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 CONSUMER PROTECTION & COMMERCE
February 13, 2018
2:00 p.m.
State Capitol, Conference Room 329

in consideration of
HB1801
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, 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.

DAVID Y. IGE
GOVERNOR

DOUGLAS S. CHIN
LIEUTENANT GOVERNOR

STATE OF HAWAII
OFFICE OF THE DIRECTOR
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
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CATHERINE P. AWAKUNI COLÓN
DIRECTOR

JO ANN M. UCHIDA TAKEUCHI
DEPUTY DIRECTOR

TO THE HOUSE COMMITTEE ON
CONSUMER PROTECTION AND COMMERCE

TWENTY-NINTH LEGISLATURE
Regular Session of 2018

Tuesday, February 13, 2018
2:00 p.m.

TESTIMONY OF DEAN NISHINA, EXECUTIVE DIRECTOR, DIVISION OF CONSUMER ADVOCACY, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, TO THE HONORABLE ROY M. TAKUMI, 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 utilities companies, whether or not they are grid-connected or regulated.

Thank you for the opportunity to testify on this measure.

DAVID Y. IGE
GOVERNOR

DOUGLAS S. CHIN
LIEUTENANT GOVERNOR

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DEPUTY DIRECTOR

TO THE HOUSE COMMITTEE ON
CONSUMER PROTECTION AND COMMERCE

TWENTY-NINTH LEGISLATURE
Regular Session of 2018

Tuesday, February 13, 2018
2:00 p.m.

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DESCRIPTION:

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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 utilities companies, whether or not they are grid-connected or regulated.

Thank you for the opportunity to testify on this measure.

TESTIMONY OF RANDY IWASE
CHAIR, PUBLIC UTILITIES COMMISSION
STATE OF HAWAII
TO THE
HOUSE COMMITTEE ON
CONSUMER PROTECTION & COMMERCE

February 13, 2018
2:00 p.m.

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

Chair Takumi 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.

Testimony to the House Committee on Consumer Protection & Commerce

Tuesday, February 13, 2018 2:00 p.m.
Conference Room 329, State Capitol
RE: House Bill 1801

Chair Takumi, Vice Chair Ichiyama and Members of the Consumer Protection and Commerce

Hawaii Gas **opposes** HB 1801 and provides the following **comments**

HB1801 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.

[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 CONSUMER PROTECTION & COMMERCE

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

Relating to Renewable Energy

Tuesday, February 13, 2018
2:00 pm
State Capitol, Conference Room 329

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

Chair Takumi, Vice Chair Ichiyama, 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") in strong support of establishing a renewable gas portfolio standard, but in opposition to the timing of the changes proposed to the renewable portfolio standard ("RPS") applying to electric utilities. As such, we cannot support this bill in its current form.

The Companies are in strong support of establishing 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 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.

Our concerns over the proposed changes to the definition of the RPS for electric utilities center on 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.

Email: communications@ulupono.com

HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE
Tuesday, February 13, 2018 — 2:00 p.m. — Room 329

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

Dear Chair Takumi, Vice Chair Ichiyama, 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

LEAGUE OF WOMEN VOTERS®

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COMMITTEE ON CONSUMER PROTECTION AND COMMERCE

TUESDAY, FEBRUARY 13 , 2 PM., Room Number 329
HB1801 HD1, RELATING TO RENEWABLE ENERGY
TESTIMONY
Beppie Shapiro, Legislative Committee, League of Women Voters of Hawaii

Chair TAKUMI; Vice-Chair ICHIYAMA, and Committee Members:

The League of Women Voters of Hawaii SUPPORTS HB1801 HD1 and SUGGESTS an amendment. HB1801 HD1 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.

We definitely support these changes to RPS calculations. It is important to keep track of progress towards Hawaii's goal of 100% renewable energy by 2045 goal. The proposed revision to the definition of RPS will improve the accuracy of measurement of progress, thus enabling policy makers to adjust policies such as incentives if needed to reach our goal.

We also support including gas proportions from renewable and fossil sources, in calculating an RPS applied to gas-generated electricity, which will level the playing field for the electric and gas utilities, and also more accurately document the amount of renewable energy into Hawaii's energy mix.

However this bill leaves out of consideration the amount of gas used in ways other than electricity generation, for example as a fuel in manufacturing plants and in gas powered stoves, water heaters etc.

We suggest the bill be amended to include all the gas utility's activities which supply energy in Hawaii, not only those which provide electricity.

Thank you for the opportunity to submit testimony.

HB-1801-HD-1
Submitted on: 2/11/2018 4:17:01 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Janet Graham	350.org	Support	No

Comments:

Attn: CPC Chair Takumi and Vice Chair Ichiyama

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

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.

Scientists report that half of the greenhouse gas emissions in our atmosphere were released after 1988 [1]. If the fossil-fuel industry had been upfront about greenhouse gas emissions and the effects to our climate, and had been part of the solution instead of the problem, we could have made a lot of progress at this point, rather than now seeing our polar ice caps melting and being in an “all-hands-on-deck” emergency state requiring a “double-down” on our greenhouse gas emissions.

This is reminiscent of efforts by the tobacco industry to mislead the public about the health effects of smoking, but in this case fossil fuel companies have threatened the planet’s health, and the harm is global in its reach. It’s no wonder why cities like New York have now filed lawsuits against key players in the fossil fuel industry, stating the City has spent billions and will need to spend billions more to combat the consequences of climate change, and are seeking to hold these companies responsible for those costs.

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.

A case in point, Hawaii Gas has repeated likened LNG to a ‘clean burning bridge fuel’ and completely omitted information about life-cycle emissions of LNG. The fact is that LNG is a potent greenhouse gas that some scientists say could push the climate over a “tipping point” in the next 18-25 years, causing runaway global warming. The drilling

and extraction of natural gas from wells and its transportation in pipelines results in the leakage of methane, the primary component of natural gas that is 34 times stronger than CO2 at trapping heat over a 100-year period and 86 times stronger over 20 years [2].

Hawaii's fossil fuel companies have also cited cost as a factor, but never mentioning 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 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.

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 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 do.

1. https://www.scientificamerican.com/article/exxon-knew-about-climate-change-almost-40-years-ago/
2. Myhre, G., D. Shindell, F.-M. Bréon, W. Collins, J. Fuglestvedt, J. Huang, D. Koch, J.-F. Lamarque, D. Lee, B. Mendoza, T. Nakajima, A. Robock, G. Stephens, T. Takemura, and H. Zhang. 2013. Anthropogenic and natural radiative forcing. In Climate change 2013: The physical science basis: Contribution of Working Group I to the fifth assessment report of the Intergovernmental Panel on Climate Change, edited by T.F. Stocker, D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex, and P.M. Midgley. Cambridge, England: Cambridge University Press, 659–740. Online at climatechange2013.org/images/report/WG1AR5_Chapter08_FINAL.pdf.

To: The House Committee on Consumer Protection & Commerce
From: Sherry Pollack, 350Hawaii.org
Date: Friday, 2/9/18

In strong support of HB 1801 HD1

Aloha Chair Takumi, Vice Chair Ichiyama 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."

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.

The fossil fuel industry knew almost 40 years ago about the effects of greenhouse gases, before it had even become a public issue, and spent millions to promote misinformation for the sole purpose of protecting their profits. Scientists report that half of the greenhouse gas emissions in our atmosphere were released after 1988. If the fossil-fuel industry had been upfront about greenhouse gas emissions and the effects to our climate, and had been part of the solution instead of the problem, we could have made a lot of progress at this point. Instead, we are now seeing our polar ice caps melting and find ourselves in an 'all-hands-on-deck' emergency state requiring a 'double-down' on our greenhouse gas emissions.

This is reminiscent of efforts by the tobacco industry to mislead the public about the health effects of smoking, but in this case fossil fuel companies have threatened the planet's health, our global life-support system. It's no wonder why cities like New York have now filed lawsuits against key players in the fossil fuel industry, stating the City has spent billions and will need to spend billions more to combat the consequences of climate change, and are seeking to hold these companies responsible for those costs.

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. They do this by conducting misinformation campaigns to downplay the impact their projects are having on climate stability, and even presenting these projects as climate-friendly.

Case in point, Hawaii Gas has repeatedly likened LNG to a 'clean burning bridge fuel' and completely omitting information about lifecycle emissions of LNG. The fact is that LNG is a potent greenhouse gas that some scientists say could push the climate over a 'tipping point' in the next 18-25 years, causing runaway global warming. The drilling and extraction of natural gas from wells and its transportation in pipelines results in the leakage of methane, primary component of natural gas that is 34 times stronger than CO2 at trapping heat over a 100-year period and 86 times stronger over 20 years.

Hawaii's fossil fuel companies have also cited cost as a factor, but never mentioning the **full costs** which should be factored in, such as the costs our island state must now face with regard 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. 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 HB 1801 HD1.

Thank you for the opportunity to testify.

Sherry Pollack
350Hawaii.org

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

COMMITTEE ON CONSUMER PROTECTION & COMMERCE
Rep. Roy M. Takumi, Chair
Rep. Linda Ichiyama, Vice Chair

Tuesday, February 13, 2018
2:00 P.M.
Conference Room 329

HB 1801, HD1 RELATING TO RENEWABLE ENERGY.

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

Life of the Land is Hawai`i's own energy, environmental and community action group advocating for the people and `aina for 47 years. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.

Since the Renewable Portfolio Standard (RPS) was passed in 2001, the simple mathematical ratio has used convoluted definitions. Over the years, the ratio has generally improved.

<u>The fix could be very simple</u>. *Fossil fuel means coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045. Regulatory agencies shall require regulated entities to reduce their use by 50% from 2010 baseline levels by 2030, and 75% reduction by 2040.*

Instead, the law uses thousands of words to do less. HB 1801 HD1 would require that the Gas Company to meet the RPS for the first time, but it would enable the company to

achieve an RPS of 110% while still buying and selling fossil fuel. In other words, the flaw in the RPS definition for electric utilities would be transferred to gas utilities. Furthermore, the bill talks about gas company affiliates with classified sales. It would be simpler to say that fossil fuels are not in the public interest and any fossil fuel seller has to reduce their use for all sales.

Mahalo,

Henry Curtis
Executive Director

Hawai`i Interfaith Power and Light

A religious response to global warming

To: **The Committee on Consumer Protection & Commerce (CPC)**
From: **Hawaii Interfaith Power & Light (HIPL)**
Date: Tuesday, February 13, 2018
Time: 2:00 P.M
Place: Conference Room 329, State Capitol, 415 South Beretania Street

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

Aloha e Chair Takumi, Vice Chair Ichiyama, and Members of the Committee on Consumer Protection & Commerce,

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 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 action and community building.*

HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE
February 13, 2018, 2:00 P.M.
Room 329
(Testimony is 4 pages long)

TESTIMONY IN STRONG SUPPORT OF HB 1801 HD1, SUGGESTED AMENDMENT

Aloha Chair Takumi, Vice Chair Ichiyama, 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 would revise the RPS accounting calculation to address this potential outcome.

Second, House Bill 1801 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 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.

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

HOUSE COMMITTEE ON CONSUMER PROTECTION AND COMMERCE

Tuesday, February 13, 2018 2:00PM Conference Room 329

In SUPPORT of HB 1801 HD1 Relating to renewable energy

Aloha Chair Takumi, Vice Chair Ichiyama, 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, **supports HB 1801 HD1**, 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 HD1 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 *methane 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, and 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 this week, 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 HD1.**

[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

HB-1801-HD-1
Submitted on: 2/11/2018 11:36:51 AM
Testimony for CPC on 2/13/2018 2:00:00 PM

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

Comments:

Chair Takumi, Vice Chair Ichiyama and members of the committee,

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

It is misguided for Hawaii to invest in more fossil fuel infrastructure and projects that ultimately contribute to our own demise. HB1801 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.

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 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 for the opportunity to testify.

Randy Ching / Honolulu / makikirandy@yahoo.com

HB-1801-HD-1
Submitted on: 2/10/2018 10:44:29 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

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

Comments:

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

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.

Scientists report that half of the greenhouse gas emissions in our atmosphere were released after 1988 [1]. If the fossil-fuel industry had been upfront about greenhouse gas emissions and the effects to our climate, and had been part of the solution instead of the problem, we could have made a lot of progress at this point, rather than now seeing our polar ice caps melting and being in an “all-hands-on-deck” emergency state requiring a “double-down” on our greenhouse gas emissions.

This is reminiscent of efforts by the tobacco industry to mislead the public about the health effects of smoking, but in this case fossil fuel companies have threatened the planet’s health, and the harm is global in its reach. It’s no wonder why cities like New York have now filed lawsuits against key players in the fossil fuel industry, stating the City has spent billions and will need to spend billions more to combat the consequences of climate change, and are seeking to hold these companies responsible for those costs.

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.

Case in point, Hawaii Gas has repeated likened LNG to a ‘clean burning bridge fuel’ and completely omitted information about life-cycle emissions of LNG. The fact is that LNG is a potent greenhouse gas that some scientists say could push the climate over a “tipping point” in the next 18-25 years, causing runaway global warming. The drilling and extraction of natural gas from wells and its transportation in pipelines results in the leakage of methane, the primary component of natural gas that is 34 times stronger

than CO2 at trapping heat over a 100-year period and 86 times stronger over 20 years [2].

Hawaii's fossil fuel companies have also cited cost as a factor, but never mentioning 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 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.

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 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 do.

HB-1801-HD-1
Submitted on: 2/11/2018 8:58:23 AM
Testimony for CPC on 2/13/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Richard Reed	Individual	Oppose	No

Comments:

The renewables in gas utilities section does not seem viable to me. To my knowledge mainland landfill operators that capture methane find it economic to burn it in their garbage trucks that are fueled on site. Mainland sewage digestors find it easy to burn all their gas in electric generators for use on site. The schemes of using agricultural or forest biowaste to generate gas rely on diesel fuel for tractors and trucks. Filtering, de-watering and blending in order to introduce this gas to a small gas utility does not make sense to me.

HB-1801-HD-1
Submitted on: 2/11/2018 9:04:06 AM
Testimony for CPC on 2/13/2018 2:00:00 PM

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

Comments:

HB-1801-HD-1
Submitted on: 2/11/2018 9:37:45 AM
Testimony for CPC on 2/13/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Barbara L. George	Individual	Support	No

Comments:

SUPPORT!

HB-1801-HD-1
Submitted on: 2/11/2018 12:47:33 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

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

Comments:

Hello,

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

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.

Scientists report that half of the greenhouse gas emissions in our atmosphere were released after 1988 [1]. If the fossil-fuel industry had been upfront about greenhouse gas emissions and the effects to our climate, and had been part of the solution instead of the problem, we could have made a lot of progress at this point, rather than now seeing our polar ice caps melting and being in an “all-hands-on-deck” emergency state requiring a “double-down” on our greenhouse gas emissions.

This is reminiscent of efforts by the tobacco industry to mislead the public about the health effects of smoking, but in this case fossil fuel companies have threatened the planet’s health, and the harm is global in its reach. It’s no wonder why cities like New York have now filed lawsuits against key players in the fossil fuel industry, stating the City has spent billions and will need to spend billions more to combat the consequences of climate change, and are seeking to hold these companies responsible for those costs.

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.

Case in point, Hawaii Gas has repeated likened LNG to a ‘clean burning bridge fuel’ and completely omitted information about life-cycle emissions of LNG. The fact is that LNG is a potent greenhouse gas that some scientists say could push the climate over a “tipping point” in the next 18-25 years, causing runaway global warming. The drilling

and extraction of natural gas from wells and its transportation in pipelines results in the leakage of methane, the primary component of natural gas that is 34 times stronger than CO2 at trapping heat over a 100-year period and 86 timesHawaii's fossil fuel companies have also cited cost as a factor, but never mentioning 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 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.

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 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 do.

Sincerely,

Nanea Lo

HB-1801-HD-1
Submitted on: 2/11/2018 3:46:13 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Carlton York	Individual	Support	No

Comments:

I support this measure !

HB-1801-HD-1
Submitted on: 2/11/2018 5:49:14 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

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

Comments:

HB-1801-HD-1
Submitted on: 2/11/2018 6:09:22 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

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

Comments:

I support this bill, but with an amendment that it apply to ALL regulated activities of the gas company, not just 'grid connected electrical generation.'

HB-1801-HD-1
Submitted on: 2/11/2018 8:37:23 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Joseph Kohn MD	Individual	Support	No

Comments:

www.WeAreOne.cc

HB-1801-HD-1
Submitted on: 2/11/2018 9:42:14 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Gaye Chan	Individual	Support	No

Comments:

HB-1801-HD-1
Submitted on: 2/11/2018 9:55:15 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

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

Comments:

Aloha legislators,

Please amend with this (from Life of the Land):

"Fossil fuel means coal, natural gas, or petroleum. Fossil fuel shall not be sold after 2045. Regulatory agencies shall require regulated entities to reduce their use by 50% from 2010 baseline levels by 2030, and 75% reduction by 2040."

mahalo,

Cory Harden, Hilo

To: The Committee on Consumer Protection & Commerce (CPC)
From: Brodie Lockard, 262-1285
Date: Tuesday, February 13, 2018

In strong support of HB 1801 HD1

Dear Chair Takumi, Vice Chair Ichiyama 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: 2/12/2018 8:06:32 AM
Testimony for CPC on 2/13/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Larry HInds	Individual	Support	No

Comments:

YES to 1801. Renewable energy is the future for this tiny island!

HB-1801-HD-1
Submitted on: 2/12/2018 9:24:50 AM
Testimony for CPC on 2/13/2018 2:00:00 PM

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

Comments:

I SUPPORT HB1801,

Please protect our environment. Organic natural agriculture, without toxic contamination of our food and environment is necessary to protect the health, safety, and economic future of Hawaii's citizens.

Mahalo for your concerned consideration,

Mary Whispering Wind
PWT Maui, volunteer

HB-1801-HD-1
Submitted on: 2/12/2018 9:28:27 AM
Testimony for CPC on 2/13/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Angela Huntemer	Individual	Support	No

Comments:

Please support HB 1801. The gas compnaies need to be held to the same criteria for sustainablility as the other utility companties. Mahalo.

HB-1801-HD-1
Submitted on: 2/12/2018 11:05:02 AM
Testimony for CPC on 2/13/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Leslie Cole-Brooks	Individual	Support	No

Comments:

HB-1801-HD-1
Submitted on: 2/12/2018 12:41:10 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Seena Clowser	Individual	Support	No

Comments:

Dear Chair Takumi, Vice Chair Ichiyama, and CPC Committee Members,

I support HB1801, with the ammendment that it applies to all regulated activities of the gas company, not only those concerning “grid connected electrical energy generation.”

Thank you and Regards,

Seena Clowser

Makiki

HB-1801-HD-1
Submitted on: 2/12/2018 12:59:06 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

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

Comments:

-I 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."

-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 pass the misinformation and lead us to genuine 100% renewable energy in Hawaii without delay.

- LNG is a potent greenhouse gas that some scientists say could push the climate over a tipping point in the next 18-25 years, causing runaway global warming. The drilling and extraction of natural gas from wells and its transportation in pipelines results in the leakage of methane, the primary component of natural gas that is 34 times stronger than CO2 at trapping heat over a 100-year period and 86 times stronger over 20 years [1]. All the more reason the legislature must pass HB1801 HD1 so we get our gas utilities in sync with electric utilities in meeting our renewable energy goals.

-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.

-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 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 do.

HB-1801-HD-1
Submitted on: 2/12/2018 1:40:31 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

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

Comments:

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

HB-1801-HD-1
Submitted on: 2/12/2018 1:59:43 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	Individual	Support	No

Comments:

HB-1801-HD-1
Submitted on: 2/12/2018 2:39:37 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

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

Comments:

We must adhere to the established standard of 100% renewable energy.

NO LNG in Hawaii.....it's a step backward.

HB-1801-HD-1
Submitted on: 2/12/2018 5:47:30 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Lucia You	Individual	Support	No

Comments:

HB-1801-HD-1
Submitted on: 2/12/2018 6:28:59 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

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

Comments:

HAWAII TEAMSTERS AND ALLIED WORKERS, LOCAL 996

Affiliated with the International Brotherhood of Teamsters

1817 Hart Street
Honolulu, Hawaii 96819-3205

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

Testimony to the House Committee on Consumer Protection and Commerce

Tuesday, February 13, 2018 2:00 p.m.
Conference Room 329, Hawaii State Capitol building
Re: House Bill 1801 HD1

Chair Takumi, Vice Chair Ichiyama and Members of the Committee on Consumer Protection and Commerce

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

HB 1801 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 lack benefits for the consumer.

Thank you for the opportunity to testify on HB 1801.

LATE

HB-1801-HD-1
Submitted on: 2/13/2018 2:42:50 PM
Testimony for CPC on 2/13/2018 2:00:00 PM

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

Comments:

We need to get off fossil fuels as soon as possible. Let us lead the way for the rest of the country here in Hawaii. Mahalo, Laura Gray

LATE

Aloha Chair Takumi and members of the committee

My name is Lila Leue. I'm ten years old, born and raised in Waianae. It's the most beautiful place, with some of the best beaches on Oahu.

But sea level rise is threatening our beaches.

Sea level rise is caused by greenhouse gases.

Most people don't know this but methane from which LNG is made, is a much worse greenhouse gas than CO2.

It's true that LNG is cleaner than oil or coal when you burn it. But if you look at the whole life of LNG, from the moment it comes out of the ground to the moment it is burned, it is dirtier than oil or coal.

I am really worried that sea level rise is going to flood us. Even the Trump White House says we could have 8 feet of sea level rise by the end of the century.

So please, if you are worried about the future of children like me, don't allow them to bring a lot of LNG to Hawaii.

Thank you for this opportunity to testify.