Pinana St., Kailua, HI 96734 • 808-262-1285 • info@350Hawaii.org

To: The House Committee on Energy & Environmental Protection

From: Brodie Lockard, Founder, 350Hawaii.org

Date: Thursday, March 12, 2020, 8:30 am

In opposition to SB 2818 SD2



Aloha Chair Lowen and members,

350Hawaii.org's 6,000 members oppose SB 2818 SD2.

SB2818 goes against the best interests of hard-working people in Hawaii, and in particular, our youth, who will have to live with the worst effects of Climate Breakdown if we fail to quickly transition off fossil fuels and reduce our greenhouse gas emissions immediately, as recommended in the latest IPCC report.

Why should the State spend taxpayer money on behalf of the gas utility on a feasibility study on the use of renewable gas? Hawaii Gas is owned by a multi-billion-dollar corporation, Macquarie Infrastructure Company. If anything, it is their responsibility to conduct such a study. They can certainly afford it.

And if Hawaii Gas was sincerely a good-neighbor company, they would have conducted this study a long time ago. Hawaii Gas testified at the legislature in 2009 stating "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." In a 2019 hearing at the Honolulu City Council, however, Hawaii Gas testified that renewable natural gas is a mere 3% of what they produce. Thus, we see the regrettable result of not having included gas utilities in the RPS from the beginning.

Furthermore, the veiled threats by Hawaii Gas that consumer prices may have to be increased if pressed to transition towards renewable energy sources is particularly egregious. We have abundant data showing that renewable energy is now cheaper than fossil fuels. Hawaii is blessed with abundant zero-emission energy sources. With existing technology including energy storage, we can have energy independence for Hawaii through 100% clean energy if we invest properly in these resources and at the scale required. Rather than putting money into an unnecessary study, it would be much more in our best interests to invest that money towards a clean energy economy now, so that Hawaii can move as quickly as possible to attain our renewable energy goals. There is no justification for taxpayer dollars to be put forward for such a study.

Even more concerning is the stipulation in this bill that fossil fuel-promoting entities including the American Gas Association and Gas Technology Institute conduct the peer review. The fossil fuel industry knew about climate change for decades, yet fueled a colossal denial machine to block any meaningful action to confront it. As a result, we have lost precious time and are now in the midst of a Climate Crisis. We cannot afford to waste more time on any unnecessary studies. Our only recourse now is to act swiftly and boldly to reduce our greenhouse gas emissions lest we destroy our children's future. We must continue to do our part to avoid the most devastating impacts of climate change.

Brodie Lockard Founder, 350Hawaii.org



HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION



March 12, 2020, 8:30 A.M. Room 325 (Testimony is 5 pages long)

TESTIMONY IN SUPPORT OF SB 2818 SD2 WITH AMENDMENTS

Aloha Chair Lowen, Vice Chair Wildberger, and Committee members:

Blue Planet Foundation **supports SB 2818 SD2** if it is amended to require 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. Passing an amended version of SB 2818 SD2 is essential for **accelerating our progress toward a Hawai'i free from climate-damaging fossil fuels**. Setting a 100% renewable energy target for fossil gas and developing interim benchmarks along the way will ensure **consistency**, **fairness**, **and consumer confidence** in Hawai'i's 100% renewable energy target.

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% 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. The power from these projects will

¹ See https://www.hawaiianelectric.com/new-solar-plus-storage-projects-set-low-price-benchmark-for-

be as low as 8 cents per kilowatt-hour (kWh), with most coming in below 10 cents per kWh. Even the highest-priced project is substantially lower than the 15 cents per kWh average cost to produce electricity from fossil fuels. By comparison, just a few years ago, 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

Senate Bill 2818 should be amended to establish a renewable portfolio standard requiring that 100% of gas sold by gas utility companies in the state be renewable 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 last month.²

In Hawai'i, a former Hawaii Gas executive has called attention to the folly of promoting fossil natural gas use in the islands. In written testimony on January 23, 2020, to the Honolulu City Council regarding Bill 25 (2019), former Hawaii Gas Executive Vice President Joseph Boivin wrote: "Promoting the use of natural gas or propane, renewable or not, does not make sense in Hawaii, and especially so given the impact that we know fossil fuels are having on our environment." In regards to using gas water heaters over solar water heaters, he wrote: "Despite the claims, the economics do not in any way favor the ongoing use of gas energy over the sun. To argue otherwise is disingenuous and ludicrous."

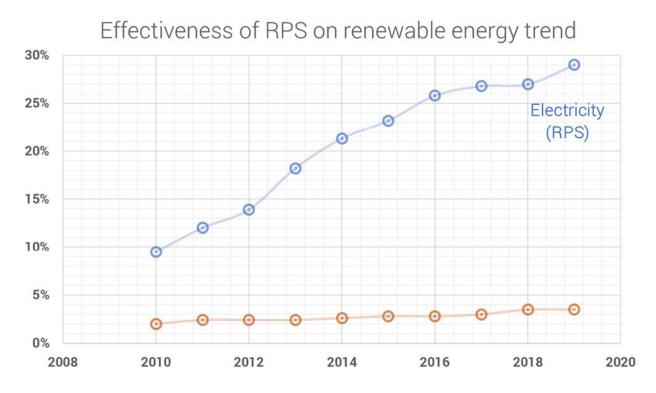
renewable-energy-in-hawaii

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

³ Written testimony of Joseph Boivin to the Honolulu City Council Committee on Zoning, Planning and Housing on Bill 25. January 23, 2020. Available at http://www4.honolulu.gov/docushare/dsweb/Get/Document-250019/M-0040(20).PDF

HAWAI'I'S RENEWABLE GAS PERCENTAGE IS FAR BEHIND RENEWABLE ELECTRICITY

It is clear, however, that renewable standards are required to ensure that Hawaii Gas continue to increase the amount of renewable gas in their system. Despite promises over the past decade about increasing the use of renewable gas, the actual use of RNG has remained nearly flat. The chart below, using data from the statutorily required renewable energy annual reports, 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." A *Honolulu Advertiser* article from November 22, 2009 discussed the Gas Company's plans and their 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

⁴ Renewable Energy Annual Reports filed with the Hawaii Public Utilities Commission, available at http://puc.hawaii.gov/reports/energy-reports/

⁵ 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

entire state within five years." 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 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. The plant is expected to produce 800,000 therms energy per year, which is equivalent to about 15,000 barrels of oil. Previously, this gas was flared (i.e. burned) at the plant. With this project, the City and County of Honolulu will now derive revenue by selling the gas, rather than wasting it, and bring RNG on Oʻahu 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

[°] Id.

⁷ See https://www.bizjournals.com/pacific/news/2018/12/20/hawaii-gas-completes-first-renewable-gas-facility.html.

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.⁸ 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 2028.⁹

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.

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 2818.

CONCLUSION

Blue Planet Foundation strongly supports amending SB 2818 SD2 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 testify.

Blue Planet Foundation

⁸ Canberra Institute of Technology, "Nation's first hydrogen test station at CIT Fyshwick," December 4, 2018 (https://cit.edu.au/news/hydrogen test station).

⁹ https://arstechnica.com/science/2018/11/natural-gas-distributors-outline-proposal-to-convert-home-heating-to-hydrogen/

<u>SB-2818-SD-2</u> Submitted on: 3/11/2020 11:17:05 PM

Testimony for EEP on 3/12/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
Climate Protector	Climate Protectors Coalition	Oppose	No	



SB-2818-SD-2

Submitted on: 3/11/2020 5:16:13 PM Testimony for EEP on 3/12/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Henry Curtis	Life of the Land	Oppose	No

Comments:

Studying whether a climate-denying multi-national fossil fuel corporation needs to decrease its greenhouse gas emissions seems to be a terrible waste of time and money.

Please pass a meaningful bill or let the bill die

Mahalo





Email: communications@ulupono.com

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION Thursday, March 12, 2020 — 8:30 a.m. — Room 325

Ulupono Initiative supports SB 2818 SD 2, Relating to Renewable Energy.

Dear Chair Lowen and Members of the Committee:

My name is Amy Hennessey, and I am the Senior Vice President of Communications & External Affairs at Ulupono Initiative. We are a Hawai'i-based impact investment firm that strives to improve our community's quality of life by creating more locally produced food; increasing affordable clean renewable energy and transportation options; and better managing waste and fresh water resources.

Ulupono <u>supports</u> **SB 2818 SD 2**, which requires the Public Utilities Commission to conduct a study regarding the availability, feasibility, and costs of the use of renewable gas in Hawaii by gas utility companies.

Ulupono supports renewable energy diversity in the State's effort to reach its 2045 goal. Having a well-developed and planned approach for gas utility renewable energy standards will prove to have lasting effects on Hawai'i's energy future. Renewable natural gas technologies certainly exist but pushing the gas utility to go to renewable sources as quickly as the electric utility ignores current market and technological realities. Establishing a renewable portfolio standard (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 well-known defects in the RPS definition for the electric utility.

Thank you for this opportunity to testify.

Respectfully,

Amy Hennessey, APR Senior Vice President, Communications & External Affairs

SB-2818-SD-2

Submitted on: 3/11/2020 7:40:37 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

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

Comments:

Dear Chairs Lowen, Takumi, Luke,

I'm in strong support of SB2818 SD2.

We must explore all avenues to eliminate our dependency on fossil fuel. Important progress is being made in the electricity production and transportation sectors. I believe the same can be said for our gas utility. Renewable gas, particularly hydrogen produced through renewable, emission-free energy sources and landfill methane, offer great potential of the utility and our state.

I recommend that the study proposed by SB2818 SD2 also include a determination of the feasibility of utilizing diversified solar, wind, and geothermal as a means to not only address electricity demand but also as a means to generate hydrogen gas, and the viability of this gas for heating and cooking.

Sincerely,

Noel Morin - Hilo

<u>SB-2818-SD-2</u> Submitted on: 3/11/2020 9:18:01 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

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

<u>SB-2818-SD-2</u> Submitted on: 3/11/2020 9:19:58 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

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

Comments:

I am in support of this bill. Hawaii Gas provides clean, reliable and affordable energy for Hawaii residents.

<u>SB-2818-SD-2</u> Submitted on: 3/11/2020 9:23:51 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Mari Sekiya	Individual	Support	No

<u>SB-2818-SD-2</u> Submitted on: 3/11/2020 9:24:50 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
Tammara Kato	Individual	Support	No	

<u>SB-2818-SD-2</u> Submitted on: 3/11/2020 9:38:40 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Marijo Fong	Individual	Support	No

SB-2818-SD-2

Submitted on: 3/11/2020 9:50:22 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

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

Comments:

Aloha,

I strongly support SB2818. This is a vital step toward clean solutions for Hawaii and our quest for renewable and sustainable energy. We need to encourage change, but in a well informed and responsible process. Thank you for doing the right things for the right reasons!

Mahalo!

<u>SB-2818-SD-2</u> Submitted on: 3/11/2020 10:19:25 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Lei Kamaka	Individual	Support	No

<u>SB-2818-SD-2</u> Submitted on: 3/11/2020 10:14:06 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Tiani Nakoa	Individual	Support	No

<u>SB-2818-SD-2</u> Submitted on: 3/11/2020 10:13:36 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

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

<u>SB-2818-SD-2</u> Submitted on: 3/11/2020 10:05:37 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Susan Okouchi	Individual	Support	No

<u>SB-2818-SD-2</u> Submitted on: 3/11/2020 10:00:12 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Debra S Lau	Individual	Support	No

Comments:

Submitted on: 3/11/2020 10:33:52 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

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

Comments:

I strongly believe that it is prudent for the State to determine the feasibility of renewable gas since the cost will be borne by end users (customers). I support the State's initiative to move towards renewable energy but encourage the State to proceed in a way that makes sense so it is done in a cost effective manner and maximizes benefits to the people of Hawaii.

Submitted on: 3/11/2020 11:20:18 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
D Gomez	Individual	Support	No

Comments:

I support SB2818.

I believe it's a good idea to complete a study and get a better understanding of the feasibility of renewable gas in Hawaii. We all need to remember that the cost of living in Hawaii is already quite high and gas is already a reliable and affordable energy source here.

Submitted on: 3/12/2020 5:37:05 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Mary Morioka	Individual	Oppose	No

Comments:

The public recognizes these STUDIES as avoidance tactic and timidity.

You all know BETTER, so, DO better.

Our only recourse is to act swiftly and boldly to reduce our greenhouse gas emissions lest we kill the golden goose.

Stay focused, be attentive, stand firm.



Submitted on: 3/11/2020 11:33:17 PM Testimony for EEP on 3/12/2020 8:30:00



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

Comments:

Dear Hawaii legislators,

I strongly oppose SB2818 SD2. The gas company is stalling for time. It has known for several years that its product, LNG, needs to be a renewable energy product in order to continue as an energy source in Hawaii. Last year 3% of Hawaii Gas' product was renewable. This shows very little effort on the company's part to clean up their product. Has the parent company of Hawaii Gas shown any effort to study the issue? No. Then why should Hawaii taxpayers fund such a study?

Many communities across the country are banning LNG with good reason: dangerous methane leaks taking away all the gains made from the use of renewable fuels, continued water and ground pollution from the fracking process and no method of decarbonizing LNG on the horizon.

We SHOULD assist LNG workers in finding employment in renewable energy businesses. Hawaii Gas itself has invested in solar panels and should expand in this area. But just like with coal and oil, it is time to pull the plug on the dying gas industry.

I ask you to oppose SB2818 SD2 and move Hawaii closer to 100% clean energy.

Thank you for listening.

Sincerely,

Jan Pappas

Aiea, Hawaii

Submitted on: 3/11/2020 9:54:55 PM

Testimony for EEP on 3/12/2020 8:30:00 AM



Submitted By	Organization	Testifier Position	Present at Hearing
John Nix	Individual	Oppose	No

Comments:

Aloha Chair Lowen and members,

As one of 350Hawaii's 6,000 members, I oppose SB 2818 SD2.

SB2818 goes against the best interests of hard-working people in Hawaii, and in particular, our youth, who will have to live with the worst effects of Climate Breakdown if we fail to quickly transition off fossil fuels and reduce our greenhouse gas emissions immediately, as recommended in the latest IPCC report.

Why should the State spend taxpayer money on behalf of the gas utility on a feasibility study on the use of renewable gas? Hawaii Gas is owned by a multi-billion-dollar corporation, Macquarie Infrastructure Company. If anything, it is their responsibility to conduct such a study. They can certainly afford it.

And if Hawaii Gas was sincerely a good-neighbor company, they would have conducted this study a long time ago. Hawaii Gas testified at the legislature in 2009 stating "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." In a 2019 hearing at the Honolulu City Council, however, Hawaii Gas testified that renewable natural gas is a mere 3% of what they produce. Thus, we see the regrettable result of not having included gas utilities in the RPS from the beginning.

Furthermore, the veiled threats by Hawaii Gas that consumer prices may have to be increased if pressed to transition towards renewable energy sources is particularly egregious. We have abundant data showing that renewable energy is now cheaper than fossil fuels. Hawaii is blessed with abundant zero-emission energy sources. With existing technology including energy storage, we can have energy independence for Hawaii through 100% clean energy if we invest properly in these resources and at the scale required. Rather than putting money into an unnecessary study, it would be much more in our best interests to invest that money towards a clean energy economy now, so that Hawaii can move as quickly as possible to attain our renewable energy goals. There is no justification for taxpayer dollars to be put forward for such a study.

Even more concerning is the stipulation in this bill that fossil fuel-promoting entities including the American Gas Association and Gas Technology Institute conduct the peer

review. The fossil fuel industry knew about climate change for decades, yet fueled a colossal denial machine to block any meaningful action to confront it. As a result, we have lost precious time and are now in the midst of a Climate Crisis. We cannot afford to waste more time on any unnecessary studies. Our only recourse now is to act swiftly and boldly to reduce our greenhouse gas emissions lest we destroy our children's future. We must continue to do our part to avoid the most devastating impacts of climate change.

Dr. John and Debra Nix, Kihei

Submitted on: 3/11/2020 11:14:48 PM

Testimony for EEP on 3/12/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
tlaloc tokuda	Individual	Oppose	No

Comments:

To: The House Committee on Energy & Environmental Protection

From: **YOUR NAME**

Date: Thursday, March 12, 2020, 8:30 am

In opposition to SB 2818 SD2



Aloha Chair Lowen and members,

As one of 350Hawaii's 6,000 members, I oppose SB 2818 SD2.

SB2818 goes against the best interests of hard-working people in Hawaii, and in particular, our youth, who will have to live with the worst effects of Climate Breakdown if we fail to quickly transition off fossil fuels and reduce our greenhouse gas emissions immediately, as recommended in the latest IPCC report.

Why should the State spend taxpayer money on behalf of the gas utility on a feasibility study on the use of renewable gas? Hawaii Gas is owned by a multi-billion-dollar corporation, Macquarie Infrastructure Company. If anything, it is their responsibility to conduct such a study. They can certainly afford it.

And if Hawaii Gas was sincerely a good-neighbor company, they would have conducted this study a long time ago. Hawaii Gas testified at the legislature in 2009 stating "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." In a 2019 hearing at the Honolulu City Council, however, Hawaii Gas testified that renewable natural gas is a mere 3% of what they produce. Thus, we see the regrettable result of not having included gas utilities in the RPS from the beginning.

Furthermore, the veiled threats by Hawaii Gas that consumer prices may have to be increased if pressed to transition towards renewable energy sources is particularly egregious. We have abundant data showing that renewable energy is now cheaper than

fossil fuels. Hawaii is blessed with abundant zero-emission energy sources. With existing technology including energy storage, we can have energy independence for Hawaii through 100% clean energy if we invest properly in these resources and at the scale required. Rather than putting money into an unnecessary study, it would be much more in our best interests to invest that money towards a clean energy economy now, so that Hawaii can move as quickly as possible to attain our renewable energy goals. There is no justification for taxpayer dollars to be put forward for such a study.

Even more concerning is the stipulation in this bill that fossil fuel-promoting entities including the American Gas Association and Gas Technology Institute conduct the peer review. The fossil fuel industry knew about climate change for decades, yet fueled a colossal denial machine to block any meaningful action to confront it. As a result, we have lost precious time and are now in the midst of a Climate Crisis. We cannot afford to waste more time on any unnecessary studies. Our only recourse now is to act swiftly and boldly to reduce our greenhouse gas emissions lest we destroy our children's future. We must continue to do our part to avoid the most devastating impacts of climate change.

Please do not pass this bill! Mahalo

Tlaloc Tokuda

Kailua Kona HI 96740





March 12, 2020

Representative Nicole E. Lowen, Chair Representative Tina Wildberger, Vice Chair House Committee on Energy & Environmental Protection

Strong Support of SB 2818, SD2 RELATING TO RENEWABLE ENERGY (Requires the Hawaii State Energy Office to conduct a study regarding renewable gas to determine economic and technical feasibility of the use of renewable gas by gas utility companies. [SD2])

EEP Hearing: Thursday, March 12, 2020, 8:30 a.m., in Conference Room 325

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

Kama'aina LURF members have been generating and using renewable energy for over 100 years. LURF's members are the leaders in Hawaii's renewable energy research and development, technology, generation, transmission and provide renewable energy opportunities for agriculture, residential, commercial, industrial, and tourism projects.

LURF appreciates the opportunity to express its **strong support** for SB 2818, SD2.

SB 2818, SD2. This measure requires the Hawaii State Energy Office to conduct a study regarding renewable gas to determine economic and technical feasibility of the use of renewable gas by gas utility companies. The purpose of this bill is to conduct a study regarding the availability, feasibility, and costs of the use of renewable gas in Hawaii by gas utility companies.

<u>LURF's position</u>. Section 269-91, Hawaii Revised Statutes (HRS), identifies nine renewable energy resources, of which, at least five can be used to create some form of renewable gas: biogas, geothermal, biomass, biofuels and hydrogen.

House Committee on Energy & Environmental Protection March 12, 2020 Page 2

These renewable gas resources can help Hawaii try to achieve its Renewable Portfolio Standards (RPS) goal of 100 percent by 2045, however, further study of this resource is needed to provide more information regarding the availability, feasibility and costs of this renewable energy source. To reach Hawaii's RPS goals, Hawaii's renewable energy future must include renewable gas resources, as well as all forms of renewable energy, as defined by Section 269-91, HRS.

This measure requires an appropriate, objective, science – and technology-driven study to explore and provide information regarding the feasibility of using more renewable gas by Hawaii's gas utilities.

We understand, however, that there may also be county legislation that would frustrate the purposes of this study, by severely restricting the further research, development and use of renewable natural gas, and increasing energy costs for consumers. Since it appears that the goal of this study is to provide the information and data that could develop a comprehensive information necessary to create policy and renewable energy standards for the use of renewable natural gas, **LURF would respectfully recommend that this bill be amended to add a provision** to restrict the counties from taking any actions that would frustrate the purposes of this study, restrict the further research, development and use of renewable gas, or increase the energy costs for consumers.

<u>Conclusion</u>. In view of the above discussion, LURF <u>strongly supports</u> the intent of SB 2818, SD2, and respectfully requests that your Committees <u>adopt the above proposed</u> <u>amendments</u> to SB 2818, SD2.

Thank you for the opportunity to provide comments relating to this measure.

<u>SB-2818-SD-2</u> Submitted on: 3/12/2020 7:52:28 AM

Testimony for EEP on 3/12/2020 8:30:00 AM

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

Comments:

