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TO THE HOUSE COMMITTEE ON
FINANCE

TWENTY-NINTH LEGISLATURE
Regular Session of 2018

Friday, February 23, 2018
2:00 p.m.

TESTIMONY OF DEAN NISHINA, EXECUTIVE DIRECTOR, DIVISION OF CONSUMER ADVOCACY, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, TO THE HONORABLE SYLVIA LUKE, CHAIR, AND MEMBERS OF THE COMMITTEE

HOUSE BILL NO. 1801, H.D. 1 - RELATING TO RENEWABLE ENERGY.

DESCRIPTION:

This measure amends the definition of "renewable portfolio standard" to more accurately reflect the percentage of renewable energy penetration in the State. It also establishes renewable portfolio standards and targets for gas utility companies that mirror those set for electric utility companies. The House Draft 1 version of this bill has an effective date of January 28, 2045, to facilitate further discussion.

POSITION:

The Division of Consumer Advocacy ("Consumer Advocate") supports this bill and offers the following comments.

COMMENTS:

The Consumer Advocate supports the State's goal of 100% renewable energy on its electric grids by 2045, and so the Consumer Advocate supports the effect of this bill, which changes the Renewable Portfolio Standards ("RPS") calculation in Hawaii Revised

Statutes ("HRS") section 269-91 from "sales" to "generation." This proposed modification will eliminate the existing "loophole" that could allow the State to achieve more than 100% of generation from renewable energy. The Consumer Advocate also 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.

The proposed RPS for regulated gas utilities does, however, raise concerns that if the proposed statutory language establishing the RPS for gas utilities is adopted as-is, it could, among other things: 1) significantly increase the gas utilities' costs; 2) unintentionally create the 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. Given that the technology to create renewable gas is less developed than the technology for renewable electricity, and the renewable gas market does not enjoy the same support that renewable electricity enjoys (e.g., lack of significant tax credits for renewable gas technologies), adopting the language used for the RPS for the electric industry, including the interim goals, will likely result in significant increases in costs to provide gas. In turn, these likely 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.

While the preamble to this bill states "gas-fired *distributed* electrical generation" (emphasis added) may unintentionally promote suboptimal energy investments, the creation of an RPS for gas utilities under proposed HRS sections 269-A(a) and (b) in section 2 of this bill and the definition of "grid-connected" in section 3 of this bill would apply the RPS only to gas utilities that sell gas for grid-connected electrical energy generation. To address the potentially suboptimal investments of and arising from distributed gas-fired electrical generation, the Consumer Advocate respectfully suggests applying the RPS in the proposed statute to all gas companies, whether or not they are grid-connected or regulated.

Thank you for the opportunity to testify on this measure.

DAVID Y. IGE
GOVERNOR

LUIS P. SALAVERIA
DIRECTOR

MARY ALICE EVANS
DEPUTY DIRECTOR

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

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Statement of
LUIS P. SALAVERIA
Director
Department of Business, Economic Development and Tourism
before the
HOUSE COMMITTEE ON FINANCE
February 23, 2018
2:00 p.m.
State Capitol, Conference Room 308

in consideration of
HB1801, HD1
RELATING TO RENEWABLE ENERGY.

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

The Department of Business, Economic Development, and Tourism (DBEDT) supports HB1801, HD1, which modifies the definition of "renewable portfolio standard (RPS)" for electric utility companies to be based on 'generation' instead of 'sales' in order to more accurately reflect the percentage of renewable energy penetration in the State. It also establishes a renewable portfolio standard for gas utility companies of 100% by December 31, 2045, that mirrors that set for electric utility companies.

To fully meet the objectives of Act 97, Session Laws of Hawaii (SLH) 2015 establishing the 100% renewable portfolio standard (RPS) by 2045 and Act 38, SLH 2015 aspiring for greater energy security and self-sufficiency through the reduction and ultimate elimination of Hawaii's dependence on imported fuels for electrical generation, the current method for calculating RPS for electric utility companies must be modified so it can accurately represent the percentage of renewable penetration in Hawaii. This is because the current method of calculating RPS is flawed as it is incongruent to compare 'renewable electrical energy generation' to 'electrical energy sales'. This flaw causes the RPS to be inflated due to the denominator ('sales') excluding: (1) customer-sited grid-connected electrical energy generated; and (2) transmission and distribution (T&D) energy losses that occur between the points of electrical energy generation and the customer meter where sales are measured.

Additionally, as Hawaii's energy sector transitions to renewable energy, it is important that all relevant entities are aligned and that we avoid creating an unfair

playing field that may unintentionally harm consumers by promoting suboptimal long-lived investments in fossil fuels through gas-fired distributed electrical generation.

We strongly encourage the committee to pass this measure and are open to further discussion with other stakeholders on this measure.

Thank you for the opportunity to offer comments in support of HB1801, HD1.

TESTIMONY OF RANDY IWASE
CHAIR, PUBLIC UTILITIES COMMISSION
STATE OF HAWAII
TO THE
HOUSE COMMITTEE ON
FINANCE

February 23, 2018
2:00 p.m.

MEASURE: H.B. No. 1801 HD1
TITLE: RELATING TO RENEWABLE ENERGY.

Chair Luke and Members of the Committee:

DESCRIPTION:

Amends the definition of "renewable portfolio standard" to more accurately reflect the percentage of renewable energy penetration in the State. Establishes renewable portfolio standards and targets for gas utility companies that mirrors those set for electric utility companies. (HB1801 HD1)

POSITION:

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

COMMENTS:

The Commission takes no position with respect to establishing a new RPS for the gas utility as proposed in Section 2 and Section 3. The Commission notes that at this time it is unclear how the specific data needed to track the gas utility's RPS status would be measured and reported. For example, the gas RPS is based on gas sold for electric generation, yet gas can be used for many other purposes as well. It is unclear how it could be determined whether the gas sold was actually used for electrical energy generation. The gas utility may have additional information regarding their ability to measure and report this data.

The Commission takes no position with respect to redefining the electricity RPS as proposed in Sections 4 and 5. The Commission notes that at this time it is unclear how

the specific data needed to track the electric utility's RPS status would be measured and reported.

Thank you for the opportunity to testify on this measure.

SIERRA CLUB OF HAWAIʻI
MĀLAMA I KA HONUA. Cherish the Earth.

HOUSE COMMITTEE ON FINANCE

Friday, February 23, 2018 2:00PM Conference Room 308

In SUPPORT of HB 1801 HD2 Relating to renewable energy

Aloha Chair Luke, Vice Chair Cullen and members of the Committee,

On behalf of our 20,000 members and supporters, the Sierra Club of Hawaiʻi, a member of the Common Good Coalition, **strongly supports HB 1801 HD2**, which seeks seeks to rectify the overestimation of the amount of renewable energy serving Hawaiʻi's electric utility customers and also holds the gas utility to a higher standard that mirrors the electric utility's standard that commits to increase their reliance on renewable energy.

Hawaiʻi Revised Statutes section 269-92 (HRS 269-92) mandates a 100% renewable energy portfolio standard by year's end 2045. This means that the State must transition away from imported fuels and intend toward renewable sources, preferably local, to provide a source of secure, local energy. It is important that there is no overestimation in the delivery of this goal and that there are accurate measures in place to achieve it. **HB 1801 HD2 ensures this success.**

The gas utility should not have a lower standard than the electric utility. This bill enables a fair playing field in the transition to a renewable energy based State. Furthermore, not all gas is clean and renewable, which the gas utility should be held accountable. In fact, liquified natural gas (LNG), one of the gas utilities primary sources of natural gas sold to local customers, is mostly composed of methane[1,2]. Methane is one of the most potent and toxic gases emitted into the atmosphere, almost 30 times as strong as carbon dioxide[3]. LNG will be the biggest source

[1]http://www.hawaiigas.com/clean-energy/liquefied-natural-gas/
[2] https://www.pgworks.com/uploads/pdfs/LNGSafetyData.pdf
[3] https://www.sciencedaily.com/releases/2014/03/140327111724.htm

of carbon emission growth for the world's top oil and gas companies by 2025[4]. It is a simple fact that *LNG should not be a primary source of energy for the State*. In the face of climate change, methane is one of the top competitors, and needs to be accounted for when under the facade of natural gas. The support of natural gas continues our reliance on imported energy, ironically goes against the state's energy goals by emitting the most intense greenhouse gas, and distracts us from the truly renewable sources of energy necessary to combat climate change. The initial costs of cheap, yet dirty, natural gas is only a fraction of the climate change mitigation efforts the State will have to compensate for. **The investments in fossil fuels stops now**, we must transition to truly clean sources of energy. The gas utilities should be well aligned in their standards and commitments to effectively transition to 100% by 2045.

Just a couple weeks ago, an LNG leaking incident in Louisiana led natural gas company Cheniere Energy to shut down multiple tanks[5]. Multiple cracks in the double walled storage tanks ranged from 1 to 6 ft in length, allowing contaminants into the nearby drainage ditch and watershed. We cannot allow accidents like this to impact fragile ecosystems here in Hawai‘i, changes in the way our State defines clean and renewable energy begin today.

We strongly urge the Committee to pass this measure, which will ultimately close the gaps and improve the coordination between State and utilities to ensure a 100% renewable State by 2045.

Thank you for the opportunity to testify in **strong support of HB 1801 HD2.**

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

[5] https://www.eenews.net/stories/1060073537

HOUSE COMMITTEE ON FINANCE
February 23, 2018, 2:00 P.M.
Room 308
(Testimony is 4 pages long)

TESTIMONY IN STRONG SUPPORT OF HB 1801 HD1, SUGGESTED AMENDMENT

Aloha Chair Luke, Vice Chair Cullen, and Committee members:

Blue Planet Foundation **strongly supports** HB 1801 HD1, which revises Hawai'i's historic 100% renewable energy standard to ensure that **"100%" means "100%."**

This important measure does two things. First, it implements a needed accounting correction for the state's renewable portfolio standard (RPS) calculation. Presently, the state's RPS calculation can provide utilities with "double credit" for some distributed energy sources, such as rooftop solar. This leads to the outcome that the calculated RPS can be greater than the actual percentage of renewable energy on Hawai'i's electric grids. House Bill 1801 HD1 would revise the RPS accounting calculation to address this potential outcome.

Second, House Bill 1801 HD1 expands the RPS to include all grid-connected generation, including gas-fired generation. This helps to wean Hawai'i from imported fossil fuels while reducing unfairness in the energy market by requiring all types of generation on the electricity grid to comply with the RPS.

Blue Planet respectfully requests that the Committee amend HB 1801 HD1 to apply the RPS to all regulated gas sold in Hawai'i—not just gas that is connected to the electricity grid. Our suggested language is at the end of this testimony.

This is a critical measure for ensuring **transparency, 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. After various iterations through roughly the past fifteen years, 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 strengthened collaborations and fostered alignment on a variety of regulatory issues. It 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. With strong Public Utilities Commission (PUC) guidance and oversight, it is resulting in utility power supply plans that will achieve the mandate ahead of schedule, while simultaneously saving consumers billions of dollars compared to the fossil fuel status quo. **The state is on track to achieve the vision set by the legislature for renewable electricity, including both the near-term and long-term RPS requirements.**

100% MEANS 100%

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

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

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

100% MEANS ALL GRID-CONNECTED GENERATION—INCLUDING GAS

House Bill 1801 HD1 wisely includes all grid-connected generation in the calculation of the state's RPS. This addresses one of the primary concerns with the current approach where distributed energy resources might also include fossil fuel generation (likely to be gas-fired generation). **This type of natural gas-fired generation could render it impossible for electric utilities to meet their renewable energy goals.**

WHAT IS RENEWABLE NATURAL GAS?

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. Thus, as noted above, using fossil fuel-based natural gas is inconsistent with a shift to 100% renewable energy.

In Hawai‘i, The Gas Company (dba Hawai‘i Gas) primarily uses natural gas in two forms. It creates synthetic natural gas (SNG), primarily from oil products. It also uses liquefied natural gas (LNG), which is gas drilled from a well and then liquefied for shipping. Both of these are fossil fuels.

However, The Gas Company also currently uses some gas that is derived from renewable sources. Approximately 2.8% of its gas supply presently comes from a renewable feedstock.[1]

In September 2017, Hawai'i Gas received approval from the Hawai'i PUC to begin installing equipment to capture and process biogas from the Honouliuli Wastewater Treatment Plant on O'ahu.[2] This is a renewable "biogas" created during the process of treating wastewater—i.e. renewable natural gas (RNG). The project is expected to be up and running by the end of 2018.

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. This is a remarkable win-win solution.

As a result, renewable natural gas is set to soon comprise roughly 5% of the gas supply on O'ahu. Blue Planet Foundation strongly supports these efforts to transition to renewable gas.

Scaling this will require the development of additional renewable natural gas sources—particularly identifying new win-win solutions for local private and public entities, such as that developed with Honouliuli. These might include: wastewater treatment facilities, landfills, other waste sources, local crops, or renewable hydrogen. Suppliers in other locations may also become an option. On the U.S. mainland, Clean Power Fuels 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.

SUGGESTED AMENDMENT

Blue Planet Foundation feels strongly that Hawai'i should extend the benefits of the RPS to natural gas utility companies. This is consistent with the states overarching goal of reducing—and ultimately eliminating—all imported petroleum for energy use. This amendment would also reduce unfairness in the energy market which may result from requiring electric utilities, but not gas utilities, to comply with the renewable standards.

Our suggested amendment to Section 2 of HB 1801 HD1 is as follows:

> **"§269-A Renewable portfolio standards for gas utility companies.** (a) The renewable portfolio standard for a gas utility company means total heat energy in therms from renewable gas sold divided by total heat energy in therms from gas sold, expressed as a

[1] *See* Hawaii Gas Annual Renewable Energy Report to PUC (March 2017), *available at* https://puc.hawaii.gov/wp-content/uploads/2013/04/00005F5A.pdf

[2] *See* http://www.hawaiigas.com/clean-energy/renewable-natural-gas/

percentage. [~~For the purposes of this definition, the terms "renewable gas sold" and "gas sold" are limited to gas sold for grid-connected electrical energy generation under regulated gas utility company operations in the State.~~]

(b) Each gas utility company [~~that sells gas for grid connected electrical energy generation by regulated utility operations in the State~~] shall establish a renewable energy portfolio standard of one hundred per cent by December 31, 2045.

CONCLUSION

Blue Planet Foundation strongly supports HB 1801 HD1 with our suggested amendment 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 transparency, 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.

Testimony to the House Committee on Finance

Friday, February 23, 2018 2:00 p.m.
Conference Room 308, State Capitol
RE: House Bill 1801 HD 1

Chair Luke, Vice Chair Cullen and Members of the Finance Committee

Hawaii Gas **opposes** HB 1801 HD 1 and provides the following **comments:**

HB1801 HD 1 proposes to require all gas sold for "grid-connected electrical energy generation" by the regulated gas utility operations in the state to become more renewable over time by mandating that a renewable energy portfolio standard of one hundred per cent by December 31, 2045 be imposed.

There are a number of technical and practical issues to be considered that make this policy goal, while admirable, unachievable and impractical.

Regarding the use of utility gas in "grid connected generation systems", it is important to distinguish between systems which are "grid-connected" for purposes of supplying power to the grid, versus those which are "grid-connected" but cannot export power to the grid, as virtually all commercial and industrial distributed generation systems in the state are "grid connected" under the broad definition used in HB 1801, as amended, yet very few of these systems, outside of the solar energy systems under the net energy metering or feed in tariffs, supply power to the Grid. **Limiting the ability of individual consumers and businesses to select the systems or fuels of their choice for non-utility power generation while owning systems that are "grid-connected" under standby and other related tariffs seems to go materially beyond the original intent of the Hawaii RPS, and will adversely impact the ability to grow distributed generation in the State.** Further, HG strongly objects to the characterizations that gas-fired distributed electrical generation investments "harm consumers" in any manner, and that such investments are "sub-optimal", and believes that such characterizations show inherent bias against gas-based technologies. Given the relatively proven capabilities of combustion-based technologies to provide firm, reliable resilient power over decades in multiple, tested operating environments, versus the relatively unproven technologies (e.g. battery storage has only been utilized for large scale intermittent power firming for less than a decade, and has yet to undergo broad adoption in the residential marketplace) used to firm intermittent renewable technologies such as solar and wind, HG believes that the "market" comprised of Hawaii's consumer and business ratepayers, not precluded by the legislative process, should determine which distributed generation technologies are selected by consumers in the short, mid- and long-terms. **Further, as noted below, the distributed-generation equipment (the "investment") works equally as well on renewable and non-renewable sources of gas.**

Regarding the gas utility, incorporating renewable gas energy into a gas utility business is a function of availability, cost and reliability.

While Hawaii Gas has endeavored to find new renewable fuel sources, renewable biogas advancements globally have lagged renewable electricity generation gains. Renewable electricity generation (namely from wind and solar) has disproportionately benefitted from technological advancements over decades, while material state and federal subsidies have boosted overall US project economics. Biogas production technologies, while the subject of significant small-scale research efforts at various universities and labs, and modest, albeit heavily subsidized, commercialization efforts abroad, do not benefit from the same level of state and federal financial incentives as those associated with renewable electricity. This lack of financial incentives, combined with low natural gas prices in most of the US mainland, has resulted in a far lower level of commercialization of renewable natural gas projects relative to alternative energy sources. To our knowledge, no other state has imposed an RPS on any gas utility in the United States.

Hawaii Gas has been evaluating the generation of renewable gaseous energy for at least the last 6 years as diversifying our fuel supplies into clean and renewable fuels is a key priority for our business. With committed projects to date, Hawaii Gas expects to have reduced the equivalent of over 100,000 barrels per year of imported oil to the state once fully implemented. However, based on our substantial research, analysis of the marketplace and pilot projects, we have determined that RNG is not currently available in sufficient quantities, or at a reasonable cost to our customers, to mandate its use or set viable portfolio standards, at this time.

Today, the only renewable gas energy resources available to Hawaii Gas are the hydrogen produced at our SNG Plant from recycled wastewater and the RNG produced at wastewater treatment plants and landfills, mainly on Oahu, which total about 4 million therms per year or less than one-seventh of the state's total annual gas demand. Biogas produced at municipal sites is neither scalable, meaning it cannot be substantially increased, nor is it readily available to Hawaii Gas (with the notable exception being the biogas contract awarded in August 2016 until December 2024, for the Honouliuli Wastewater Treatment Plant[1], which will finally come online by the end of 2018 meeting less than one-twentieth of the Oahu demand.) Thus, while municipal biogas may meet a portion of the state's annual demand and provide a revenue stream to the county, it will be unable to meet the overwhelming majority of the State's needs. Additionally, the City and County of Honolulu has indicated they may want to use a majority of their RNG in their own operations.

To meet existing demand and at a competitive price, Hawaii Gas has spent extensive time and resources exploring and investing in initiatives to create RNG or import RNG. Amongst those include a pilot project at our SNG Plant to perform gasification using fats and oils. Unfortunately, the pilot project was concluded to be uneconomical, as the biogas could not be produced at scale and would have resulted in higher prices for our customers. Similarly, importing RNG from the mainland results in far higher prices for Hawaii's gas users.

[1] In August 2016, the City and County of Honolulu awarded Hawaii Gas the contract for biogas at the Honouliuli Wastewater Treatment Plant. Biogas production is estimated to be 800,000 therms per year. The contract term ends December 2024. Hawaii Gas filed its Application with the Public Utilities Commission in September 2016 to obtain approval for capital expenditures and to enter into a fuel supply agreement with the County. The Application was approved in September, 2017.

For renewable natural gas to scale, the industry must explore new and innovative approaches to produce RNG from feedstocks such as energy crops. It is well known that RNG can be produced from food waste, energy crops and various other forms of biomass. The challenge is to do this cost effectively, reliably, achievable and at a scale that meets demand. Hawaii Gas has been working with several parties over the past few years to explore the use of purpose grown energy crops coupled with advanced treatment and anaerobic digestion technology.

In this arena, finding available arable land with water is presenting a challenge. As most of the demand for gas is on Oahu, and transporting gas among Hawaii's islands adds to cost challenges, the ideal location for purpose grown solutions is Oahu. Unfortunately, Hawaii Gas studies have shown that roughly 15,000 to 30,000 acres, plus water rights, would be required in order to convert current Synthetic Natural Gas to 100% RNG. To date, we have been unable to locate even 1,000 acres of suitable irrigated land. As with any land acquisition in the state, we are competing with land needs for food and housing which are critical initiatives for the state.

To wit, Hawaii Gas does currently fuel a small grid-connected customer-sited generation system. However, a major loophole this bill does not address is the other grid-connected customer-sited generation on Oahu - the two refineries, which use a total of 32 megawatts of combined heat and power (as reported by the Department of Energy) for plant operations. In addition, many small grid-connected CHP systems utilize diesel as a primary fuel. Further, grid-connected customers utilize utility gas for customer-sited generation systems, which provide a valuable source of energy resiliency for large users such as hospitals and hotels in the event of electric utility outages or natural disasters. As HB 2249 relating to electric grid resiliency contemplates, it is important that the state is prepared to withstand natural disasters and other emergencies[2]. By powering these generators with diverse underground fuel supply, Hawaii Gas supports a level of resiliency when the electric grid goes down. Such occurrences are noted in Puerto Rico, which was dependent on above ground electric power poles, and contrasted by the floods in Houston where hospitals that were interconnected with gas CHP systems were able to continue operations.

Thank you for the opportunity to testify on HB 1801 HD 1.

[2] HG notes that Hawaii's electric grid is susceptible to the effects of an electromagnetic pulse in the event of an attack from Intentional Electromagnetic Interference (IEMI) or a High Altitude Electromagnetic Pulse (HEMP) resulting from a nuclear attack or other source. In 1962, an EMP associated with the Operation Starfish exercise knocked out over 300 streetlights in Hawaii and microwave radio links from Kauai to the other islands, despite being located over 800 miles away from the detonation site near Johnston Atoll.

TESTIMONY BEFORE THE HOUSE COMMITTEE ON FINANCE

H.B. No. 1801 H.D. 1

Relating to Renewable Energy

Friday, February 23, 2018
2:00 pm
State Capitol, Conference Room 308

Lisa Giang
Manager, Advanced Planning
Hawaiian Electric Company, Inc.

Chair Luke, Vice Chair Cullen, and Members of the Committee:

My name is Lisa Giang and I am testifying on behalf of Hawaiian Electric Company and its subsidiary utilities Maui Electric Company and Hawai'i Electric Light Company (collectively, the "Companies"). We cannot support this bill in its current form.

HB 1801, HD 1, in part, establishes a 100% RPS by 2045 for the gas utilities to align with the State's policy to transition away from fossil fuels and towards renewable energy. The Companies support this part of the bill and offer the following comments for consideration:

1. To ensure progress towards the 100% RPS by 2045, HB 1801 HD 1 should establish intermediate goals similar to the electric utilities from 2030 on.
2. The gas RPS as written in the bill applies only to the regulated gas utilities while the unregulated gas market could remain on fossil fuels and not transition to renewable energy. This would leave a major gap in the State's clean energy policy allowing customers the option to disconnect from the electric grid or the regulated gas pipeline network

and self-generate using fossil fuels without any oversight or accountability.

In addition to creating a gas RPS, HB 1801, HD 1 also includes changes to the definition of the RPS for electric utilities and this is where our concerns lie, specifically regarding the timing of these changes. The proposed definition includes all grid-connected energy systems – which includes fossil fueled customer-owned generation over which we have no control – and therefore exposes us to non-compliance if customers choose to invest in fossil gas-fired cogeneration. Applying this new definition to our 2020 RPS requirement, which is less than two years away, unfairly increases the risk to us of not achieving the 30% RPS in 2020. Applying the change instead to our 2030 RPS and beyond would be a more reasonable timeframe to align the market realities and public policy, and also mitigate our concern over customer-owned fossil fueled generation as the new renewable gas RPS begins to kick in.

Thank you for this opportunity to testify.

HB-1801-HD-1
Submitted on: 2/22/2018 2:51:06 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jun Shin	Young Progressives Demanding Action - Hawaii	Support	No

Comments:

In strong support!

Email: communications@ulupono.com

HOUSE COMMITTEE ON FINANCE
Friday, February 23, 2018 — 2:00 p.m. — Room 308

Ulupono Initiative Supports HB 1801 HD 1 with Amendments, Relating to Renewable Energy

Dear Chair Luke, Vice Chair Cullen, and Members of the Committee:

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

Ulupono supports HB 1801 HD 1 with Amendments, which fixes the renewable portfolio standard (RPS) for electrical energy by removing the double count from the formula and adding a gas RPS.

Ulupono **strongly supports** the correction to the RPS formula contained in Section 4 on page 11 of HB 1801 HD 1, modifying Section 269-92, Renewable Electric standards for electric utilities. We concur with the legislative findings in the preamble as to the deficiencies in the current electrical utility RPS formula.

Why is this so important? 100% should mean 100%

Under the current definition, the double counting of renewable distributed energy resources by using "sales" instead of "generation" in the denominator results in the RPS that overstates our actual progress. For the 2020 goal of 30 percent, the actual renewable generation as a percentage of total generation is 24 percent. Similarly, for the 2030 RPS goal of 40 percent, the actual renewable generation is 32 percent. Correcting the formula would save 1.4 MM bbls of oil in 2030 — nearly 3 percent of total state energy use, or the equivalent of adding more than 400 MW of solar power to the grid.

In addition, by requiring all grid connected electric utility generation to be 100% renewable by 2045, the legislature is addressing grid connected cogeneration, which closes that loophole. Furthermore, the electric utilities can use this language in the justification for

approving or denying interconnections to new generation units that use fossil fuel energy.

Minor amendments to this subsection include the observation that the language "but excluding electrical generation used exclusively for emergency service in the case of failure of the normal supply from the Hawaii electrical system" is well intentioned, but may be unnecessary because Section 269-92, subpart (f) already contains a large number of exclusions for events outside the company's reasonable control, that include natural and manmade emergencies. Thus, the additional exclusion may create unnecessary record keeping and some confusion.

Ulupono supports the intent of the applying the RPS to the gas company, raises some concerns

Ulupono understands the intent of Section 269-A, 269-B, and 269-C is to ensure that gas used for electrical generation is included under the RPS. We support this intent. We raise some concerns about how the language and definitions in Sections 269 and 269-92 will interact.

In Section 269-A, if a regulated gas utility sells gas to a regulated electrical utility, then by 2045, the percent of gas sold (measured in renewable therms/total therms) must equal 100%. We note that once the RPS definition is fixed in Section 269-92, the regulated electrical utility must ensure that all generation is 100% renewable. Thus, under Section 269-92, if a regulated electric utility has a gas fired generator, and continues to use gas, all the gas it purchases, whether from a regulated utility or independent supplier, must be 100% renewable for the regulated electrical utility to be in compliance. Thus, Section 269-92 is more broad, and we are unclear on the benefit of Section 269-A, beyond confirmation that the gas sold from a regulated gas utility to a regulated power company in 2045 is indeed 100% renewable.

Given this, our recommendation is to keep this bill clean and focus on Section 269-92.

Thank you for this opportunity to testify.

Respectfully,

Kyle Datta
General Partner

HB-1801-HD-1
Submitted on: 2/21/2018 10:05:55 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
David Mulinix	The Progressive Movement Hawaii	Support	No

Comments:

Aloha Representatives of the People,

Please vote to pass this essential piece of legislation to protect the future for our children. This bill is vital in closing the loophole that allows the use of dirty fracked LNG to be expanded in Hawaii. This is exactly the opposite to what the legislature has committed to, i.e., the end of the use of fossil fuels by 2045.

LNG is not cost-effective over the long term. The price of renewables like wind and solar, and battery storage, continues to plummet. Hawaii Gas is building infrastructure to increase LNG imports that would cost $200 million by their own estimate, and they've already applied for a rate hike. We should not spend another penny on fossil fuel infrastructure. The long-term cost of delaying full use of renewable energy (i.e., more rapid climate change) is already clear in our state.

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

Any effort and expense to use LNG here is far better put toward reaching our renewables goal. LNG imports are a direct obstacle to that goal.

Malama Pono

Dave Mulinix

47-185 Hui Akepa Place

Kaneohe, HI 96744

Hawai`i Interfaith Power and Light

A religious response to global warming

To: **The Committee on Finance (FIN)**
From: **Hawaii Interfaith Power & Light (HIPL)**
Date: Friday, February 23, 2018
Time: 2:00 P.M
Place: Conference Room 308, State Capitol, 415 South Beretania Street

Re: Strong Support for HB1801 HD1, Relating to Renewable Energy.

Aloha e Chair Luke, Vice Chair Cullen, and Members of the Committee on Finance,

My name is Steve Lohse, I'm an environmental scientist and Legislative Liaison for Hawaii Interfaith Power & Light (HIPL). HIPL's interfaith community affirms and promotes responsible policy and effective action on energy and climate change. On behalf of HIPL, thank you for this opportunity to submit **Testimony in Strong Support of HB1801 HD1** for the following reasons:

(1) Hawaii commits by law to recognize the need to reduce reliance on fossil fuels, to consider levels and effects of greenhouse gas emissions, and to transition away from imported fuels and toward renewable local resources that provide secure and affordable energy. Please, do everything in your power at every opportunity to **establish 100% clean renewable energy for Hawaii without delay.**

(2) Please, ensure that Hawaii's renewable portfolio standards are based on energy generated rather than energy sold, that renewable portfolio standards for gas utility companies mirror standards for electric utility companies (without a costly detour through developing new LNG sources), and that **all grid-connected energy systems achieve 100% renewable portfolios as soon as possible**.

Economic and environmental costs will continue to increase, both globally and locally, until our energy systems are fossil free. *With a sense of urgency* for the effective stewardship of our community, our economy, and our environment, we rely on your leadership to help transition all Hawaii utilities to 100% clean and renewable energy without delay. As always, thank you for all that you do!

Aloha no,
Hawaii Interfaith Power & Light (HIPL)
Steve Lohse, HIPL Legislative Liaison, 808-499-5406, lohse@hawaii.edu

HIPL embraces the following goals:

- *raise awareness of the deeply spiritual nature of energy and climate challenges;*
- *advocate energy policies that promote conservation, efficiency, and renewables;*
- *provide inspiration, resources, leadership, and education for effective community action.*

To: The House Committee on Finance
From: Sherry Pollack, 350Hawaii.org
Date: Wednesday, 2/21/18

In strong support of HB 1801 HD1

Aloha Chair Luke, Vice Chair Cullen and Committee members,

I am Vice President of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. On behalf of our members and supporters, 350Hawaii.org strongly supports HB 1801 HD1, with Proposed Amendment: *Fossil fuels are not in the public interest and any fossil fuel seller must reduce their use for all sales*. *Fossil fuel means "coal, natural gas, or petroleum." Fossil fuel shall not be sold after 2045.*

Climate scientists agree we have a much better future in store for us if we act quickly and with earnest to make significant changes, and it all comes down to reducing greenhouse gas emissions. HB1801HD1 helps Hawaii do a better job of that by correcting flaws in the original renewable portfolio standard (RPS), ensuring 100% renewable truly means 100% renewable, in addition to extending the RPS to gas utilities.

Liquefied Natural Gas (LNG) has no place in Hawaii's clean energy future and makes our dependence on imported, dirty fossil fuels worse, not better. Using less (or none) of it would also send a message to suppliers that it's high time they get out of that destructive business and focus on clean energy instead.

LNG IS NOT CLEAN. Burning it does emit less CO2 than coal and oil. But LNG is 85 to 95% methane[1], a global warming gas 84 times as potent as CO2 over a 20-year period[2]. About 25% of the manmade global warming we're experiencing today is caused by methane emissions. And the largest source of industrial methane emissions is the oil and gas industry[2].

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

LNG is not cost-effective over the long term. The price of renewables like wind and solar, and battery storage, continues to plummet. Hawaii Gas is building infrastructure to increase LNG imports that would cost $200 million by their own estimate[5], and they've already applied for a rate hike. We

should not spend another penny on fossil fuel infrastructure. The long-term cost of delaying full use of renewable energy (i.e., more rapid climate change) is already clear in our state.

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

LNG is not safe. Fracking to obtain it contributes to all manner of calamities from breast cancer to flammable tap water to earthquakes[6]. It's no wonder that Vermont, New York, Maryland, several European countries and Hawaii County have all banned the practice.

Any effort and expense to use LNG here is far better put toward reaching our renewables goal. LNG imports are a direct obstacle to that goal.

It is misguided for Hawaii to invest in more fossil fuel infrastructure and projects that ultimately contribute to our own demise. With our suggested amendment included, HB1801 HD1 can better correct the serious flaw in our renewable portfolio standard, putting our gas utilities in sync with electric utilities in meeting our renewable energy goals.

Please support HB1801 HD1.

Thank you for the opportunity to testify.

Sherry Pollack
350Hawaii.org

[1] https://energy.gov/sites/prod/files/2013/04/f0/LNG_primerupd.pdf
[2] https://www.edf.org/methane-other-important-greenhouse-gas
[3] https://fivethirtyeight.com/features/methane-is-leaking-all-over-the-place/
[4] http://pubs.acs.org/doi/full/10.1021/es404474x
[5] http://www.hawaiigas.com/media/1301/hawaii-gas_report_the-facts-about-lng-for-hawaii.pdf
[6] https://www.pbs.org/newshour/science/earthquakes-triggered-by-fracking

Before the House Committee on Finance
Friday, February 23, 2018, room 308, 2:00 p.m.
HB 1801 HD 1: RELATING TO RENEWABLE ENERGY

Aloha Chair Luke, Vice Chair Cullen, and members of the Committee,

On behalf of the Distributed Energy Resources Council of Hawaii ("DER Council"), I would like to testify in strong support for HB 1801 HD 1, which amends the renewable energy portfolio ("RPS") to more accurately reflect the amount of renewable energy generation in Hawaii based upon electricity generation rather than electricity sales, and which creates an RPS for gas utilities. The DER Council is a nonprofit trade organization formed to assist with the development of distributed energy resources and smart grid technologies to support an affordable, reliable, and sustainable energy supply for Hawaii.

The Hawaii state legislature amended the RPS from 40% renewables for electricity generation by 2030 to 100% renewables for electricity generation by 2045. However, many people and even some stakeholders who have worked closely on these issues mistakenly believe that 100% renewables by 2045 as per our current accounting for the RPS literally means that 100% of all energy generated and sold in Hawaii will come from renewable generation. Instead, because the current language in the RPS, the state's RPS could actually meet the 100% mandate, but still generate some electricity from fossil fuels. In fact, the more roof top generation that is included in the calculation, the greater the amount of fossil fuels that could be included in the RPS at 100%.

In addition, DERC strongly supports the development of an RPS for gas utilities. Natural gas is another form of fossil fuel, and the use of natural gas for electricity generation should have a reasonable plan to join Hawaii's 100% renewable energy goal.

The DER Council supports HB 1801 HD 1 because the proposed amendment clarifies the accounting for the RPS by basing the entire RPS upon electricity generation, and because HB 1801 HD 1 rightfully includes gas utilities in Hawaii's 100% renewable mandate. In this way HB 1801 HD 1 ensures that the RPS will reflect what most think that it already means: a complete independence from imported fossil fuels by 2045.

Thank you for the opportunity to testify

Leslie Cole-Brooks
Executive Director
DER Council of Hawaii

HB-1801-HD-1
Submitted on: 2/21/2018 7:35:56 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
B.A. McClintock	Individual	Support	No

Comments:

I strongly support HB 1801 HD1, with an amendment that states “Fossil fuel means coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045.

HB-1801-HD-1
Submitted on: 2/21/2018 8:02:09 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Kim Osborn Mullen	Individual	Support	No

Comments:

Aloha,

I strongly support this bill simply because we have no more time to support anything but Renewable Energy for our state. Climate change is here. We must not allow any more infrastructure that supports anything but renewable energy. LNG is not the answer. It is not a bridge fuel and is not affordable considering the longterm damaging effects fracking and LNG will have on our future. Indeed, we can pay now, or we can pay much much more in the future as climate change continues to ravage our environment, food supply, our homes and health.

Make Hawaii a leader in renewable energy. Strive to meet the fossil free fuel goal of 2045.

Thank you for your time,

Kim Osborn Mullen

HB-1801-HD-1
Submitted on: 2/21/2018 8:11:10 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

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

Comments:

-I strongly support HB 1801 HD1, with an amendment that states “Fossil fuel means coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045."

-I also believe that the proposed §269-A(e)(10) and (11) are too open to interpretation and leave too much leeway to circumvent the bill's intent.

-Climate scientists agree we have a much better future in store for us if we act quickly and with earnest to make significant changes, and it all comes down to reducing greenhouse gas emissions. HB1801HD1 helps Hawaii do a better job of that by correcting flaws in the original renewable portfolio standard (RPS), ensuring 100% renewable truly means 100% renewable, in addition to extending the RPS to gas utilities.

-Hawaii must be a leader and set an example for the country in our actions to reduce greenhouse gas emissions because with rise sea levels a, ocean acidification, and climate destabilization, we have the most to lose. Climate experts agree we have hope in our battle with global warming if we increase our use of renewable, carbon-free energy, HB1801HD1 helps us get on track to do just that.

-LNG is not clean. Burning it does emit less CO2 than coal and oil. But LNG is 85 to 95% methane[1], a global warming gas 84 times as potent as CO2 over a 20-year period[2]. About 25% of the man-made global warming we’re experiencing today is caused by methane emissions. And the largest source of industrial methane emissions is the oil and gas industry[2].

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

LNG to Hawaii burns fuel, producing even more greenhouse gases.

-LNG is not cost-effective over the long term. The price of renewables like wind and solar, and battery storage, continues to plummet. Hawaii Gas is building infrastructure to increase LNG imports that would cost $200 million by their own estimate[5], and they've already applied for a rate hike. We should not spend another penny on fossil fuel infrastructure. The long-term cost of delaying full use of renewable energy (i.e., more rapid climate change) is already clear in our state.

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

-LNG is not safe. Fracking to obtain it contributes to all manner of calamities from breast cancer to flammable tap water to earthquakes[6]. It's no wonder that Vermont, New York, Maryland, several European countries and Hawaii County have all banned the practice.

-Any effort and expense to use LNG here is far better put toward reaching our renewables goal. LNG imports are a direct obstacle to that goal.

-The fossil fuel industry knew almost 40 years ago about the effects of greenhouse gases before it became a public issue and spent millions to promote misinformation for the sole purpose of protecting their profits. It’s time now to put the planet before profits and do our part to reduce our greenhouse gas emissions. HB1801 HD1 helps us do that by correcting critical flaws in the original renewable portfolio standards law to help us take the bold actions that are now essential to address climate change.

-Consistent with this pattern of putting company interests before the interests of the people and climate stability, Hawaii’s fossil fuel companies are attempting to thwart citizen efforts directed at initiatives that would help us do our part to protect the planet and reduce greenhouse gases by conducting misinformation campaigns to downplay the impact their projects are having on climate stability, and even presenting these projects as climate-friendly. We are counting on you to see past the misinformation and lead us to genuine 100% renewable energy in Hawaii without delay.

-Hawaii’s fossil fuel companies have cited cost as a factor when submitting testimony in opposition to this bill. But they never mention the **full costs** which should be factored in, such as the costs our island state must now face with regards to climate resiliency and mitigation efforts as a result of climate change.

-It is misguided for Hawaii to invest in more fossil fuel infrastructure and projects that ultimately contribute to our own demise. HB1801 HD1 addresses this by correcting a

serious flaw in our renewable portfolio standards definition and getting our gas utilities in sync with electric utilities in meeting our renewable energy goals.

-LNG has no place in Hawaii's clean energy future and makes our dependence on imported, dirty fossil fuels worse, not better. Using less (or none) of it would also send a message to suppliers that it's high time they get out of that destructive business and focus on clean energy instead.

-It's unfortunate that many other states aren't taking climate change seriously. We are, to a point, but we should be taking every possible action to combat it, both to set an example and to save our own skins. Now that we have a 100% clean energy goal, many Hawaii residents may think, "Well, we're good. Nothing else needs to be done." That's clearly not the case. There is plenty more we can and must do.

[1] https://energy.gov/sites/prod/files/2013/04/f0/LNG_primerupd.pdf
[2] https://www.edf.org/methane-other-important-greenhouse-gas
[3] https://fivethirtyeight.com/features/methane-is-leaking-all-over-the-place/
[4] http://pubs.acs.org/doi/full/10.1021/es404474x
[5] http://www.hawaiigas.com/media/1301/hawaii-gas_report_the-facts-about-lng-for-hawaii.pdf
[6] https://www.pbs.org/newshour/science/earthquakes-triggered-by-fracking

HB-1801-HD-1
Submitted on: 2/21/2018 8:11:47 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Lynn Onderko	Individual	Support	No

Comments:

HB-1801-HD-1
Submitted on: 2/21/2018 8:34:55 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

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

Comments:

I strongly support HB 1801 HD1, with an amendment that states “Fossil fuel means coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045."

I also believe that the proposed §269-A(e)(10) and (11) are too open to interpretation and leave too much leeway to circumvent the bill's intent. Hawaii needs to insure that 100% renewable truly means 100% renewable, in addition to extending the RPS to gas utilities.

Hawaii must be a leader and set an example for the country in our actions to reduce greenhouse gas emissions because with rise sea levels a, ocean acidification, and climate destabilization, we have the most to lose. Climate experts agree we have hope in our battle with global warming if we increase our use of renewable, carbon-free energy, HB1801HD1 helps us get on track to do just that.

LNG is not *clean*. Burning it does emit less CO2 than coal and oil. But LNG is 85 to 95% methane, a global warming gas 84 times as potent as CO2 over a 20-year period[2]. About 25% of the man-made global warming we’re experiencing today is caused by methane emissions. And the largest source of industrial methane emissions is the oil and gas industry. No matter where it is mined, LNG hurts the environment right here by worsening climate change. It leaks at drilling sites, along pipelines, at compression stations, at storage facilities and throughout the networks of piping that carry it to homes. Washington, D.C. alone has 5,893 natural gas leaks. And transporting LNG to Hawaii burns fuel, producing even more greenhouse gases.

LNG is not cost-effective over the long term. The price of renewables like wind and solar, and battery storage, continues to plummet. Hawaii Gas is building infrastructure to increase LNG imports that would cost $200 million by their own estimate, and they've already applied for a rate hike. We should not spend another penny on fossil fuel infrastructure. The long-term cost of delaying full use of renewable energy (i.e., more rapid climate change) is already clear in our state.

HB-1801-HD-1
Submitted on: 2/21/2018 8:38:56 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Patricia Blair	Individual	Support	No

Comments:

HB-1801-HD-1
Submitted on: 2/21/2018 8:57:27 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Randy Ching	Individual	Support	No

Comments:

Chair Luke, Vice Chair Cullen and members of the committee:

Climate change is the most serious challenge in the history of our species. Improving Hawaii's renewable portfolio standard (RPS) is an important part of Hawaii's contribution to mitigation of climate change effects such as sea level rise.

HB 1801 fixes a flaw in the RPS to more accurately reflect the percentage of renewable energy by making clear energy sales does not capture all energy consumed here. I strongly support this bill, but with an amendment that this bill applies to **all regulated activities of the gas company**, rather than just "grid connected electrical energy generation."

(b)Each gas utility company that sells gas for grid-connected electrical energy generation by regulated utility operations in the State shall establish a renewable energy portfolio standard of one hundred per cent by December 31, 2045.

Should be amended to: b) Each gas utility company shall establish a renewable energy portfolio standard of one hundred per cent by December 31, 2045.

In order to ensure a full and fair transition to clean energy and avoid undermining our own efforts to achieve this goal, this amendment is crucial to address this flaw.

Thank you for the opportunity to provide testimony.

Randy Ching (Kaimuki)

HB-1801-HD-1
Submitted on: 2/21/2018 9:04:32 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Randy Gonce	Individual	Support	No

Comments:

Aloha committee members,
My name is Randy Gonce and I am in STRONG SUPPORT of this measure and I hope this would pass out of committee.

As a student in sustainability studing climate change, reading countless peer reviewed scientific studies, and has dedicated my life to working towards a future that is better for the next generations, measures like this one are essential if we want to have a fighting chance at a better future.

This updating of the renewables portfolio is a great step in the right direction. Please pass this measure.

-Randy Gonce

Young Progressives Demanding Action

Common Good Coalition

HB-1801-HD-1
Submitted on: 2/21/2018 10:36:07 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Josephine	Individual	Support	No

Comments:

-I strongly support HB 1801 HD1, with an amendment that states “Fossil fuel means coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045."

-I also believe that the proposed §269-A(e)(10) and (11) are too open to interpretation and leave too much leeway to circumvent the bill's intent.

-Climate scientists agree we have a much better future in store for us if we act quickly and with earnest to make significant changes, and it all comes down to reducing greenhouse gas emissions. HB1801HD1 helps Hawaii do a better job of that by correcting flaws in the original renewable portfolio standard (RPS), ensuring 100% renewable truly means 100% renewable, in addition to extending the RPS to gas utilities.

-Hawaii must be a leader and set an example for the country in our actions to reduce greenhouse gas emissions because with rise sea levels a, ocean acidification, and climate destabilization, we have the most to lose. Climate experts agree we have hope in our battle with global warming if we increase our use of renewable, carbon-free energy, HB1801HD1 helps us get on track to do just that.

-LNG is not clean. Burning it does emit less CO2 than coal and oil. But LNG is 85 to 95% methane[1], a global warming gas 84 times as potent as CO2 over a 20-year period[2]. About 25% of the man-made global warming we’re experiencing today is caused by methane emissions. And the largest source of industrial methane emissions

is the oil and gas industry[2].

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

-LNG is not cost-effective over the long term. The price of renewables like wind and solar, and battery storage, continues to plummet. Hawaii Gas is building infrastructure to increase LNG imports that would cost $200 million by their own estimate[5], and they've already applied for a rate hike. We should not spend another penny on fossil fuel infrastructure. The long-term cost of delaying full use of renewable energy (i.e., more rapid climate change) is already clear in our state.

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

-LNG is not safe. Fracking to obtain it contributes to all manner of calamities from breast cancer to flammable tap water to earthquakes[6]. It's no wonder that Vermont, New York, Maryland, several European countries and Hawaii County have all banned the practice.

-Any effort and expense to use LNG here is far better put toward reaching our renewables goal. LNG imports are a direct obstacle to that goal.

-The fossil fuel industry knew almost 40 years ago about the effects of greenhouse gases before it became a public issue and spent millions to promote misinformation for the sole purpose of protecting their profits. It’s time now to put the planet before profits and do our part to reduce our greenhouse gas emissions. HB1801 HD1 helps us do that by correcting critical flaws in the original renewable portfolio standards law to help us take the bold actions that are now essential to address climate change.

-Consistent with this pattern of putting company interests before the interests of the people and climate stability, Hawaii’s fossil fuel companies are attempting to thwart citizen efforts directed at initiatives that would help us do our part to protect the planet and reduce greenhouse gases by conducting misinformation campaigns to downplay the impact their projects are having on climate stability, and even presenting these projects as climate-friendly. We are counting on you to see past the misinformation and lead us to genuine 100% renewable energy in Hawaii without delay.

-Hawaii’s fossil fuel companies have cited cost as a factor when submitting testimony in

opposition to this bill. But they never mention the **full costs** which should be factored in, such as the costs our island state must now face with regards to climate resiliency and mitigation efforts as a result of climate change.

-It is misguided for Hawaii to invest in more fossil fuel infrastructure and projects that ultimately contribute to our own demise. HB1801 HD1 addresses this by correcting a serious flaw in our renewable portfolio standards definition and getting our gas utilities in sync with electric utilities in meeting our renewable energy goals.

-LNG has no place in Hawaii's clean energy future and makes our dependence on imported, dirty fossil fuels worse, not better. Using less (or none) of it would also send a message to suppliers that it's high time they get out of that destructive business and focus on clean energy instead.

-It's unfortunate that many other states aren't taking climate change seriously. We are, to a point, but we should be taking every possible action to combat it, both to set an example and to save our own skins. Now that we have a 100% clean energy goal, many Hawaii residents may think, "Well, we're good. Nothing else needs to be done." That's clearly not the case. There is plenty more we can and must do.

HB-1801-HD-1
Submitted on: 2/21/2018 10:36:58 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Samuel John	Individual	Support	No

Comments:

I strongly support HB 1801 HD1 with an amendment that states "Fossil fuel means coal, natural gas, or petroleum." Fossil fuel shall be phased out and not be sold ASAP! I also believe that the proposed §269-A(e)(10) and (11) are too open to interpretation and leave too much leeway to circumvent the bill's intent.

To: The House Committee on Finance
From: Brodie Lockard, 262-1285
Date: Tuesday, February 13, 2018

In strong support of HB 1801 HD1

Dear Chair Luke, Vice Chair Cullen and Committee members--

I strongly support HB 1801 HD1, with an amendment that it applies to all regulated activities of the gas company, rather than just "grid-connected electrical energy generation."

I also believe that the proposed §269-A(e)(10) and (11) are too open to interpretation and leave too much leeway to circumvent the bill's intent.

Whatever LNG is used for, it will eventually be burned, and it's the burning that needs monitoring and regulation. Grid connected electrical energy generation may be only a small part of its use. Hawaii Gas's website says, it's used for heat, hot water, "manufacturing processes, drying, cooling," and "natural gas can also be used for ... electricity production, ground and marine transportation and various industrial applications."

LNG is not clean. Burning it does emit less CO2 than coal and oil. But LNG is 85 to 95% methane[1], a global warming gas 84 times as potent as CO2 over a 20-year period[2]. About 25% of the manmade global warming we're experiencing today is caused by methane emissions. And the largest source of industrial methane emissions is the oil and gas industry[2].

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

LNG is not cost-effective over the long term. The price of renewables like wind and solar, and battery storage, continues to plummet. Hawaii Gas is building infrastructure to increase LNG imports that would cost $200 million by their own estimate[5], and they've already applied for a rate hike. We should not spend another penny on fossil fuel infrastructure. The long-term cost of delaying full use of renewable energy—i.e., more rapid climate change—is already clear in our state.

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

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

Any effort and expense to use LNG here is far better put toward reaching our renewables goal. LNG imports are a direct obstacle to that goal.

Thank you for this opportunity to submit testimony in support of HB 1801 HD1.

Brodie Lockard

[1] https://energy.gov/sites/prod/files/2013/04/f0/LNG_primerupd.pdf
[2] https://www.edf.org/methane-other-important-greenhouse-gas
[3] https://fivethirtyeight.com/features/methane-is-leaking-all-over-the-place/
[4] http://pubs.acs.org/doi/full/10.1021/es404474x
[5] http://www.hawaiigas.com/media/1301/hawaii-gas_report_the-facts-about-lng-for-hawaii.pdf
[6] https://www.pbs.org/newshour/science/earthquakes-triggered-by-fracking

HB-1801-HD-1
Submitted on: 2/22/2018 3:37:15 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Michael Reed Gach	Individual	Support	No

Comments:

I urge you to support this renewable energy bill.
Please consider this as the way we need to adapt for our children and generations to come.

Please SUPPORT HB1801 HD1

Michael Reed Gach

HB-1801-HD-1
Submitted on: 2/22/2018 5:02:50 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Marilyn Carlsmith	Individual	Support	No

Comments:

Of course LNG is a fossil fuel, where do you THINK it comes from? Exempting it from the definition only prolongs our contribution to global warming, costs money for an infrastructure that will be a waste when we truly are sustainable, and badly harms the earth from extraction sites.

HB-1801-HD-1
Submitted on: 2/22/2018 7:29:35 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

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

Comments:

HB1801 HD1:

Amends the definition of "renewable portfolio standard" to more accurately reflect the percentage of renewable energy penetration in the State. Establishes renewable portfolio standards and targets for gas utility companies that mirrors those set for electric utility companies.

Talking Points:

-I strongly support HB 1801 HD1, with an amendment that states “Fossil fuel means coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045."

-I also believe that the proposed §269-A(e)(10) and (11) are too open to interpretation and leave too much leeway to circumvent the bill's intent.

-Climate scientists agree we have a much better future in store for us if we act quickly and with earnest to make significant changes, and it all comes down to reducing greenhouse gas emissions. HB1801HD1 helps Hawaii do a better job of that by correcting flaws in the original renewable portfolio standard (RPS), ensuring 100% renewable truly means 100% renewable, in addition to extending the RPS to gas utilities.

-Hawaii must be a leader and set an example for the country in our actions to reduce greenhouse gas emissions because with rise sea levels a, ocean acidification, and climate destabilization, we have the most to lose. Climate experts agree we have hope in our battle with global warming if we increase our use of renewable, carbon-free energy, HB1801HD1 helps us get on track to do just that.

-LNG is not clean. Burning it does emit less CO2 than coal and oil. But LNG is 85 to 95% methane[1], a global warming gas 84 times as potent as CO2 over a 20-year period[2]. About 25% of the man-made global warming we're experiencing today is caused by methane emissions. And the largest source of industrial methane emissions is the oil and gas industry[2].

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

-LNG is not cost-effective over the long term. The price of renewables like wind and solar, and battery storage, continues to plummet. Hawaii Gas is building infrastructure to increase LNG imports that would cost $200 million by their own estimate[5], and they've already applied for a rate hike. We should not spend another penny on fossil fuel infrastructure. The long-term cost of delaying full use of renewable energy (i.e., more rapid climate change) is already clear in our state.

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

-LNG is not safe. Fracking to obtain it contributes to all manner of calamities from breast cancer to flammable tap water to earthquakes[6]. It's no wonder that Vermont, New York, Maryland, several European countries and Hawaii County have all banned the practice.

-Any effort and expense to use LNG here is far better put toward reaching our renewables goal. LNG imports are a direct obstacle to that goal.

-The fossil fuel industry knew almost 40 years ago about the effects of greenhouse gases before it became a public issue and spent millions to promote misinformation for the sole purpose of protecting their profits. It's time now to put the planet before profits and do our part to reduce our greenhouse gas emissions. HB1801 HD1 helps us do that by correcting critical flaws in the original renewable portfolio standards law to help us take the bold actions that are now essential to address climate change.

-Consistent with this pattern of putting company interests before the interests of the people and climate stability, Hawaii's fossil fuel companies are attempting to thwart citizen efforts directed at initiatives that would help us do our part to protect the planet and reduce greenhouse gases by conducting misinformation campaigns to downplay the impact their projects are having on climate stability, and even presenting these projects as climate-friendly. We are counting on you to see past the misinformation and lead us to genuine 100% renewable energy in Hawaii without delay.

-Hawaii's fossil fuel companies have cited cost as a factor when submitting testimony in opposition to this bill. But they never mention the **full costs** which should be factored in, such as the costs our island state must now face with regards to climate resiliency and mitigation efforts as a result of climate change.

-It is misguided for Hawaii to invest in more fossil fuel infrastructure and projects that ultimately contribute to our own demise. HB1801 HD1 addresses this by correcting a serious flaw in our renewable portfolio standards definition and getting our gas utilities in sync with electric utilities in meeting our renewable energy goals.

-LNG has no place in Hawaii's clean energy future and makes our dependence on imported, dirty fossil fuels worse, not better. Using less (or none) of it would also send a message to suppliers that it's high time they get out of that destructive business and focus on clean energy instead.

-It's unfortunate that many other states aren't taking climate change seriously. We are, to a point, but we should be taking every possible action to combat it, both to set an example and to save our own skins. Now that we have a 100% clean energy goal, many Hawaii residents may think, "Well, we're good. Nothing else needs to be done." That's clearly not the case. There is plenty more we can and must do.

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

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

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

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

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

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

HB-1801-HD-1
Submitted on: 2/22/2018 7:44:27 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
chi guyer	Individual	Support	No

Comments:

please pass, mahalo, chi pilialoha guyer of lahaina, maui

HB-1801-HD-1
Submitted on: 2/22/2018 8:06:49 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

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

Comments:

Dear Chair Sylvia Luke and Vice-Chair Ty J.K. Cullen:

I strongly support HB1801 HD1 which amends the definition of "renewable portfolio standard" to more accurately reflect the percentage of renewable energy penetration in the State.

The bill establishes renewable portfolio standard targets for gas utilities that mirror those being achieved by electric utilities. More importantly the bill requires all gas sold for grid-connected electrical energy generation by regulated gas utility operations in the State to become more renewable over time. We need to move towards renewable energy.

I strongly support HB1801 HD1. Thank for for this opporunity to testify on this important matter.

Sincerely,

Nathan Yuen

HB-1801-HD-1
Submitted on: 2/22/2018 8:07:12 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Chris Madsen	Individual	Support	No

Comments:

Aloha,

I am glad Hawaii is making a commitment to moving towards green energy. My only criticism is that this could realistically happen a lot faster. The faster it happens the more money that would traditionally exit the state for fossil fuels will remain in the local economy. There is always a money multiplier effect as the same dollar(s) will be spent multiple times.

UCLA has demonstrated the ability to make clean, green hydrogen fuel by splitting water molecules with solar power. This is the safest, greenest way to proceed as the only byproduct from burning hydrogen fuel is water.

Powering the grid during the day with solar has never been the problem. Storing that energy electrically can be rather difficult and costly. Hydrogen fuel stores it chemically and it could theoretically sit indefinately (similar to propane) until energy generation is needed. It's a great way to power the grid at night or during other peak on-demand usage times.

Mahalo,

Chris Madsen

HB-1801-HD-1
Submitted on: 2/22/2018 9:03:48 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Mary Lacques	Individual	Support	No

Comments:

HB-1801-HD-1
Submitted on: 2/22/2018 9:11:46 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Severine Busquet	Individual	Support	No

Comments:

Hi,

I strongly support HB 1801 HD1, with an amendment that states “Fossil fuel means coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045.

Thanks for your attention

Severine

HB-1801-HD-1
Submitted on: 2/22/2018 9:12:48 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

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

Comments:

To Whom It May Concern,

My name is Nanea Lo and I strongly support HB 1801 HD1, with an amendment that states “Fossil fuel means coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045."

-I also believe that the proposed §269-A(e)(10) and (11) are too open to interpretation and leave too much leeway to circumvent the bill's intent.

-Climate scientists agree we have a much better future in store for us if we act quickly and with earnest to make significant changes, and it all comes down to reducing greenhouse gas emissions. HB1801HD1 helps Hawaii do a better job of that by correcting flaws in the original renewable portfolio standard (RPS), ensuring 100% renewable truly means 100% renewable, in addition to extending the RPS to gas utilities.

-Hawaii must be a leader and set an example for the country in our actions to reduce greenhouse gas emissions because with rise sea levels a, ocean acidification, and climate destabilization, we have the most to lose. Climate experts agree we have hope in our battle with global warming if we increase our use of renewable, carbon-free energy, HB1801HD1 helps us get on track to do just that.

-LNG is not clean. Burning it does emit less CO2 than coal and oil. But LNG is 85 to 95% methane[1], a global warming gas 84 times as potent as CO2 over a 20-year period[2]. About 25% of the man-made global warming we're experiencing today is caused by methane emissions. And the largest source of industrial methane emissions is the oil and gas industry[2].

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

-LNG is not cost-effective over the long term. The price of renewables like wind and solar, and battery storage, continues to plummet. Hawaii Gas is building infrastructure to increase LNG imports that would cost $200 million by their own estimate[5], and they've already applied for a rate hike. We should not spend another penny on fossil fuel infrastructure. The long-term cost of delaying full use of renewable energy (i.e., more rapid climate change) is already clear in our state.

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

-LNG is not safe. Fracking to obtain it contributes to all manner of calamities from breast cancer to flammable tap water to earthquakes[6]. It's no wonder that Vermont, New York, Maryland, several European countries and Hawaii County have all banned the practice.

-Any effort and expense to use LNG here is far better put toward reaching our renewables goal. LNG imports are a direct obstacle to that goal.

-The fossil fuel industry knew almost 40 years ago about the effects of greenhouse gases before it became a public issue and spent millions to promote misinformation for the sole purpose of protecting their profits. It's time now to put the planet before profits and do our part to reduce our greenhouse gas emissions. HB1801 HD1 helps us do that by correcting critical flaws in the original renewable portfolio standards law to help us take the bold actions that are now essential to address climate change.

-Consistent with this pattern of putting company interests before the interests of the people and climate stability, Hawaii's fossil fuel companies are attempting to thwart citizen efforts directed at initiatives that would help us do our part to protect the planet and reduce greenhouse gases by conducting misinformation campaigns to downplay the impact their projects are having on climate stability, and even presenting these

projects as climate-friendly. We are counting on you to see past the misinformation and lead us to genuine 100% renewable energy in Hawaii without delay.

-Hawaii’s fossil fuel companies have cited cost as a factor when submitting testimony in opposition to this bill. But they never mention the **full costs** which should be factored in, such as the costs our island state must now face with regards to climate resiliency and mitigation efforts as a result of climate change.

-It is misguided for Hawaii to invest in more fossil fuel infrastructure and projects that ultimately contribute to our own demise. HB1801 HD1 addresses this by correcting a serious flaw in our renewable portfolio standards definition and getting our gas utilities in sync with electric utilities in meeting our renewable energy goals.

-LNG has no place in Hawaii's clean energy future and makes our dependence on imported, dirty fossil fuels worse, not better. Using less (or none) of it would also send a message to suppliers that it's high time they get out of that destructive business and focus on clean energy instead.

-It's unfortunate that many other states aren't taking climate change seriously. We are, to a point, but we should be taking every possible action to combat it, both to set an example and to save our own skins. Now that we have a 100% clean energy goal, many Hawaii residents may think, "Well, we're good. Nothing else needs to be done." That's clearly not the case. There is plenty more we can and must do.

me ke aloha ‘Ä• ina,

Nanea Lo

HB-1801-HD-1
Submitted on: 2/22/2018 9:56:23 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Taurie Kinoshita	Individual	Support	No

Comments:

I strongly support HB 1801 HD1, with an amendment that states “Fossil fuel means coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045."

Climate scientists agree we have a much better future in store for us if we act quickly and with earnest to make significant changes, and it all comes down to reducing greenhouse gas emissions. HB1801HD1 helps Hawaii do a better job of that by correcting flaws in the original renewable portfolio standard (RPS), ensuring 100% renewable truly means 100% renewable, in addition to extending the RPS to gas utilities.

HB-1801-HD-1
Submitted on: 2/22/2018 10:01:23 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dana Jenkins	Individual	Support	No

Comments:

I strongly support HB 1801 HD1, with an amendment that states “Fossil fuel means coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045." I also believe that the proposed §269-A(e) and are too open to interpretation and leave too much leeway to circumvent the bill's intent. LNG is not cost-effective over the long term. The price of renewables like wind and solar, and battery storage, continues to plummet. Hawaii Gas is building infrastructure to increase LNG imports that would cost $200 million by their own estimate, and they've already applied for a rate hike. We should not spend another penny on fossil fuel infrastructure. The long-term cost of delaying full use of renewable energy (i.e., more rapid climate change) is already clear in our state.

HB-1801-HD-1
Submitted on: 2/22/2018 10:11:33 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Lois Crozer	Individual	Support	No

Comments:

I strongly support HB 1801 HD1, with an amendment that states “Fossil fuel means coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045."

I also believe that the proposed §269-A(e)(10) and (11) are too open to interpretation and leave too much leeway to circumvent the bill's intent.

HB-1801-HD-1
Submitted on: 2/22/2018 10:56:13 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

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

Comments:

HB-1801-HD-1
Submitted on: 2/22/2018 11:08:57 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Denise Boisvert	Individual	Support	No

Comments:

I strongly support HB1801. The future is closer than we think; this bill is needed to accurately meet the 100% renewable energy goal 2045 deadline.

HB-1801-HD-1
Submitted on: 2/22/2018 11:15:04 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Merle Hayward	Individual	Support	No

Comments:

STRONGLY SUPPORT

HB-1801-HD-1
Submitted on: 2/22/2018 11:21:37 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

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

Comments:

I strongly support HB1801.

HB-1801-HD-1
Submitted on: 2/22/2018 11:34:24 AM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Alyssa	Individual	Support	No

Comments:

I strongly support HB 1801 HD1, however with an amendment that states “Fossil fuel is to be defined as coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045." I also believe that the proposed §269-A(e)(10) and (11) are not defined clearly enough to generate change. Global scientists agree that the future of our environment relies on reducing greenhouse gas emissions.

HB1801HD1 helps Hawaii do a better job of reducing CO2 emissions by correcting flaws in the original renewable portfolio standard (RPS), ensuring 100% renewable truly means 100% renewable, in addition to extending the RPS to gas utilities.

Hawaii must join the leading states, leading through action rather than discussion, setting an example for the country and developed world in our actions to reduce greenhouse gas emissions. This is especially pertenate because with a rising sea level, coastal erosion, ocean acidification, and climate destabilization, we have the most to lose. Climate experts agree we have hope in our battle with global warming if we increase our use of renewable, carbon-free energy, HB1801HD1 helps us get on track to do just that.

Natural gas, however, is not clean energy. Burning it does emit less CO2 than coal and oil, but Natural gas is 85 to 95% methane[1], a global warming gas 84 times as potent as CO2 over a 20-year period[2]. About 25% of the man-made global warming we’re experiencing today is caused by methane emissions. And the largest source of industrial methane emissions is the oil and gas industry[2].

Natural Gas hurts the gobal environment right here by exacerbating and expiditing climate change.

Natural Gas is not cost-effective over the long term. The price of renewables like wind and solar, and battery storage, continues to plummet. Hawaii Gas is building infrastructure to increase LNG imports that would cost $200 million by their own estimate[5], and they've already applied for a rate hike. We should not spend another penny on fossil fuel infrastructure. The long-term cost of delaying full use of renewable energy (i.e., more rapid climate change) is already clear in our state.

Natural gas is not renewal, unsafe, and therefore not needed to diversify Hawaii's fuel

supply. We have wind, solar, geothermal, hydroelectric, deep sea water chilling, and biomass, with ocean thermal and wave energy on the way. All we need are batteries and resolve.

-The fossil fuel industry knew almost 40 years ago about the effects of greenhouse gases before it became a public issue and spent millions to promote misinformation for the sole purpose of protecting their profits. It's time now to put the planet before profits and do our part to reduce our greenhouse gas emissions. HB1801 HD1 helps us do that by correcting critical flaws in the original renewable portfolio standards law to help us take the bold actions that are now essential to address climate change.

(1) https://energy.gov/sites/prod/files/2013/04/f0/LNG_primerupd.pdf
(2) https://www.edf.org/methane-other-important-greenhouse-gas

HB-1801-HD-1
Submitted on: 2/22/2018 12:00:33 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Shannon Rudolph	Individual	Support	No

Comments:

Support

HB-1801-HD-1
Submitted on: 2/22/2018 1:38:37 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Sarah Toole	Individual	Support	No

Comments:

I strongly support this measure.

Sarah Toole

1128 Ala Napunani St 96818

UH Manoa Political Science student

HB-1801-HD-1
Submitted on: 2/22/2018 2:05:38 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

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

Comments:

LATE

HB-1801-HD-1
Submitted on: 2/22/2018 3:53:25 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Diane Ware	Individual	Support	No

Comments:

Please pass with positive vote for this renewalable energy bill.

Mahalo nui

Diane Ware 99-78@5 Kapoha .Volcano HI 96785 808-967-8642

LATE

HB-1801-HD-1
Submitted on: 2/22/2018 4:04:23 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

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

Comments:

LATE

HB-1801-HD-1
Submitted on: 2/22/2018 4:04:34 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Sandra Fujita	Individual	Support	No

Comments:

LATE

HB-1801-HD-1
Submitted on: 2/22/2018 4:45:48 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Eric Au	Marriott Hawaii	Oppose	No

Comments:

On behalf of our 19 managed Marriott properties in the Hawaiian Islands, the largest hospitality organization in the state, we respectfully oppose House Bill 1801, H.D. 1, which mandates a 100-percent renewable energy portfolio by December 31, 2045, on all gas sold for grid-connected electrical energy generation.

Marriott supports initiatives for a more sustainable future; however, we see the potential for unintended consequences with the language contained in House Bill 1801, H.D. 1. We foresee the very strict regulation of private industry to comply with another addition to the existing renewable standard portfolio timeline. This one will have a negative impact on our hotels that are currently using, or are in the process of installing, methods of generation such as combined heat and power (CHP) units.

CHP units are supported by the federal government for their efficiency and the role they play in reducing emissions and lowering costs. Additionally, with regard to the matter of energy resiliency in the case of man-made or natural disasters, redundancy and power supply with diverse fuel and diverse generation technology are becoming increasingly important. We believe this bill will not only affect private consumer choice, but due to the lack and high cost of gas, will hurt the entities that are using or planning to use cogeneration as a means of improving efficiency, increasing reliability, diversifying energy options, and lowering costs.

Hawaii BioEconomy Trade Organization

HOUSE OF REPRESENTATIVES / HAWAII STATE SENATE
THE TWENTY-NINTH LEGISLATURE
REGULAR SESSION OF 2018

COMMITTEE ON FINANCE
Rep. Sylvia Luke, Chair
Rep. Ty J.K. Cullen, Vice Chair

LATE

DATE: February 23rd, 2018
TIME: 2:00pm
PLACE: Conference Room 308
State Capitol
415 South Beretania Street

TESTIMONY **ON HOUSE** BILL **NO. 1801 HD1**, RELATING TO **RENEWABLE ENERGY**

Position: Comments

To the Honorable Rep. Sylvia Luke, Chair; the Honorable Rep. Ty J.K. Cullen, Vice Chair; and Members of the Committee:

We support the main intent of this bill, which amends the definition of "renewable portfolio standard" to more accurately reflect the percentage of renewable electricity penetration in the State.

We recommend the committee remove the additional language extending the RPS to apply to the state's gas utilities. Unlike the main point of the bill which we support, which is to clarify and relieve some burden on the electrical utility, extending the RPS to the gas utility has not been planned for, engineered, studied by DBEDT or the University of Hawaii with any depth as far as market or technical feasibility, or discussed in any significant state energy forums.

Renewable methane, a hydrocarbon fuel, is very different from renewable electricity. It cannot be produced from solar and wind sources. The technical, market, and policy change required to produce the millions of standard cubic feet per day required to apply the RPS to the gas utility has not been discussed with the same level of dialogue and funding support that electricity has enjoyed over the past decade.

Moreover, mandating the gas utility to develop renewable replacement for all of its product will have several negative consequences:

- Increase competition (and cost) for renewable biomass sources for renewable transportation fuel;
- Increase competition for the biomass power plants that HECO's Power Supply Improvement Plan is depending upon to meet the RPS in 2030 and beyond;
- Raise costs for both electric and gas ratepayers through the above competition

Again, this extension of the RPS to the gas utility has not been well socialized and glosses over some chemical and engineering realities, as well as market factors.

Many thanks for your time and consideration

Carl Campagna
Executive Director
Hawaii Bioeconomy Trade Organization
808-383-7699
Ccampa1@msn.com

LATE

HB-1801-HD-1
Submitted on: 2/22/2018 6:45:40 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jesus Avila	Individual	Support	No

Comments:

I am in support of this bill, this bill will urge for more renewable energy for ALL utilities by 2045.
We absolutly CANNOT have fracked LNG in this State whatsoever. You have to look at places like Flint, where they STILL have no CLEAN WATER because of fracking.

We have to act & we as a State can be leaders in this country by pushing for more renewable energy. This bill will help correct flaws in the original renewable portfolio standard (RPS), by ensuring that 100% renewable means 100% renewable.

LNG IS NOT CLEAN. While it does indeed emit less CO2 than coal & oil, it is 85%-95% METHANE, which is a global warming gass 84x as potent as CO2 over a 20-year period.
25% of the global warming we are experiencing today is manmade that is caused by meethane emissions. We are doing that, we as humans on this planet. LNG is also not cost-effective in the long term.

Hawai'i is in a unique position in that we do not need LNG to diversify Hawai'i's fuel supply. Given our location, we have wind, solar, geothermal, hydroelectric, deep sea water chilling, & biomass, with ocean thermal & wave energy on the way. All of this is TRUE renewable energy where LNG is not.

Hawai'i has to become a leader & lead the way in renewable energies, true renewable energies like the ones I listed above. Others will take notice & follow suit, but only if we make this one of our top priorities.

HAWAII TEAMSTERS AND ALLIED WORKERS, LOCAL 996

Affiliated with the International Brotherhood of Teamsters

1817 Hart Street
Honolulu, Hawaii 96819-3205

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

LATE

Testimony to the House Committee on Finance

Friday, February 23, 2018
2:00pm, Conference Room 308
Hawaii State Capitol Building
415 South Beretania Street

RE: House Bill 1801 HD1

Chair Luke, Vice Chair Cullen and Members of the Committee on Finance:

The Hawaii Teamsters and Allied Workers, Local 996 stands opposed to HB 1801 HD1.

HB 1801 HD1 is another proposal that would limit choices for our members and other consumers.

Gas based technologies have proven to be a reliable resilient power over many years unlike renewable energy such as wind and solar which is in infancy.

The ability of consumers to choose between technologies for non-utility power generation while owning systems that are grid-connected under standby and other related tariffs seems to go materially beyond the original intent of the Hawaii RPS and will adversely impact the ability to grow distributed generation in the State.

The proposal regarding the gas utility incorporating renewable gas energy into a gas utility business as stated by Hawaii Gas is a function of availability, cost and reliability.

The utility should not be forced to invest in technology that comes with a hefty cost and lacks benefits for the consumer.

Thank you for the opportunity to testify on HB 1801 HD1.

Wayne K. S. Kaululaau
Political Coordinator
Hawaii Teamsters and Allied Workers, Local 996

LATE

HB-1801-HD-1
Submitted on: 2/22/2018 8:01:58 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

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

Comments:

LATE

HB-1801-HD-1
Submitted on: 2/22/2018 8:08:52 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

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

Comments:

Dear FIN Committee,

I support the redefinition of the renewable energy portfolio as outlined in HB1801 HD1. If we are fudging our statistics and not getting a true picture of renewable energy use in Hawaii, we are only fooling ourselves and lying to the rest of the world. Let's be honest about our renewable energy use.

I also agree that the gas utilities should not get a "pass" on the renewable standard. LNG is a fossil fuel and should be recognized as such by the state of Hawaii.

Thank you for supporting HB1801 which attempts to correct both of these issues.

LATE

HB-1801-HD-1
Submitted on: 2/22/2018 8:15:49 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Harald Ebeling	Individual	Support	No

Comments:

Dear Chair Luke, dear Vice Chair Cullen, dear Committee Members,

I am writing in **strong** support of HB1801, but urge you to amend the current version to state clearly that LNG (Liquified Natural Gas) is fossil fuel and will be counted as such in the calculation of the Renewable Portfolio Standard (RPS). Please add language that makes this unambiguous: "Fossil fuel means coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045."

Importantly, however, I would like to express my enthusiastic support for a key element of HD1801, namely the correction of a fundamental flaw in the current definition of the RPS, which even at RPS=1 (the hallowed "100% renewable" goal) allows utilities to generate as much energy from fossil fuels as is contributed by distributed renewable generation (essentially roof-top PV). This definition makes a travesty of the state's declared goal of being "100% renewable by 2045".

Correcting this bizarre definition to ensure that 100% renewable means precisely this is long overdue. I applaud the legislature for moving HB1801 forward and hope that you will take the next step toward making our State a world leader in responsible and sustainable energy generation.

Mahalo,

Harald Ebeling

HB-1801-HD-1
Submitted on: 2/22/2018 9:27:43 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
James McCay	Individual	Support	No

Comments:

Aloha & thank you all for these critical hearings!
I strongly support HB1801 and imported LNG has no place in Hawaii's clean energy future and makes our dependence on imported, dirty fossil fuels worse, not better. Using less (or none) of it would also send a message to suppliers that it's high time they get out of that destructive business and focus on clean energy instead.

Thank you,
James McCay
2957 Kalakaua Ave Honolulu HI 96815

HAWAI'I LODGING & TOURISM ASSOCIATION

LATE

Testimony of

Mufi Hannemann
President & CEO
Hawai'i Lodging & Tourism Association

Committee on Finance
February 23, 2018

House Bill 1801, H.D. 1: Relating to Renewable Energy

Chair Luke, Vice Chair Cullen, and members of the Committee on Finance:

On behalf of the nearly 700 members of the Hawai'i Lodging & Tourism Association, the largest private sector visitor industry organization in the state, we respectfully oppose House Bill 1801, H.D. 1, which mandates a 100-percent renewable energy portfolio by December 31, 2045, on all gas sold for grid-connected electrical energy generation.

The HLTA supports initiatives for a more sustainable future; however, we see the potential for unintended consequences with the language contained in House Bill 1801, H.D. 1. We foresee the very strict regulation of private industry to comply with another addition to the existing renewable standard portfolio timeline. This one will have a negative impact on large facilities such as our hotels that are currently using, or are in the process of installing, methods of generation such as combined heat and power (CHP) units.

CHP units are supported by the federal government for their efficiency and the role they play in reducing emissions and lowering costs. Additionally, with regard to the matter of energy resiliency in the case of man-made or natural disasters, redundancy and power supply with diverse fuel and diverse generation technology are becoming increasingly important. We believe this bill will not only affect private consumer choice, but due to the lack and high cost of gas, will hurt the entities that are using or planning to use cogeneration as a means of improving efficiency, increasing reliability, diversifying energy options, and lowering costs.

Thank you for the opportunity to offer this testimony.

Hawai`i Lodging & Tourism Association
2270 Kalakaua Avenue, Suite 1702, Honolulu, Hawai'i 96815 · Phone: (808) 923-0407 · Fax: (808) 924-3843
info@hawaiilodging.org · www.hawaiilodging.org

LATE

HB-1801-HD-1
Submitted on: 2/22/2018 10:20:04 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Charles Ice	Individual	Support	No

Comments:

While I realize it is virtually impossible to impress a sense of urgency on this body, Please allow me to note a few facts:

1. Every new estimate of the deterioration of climate stability has given us a shorter time frame; every new estimate shows that climate change is accelerating faster than we thought in the last estimate.

2. We have now moved beyond climate stability - the conditions under which humans evolved, to which humans are adapted. Humans are not adapted to the instabilty we are in right now, and its acceleration is not only sure to extinguish many species we rely upon for sustenance, but it is sure to exceed our ability to recover from accelerating disasters, steadily more severe disasters. Our only hope for survival is to reverse this trend. Our vaunted technology has not shown itself capable of that, although experimentally we remain hopeful.

3. Burning fossil fuels is understood to be the primary driver of human-generated climate instability. It does us no good whatsoever to reclaim carbon from the atmosphere - something we don't yet know how to do at the scale required - if we continue burning fossil fuels.

4. Natural gas is a fossil fuel; it is not "clean" fuel - burning it produces the same accelerants of climate instability as any other fossil fuel. Morever, natural gas is mainly derived from fracking, a horribly destructive practice that contaminates precious ground water and causes serious ground level subsidence. Every tanker full of LNG we import subsidizes environmental destruction and promotes climate instability.

It is absolutely essential that you find every possible means to wean us from any use of fossil fuels, and to contribute to a modernized green energy infrastructure, which we know to require innovative grid systems as well as to accelerate efforts to use only renewable energy sources.

HB1801 is a step in the right direction, and with the exception of Section 269-A (e) (10 & 11) - which are the ultimate abdication propositions, this bill provides essential instructions for our state's energy resource planners and managers. You are

encouraged to delete those ennumerated sections and strongly encouraged to follow through in passing this bill.

Your consideration of the gravity and urgency of this situation is very much appreciated by our younger generations, who will otherwise be living in an extremely bleak and fading chance for survival.

LATE

HB-1801-HD-1
Submitted on: 2/22/2018 10:47:04 PM
Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
dennis boyd miller	Individual	Support	No

Comments:

Personal testimony by Dennis B Miller

TO THE COMMITTEE ON FINANCE

HOUSE OF REPRESENTATIVES THE TWENTY-NINTH LEGISLATURE REGULAR SESSION OF 2018

Friday February 23, 2018 2:00 p.m.

Conference Room 308

RE: TESTIMONY IN SUPPORT OF HOUSE BILL 2738

RELATING TO RENEWABLE ENERGY

To the Honorable Sylvia Luke, Chair; the Honorable Ty J.K. Cullen, Vice Chair; and Members of the Finance Committee:

Climate change is an impending disaster.

Our future requires immediate action to address and mitigate the causes of climate change. For sake of our future, please support this bill.

-I strongly support HB 1801 HD1, with an amendment that states “Fossil fuel means coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045."

-I also believe that the proposed §269-A(e)(10) and (11) are too open to interpretation and leave too much leeway to circumvent the bill's intent.

-Climate scientists agree we have a much better future in store for us if we act quickly and with earnest to make significant changes, and it all comes down to reducing greenhouse gas emissions. HB1801HD1 helps Hawaii do a better job of that by correcting flaws in the original renewable portfolio standard (RPS), ensuring 100% renewable truly means 100% renewable, in addition to extending the RPS to gas utilities.

-Hawaii must be a leader and set an example for the country in our actions to reduce greenhouse gas emissions because with rise sea levels a, ocean acidification, and climate destabilization, we have the most to lose. Climate experts agree we have hope in our battle with global warming if we increase our use of renewable, carbon-free energy, HB1801HD1 helps us get on track to do just that.

-LNG is not clean. Burning it does emit less CO2 than coal and oil. But LNG is 85 to 95% methane[1], a global warming gas 84 times as potent as CO2 over a 20-year period[2]. About 25% of the man-made global warming we're experiencing today is caused by methane emissions. And the largest source of industrial methane emissions is the oil and gas industry[2].

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

-LNG is not cost-effective over the long term. The price of renewables like wind and solar, and battery storage, continues to plummet. Hawaii Gas is building infrastructure to increase LNG imports that would cost $200 million by their own estimate[5], and they've already applied for a rate hike. We should not spend another penny on fossil fuel infrastructure. The long-term cost of delaying full use of renewable energy (i.e., more rapid climate change) is already clear in our state.

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

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

the practice.

-Any effort and expense to use LNG here is far better put toward reaching our renewables goal. LNG imports are a direct obstacle to that goal.

Thank you,

Dennis B Miller

226 Lewers Street Ste L209 Honolulu, HI 96815

Singlepayerhawaii@gmail.com

LATE

From: Janet Pappas
To: FINTestimony
Subject: Support for HB1801 HD1
Date: Thursday, February 22, 2018 8:28:18 PM

Dear FIN Committee,

I support the redefinition of the renewable energy portfolio as outlined in HB1801 HD1. If we are fudging our statistics and not getting a true picture of renewable energy use in Hawaii, we are only fooling ourselves and lying to the rest of the world. Let's be honest about our renewable energy use.

I also agree that the gas utilities should not get a "pass" on the renewable standard. LNG is a fossil fuel and should be recognized as such by the state of Hawaii.

Thank you for supporting HB1801 which attempts to correct both of these issues.

Sincerely,
Jan Pappas
Aiea, Hawaii 96701

LEAGUE OF WOMEN VOTERS®

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LATE

COMMITTEE ON FINANCE

FRIDAY, FEBRUARY 23 , 2 PM., Room Number 308
HB1801 HD1, RELATING TO RENEWABLE ENERGY
TESTIMONY
Beppie Shapiro, Legislative Committee, League of Women Voters of Hawaii

Chair LUKE; Vice-Chair CULLEN, and Committee Members:

The League of Women Voters of Hawaii SUPPORTS and COMMENTS on HB1801 HD1 that would change the definition of the Renewable Portfolio Standard (RPS) contained in Act 97 (2015) to more accurately estimate the percentage of renewable energy in Hawaii's energy portfolio; and would establish an RPS which applies to gas utilities as they generate electricity.

HB1801 HD1 will improve the accuracy of measurement of progress towards the state's renewable energy goal.

Including gas proportions from renewable and fossil sources in calculating an RPS will level the playing field for the electric and gas utilities, and more accurately document the amount of renewable energy in Hawaii's energy mix.

However this bill leaves out of consideration the amount of gas used in ways other than electricity generation. Consistent with other testimony we suggest the bill be broadened to include all gas activities which supply energy in Hawaii.

Thank you for the opportunity to submit testimony.

LATE

ELEMENTAL EXCELERATOR

Written Statement of
Elemental Excelerator
before the
House Committee on Finance
Friday, February 23, 2018
2:00 PM
State Capitol, Conference Room 308

In consideration of
HB1801 – HD1
RELATING TO RENEWABLE ENERGY

Aloha Chair Luke, Vice Chair Cullen, and Members of the Committee on Finance,

Elemental Excelerator respectfully submits our strong support of HB1801 that modifies the definition of "renewable portfolio standard" to be based on 'generation' instead of 'sales' in order to more accurately reflect the percentage of renewable energy penetration in the State. It also establishes renewable portfolio standards (RPS) and targets for gas utility companies that mirror those set up for electric utility companies of reaching 100% clean energy by 2045.

Elemental Excelerator is a Honolulu-based growth accelerator program founded and operating in Hawaii. We have awarded $22 million to 63 companies and 35 demonstration projects in Hawaii & Asia Pacific. Each year, we select 12-15 companies that best fit our mission and fund each company up to $1 million. Our selection process is competitive – we accept about 5% of our applicants each year. We recruit entrepreneurs from around the world to come to Hawaii and work on energy, transportation, water, and agriculture challenges to help us achieve our 100% clean energy goals.

We strongly support HB1801 for the following reasons:

1) The current way of calculating RPS inflates the public's perception of the State's progress toward our clean energy goals. The current method only compares renewable energy generation to energy *sales* – excluding customer-sited, grid connect renewable energy generation as well as the line losses between generation to consumption at the customer's meter.

2) Although Hawaiian Electric's Power Supply Improvement Plan appears to have the target of a 100% renewable system, the skewed RPS calculation provides a loophole that creates a lack of transparency for customers.
3) In order to protect the customer during power supply improvements, the same RPS standards must apply to both the electric and gas utilities.

With a pathway to our goal of 100% clean energy, states nationwide and globally look toward Hawaii as a leader. As Hawaii transitions to renewable energy, it is important that we authentically achieve what we committed to: a complete independence from imported fossil fuels by 2045.

Mahalo for the opportunity to provide testimony on this bill.

LATE

Hawaii Automobile Dealers' Association

Brian Kitagawa, President
Dave Rolf, Executive Director

HADA TESTIMONY IN OPPOSITION
TO HB1800 HD1
RELATING TO MOTOR VEHICLE TIRES
Presented to the House Committee on Finance
At the Public Hearing, 2 p.m. Friday, February 23, 2018
Conference Room 308, Hawaii State Capitol

Chair Luke, Vice Chair Cullen, and members of the committee:

New car dealers have participated in scrap tire clean up programs and studies over the years, and have always encouraged proponents of any new legislation regarding such scrap tire clean-up or prevention policies **to show the scope and size of the problem** that needs to be addressed and **to be aware of problems that may occur as unintended consequences of any proposed policy.**

We addressed seveeral of these unintended consequences in our earlier testimony, and **remain opposed** to this bill**.**

Our previous testimony provided comments on the necessity to use the funding that is already collected from the tire disposal fee of $1 assessed the wholesalers who imported tires and remitted the amounts collected to the State. The remaining amount in the Environmental Management Special Fund that can be used for scrap tire clean up is approximately $300,000.

Additionally, we point to Hawaii's establishement, several years ago, of a Class C felony for the illegal disposal of scrap tires that should provide a significant deterent when **aggressively enforced**.

In her testimony, Virginia Pressler, M.D., director of the State Department of Health, points out, however, that counties are responsible for disposing of illegally dumped tires.

Our discussions with offiicals on the island of Hawaii, revealed a significant "education of the public campaign" they are conducting, with regard to scrap tire disposal, that county officials hope will help with any imporper disposal.

If counties require additional funding for this purpose, a fee mechanism is already in place for purposes like the disposal of derelict vehicles. It's the Highway Beautification Fee which is assessed on each motor vehicle registration in the state. Each county assesses its own amount.

HADA dealers believe that this highway beautification fee is the proper fee mechanism for collection of fees to address derelict vehicles **and scrap tires**, although scrap tires, as far as we can determine, are not included in the current fee uses for the county funds collected for highway beautification.

Currently the counties collect the following "highway beautification fees" on more than 1 million vehicles which are registered in the state annually. HADA believes that since this fee mechanism is already in place for a similar pickup of illegally dumped vehicles that it could be expanded to apply also to scrap tire clean up, if indeed, such additional funding is required.

City and County of Honolulu	$7 highway beautification fee per vehicle
County of Maui	$10 highway beautification fee per vehicle
County of Kauai	$5 highway beautification fee* per vehicle
County of Hawaii	$1 highway beautification fee per vehicle

*a portion of which may be used for derelict vehicle removal and disposal.

We've requested information from the City and County of Honolulu about the status of their Highway Beautification Fund. We hope they will be able to confirm the data we retrieved. The most recent data we have been able to obtain shows the total revenue from the fees was $4,635,910 in FY 2017. The total expenditures for FY2017 were $710,790.

For a surplus of $3,924,120, by our calculations. Please see the attached charts showing the highway beautification fund revenues and surplus in Honolulu.

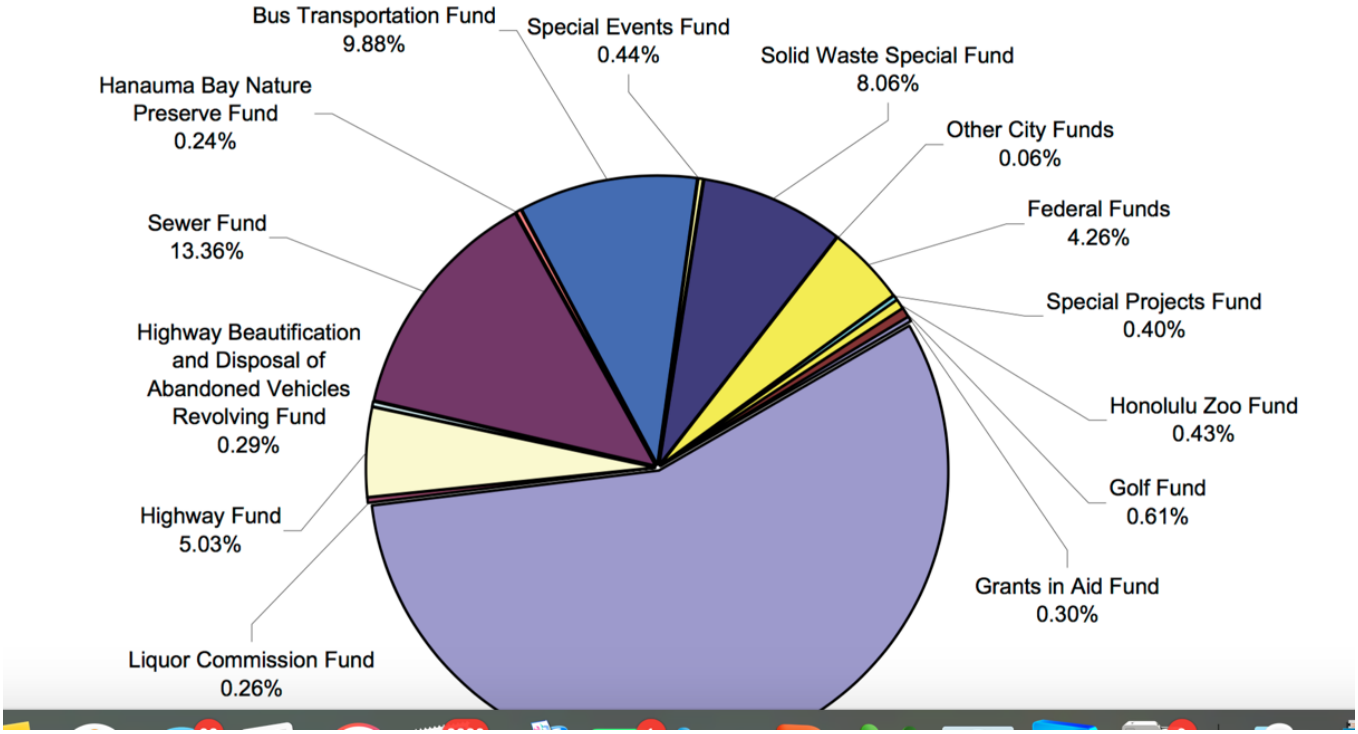
Detailed Statement of Revenues and Surplus

Highway Beautification Fund (130)

The Highway Beautification and Disposal of Abandoned Vehicles Revolving Fund accounts for receipts ($7.00 per vehicle) collected for each certificate of registration. These monies are expended primarily for the beautification of highways under the jurisdiction of the City and the disposition of abandoned vehicles.

Source of Receipts	FY 2016 Actual	FY 2017 Estimate	FY 2018 Estimated
Charges for Services			
Hwy Beautification Fees	$ 4,539,233	$ 4,635,910	$ 4,635,910
Total — Charges for Services	**$ 4,539,233**	**$ 4,635,910**	**$ 4,635,910**
Miscellaneous Revenues			
Vacation Accum Deposits	$ 23,490	$ 0	$ 0
Total — Miscellaneous Revenues	**$ 23,490**	**$ 0**	**$ 0**
Unreserved Fund Balance	**$ 9,865,201**	**$ 9,896,560**	**$ 9,119,720**
Interfund Transfer	**$ (277,100)**	**$ (264,000)**	**$ (355,700)**
Total — Highway Beautification Fund	**$ 14,150,824**	**$ 14,268,470**	**$ 13,399,930**

($2.451 Billion)



A significant surplus is shown in Honolulu in the Highway Beautification Fund, at $7 per vehicle.

The $1 per vehicle charged in Hilo, however, may be insufficient. But we believe the beautificatiion fund is the proper mechanism for collecting money for the purpose of disposing of illegally dumped tires.

Finally, It is counterproductive to create additional unproven programs which have administrative burdens on retailers. These retailers already collect fees from tire customers for the proper disposal of scrap tires.

For the above reasons, while we always remain open to working on this, we oppose HB1800 HD1 and ask that the measure be held.

Respectfully submitted,
David H. Rolf
For the Members of the Hawaii Automobile Dealers Association