Testimony Presented Before the
House Committee on Finance
Friday, February 22, 2019 at 11:00 a.m.
By
Vassilis L. Syrmos, Vice President for Research and Innovation
University of Hawai'i System

HB 1584 HD2 – RELATING TO CARBON EMISSIONS

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

The University of Hawai'i (UH) supports the intent of this measure that calls for a comprehensive study of a statewide carbon tax as a possible means of weaning the state off its dependency on fossil fuels and transitioning it toward clean energy sources.

While UH is staffed with the necessary researchers and specialist knowledgeable in the areas that need to be explored under this proposed tax, such a complex, multi-faceted study must be adequately funded by the State to ensure that UH can deliver accurate and comprehensive reports required by the Legislature. If the committee decides to add an appropriation to the University of Hawai'i, UH is in support of its intent as long as it is in addition to the University's Biennium Budget Request.

Thank you for the opportunity to testify on this measure.

# OFFICE OF PLANNING STATE OF HAWAII

DIRECTOR OFFICE OF PLANNING

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# Statement of LEO R. ASUNCION

Planning Program Administrator, Office of Planning before the

## HOUSE COMMITTEE ON FINANCE

Friday, February 22, 2019 11:00 AM State Capitol, Conference Room 308

in consideration of HB 1584, HD 2 RELATING TO CARBON EMISSIONS.

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

The Office of Planning offers comments on HB 1584, HD 2, to appropriate funds to the University of Hawaii to conduct a comprehensive study of a statewide carbon tax.

The Office of Planning notes that the United Nations Framework Convention on Climate Change (UNFCCC) defines "carbon pricing" as pricing mechanisms taking on multiple forms aimed to create a price signal on greenhouse gas (GHG) emissions. Carbon pricing curbs GHG emissions by placing a fee on and/or offering an incentive to emit less GHGs. This is achieved by the following carbon pricing mechanisms:

- 1) An Emission Trading System (ETS):
  - a. Through a Compliance Carbon Offset Market: Also known as "cap and trade," a market-based and regulatory hybrid approach to controlling pollution reductions in the emissions of greenhouse gases (GHGs). This sets a limit (the cap) on the GHG emissions that can be emitted. Entities covered by the ETS will be able to trade permits (allowances) to emit GHGs and purchase carbon credits to offset GHG emissions.
  - b. Through a Voluntary Carbon Offset Market: These voluntary carbon offset markets enable businesses, governments, NGOs, and individuals to offset their emissions by purchasing carbon credits through the carbon markets. The credits are validated by independent third-parties. Compared to the compliance market, trading volumes in the voluntary market are much smaller because demand is created only by voluntary buyers (corporations, institutions and individuals) to buy carbon credits whereas in a compliance market, demand is created by a regulatory instrument.

- 2) Emission Reduction Funds: Taxpayer funded programs in which a government buys carbon credits created by emission reduction projects; and
- 3) Carbon Tax: A tax on fossil fuel usage to create a price signal felt across an entire economy, thereby incentivizing a move away from carbon-intensive production.

The Office of Planning is currently investigating and establishing a State-administered Carbon Offset Program in partnership with the Greenhouse Gas Sequestration Task Force, pursuant to Hawaii Revised Statutes (HRS) § 225P-6, (Act 16, Session Laws of Hawaii 2018).

The Office of Planning is presently tasked by HRS § 225P-6 to provide expertise in carbon offsetting to public agencies and private entities and assists in coordinating carbon offset projects of public agencies, including but not limited to the generation, certification, and marketing of carbon credits. HRS § 225P-6 further requires that the proceeds and revenues generated by State departments from sales of carbon offset credits to be deposited into suitable funds particularly for reinvestment to generate further carbon offset credits; provided that the funds are used in accordance with the purposes of the fund; or allows for proceeds and revenues generated by State agencies from sales of carbon credits other than as described in the abovementioned requirement to be invested in projects enhancing the State's efforts to mitigate or adapt to climate change and are consistent with the State's sustainability goals and policies.

In accordance with HRS § 225P-6, the Office of Planning will be providing a report of its findings and recommendations, including any proposed legislation, to the Legislature and the Climate Change Mitigation and Adaptation Commission no later than twenty days prior to the convening of the Regular Session of 2020.

Thank you for the opportunity to offer comments on HB 1584, HD 2.

DAVID Y. IGE GOVERNOR OF HAWAII





## STATE OF HAWAII **DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621 HONOLULU, HAWAII 96809

**Testimony of SUZANNE D. CASE** Chairperson

**Before the House Committee on FINANCE** 

Friday, February 22, 2019 11:00 AM **State Capitol, Conference Room 308** 

In consideration of **HOUSE BILL 1584, HOUSE DRAFT 2** 

# RELATING TO CARBON EMISSIONS

House Bill 1584, House Draft 2 proposes to appropriate funds for a comprehensive study of a carbon tax to help policymakers better understand the opportunities, impacts, and options that a carbon price policy could bring to Hawaii. The Department of Land and Natural Resources (Department) supports this measure provided that its passage does not replace or adversely impact priorities indicted in the Executive Supplemental Budget request.

The Department supports the introduction of this measure which proposes to appropriate funds for a comprehensive study of a carbon tax to help policymakers better understand the opportunities, impacts, and options that a carbon price policy could bring to Hawaii, in support of the Hawaii Climate Change Mitigation and Adaptation Commission's statement endorsing a price on carbon, issued on November 27, 2018.

The Department also supports the amendments as they closely involve the Hawaii Climate Change Mitigation and Adaptation Commission in the study recommended in HB 1584, and will help make the study's outcomes more relevant to the overall mission of the State to develop a sustainable and equitable way to reduce its greenhouse gas emissions.

The Department co-chairs the State's Climate Change Commission and is grateful for including the Commission in expanded consultation regarding the scoping of the study, in reporting at the Commission's quarterly meetings, and by working with its informal and permitted interaction groups, to make the study as relevant as possible to State climate change goals.

Thank you for the opportunity to comment on this measure.

### SUZANNE D. CASE

CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA FIRST DEPUTY

M. KALEO MANUEL

AQUATIC RESOURCES AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT ENGINEERING ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS



Email: communications@ulupono.com

# HOUSE COMMITTEE ON FINANCE Friday, February 22, 2019 — 11:00 a.m. — Room 308

# Ulupono Initiative Supports HB 1584 HD 2, Relating to Carbon Emissions

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

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

**Ulupono supports HB 1584 HD 2**, which conducts a study of a statewide carbon tax, because it aligns with our goal of reducing fuel use in Hawai'i.

A carbon tax would provide a major financial incentive for businesses and residents to keep their carbon emissions to a minimum. An October 2018 United Nations report estimated that governments would need to impose effective carbon prices of \$135 to \$5,500 per ton of carbon dioxide pollution by 2030 to keep overall global warming below 1.5-degrees Celsius or 2.7-degrees Fahrenheit.

If global warming continues at its current rate, Hawai'i can expect an increase in the frequency and intensity of hurricanes that could devastate our islands. The Hawai'i Climate Change Mitigation and Adaptation Commissions' report on sea-level rise estimated \$19 billion in economic loss from chronic flooding, affecting more than 25,800 acres and 19,800 people.<sup>1</sup>

A carbon tax may also provide the State with financial resources to enact further environmental initiatives or could provide tax relief to taxpayers. Such approaches can reduce or avoid net tax increases to the taxpayer while still providing strong incentives to switch to less carbon intensive electricity and transportation options. The Commissions' commitment to an equitable and contextually appropriate solution for Hawai'i while also changing behavior is critically important.

 $<sup>^1\,</sup>http://www.hawaiinewsnow.com/2018/09/20/hawaii-study-impacts-sea-level-rise-already-being-felt-it-will-only-get-worse/$ 



This proposed study is a good first step toward identifying the best carbon tax design in Hawai'i to meet these important goals. Thank you for this opportunity to testify.

Respectfully,

Murray Clay Managing Partner



# **Testimony in support of HB1584**

# HOUSE COMMITTEE ON FINANCE

# Hearing Friday, February 22, 2019 11:00 a.m.

Aloha Chair Luke, Vice Chair Cullen and Committee Members,

I am writing in strong support of HB1584.

The price of fossil fuels should reflect their true cost. A carbon tax is a means of adding the cost of the negative environmental externalities to the price of fossil fuels. It is important that it generates the right incentives and is not regressive.

The proposed study would be a first step towards developing an effective carbon tax.

Mahalo,

Dr. Lisa Marten

hiso Marten

Executive Director Healthy Climate Communities healthyclimate@hawaii.rr.com

### HOUSE COMMITTEE ON FINANCE

February 22, 2019 11:00 a.m. Room 308

In SUPPORT of HB1584 HD2: Relating to Carbon Emissions

Aloha Chair Luke, Vice Chair Cullen, and Committee Members,

On behalf of the Environmental Caucus of the Democratic Party of Hawai'i (ECDPH), we **strongly support HB1584 HD2**, relating to carbon emissions and offer one amendment.

Climate change and efforts to mitigate its effects is the single most pressing issue of our time. The ECDPH has listed a carbon "tax", in the form of a carbon fee and dividend, as one of our top legislative priorities this session. This bill would yield an outcome that would provide strong policy guidance on what carbon pricing mechanism is best for Hawai'i. While it is important to carefully review the best options, *there is no time to waste*.

There is no question that we must address climate change posthaste. With the recent Intergovernmental Panel on Climate Change (IPCC) special report (2018) there is clear consensus among scientists globally that we must limit global warming to 1.5 degrees Celsius to avoid catastrophic and irreversible effects that would impact all of humankind. To reach this goal, we must cut global anthropogenic carbon emissions in half by 2030 and reach net zero emissions by mid-century. It is evident that "rapid and far-reaching transitions in energy, land, urban and infrastructure, and industrial systems (IPCC SR 2018)" are necessary. Both the IPCC and the Hawai'i Climate Change Commission support carbon pricing as the most effective action to reduce emissions.

**Proposed amendment**: considering that carbon pricing is one of the most studied carbon mitigation policies, there is ample data to complete this study in an accelerated time frame. We propose that UH submit their final report to the Legislature no later than



# Environmental Caucus The Democratic Party of Hawai'i

December 31, 2019. In doing so, appropriate carbon pricing legislation may be enacted in during the 2020 session.

Mahalo for the opportunity to testify in **strong support of HB1584 HD2** and your attention to our amendment.

## Kimiko LaHaela Walter

Interim Chair, Energy and Climate Change Subject Committee, Environmental Caucus of the Democratic Party of Hawai'i

State Central Committee Representative, Environmental Caucus of the Democratic Party of Hawai'i

<u>HB-1584-HD-2</u> Submitted on: 2/21/2019 10:58:30 AM

Testimony for FIN on 2/22/2019 11:00:00 AM

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

Comments:



# Written Statement of Elemental Excelerator before the House Committee on Finance Friday, February 22, 2019

# In consideration of <u>HB 1584 HD 2</u> RELATING TO CARBON EMISSIONS

# Aloha Chair Luke, Vice-Chair Cullen, and Members of the House Committee on Finance:

Elemental Excelerator respectfully <u>submits support for HB 1584 HD 2</u>, which appropriates funds to the Research Corporation of the University of Hawaii to conduct a comprehensive study of a statewide carbon tax.

Elemental Excelerator is a Honolulu-based growth accelerator program founded and operating in Hawai'i. We have awarded over \$30 million to 82 companies resulting in 56 demonstration projects in Hawai'i & Asia Pacific. Each year, we evaluate over 500 companies and look for innovative entrepreneurs from around the world to come to Hawai'i and find transformative solutions to help us achieve our 100% clean energy goals and solve our most pressing environmental problems. We select 15-20 companies annually that best fit our mission and fund each company up to \$1 million.

In April 2018, Elemental Excelerator commissioned a study entitled *Transcending Oil: Hawai'i*'s *Path to a Clean Energy Economy.* The study found that in Hawai'i, transitioning to renewable energy is cheaper than sticking with oil. The faster we go, the cheaper it will be. As a policy recommendation, the study identified pricing carbon to realign incentives to reach Hawai'i's clean energy goals.

We support HB 1584 HD 2 because we believe in data-driven solutions. A comprehensive study of carbon tax options will help our State and its legislators understand the opportunities, impacts, and options that a carbon pricing policy could bring to Hawai'i and illuminate the most reasonable structure for Hawaii's emissions mix.

Transcending Oil states that, "a reasonably high carbon price functions similarly to high oil prices and would encourage faster renewable energy deployment in the electric power sector. An appropriate tax rate could also reduce VMT [vehicle miles traveled] and speed up sales of EVs [electric vehicles] if coupled with other land use and transportation policies. Unlike renewable deployment growth driven by oil prices, which transfers money from Hawai'i ratepayers to non-Hawaii oil producers, a carbon tax generates revenue that stays in Hawai'i. These funds can be used to further accelerate clean energy deployment through biofuel development, EV incentives, and other activities to help meet Hawaii's Paris commitments.

They can also be returned directly to the people of Hawaii to help offset the state's high living costs or to fund education and transition assistance for displaced workers."

Mahalo for the opportunity to provide testimony on this legislation.

Sincerely,

Aki Marceau

Caldem

Managing Director, Policy & Community-Hawai'i

<sup>&</sup>lt;sup>1</sup> Larsen, J., Mohan, S., Herndon, W., Marsters, P., & Pitt, H. (2018, May 01). Transcending Oil: Hawaii's Path to a Clean Energy Economy, p.38, Retrieved from <a href="https://rhg.com/research/transcending-oil-hawaiis-path-to-a-clean-energy-economy/">https://rhg.com/research/transcending-oil-hawaiis-path-to-a-clean-energy-economy/</a>



To: The House Committee on Finance

From: Brodie Lockard, Hawaii State Climate Lead, Organizing for Action

Date: Friday, February 22, 2019, 11:00 am

# In strong support of HB 1584 HD2

Dear FIN Chair Luke, Vice Chair Cullen, and Committee Members—

Organizing for Action strongly supports HB 1584 HD2.

Numerous prominent economists from across the political spectrum agree that a carbon tax is the single most effective method for reducing carbon dioxide emissions, and thus climate change. Given the myriad negative effects of climate change that Hawaii has already been suffering under for years, the legislature should proceed with all speed to study and implement such a tax.

A carbon tax is complex, involving infrastructure, construction, transportation, investment, tourism, land use, energy, food, air travel, public perception and acceptance, timing, and many industries.

Any carbon tax should be planned carefully, considering all of these factors, to be effective, equitable and accepted by the general public, whom it will affect. A recent gas tax hike in France was widely seen as disproportionately affecting lower-income citizens, causing violent "yellow vest" riots.

UH is a logical organization for conducting a carbon tax study. Experts there in all the relevant fields can inform the legislature about the right way to implement an effective carbon tax in Hawaii. Please support HB 1584 HD2 for the future of the state and all who live here.

Thank you for the opportunity to testify.

Brodie Lockard Hawaii State Climate Lead, Organizing for Action



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

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

Friday, February 22, 2019

TIME: 11:00 A.M.

PLACE: Conference Room 308

HB 1584, HD2 RELATING TO CARBON EMISSIONS

COMMENTS

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

Life of the Land is Hawai`i's own energy, environmental and community action group advocating for the people and `aina for 49 years. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.

Life of the Land has a problem with the statement: Our way is right and if you think differently you are wrong.

The preamble of the bill contains a number of assumptions based on assumptions and politics that are open to disagreement.

Carbon taxes have broad support among the economists who believe that tax policies solve everything (Tax carbon fuel and demand will fall).

Many justice-based organizations believe that efficiency isn't the golden bullet, that tax policy is too slow to drive change and too protective of polluters.

There are many options.

Option 1. Carbon Tax. Economists supported. Tax-based policies promote efficiency

<u>Level</u>: Low enough for community buy? Sufficiently high to affect behavior? Very high to stop global temperature rise at 1.5 degrees?

Speed: Fast enough?

<u>Target</u>: Carbon or greenhouse gases? Fossil fuel only? Agriculture? Sequestration?

<u>Impacts</u>: Revenue neutral? Revenue neutral for the State or for each island? Shift taxes between electricity and transportation? Revenue streams for ecomically challenged, renewable energy developers, reliance projects, and/or managed retreat?

Option 2: Ban all fossil fuel cars effective 2030.

Option 3: GHG Disclosure. Allow consumers to see the levels of embedded GHG in fuels.

Option 4: Rapidly replace costly aging fossil fuel generators with below avoided cost solar plus batteries.

Option 5. Require the Gas Company, owned by climate deniers, to get off fossil fuel.

Option 6. Install solar panels on all economically challenged residences at no cost to the resident.

Option 7. Cap emissions? Promote sequestration?

Option 8. Study the Problem and the Solution

The bill states: "The legislature finds that decisive action is needed to avoid the worst impacts that climate change...Recognizing the urgent need for an accelerated transition away from fossil fuels...The purpose of this Act is to appropriate funds for a comprehensive study."

# Delaying action so a carbon tax study can be conduction by a pro-carbon tax entity seems like a waste of time and money

The <u>Indigenous Environmental Network</u> and the <u>Climate Justice Alliance</u> published a report on Carbon Pricing in 2017. "Carbon pricing is a name for a tool that governments, financial institutions, and corporations have adopted in order to try to reconcile their continuing commitment to fossil fuel use with the need to appear to take action on climate change. Carbon pricing includes emissions trading, cap and trade, carbon offset trading, carbon taxes, and penalty and payment schemes."<sup>1</sup>

<u>Food & Water Watch</u> supports 100% renewable energy by 2035. "Carbon taxes – while popular with economists – <u>have proven to be ineffective at actually reducing emissions</u> in the real world. And according to <u>research</u> prepared for the Citizens' Climate Lobby, we will actually see an increase in electricity from fracked gas under a carbon tax plan they studied."<sup>2</sup>

Annie Leonard, <u>Greenpeace USA Executive Director</u>, "Let's not forget one of the most effective ways to stop climate change — leaving oil, coal, and gas in the ground... Proposals for carbon taxes and cap-and-trade have taken up too much climate-solution oxygen in recent years, and so far they have been flimsy half measures porous with loopholes. They come nowhere close to meeting the scale of the crisis."<sup>3</sup>

Mahalo

Henry Curtis
Executive Director

<sup>&</sup>lt;sup>1</sup> http://www.ienearth.org/wp-content/uploads/2017/11/Carbon-Pricing-Final-Print-Final-HiRez.pdf

<sup>&</sup>lt;sup>2</sup> https://www.foodandwaterwatch.org/news/carbon-pricing-5-reasons-it-wont-work

<sup>&</sup>lt;sup>3</sup> https://www.greenpeace.org/usa/if-we-dont-stop-producing-fossil-fuels-we-wont-make-it/



# Young Democrats of Hawaii Democratic Party of Hawaii

# Testimony presented before the Committee on Finance Friday, February 22, 2019 at 11:00 a.m. Conference Room 308

### House Bill 1584, House Draft 2

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

House Bill 1584, House Draft 2 appropriates funds to the Research Corporation of the University of Hawaii to conduct a comprehensive study of a statewide carbon tax. In January 2019 the Young Democrats of Hawaii conducted a member survey to identify and prioritize important issues facing young people today. Taking action on climate change was identified as one of the top three issues. YDHI members recognize that the impacts of climate change are already being felt throughout the world and in the State of Hawaii, and that actions must be taken immediately to ensure a viable future for all of Hawaii residents. The Young Democrats of Hawaii strongly supports the passing of HB1584, HD2.

Leading climate scientists warned in the latest report released by the Intergovernmental Panel on Climate Change that the world will risk experiencing catastrophic impacts of climate change if we fail to reduce greenhouse gas emissions by 45% by 2030 and net 0% by 2050. Even as Hawaii's renewable energy portfolio grow and diversify, over 70% of Hawaii's current energy demands is met by burning fossil fuels. A carbon tax policy is the fairest, single most effective and efficient method for reducing our reliance on imported oil. Carbon pricing has already been proposed or implemented across Canada, Europe, and Japan. The US, one of the biggest emitters of greenhouse gas emissions, still do not have a statewide carbon tax. If HB 1584, HD2 passes, Hawaii could potentially become the first state to impose a carbon tax.

Finally, YDHI believes that this study will help Hawaii create the most efficient and effective carbon mitigation policy, however, we caution that this policy must also be equitable for all communities, including low-income and vulnerable populations.

Thank you for the opportunity to testify.

Sincerely,

Executive Committee
Young Democrats of Hawaii



Chair Luke Vice Chair Cullen House Committee on Finance

Friday, February 22, 2019 11:00 AM

# TESTIMONY IN SUPPORT WITH AMENDMENTS OF HB1584 HD2 RELATING TO CARBON EMISSIONS

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

My name is Jun Shin. I am the Environmental Justice Action Committee Chair for the Young Progressives Demanding Action (YPDA). YPDA represents approximately 1,000 Hawai'i residents, mostly of Honolulu who seek to build a Hawai'i that is just, equitable, and sustainable. YPDA is in **support of HB1584 HD2 with amendments, Relating to Carbon Emissions**.

Climate change is not a far away issue, the United Nations Intergovernmental Panel on Climate Change (IPCC) said in a summary of their October 8th report that, "Global net human-caused emissions of carbon dioxide (CO2) would need to fall by about 45 percent from 2010 levels by 2030, reaching 'net zero' around 2050"[1]. With climate change an imminent threat, we must support the most effective action for Hawai'i's future and carbon pricing is potentially the best way to mitigate climate emissions. Since a tax on carbon can have unintended implications if not done right, as a study, we can ensure that we can find the right carbon pricing initiative to meet Hawaii's needs, while taking on climate change at the same time as we understand the financial struggles many families face. It is imperative when looking at carbon pricing, that we keep economic, social, and environmental justice in mind, so we can effectively reduce our carbon emissions while ensuring in the process of crafting policy that Hawai'i's workers and their families are kept in mind.

# **Proposed Amendments:**

Please incorporate public engagement. A tax on carbon emissions will impact all of Hawai'i residents, so we would like the opportunity for our members and the public to be involved in the process. With the emphasis on the serious lack of time and the existence of previous data to assist the university as carbon pricing has been studied as a major environmental policy with other states and even the United States

Congress attempting to pass carbon pricing initiatives and legislation, we would like to propose for UH to submit their final report to the legislature no later than December 31, 2019 to be ready in time for legislation to be passed in the 2020 Legislative Session.

Please **pass HB1584 HD2 with amendments through your committee**, for the future of Hawai'i and it's residents.

Thank you for the opportunity to testify,

Jun Shin Environmental Justice Action Committee Chair Young Progressives Demanding Action (YPDA) 1561 Kanunu St. Cell: 808-255-6663

Email: junshinbusiness729@gmail.com

[1] https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/









### HOUSE COMMITTEE ON FINANCE

February 22, 2019, 11:00 A.M.
Room 308
(Testimony is 2 pages long)

# **TESTIMONY IN STRONG SUPPORT OF HB 1584 HD2**

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

Blue Planet Foundation **strongly supports** HB 1584, HD2 a measure that dedicates funding for a comprehensive study of a carbon tax to help policymakers better understand the opportunities, impacts, and options that such a policy could offer Hawaii.

Climate change will have devastating, long-term consequences on Hawaii's environment, economy, and quality of life. For these reasons and others, the State of Hawaii has committed to a decisive and irreversible transition away from fossil fuels, and a swift transition to a clean energy economy powered by one hundred percent renewable energy. The legislature has passed aggressive carbon reduction goals, including the goal to be net carbon neutral by 2045

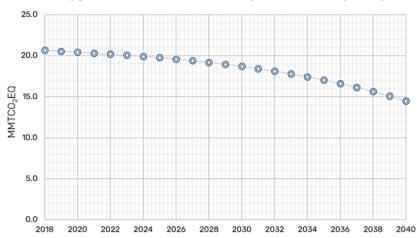


Figure 1. Best-case Hawaii greenhouse gas emissions trend with current state policies

(Act 15 of 2018) and strive to achieve the objectives of the Paris Climate Agreement (Act 32 of 2017). Setting these bold targets is important, but alone it is insufficient. Despite a growing portfolio of standards, incentives, and targets, Hawaii's current policies will not succeed in significantly reducing Hawaii's current overall carbon emissions over the next few decades.

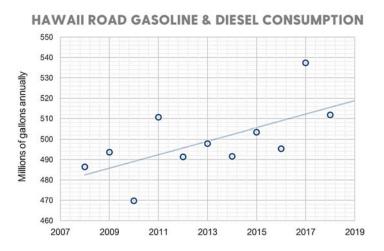
Pricing carbon emissions via a tax on fossil fuels has emerged as a broadly supported, economically efficient, and effective policy tool to reduce climate-changing carbon emissions. Economists and leaders from across the political spectrum—including Nobel-prize winning economists, four former chairs of the U.S. Federal Reserve, and 15 former chairs of the U.S. Council of Economic Advisers—have endorsed a carbon tax as a necessary market-based solution to our climate challenge.

Currently, the prices of electricity, gasoline, and other fuels reflect little or none of the long-term costs from climate change or even the near-term health costs of burning fossil fuels. This immense "market failure" suppresses incentives to develop and deploy carbon-reducing measures such as energy efficiency, renewable energy, low-carbon fuels, and conservation-based behavior such as bicycling, recycling, and overall mindfulness toward energy consumption. Taxing fuels according to their carbon content will infuse these incentives at every link in the chain of decision and action—from individuals' choices and uses of vehicles, appliances, and housing, to businesses' choices of product design, capital investment, and facilities.

A carbon tax—if not designed correctly—could disproportionately impact low- to moderate-income residents. Most low- to moderate-income households spend a larger percentage of their income on gasoline, other fuels, and electricity than do higher-income households. For example, in 2014, the wealthiest 20% of U.S. households spent just 2.7% of their after-tax income on gasoline; the percentage for the lowest quintile, 10.8%, was four times as high. When viewed in absolute dollar terms, however, the bulk of carbon taxes will be paid, directly or indirectly, by households and visitors of above-average means. Researchers at the University of Hawaii at Manoa have found that the carbon intensity of visitor activities is much higher than those of residents. Regardless, a variety of mechanisms exist to reduce the regressive nature of a carbon tax, including increasing the state-level match of the Earned Income Tax Credit and making the match refundable, reducing existing taxes—particularly those that are disproportionately paid by lower income residents (such as the General Excise Tax on food and medicine), or providing a direct dividend to residents. These are critical issues that warrant thorough examination.

Blue Planet Foundation supports HB 1584 HD2 to better understand if and how pricing carbon can accelerate Hawaii's cost-effective transformation to a 100% clean energy future while ensuring that the transition is fair, equitable, and beneficial for all.

Thank you for the opportunity to testify.





### HOUSE COMMITTEE ON FINANCE

February 22, 2019 11:00 AM Room 308

In SUPPORT of HB 1584 HD 2: Relating to Carbon Emissions

Aloha Chair Luke, Vice Chair Cullen, and committee members,

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i **strongly supports HB 1584 HD 2- Relating to Carbon Emissions.** This bill appropriates funds to the University of Hawaii for the Research Corporation of the University of Hawaii to conduct a comprehensive study of a statewide carbon tax.

In their most recent report, the Intergovernmental Panel on Climate Change outlines the catastrophic effects climate change will have on our planet if we do not quickly ramp-down greenhouse gas emissions by 45% by 2030 and zero by 2050. The Panel reported that carbon pricing mechanisms are critical to reach these goals, but did not specify a one-size-fits-all policy and instead outlined a range of prices that could be implemented.<sup>1</sup>

The World Bank and International Monetary Fund has also urged countries to impose a price on carbon emissions, stating that there is an "obvious consensus that putting a price on carbon pollution is by far the most powerful and efficient way to reduce emissions." Likewise, our state's Climate Change Mitigation and Adaptation Commission (The Commission) stated that putting a price on carbon is the most effective single action that will achieve Hawai'i's ambitions and necessary reduction goals, but noted that a carbon pricing mechanism must be equitable and appropriate for Hawai'i, must demonstrate how this is a critical policy tool to protect our future, and must be adequate to change behavior. Additionally, the Commission urged the State to adequately resource through legislative action a partnership with counties and local organizations to develop and undertake a multi-year educational/public service announcement campaign around carbon pricing.<sup>3</sup>

<sup>1</sup> https://www.bloomberg.com/news/articles/2018-10-10/how-much-does-carbon-need-to-cost-somewhere-from-20-to-27-000

<sup>&</sup>lt;sup>2</sup> https://www.nytimes.com/2016/04/24/us/politics/carbon-pricingbecomes-a-cause-for-the-world-bank-and-imf.html

The Sierra Club's view on carbon pricing is that effectiveness and equity are essential, design and implementation details matter a lot, and there are many different carbon pricing policy options that can potentially work. We feel the urgency of climate change, but must ensure that whatever carbon tax is implemented it will be the right fit for Hawai'i. Any proposal must integrate environmental and economic justice principles while achieving measurable carbon emissions reductions.

Ideally, revenues obtained from carbon pricing programs should be used to: (1) expand clean energy and energy efficiency to further reduce carbon emissions, and to invest in climate adaptation; (2) finance targeted investments in frontline communities affected by conventional air pollution from polluting sources; (3) provide financial assistance to workers affected by the transition away from fossil fuels, and for new economy job training and clean energy investments in frontline communities; and (4) offset the regressive effects of increased taxes in low-income households.<sup>4</sup>

The Sierra Club of Hawai'i recognizes that while we have existing carbon markets like California's cap-and-trade system and the Regional Greenhouse Gas Initiative in the Eastern United States, a "carbon tax" has yet to be implemented in any other state. We also know that Hawai'i has the highest cost of living in the United States, that our tax system is generally regressive, and there are is potential for a new tax to disproportionately affect low and moderate income communities.

We therefore believe that the logical first step to implement an equitable and effective carbon tax in Hawai'i is passage of HB 1584- a bill that is dedicated to studying the feasibility and impacts of carbon pricing in Hawai'i. The study is to be completed by the University of Hawai'i by October 31, 2020 and will provide strong policy guidance for which type of carbon pricing mechanism Hawai'i should pursue during the 2021 legislative session.

# We support the HD 1 and ask that the committee consider these additional amendments:

- Adding language in Section 2, part a (page 6, lines 12-21) to encourage public outreach and education around carbon pricing, to be consistent with the Commission's recommendations:
  - The university of Hawaii shall engage with stakeholders, such as any relevant state agencies, including the department of taxation, business and industry groups, non-governmental organizations with an interest in energy and climate issues, non-governmental organizations with an interest in economic justice issues, researchers at the university of Hawaii, legislators, the Hawaii climate change mitigation and adaptation commission, and any other relevant parties, to develop the appropriate scope of the study and begin a multi-year educational

<sup>&</sup>lt;sup>4</sup> https://www.sierraclub.org/sites/www.sierraclub.org/files/CarbonPricingGuidance.pdf

and public outreach campaign regarding carbon pricing and the findings of this study.

Hawai'i is already leading the nation with our goal of becoming carbon neutral by 2045, but we must do more to ensure the transition to clean energy is accelerated and equitable. HB 1584 is a necessary tool that can be used to engage and educate the public on carbon pricing, direct the legislature on what pricing mechanism we should prioritize, and help us actualize our ambitious carbon neutrality and clean energy goals.

Thank you very much for this opportunity to provide testimony in **support of HB 1584 HD 2**.

Mahalo,

godi frolinoski

Jodi Malinoski, Policy Advocate



# The Nature Conservancy Hawai'i Program 923 Nu'uanu Avenue Honolulu, HI 96817

Tel(808) 537-4508 Fax(808) 545-2019 nature.org/hawaii

Testimony of The Nature Conservancy of Hawai'i Supporting HB 1584 HD2 Relating to Carbon Emissions House Committee on Finance Friday, February 22, 2019, 11:00AM, Room 308

The Nature Conservancy of Hawai'i is a non-profit conservation organization dedicated to the preservation of the lands and waters upon which all life depends. The Conservancy has helped protect more than 200,000 acres of natural lands in Hawai'i and Palmyra Atoll. We manage 40,000 acres in 13 preserves and work in over 30 coastal communities to help protect the near-shore reefs, waters and fisheries of the main Hawaiian Islands. We forge partnership with government, private parties and communities to protect forests and coral reefs for their ecological values and the many benefits they provide to people.

The Nature Conservancy supports HB 1584 HD2 directing the University of Hawai'i to undertake a comprehensive examination of carbon pricing and options and effects from a statewide carbon tax.

Climate change caused by burning fossil fuels is an unprecedented threat to every person in Hawai'i. It is our responsibility to do what we can and what is necessary reduce our own carbon emissions, however small on a global scale, to contribute to the worldwide effort needed to mitigate the growing effects of climate change. Many prominent economists agree that a carbon fee, increasing steadily over time, is an efficient and effective way to reduce carbon emissions. It sends a powerful signal and incentive to businesses and consumers to reduce emissions. Such a fee must also be carefully crafted to be fair as well as offset regressive effects on those with lower incomes.

Even if we drastically reduce CO<sub>2</sub> emissions now, however, we will still feel certain effects of climate change. In Hawai'i, science indicates that this will likely include:

- More frequent and more severe storms that can increase runoff and siltation;
- Overall, less rainfall and therefore less fresh water;
- Higher temperatures that affect watershed and agricultural health, while being beneficial to invasive species;
- Sea level rise and high waves that will harm coastal areas and groundwater systems;
- Ocean acidification and warming that will inhibit the growth of protective coral reefs.

In response, we must plan and implement mitigative and adaptive measures to ensure the resilience of our natural and human systems.

In addition to reducing emissions, investing in nature is proving to be an effective response to climate change. For example, two recent studies by The Nature Conservancy and partners found that **natural climate solutions (i.e., conservation, restoration, and improved land management on natural and agricultural lands) can provide carbon storage and avoid greenhouse gas emissions equivalent to 21% of current U.S. annual emissions and 37% of cost-effective mitigation needed through 2030 toward holding global warming below 2°C.<sup>1, 2</sup> And, a team from The Nature Conservancy, University of California at Santa Cruz, Stanford University, and the US Geological Survey has developed biophysical models showing that <b>healthy coral reefs can absorb up to 97% of wave energy**, protecting coastal properties from the power of the sea. Conversely, the loss of just one meter of reef could result in a doubling of the cost of damage.<sup>3</sup>

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

<sup>1</sup> Fargione, Joseph E., Steven Basset, et al. "Natural Climate Solutions for the United States.", *Science Advances* 2018, **4**: eaat1869, November 14, 2018. <a href="http://advances.sciencemag.org/content/4/11/eaat1869">http://advances.sciencemag.org/content/4/11/eaat1869</a>

<sup>&</sup>lt;sup>2</sup> Griscom, Bronson W., Justin Adams, et al. "Natural Climate Solutions." *Proceedings of the National Academy of Sciences*. October 31, 2017 114 (44) 11645-11650. www.pnas.org/content/114/44/11645

<sup>&</sup>lt;sup>3</sup> Ferrario, Filippo, Michael W. Beck, et al. "The effectiveness of coral reefs for coastal hazard risk reduction and adaptation." *Nature Communications* volume5, Article number: 3794 (2014). <a href="https://www.nature.com/articles/ncomms4794">www.nature.com/articles/ncomms4794</a>

<u>HB-1584-HD-2</u> Submitted on: 2/20/2019 8:51:52 PM

Testimony for FIN on 2/22/2019 11:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Benton Kealii Pang, Ph.D.	Individual	Support	No

Comments:

From: Laura Ramirez <noreply@jotform.com>
Sent: Wednesday, February 20, 2019 7:14 PM

To: FINtestimony

Subject: Re: Support HB1584, a progressive carbon tax study - Laura Ramirez

Support HB1584, a progressive carbon tax study		
Name	Laura Ramirez	
Email	lauraramirez87@hotmail.com	
Subject	Testimony in SUPPORT of HB1584	
Testimony	Aloha Chair Luke, members of the committee,	
	Both the Intergovernmental Panel on Climate Change and the Hawai'i Climate Change Commission support carbon pricing as the most effective action to reduce emissions. However, no state has adopted a carbon tax, and Hawai'i's carbon tax could disproportionately affect low and moderate-income communities if not implemented correctly.	
	I feel the urgency of climate change, but we must ensure that whatever carbon tax is implemented, it will be the right fit for Hawai'i. Any proposal must integrate environmental and economic justice principles while achieving measurable carbon emissions reductions.	
	I therefore strongly support HB1584 - a bill that is dedicated to studying the feasibility and impacts of carbon pricing in Hawai'i. The study is to be completed by the University of Hawai'i by 2020 and will provide strong policy guidance for which type of carbon pricing mechanism Hawai'i should pursue.	
	Mahalo,	

From: Lurline Bette <noreply@jotform.com>
Sent: Wednesday, February 20, 2019 7:12 PM

To: FINtestimony

Subject: Re: Support HB1584, a progressive carbon tax study - Lurline Bette

Support HB1584, a progressive carbon tax study				
Name	Lurline Bette			
Email	lurline94510@yahoo.com			
Subject	Testimony in SUPPORT of HB1584			
Subject Testimony	Aloha Chair Luke, members of the committee,  Both the Intergovernmental Panel on Climate Change and the Hawai'i Climate Change Commission support carbon pricing as the most effective action to reduce emissions. However, no state has adopted a carbon tax, and Hawai'i's carbon tax could disproportionately affect low and moderate-income communities if not implemented correctly.  I feel the urgency of climate change, but we must ensure that whatever carbon tax is implemented, it will be the right fit for Hawai'i. Any proposal must integrate environmental and economic justice principles while achieving measurable carbon emissions reductions.  I therefore strongly support HB1584 - a bill that is dedicated to studying the feasibility and impacts of carbon pricing in Hawai'i. The study is to be completed by the University of Hawai'i by 2020 and will provide strong policy guidance for which type of			
	carbon pricing mechanism Hawai'i should pursue.  Mahalo,			
	·			

From: William Caron <noreply@jotform.com>
Sent: Wednesday, February 20, 2019 6:40 PM

To: FINtestimony

Subject: Re: Support HB1584, a progressive carbon tax study - William Caron

Support HB1584, a progressive carbon tax study				
Name	William Caron			
Email	willcaronforhawaii@gmail.com			
Subject	Testimony in SUPPORT of HB1584			
Testimony	Aloha Chair Luke, members of the committee,  Both the Intergovernmental Panel on Climate Change and the Hawai'i Climate Change			
	Commission support carbon pricing as the most effective action to reduce emissions. However, no state has adopted a carbon tax, and Hawai'i's carbon tax could disproportionately affect low and moderate-income communities if not implemented correctly.			
	I feel the urgency of climate change, but we must ensure that whatever carbon tax is implemented, it will be the right fit for Hawai'i. Any proposal must integrate environmental and economic justice principles while achieving measurable carbon emissions reductions.			
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	Mahalo,			

From: Nathan Yuen Yuen <noreply@jotform.com>
Sent: Thursday, February 21, 2019 7:28 AM

To: FINtestimony

Subject: Re: Support HB1584, a progressive carbon tax study - Nathan Yuen Yuen

Support HB1584, a progressive carbon tax study		
Name	Nathan Yuen Yuen	
Email	808nateyuen@gmail.com	
Subject	Testimony in SUPPORT of HB1584	
Testimony	Aloha Chair Luke, members of the committee,	
	Both the Intergovernmental Panel on Climate Change and the Hawai'i Climate Change Commission support carbon pricing as the most effective action to reduce emissions. However, no state has adopted a carbon tax, and Hawai'i's carbon tax could disproportionately affect low and moderate-income communities if not implemented correctly.	
	I feel the urgency of climate change, but we must ensure that whatever carbon tax is implemented, it will be the right fit for Hawai'i. Any proposal must integrate environmental and economic justice principles while achieving measurable carbon emissions reductions.	
	I therefore strongly support HB1584 - a bill that is dedicated to studying the feasibility and impacts of carbon pricing in Hawai'i. The study is to be completed by the University of Hawai'i by 2020 and will provide strong policy guidance for which type of carbon pricing mechanism Hawai'i should pursue.	
	Mahalo, Nathan Yuen	

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From: Elizabeth O'Connor <noreply@jotform.com> Sent: Thursday, February 21, 2019 12:32 AM

To: FINtestimony

Subject: Re: Support HB1584, a progressive carbon tax study - Elizabeth O'Connor

Support HB1584, a progressive carbon tax study		
Name	Elizabeth O'Connor	
Email	island.auntee@gmail.com	
Subject	Testimony in SUPPORT of HB1584	
Testimony	Aloha Chair Luke, members of the committee,	
	Both the Intergovernmental Panel on Climate Change and the Hawai'i Climate Change Commission support carbon pricing as the most effective action to reduce emissions. However, no state has adopted a carbon tax, and Hawai'i's carbon tax could disproportionately affect low and moderate-income communities if not implemented correctly.	
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	Mahalo,	

From: Jeri Di Pietro <noreply@jotform.com>
Sent: Wednesday, February 20, 2019 11:02 PM

To: FINtestimony

Subject: Re: Support HB1584, a progressive carbon tax study - Jeri Di Pietro

Support HB1584, a p	progressive carbon tax study
Name	Jeri Di Pietro
Email	ofstone@aol.com
Subject	Testimony in SUPPORT of HB1584
Testimony	Aloha Chair Luke, members of the committee,  Both the Intergovernmental Panel on Climate
	Change and the Hawai'i Climate Change Commission support carbon pricing as the most effective action to reduce emissions. However, no state has adopted a carbon tax, and Hawai'i's carbon tax could disproportionately affect low and moderate-income communities if not implemented correctly.
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	I therefore strongly support HB1584 - a bill that is dedicated to studying the feasibility and impacts of carbon pricing in Hawai'i. The study is to be completed by the University of Hawai'i by 2020 and will provide strong policy guidance for which type of carbon pricing mechanism Hawai'i should pursue.
	Mahalo,

From: Kaylene Evans <noreply@jotform.com>
Sent: Wednesday, February 20, 2019 10:30 PM

To: FINtestimony

Subject: Re: Support HB1584, a progressive carbon tax study - Kaylene Evans

Support HB1584, a progressive carbon tax study				
Name	Kaylene Evans			
Email	kaylenee@hawaii.edu			
Subject	Testimony in SUPPORT of HB1584			
Testimony	Aloha Chair Luke, members of the committee,  Both the Intergovernmental Panel on Climate Change and the Hawai'i Climate Change Commission support carbon pricing as the most effective action to reduce emissions. However, no			
	state has adopted a carbon tax, and Hawai'i's carbon tax could disproportionately affect low and moderate-income communities if not implemented correctly.			
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	Mahalo,			

From: Sylvia Ching <noreply@jotform.com>
Sent: Wednesday, February 20, 2019 9:10 PM

To: FINtestimony

Subject: Re: Support HB1584, a progressive carbon tax study - Sylvia Ching

Support HB1584, a progressive carbon tax study		
Name	Sylvia Ching	
Email	sching35@gmail.com	
Subject	Testimony in SUPPORT of HB1584	
Testimony	Aloha Chair Luke, members of the committee,	
	Both the Intergovernmental Panel on Climate Change and the Hawai'i Climate Change Commission support carbon pricing as the most effective action to reduce emissions. However, no state has adopted a carbon tax, and Hawai'i's carbon tax could disproportionately affect low and moderate-income communities if not implemented correctly.	
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	I therefore strongly support HB1584 - a bill that is dedicated to studying the feasibility and impacts of carbon pricing in Hawai'i. The study is to be completed by the University of Hawai'i by 2020 and will provide strong policy guidance for which type of carbon pricing mechanism Hawai'i should pursue.	
	Mahalo,	

From: Jalem Correia <noreply@jotform.com>
Sent: Thursday, February 21, 2019 12:52 PM

To: FINtestimony

Subject: Re: Support HB1584, a progressive carbon tax study - Jalem Correia

Support HB1584, a p	rogressive carbon tax study
Name	Jalem Correia
Email	jalem.correia@gmail.com
Subject	Testimony in SUPPORT of HB1584
Testimony	Aloha Chair Luke, members of the committee,
	Both the Intergovernmental Panel on Climate Change and the Hawai'i Climate Change Commission support carbon pricing as the most effective action to reduce emissions. However, no state has adopted a carbon tax, and Hawai'i's carbon tax could disproportionately affect low and moderate-income communities if not implemented correctly.
	I feel the urgency of climate change, but we must ensure that whatever carbon tax is implemented, it will be the right fit for Hawai'i. Any proposal must integrate environmental and economic justice principles while achieving measurable carbon emissions reductions.
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	Mahalo,

From:

Sylvia Ching <noreply@jotform.com>

Sent:

Wednesday, February 20, 2019 9:10 PM

To:

**FINtestimony** 

Subject:

Re: Support HB1584, a progressive carbon tax study - Sylvia Ching

# Support HB1584, a progressive carbon tax study

Name

Sylvia Ching

Email

sching35@gmail.com

Subject

Testimony in SUPPORT of HB1584

Testimony

Aloha Chair Luke, members of the committee,

Both the Intergovernmental Panel on Climate Change and the Hawai'i Climate Change Commission support carbon pricing as the most effective action to reduce emissions. However, no state has adopted a carbon tax, and Hawai'i's carbon tax could disproportionately affect low and moderate-income communities if not implemented correctly.

I feel the urgency of climate change, but we must ensure that whatever carbon tax is implemented, it will be the right fit for Hawai'i. Any proposal must integrate environmental and economic justice principles while achieving measurable carbon emissions reductions.

I therefore strongly support HB1584 - a bill that is dedicated to studying the feasibility and impacts of carbon pricing in Hawai'i. The study is to be completed by the University of Hawai'i by 2020 and will provide strong policy guidance for which type of carbon pricing mechanism Hawai'i should pursue.

Mahalo,

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<u>HB-1584-HD-2</u> Submitted on: 2/22/2019 6:27:29 AM

Testimony for FIN on 2/22/2019 11:00:00 AM



Submitted By	Organization	Testifier Position	Present at Hearing
Paul Balazs	Individual	Support	No

Comments:

# HB-1584-HD-2

Submitted on: 2/22/2019 6:49:43 AM

Testimony for FIN on 2/22/2019 11:00:00 AM



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

Comments:

Dear Honorable Committee Members:

Please support HB1584. Carbon tax has been enacted from Germany to China to Zimbabwe and across the US. The tax increases revenue without significantly altering the economy and promotes a proactive climate change policy in the process.

Climate change is already occurring, and Hawaii coastlines are eroding due to rising sea levels which, at 3mm/year, is unprecedented in the geologic record.

Thank you for the opportunity to present my testimony.

Sincerely,

Andrea Quinn

Kihei

# HB-1584-HD-2

Submitted on: 2/22/2019 7:12:51 AM

Testimony for FIN on 2/22/2019 11:00:00 AM



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

# Comments:

# Support.

With so many crucial issues crowding the list, I don't know enough about carbon taxing.. so I hope someone competent is doing the research; this bill is a late start.