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ECONOMIC DEVELOPMENT & TOURISM**

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Statement of  
**LUIS P. SALAVERIA**  
Director  
Department of Business, Economic Development and Tourism  
before the  
**SENATE COMMITTEES ON ECONOMIC DEVELOPMENT, TOURISM AND  
TECHNOLOGY AND WATER AND LAND  
AND AGRICULTURE AND ENVIRONMENT**  
Friday, March 16, 2018  
1:15 p.m.  
State Capitol, Conference Room 414  
in consideration of  
**HB1986, HD2**  
**RELATING TO THE ENVIRONMENT.**

Chairs Wakai, Rhoads, and Gabbard, Vice Chairs Taniguchi, and Riviere, and Members of the Committees.

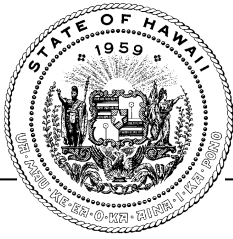
The Department of Business, Economic Development and Tourism (DBEDT) opposes HB1986, HD2.

HB1986, HD2 establishes a carbon credit revenue program under DBEDT that administers revenues realized from the sale of any carbon credits in any established carbon registry and uses the resulting proceeds to fund projects that improve the State's water infrastructure or mitigate threats to water sustainability efforts to climate change.

DBEDT notes that voluntary carbon markets carbon offset projects presently can be broadly categorized into forestry and land use, industrial gases, methane capture, energy-efficiency, renewable energy, and transportation projects; therefore, the potential for carbon offset projects could be performed by multiple state departments.

DBEDT acknowledges the concerns raised by other departments, and defers to testimony from DLNR. However, if this bill should pass in its current form, rules must be developed to emphasize principles of fairness to distribute the revenue collected onto the respective departments and agencies that provided the carbon offset project. Otherwise, a revenue collection program which does not distribute the revenues fairly could dis-incentivize state departments and agencies from participating in a voluntary carbon offset program.

Thank you for the opportunity to offer these comments for HB1986, HD2.



# OFFICE OF PLANNING STATE OF HAWAII

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Statement of  
**LEO R. ASUNCION**  
Director, Office of Planning  
before the  
**SENATE COMMITTEES ON ECONOMIC DEVELOPMENT, TOURISM, AND  
TECHNOLOGY, WATER AND LAND, AND AGRICULTURE AND ENVIRONMENT**

Friday, March 16, 2018  
1:15 PM  
State Capitol, Conference Room 414

in consideration of  
**HB 1986, HD 2**  
**RELATING TO THE ENVIRONMENT**

Chairs Wakai, Rhoads, and Gabbard, Vice Chairs Taniguchi, Gabbard, and Riviere, and Members of the Senate Committees on Economic Development, Tourism and Technology, Water and Land, and Agriculture and Environment.

The Office of Planning appreciates the intent and offers the following comments on HB 1986, HD 2 provided that its passage does not replace or adversely impact priorities indicated in the Executive Budget.

HB 1986, HD 2 establishes a carbon credit revenue program under DBEDT that administers revenues realized from the sale of any carbon credits in any established carbon registry and uses the resulting proceeds to fund projects that improve the State's water infrastructure or mitigate threats to water sustainability efforts to climate change.

Presently the Office of Planning is administering the State's Carbon Farming Task Force, pursuant to Act 33 (2017) to identify agricultural or aquacultural activities and best practices that provide carbon sequestration benefits that may be used to establish a carbon farming certification. This Carbon Farming Task Force is required to report its findings and recommendations, including any proposed legislation to the legislature no later than twenty days prior to the convening of the regular session of 2025.

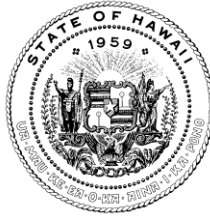
The Office of Planning notes that voluntary carbon markets carbon offset projects presently can be broadly categorized into forestry and land use, industrial gases, methane capture, energy-efficiency, renewable energy, and transportation projects; therefore, the potential for carbon offset projects could be performed by multiple state departments and agencies.

The Office of Planning acknowledges the concerns raised by other departments, and agrees that if this bill should pass as drafted, rules must be developed to emphasize principles of fairness to distribute the revenue collected onto the respective departments and agencies that provided the carbon offset project. Otherwise, a revenue collection program which does not distribute the revenues fairly could disincentivize state departments and agencies from participating in a voluntary carbon offset program.

We appreciate the over-all concept of this bill as it includes initiatives supportive of our goals and objectives for carbon emission reduction activities and water sustainability, but are concerned about the cost implications generated by this proposal. The establishment of a carbon offset program and carbon offset credits is a huge undertaking and would require financial support not provided in this measure.

Thank you for the opportunity to offer these comments in support of HB 1986, HD 2.

DAVID Y. IGE  
GOVERNOR OF  
HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

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SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
FIRST DEPUTY

JEFFREY T. PEARSON, P.E.  
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AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
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COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

Testimony of  
SUZANNE D. CASE  
Chairperson

Before the Senate Committees on  
ECONOMIC DEVELOPMENT, TOURISM, AND TECHNOLOGY  
and  
WATER AND LAND  
and  
AGRICULTURE AND ENVIRONMENT

Friday, March 16, 2018  
1:15 PM  
State Capitol, Conference Room 414

In consideration of  
HOUSE BILL 1986, HOUSE DRAFT 2  
RELATING TO THE ENVIRONMENT

House Bill 1986, House Draft 2 proposes to establish a carbon credit revenue program under the Department of Business, Economic Development, and Tourism (DBEDT) that administers revenues realized from the sale of any carbon credits in any established carbon registry and uses the resulting proceeds to fund projects that improve the State's water infrastructure or mitigate threats to water sustainability efforts due to climate change. **The Department of Land and Natural Resources (DLNR) opposes this measure and provides the following comments.**

The Hawai'i State Energy Office within DBEDT monitors Hawai'i's progress towards achieving the State's goal of 100% renewable energy by 2045. DLNR agrees that DBEDT is thus well positioned to facilitate a market for carbon offset credits related to energy production and reduction of use of fossil fuels through production, distribution and use of renewable energy and emission capture mechanisms.

DLNR has already invested significantly in a parallel and complementary initiative to create opportunities for carbon offsetting through the certification of carbon sequestered in the biomass of trees in Hawai'i's forest lands managed by DLNR which would produce carbon offset credits that could be sold to emitters. Significant funds are necessary to plant trees and to get a reforestation project certified under an established forest carbon standard. For a current pilot

project we estimate that the revenues generated through the sale of carbon offset credits could cover about 15% of reforestation costs. Companies and people would be able to pay directly for planting trees in Hawai‘i.

DLNR manages and operates a number of ongoing reforestation projects on degraded and former forest lands often located in crucial watersheds all over the State. Watersheds are catch-basins or drainages for rain that is either funneled into stream beds or infiltrates into and recharges Hawai‘i’s aquifers. As such, watersheds are the single most important source and part of our “water infrastructure” for domestic water supply for the cities, towns and communities of the State. The amount of rain that is recharging our aquifers depends strongly on the land uses prevalent in the watersheds. For example, a 1,400 acre forested watershed can provide 11 million gallons of water a day to Hawai‘i’s aquifers (e.g., Waiawa Watershed Protection project).

Forest ecosystems not only capture significantly more water and prevent it from running off, smothering our coral reefs and causing brown-water beach closures, than any other land use, but can also sequester and store remarkable amounts of carbon dioxide and mitigate climate change. Recent scientific estimates by the United States Geological Survey suggest that an additional four million metric tons of carbon, equal to 89% of Hawai‘i’s annual ground transportation emissions, could be sequestered and stored by reforesting current non-native grass and shrub-lands under the jurisdiction of the DLNR’s Division of Forestry and Wildlife alone.<sup>1</sup>

DLNR has invested significantly in the exploration and due diligence necessary to launch carbon forest pilot projects certified under an established forest carbon standard. Such standards verify and certify the amount of carbon sequestered in forest carbon projects through independent third-party auditors and operate transparent registries that track the generation, retirement, and cancellation of every single carbon offset credit in databases accessible online. Certifications under established forest carbon standards require substantial staff and financial resources (usually well over \$100,000 over the entire project period). Much more resources are necessary to implement the actual reforestation work on the ground. Once carbon offset credits are verified and issued by the standard the pricing is market-based and varies internationally between approximately \$0.70 and \$70 per credit.<sup>2</sup>

Section 201- (a) (1) of the measure requires “any and all revenues realized from the sale of any carbon credits or offsets in any established international or national carbon registries through project developers or by departments or state agencies” to be administered by DBEDT. If revenues from carbon credit sales aren’t applied to the projects that generated them, there is little reason for project proponents to engage in the costly and time-intensive forest carbon certification process outlined above, and the project wouldn’t be funded.

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<sup>1</sup> See latest [Hawai‘i Greenhouse Gas Inventory report](#).

<sup>2</sup> See [State of Forest Carbon Finance 2017 Report](#) by Ecosystem Marketplace.

As such, the Department recommends amending (highlighted in grey) SECTION 2 of this measure as follows:

SECTION 2. Chapter 201, Hawaii Revised Statutes, is amended by adding a new section to part I to be appropriately designated and to read as follows:

**"§201- Carbon [credit revenue] offset program. (a) In partnership with [The] the department of land and natural resources, the department shall establish a carbon [credit revenue] offset program that:**

- (1) ~~[Administers any and all revenues realized from the sale of any carbon credits or offsets in any established international or national carbon registries through project developers or by departments or state agencies.]~~  
Provides expertise in carbon offsetting to public agencies and private entities, assists in coordinating carbon offset projects of public agencies, including but not limited to the generation, certification, and marketing of carbon offset credits;
- (2) ~~[Proceeds]~~ Allows for proceeds and revenues generated by the department of land and natural resources from sales of forest carbon offset credits ~~[shall]~~ to be deposited into the forest stewardship fund and used in accordance with the purposes of the fund;

(3) Allows for proceeds and revenues generated by state agencies from sales of carbon offset credits unaffected by section 201- (a) (2) to be invested in projects [that improve] enhancing the State's efforts to mitigate climate change, improving the State's water infrastructure, or [mitigate] mitigating threats to water sustainability due to climate change, including but not limited to:

- (A) Flood prevention and preparedness;
- (B) Mitigation of sea level rise;
- (C) Increasing potable water supplies; [and]
- (D) Increasing agricultural water supplies; and
- (E) Watershed restoration or protection;

~~[-(2)]~~ (4) Provides environmental, social, cultural, or economic benefits, including but not limited to the improvement of the State's water infrastructure or mitigation of threats to water sustainability due to climate change; and

~~[-(3)]~~ (5) Is consistent with the [state's] State's sustainability goals and policies.

(b) The department, in partnership with the department of land and natural resources, shall adopt rules, pursuant to chapter 91, necessary to carry out the purposes of this section.

(c) As used in this section:

"Carbon credit" means a tradable ~~[credit]~~ certificate or permit issued by ~~[an independent international or national]~~ a carbon registry ~~[program]~~ that represents a greenhouse gas reduction or greenhouse gas removal enhancement that is equivalent to one metric ton of carbon dioxide equivalent and meets the requirements of the program.

~~["Carbon credit revenue" means the revenue realized by state agencies from the sale of any carbon sequestration credits.]~~

"Carbon offset" means a compensatory measure made by an agency, business, or individual to reduce carbon dioxide emissions ~~[, which may include the adoption of practices that increase the absorption of]~~ or to increase carbon dioxide ~~[.]~~ sequestration.

"Carbon registry" means any established international ~~[or]~~, national, or regional carbon registry program which ~~[serve]~~ serves voluntary ~~[and]~~ or compliance markets and ~~[provide]~~ provides an independent carbon standard to verify and certify ~~[forest]~~ carbon offsets ~~[projects]~~ and which issues carbon credits.

"Forest carbon offset" means a compensatory measure made by an agency, business, or individual to increase carbon dioxide sequestration through the withdrawal from the atmosphere and storage of carbon dioxide in biomass within forest areas.



"Program" means the carbon [credit revenues] offset program administered by the department[-] in partnership with the department of land and natural resources.

"Public agency" means a unit of state, city, or county government.

"State agency" means a unit of state government, such as a department, division, branch, agency, program, or office, and includes the legislature, judiciary, and office of Hawaiian affairs."

DLNR acknowledges the value of a coherent statewide carbon offset program. The remarkable climate change mitigation potential and indispensable contribution to the State's drinking water supply of healthy forests within watersheds should be reflected both in the design and decision-making process of the program and in the allocation of revenues derived from forest carbon sequestration credits.

DLNR stands ready to collaborate and coordinate with DBEDT on these parallel and complementary efforts.

Thank you for the opportunity to comment on this measure.

**HB-1986-HD-2**

Submitted on: 3/13/2018 11:28:22 AM

Testimony for ETT on 3/16/2018 1:15:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Victor K. Ramos	Individual	Oppose	No

Comments:

**HB-1986-HD-2**

Submitted on: 3/13/2018 6:48:54 PM

Testimony for ETT on 3/16/2018 1:15:00 PM

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

Comments:



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SENATE COMMITTEES ON ECONOMIC DEVELOPMENT, TOURISM, & TECHNOLOGY,  
WATER & LAND, AND AGRICULTURE & ENVIRONMENT  
Friday, March 16, 2018 — 1:15 p.m. — Room 414

### **Ulupono Initiative Supports the Intent of HB 1986 HD 2, Relating to the Environment**

Dear Chair Wakai, Vice Chair Taniguchi, Chair Rhoads, Chair Gabbard, Vice Chair Riviere, and Members of the Committees:

My name is Murray Clay and I am Managing Partner of the 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 the intent of HB 1986 HD 2**, which establishes a carbon offsets program, because it aligns with our goal of increasing the production of clean, renewable energy in Hawai'i.

A carbon offsets program can provide a mechanism for participants to reduce fossil fuel consumption. Ulupono is in support of this forward-thinking program, if structured correctly.

To better structure the program the legislation needs to be clear that:

- Any public or private entity can generate, sell, or buy carbon offset credits
- The credits are the property of the generator (entity that reduces carbon intensity)
- The State therefore can only receive income if it is the generator of carbon offsets/credits and/or it levies a tax on the sale of credits/offsets
- There needs to be a third-party validator that the credits are accurate (note, there are several national level firms that do this so a new entity to validate will not likely be needed)

As Hawai'i's energy issues become more complex and challenging, we appreciate these committees' efforts to look at policies that support renewable energy production.

*Investing in a Sustainable Hawai'i*



Thank you for this opportunity to testify.

Respectfully,

Murray Clay  
Managing Partner

Testimony of The Nature Conservancy of Hawai'i  
Commenting on H.B. 1986 HD2 Relating to the Environment  
Senate Committee on Economic Development, Tourism, and Technology  
Senate Committee on Water and Land  
Senate Committee on Agriculture and Environment  
Friday, March 16, 2018, 1:15PM, Room 414

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*The Nature Conservancy of Hawai'i is a private non-profit conservation organization dedicated to the preservation of the lands and waters upon which life depends. The Conservancy has helped to protect nearly 200,000 acres of natural lands in Hawai'i. We manage 40,000 acres in 14 preserves and work in 19 coastal communities to help protect the near-shore reefs and waters of the main Hawaiian Islands. We forge partnerships with government, private parties and communities to protect Hawai'i's watershed forests and coral reefs.*

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The Nature Conservancy appreciates the intent H.B. 1986 HD2 to help facilitate a carbon credit market in Hawai'i. **However, we have significant concerns that §201-\_\_ (a)(1) in the HD2 draft of the bill may actually be a disincentive to carbon credit projects in Hawai'i.**

The proposed §201-\_\_ (a)(1) directing that the Department of Business, Economic Development and Tourism (DBEDT) "administers any and all revenues realized from the sale of any carbon credits or offsets" by any state agency ignores the fact that developing and operating any qualified carbon sequestration project requires significant up-front and ongoing investments of capital and other resources by the agency and/or a project developer working with the agency. Both of those entities will rightly seek to recover those costs and then benefit from the additional revenue generated from the fruits of their investment. Having DBEDT be sole administrator of "any and all" revenue from credit sales from such projects is a massive disincentive to state agencies, and private parties that may partner with them, to develop carbon sequestration projects in Hawai'i.

Furthermore, as written, §201-\_\_ (a)(1) is unclear as to whether it contemplates DBEDT also administering carbon credit revenue entirely generated by private parties in Hawai'i. While that may be inferred when reading the title to §201-\_\_, "Carbon credit revenue program," together with the definition of "carbon credit revenue" in §201-\_\_ (c), the actual text of §201-\_\_ (a)(1) is confusing. DBEDT may, as authorized by this legislation and related rulemaking, develop a Hawai'i market for carbon credits that defines the qualifications for credits that can be sold into that market, but it cannot "administer" the revenue received by private parties for qualified sales into that market—not without likely chasing away most or all private investors in the market to begin with.

The Nature Conservancy (TNC) has been using forest conservation and restoration to help solve the climate challenge and offset carbon for over a decade. By 2026, TNC's Noel Kempff project in Bolivia will have prevented 5.8 million metric tons of carbon from entering Earth's atmosphere. TNC also has forest carbon offset projects in Louisiana, California, Mexico, Brazil and Indonesia.

Here in Hawai'i, we are working with the Department of Land and Natural Resources (DLNR), the U.S. Forest Service (USFS) and other partners to determine how carbon offset credits can be generated from Hawaiian forests. Our focus is to qualify Hawai'i forest carbon for eligibility first in voluntary carbon offset markets and ultimately in regulated markets like California's cap-and-trade market. To do this, we collaborated with DLNR, USFS and Climate Action Reserve (CAR, [climateactionreserve.org](http://climateactionreserve.org)) -- whose forest carbon standards are the basis for credits in the California market -- to revise their protocols to certify Hawaiian forest carbon in voluntary markets and later in regulated markets. CAR protocols for Hawaiian forest carbon were approved in July 2017. Like DLNR, we are now turning our attention to pilot forest carbon sequestration projects in Hawai'i. However, if §201-\_\_ (a)(1) of H.B. 1986 HD2 were to pass in its current form, we are concerned that it may stifle carbon credit projects in Hawai'i.

Thank you for the opportunity to comment on H.B. 1986 HD2.

**HB-1986-HD-2**

Submitted on: 3/14/2018 10:38:18 AM

Testimony for ETT on 3/16/2018 1:15:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jennifer Milholen	Individual	Support	No

Comments:

**HB-1986-HD-2**

Submitted on: 3/14/2018 4:49:33 PM

Testimony for ETT on 3/16/2018 1:15:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Erica Scott	Individual	Support	No

Comments: