



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

Testimony of
SUZANNE D. CASE
Chairperson

Before the Senate Committees on
AGRICULTURE AND ENVIRONMENT
and
TRANSPORTATION AND ENERGY

Monday, March 19, 2018
1:30 PM
State Capitol, Conference Room 224

In consideration of
HOUSE BILL 2182, HOUSE DRAFT 2
RELATING TO ENVIRONMENTAL PROTECTION

House Bill 2182, House Draft 2 proposes to convert the carbon farming task force established by Act 33, Session Laws of Hawaii 2017, into a permanent Greenhouse Gas Sequestration Task Force and amends its membership and duties. The State's clean energy and carbon sequestration efforts would be aligned with climate initiative goals, and a zero-greenhouse gas emissions target for the State would be established. **The Department of Land and Natural Resources (Department) supports this initiative and provides the following comments.**

The Department is charged with the stewardship and management of the State's terrestrial and aquatic areas, including its natural resources. Additionally, the Department supports private landowners in the restoration and protection of forests on private properties through private landowner assistance programs and provides tree-related expertise to urban communities through an urban forestry program. Climate change poses an imminent threat to Hawaii's forest areas. At the same time, restoration, protection, and management of forest areas in Hawaii offer substantial potential for cost-efficient climate change mitigation.

A recent study identified reforestation and avoided forest conversion to have the largest climate change mitigation potential among natural climate solutions.¹ 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,

¹ See [Griscom et al. \(2017\) Natural Climate Solutions](#).

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 Department’s Division of Forestry and Wildlife alone.²

Beside forest ecosystems, long rotation systems such as agroforests, permaculture, home gardens, and boundary plantings have the capacity to sequester large amounts of greenhouse gases in plant biomass and in long-lasting wood products. Agroforestry, an integral part of historic native Hawaiian land use, is considered to be one of the land uses with the most potential to reduce emissions from agriculture. Many agroforestry systems can also increase below-ground carbon storage, both in plant biomass and soil organic matter. In addition to higher rates of carbon storage, agroforestry systems provide many other benefits such as improved soil protection and ameliorated microclimatic conditions due to their wind break effect, improved soil fertility through higher content of soil organic matter and higher biological activity, improved nutrient cycling, reduced soil toxicities, more efficient use of solar energy, and reduced pests and diseases, by integrating trees and shrubs into agricultural practices.

Beside capturing and storing additional carbon dioxide, urban trees were shown to promote health and wellbeing, lower average temperature within cities, provide effective flood retention, and increase aesthetic and property values of neighborhoods. However, between 2010 and 2014 Honolulu lost 5% in only 4 years. Including urban trees in the task force’s work can assist Honolulu in achieving its goal of reaching 35% urban tree canopy cover by 2035.

A range of innovative mechanisms and policy options to increase carbon sequestration are already used successfully in other parts of the world. For example, California’s greenhouse gas cap-and-trade program generates billions of dollars through auctioning emission allowances and carbon offsets that can be invested into climate change mitigation and adaptation initiatives. Costa Rica more than doubled its forest cover since introducing a payment for ecosystem services (PES) based incentive program in the 1980s. A recent study outlines a pathway for the potential implementation of PES mechanisms in Hawai‘i.³ Markets already exist for voluntary carbon offsets generated through projects in areas such as reforestation, agroforestry, urban forestry, agriculture, etc.

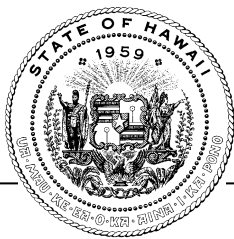
Therefore, the Department recommends adding innovative mechanisms and policy options such as cap-and-trade, PES, and participation in existing voluntary and compliance eco-asset markets for the task force to consider.

Exploring, analyzing, and conducting necessary due diligence to identify incentives suitable for Hawai‘i and to make valuable policy suggestions is anticipated to require significant resources. Therefore, the Department recommends to provide the task force with a budget of \$150,000 for Fiscal Year 2018-2019 as suggested in House Draft 1, provided that its passage does not replace or adversely impact priorities indicated in the Executive Supplemental Budget request..

Thank you for the opportunity to comment on this measure.

² See latest [Hawai‘i Greenhouse Gas Inventory report](#).

³ See report “[Hawai‘i Carbon + Natural Capital - A Policy + Institutional Analysis for Payment for Ecosystem Services \(PES\) Approaches in Hawai‘i](#)”.



OFFICE OF PLANNING STATE OF HAWAII

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Statement of
LEO R. ASUNCION
Director, Office of Planning
before the
**SENATE COMMITTEES ON AGRICULTURE AND ENVIRONMENT
AND TRANSPORTATION AND ENERGY**

Monday, March 19, 2018
1:30 PM

State Capitol, Conference Room 224

in consideration of
HB 2182, HD2
RELATING TO ENVIRONMENTAL PROTECTION.

Chairs Gabbard and Inouye, Vice Chairs Riviere and Espero, and Members of the Senate Committees on Agriculture and Environment and Transportation and Energy.

The Office of Planning (OP) respectfully offers comments on HB 2182, HD2, seeking to amend Act 33, Session Laws of Hawaii (SLH) 2017, by: (1) making permanent the Carbon Farming Task Force and renaming it the Greenhouse Gas Sequestration Task Force (Task Force); (2) aligning the State's clean energy and carbon sequestration efforts with climate initiative goals; and (3) amending the membership and duties of the Task Force.

Given the broad scope of Act 33, SLH 2017, which is currently to identify agricultural or aquacultural activities and best practices to provide carbon sequestration benefits to be used to establish a carbon farming certification, and its expanding charge under HB 2182, HD 2, which includes having the Task Force examine urban tree canopies for sequestration potential, OP believes that a permanent Task Force is necessary.

The concept of aligning the State's clean energy and carbon sequestration efforts with climate initiative goals, as set forth in HB 2182, HD2, is a commendable one. The Task Force should be working in concert with other climate initiatives.

Given that HB 2182, SD2 proposes to broaden the mission of the Task Force through including urban canopies, expand its membership and make it permanent, the Task Force should be sufficiently funded with a permanent coordinator position to accomplish its wide-ranging mandate. OP estimates that approximately \$150,000 will be needed to fund a permanent coordinator position and move forward with implementation of the tasks set forth in the measure, provided that such an appropriation does not replace or adversely impact priorities indicated in the Executive Budget.

Thank you for the opportunity to comment on this measure.



**STATE OF HAWAII
DEPARTMENT OF HEALTH**

P. O. Box 3378
Honolulu, HI 96801-3378
doh.testimony@doh.hawaii.gov

**Testimony COMMENTING on HB 2182, HD2
Relating to Environmental Protection**

SENATOR MIKE GABBARD, CHAIR
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

SENATOR LORRAINE R. INOUE, CHAIR
SENATE COMMITTEE ON TRANSPORTATION AND ENERGY

Hearing Date: March 19, 2018
Time: 1:30 PM

Room Number: 224

1 **Fiscal Implications:** None.

2 **Department Testimony:** The Department of Health (Department) has the following comments
3 and recommended amendments to the measure.

4 We support the objective of establishing the Greenhouse Gas Sequestration Task Force
5 and of having the task force, along with the Hawaii Climate Change Mitigation & Adaptation
6 Commission, establish the framework for adapting to global warming impacts, and mitigating
7 greenhouse gas emissions by carbon sequestration.

8 Section 4, HRS 225P(2) establishes the target of sequestering more atmospheric carbon
9 and greenhouse gases than emitted within the state by 2045. Therefore, incorporating the
10 language in Section 3, HRS 342B(a) is duplicative and unnecessary.

11 The Task Force and the Commission are directed to develop the framework to achieve
12 the 2045 target. Section 3, HRS 342B(b) requires the agency to consider the impact of all of its
13 plans, decisions, and strategies on the State's ability to achieve the goal. However, without the
14 framework, the language in Section 3, HRS 342B(b) is premature and would not accomplish the
15 goal because direction on how to achieve the 2045 target has yet to be developed.

1 Moreover, this language is inappropriately placed within the Department's greenhouse
2 gas permitting program which has no authority to modify the plans, decisions, and strategies of
3 other agencies. Achieving such a statewide goal could not be accomplished by the Department
4 alone, but would require the coordination of multiple state and county agencies. The Task Force
5 and the Commission should have the opportunity to build a comprehensive plan that involves all
6 environmental advocacy groups, industries, and government agencies that regulate or contribute
7 to the production or sequestration of carbon and greenhouse gases.

8 Thank you for the opportunity to testify on this bill.



Testimony in support of HB2182

SENATE COMMITTEE ON TRANSPORTATION AND ENERGY SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

Hearing Monday, March 19, 2018 1:30 p.m.

Aloha Chairs Inouye and Gabbard and committee members,

This Bill is the necessary complement to the efforts to reduce our carbon emissions through promotion low-carbon renewable energy. We will always emit some carbon and the best way currently known to sequester carbon from the atmosphere and store it is via the natural processes of photosynthesis and long-term storage in soils, trees and wetlands. Farming methods differ in the carbon sequestration benefits they provide and we should incentivize farmers to contribute to our shared goals of net zero carbon emissions.

It is important that urban forests were added to this initiative. The benefits of more trees will extend far beyond carbon sequestration and storage. In urban areas, once trees planted mature, they will reduce the need for air conditioning by reducing the heat island effect, thus further reducing our emissions. They will also help us adapt to increased temperatures and continue to enjoy being outside by cooling us through both shade and transpiration. In undeveloped areas, reforestation with appropriate species can increase biodiversity and habitat for native species. In all areas, trees will help reduce run off and sedimentation of our reefs.

Since the benefits are derived mostly from mature landscapes the first priority should be to protect existing forests and mature trees in urban areas. The second priority should be to reforest both our natural and urban areas.

Mahalo,

Dr. Lisa Marten

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



ORGANIZING *for* ACTION

To: The Senate Committee on Agriculture and Environment
From: Brodie Lockard, OFA Hawaii, 808-262-1285
Date: Monday, March 19, 2018

In support of HB2182 HD2

Dear Chair Gabbard, Vice Chair Riviere and Committee members,

I am the Hawaii Climate Lead for Organizing for Action, a progressive group that played a lead in electing President Barack Obama twice. OFA Hawaii supports HB2182 HD2.

It becomes more obvious every week that climate change is impacting Hawaii in myriad negative ways, and that we must do everything in our power to fight it. A permanent greenhouse gas sequestration task force is an important piece of that fight.

A zero-greenhouse gas emissions target for the State is another crucial piece of that same fight.

We note that methane is a global warming gas 84 times as potent as CO₂ over a 20-year period [1], and has in recent years become recognized as at least as big a threat as carbon. About 25% of the manmade global warming we're experiencing today is caused by methane emissions [1], and large methane deposits in places like arctic permafrost may soon be freed by climate change that is already taking place. OFA hopes that in its efforts, the task force will give methane the serious consideration and attention it deserves.

Please support HB2182 HD2.

Thank you for the opportunity to testify.

Brodie Lockard
Hawaii Climate Lead, Organizing for Action

[1] <https://www.edf.org/methane-other-important-greenhouse-gas>



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COMMITTEE ON AGRICULTURE AND ENVIRONMENT

Senator Mike Gabbard, Chair
Senator Gil Riviere, Vice Chair

COMMITTEE ON TRANSPORTATION AND ENERGY

Senator Lorraine R. Inouye, Chair
Senator Will Espero, Vice Chair

Monday, March 19, 2018
1:30 p.m.
Conference Room 224

HB 2182, HD2 Relating to Carbon Farming Task Force.

STRONG SUPPORT

Aloha Chairs Gabbard and Inouye, Vice Chairs Riviere and Espero and Committee Members,

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.

Life of the Land supports the bill. Except for public transportation, Life of the Land does not understand what State laws permit mayors or counties to regulate fossil fuels in ground transportation. Furthermore, "fossil fuel" is not defined in state law.

Mahalo,
Henry Curtis
Executive Director



SIERRA CLUB OF HAWAII
MĀLAMA I KA HONUA. *Cherish the Earth.*

SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

SENATE COMMITTEE ON TRANSPORTATION AND ENERGY

Monday, March 19, 2018 1:30PM Conference Room 224

In SUPPORT of HB 2182 HD2 Relating to environmental protection

Aloha Chairs Gabbard and Inouye, Vice Chairs Riviere and Espero, and members of the Committees,

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i, a member of the Common Good Coalition, **strongly supports HB 2182 HD2**, which seeks to convert the carbon farming task force--established by Act 33, Session Laws of Hawaii 2017--into a permanent *Greenhouse Gas Sequestration* task force, aligning with the State's clean energy and climate initiative goals, and establishing a zero-greenhouse gas emission target for the State.

The Sierra Club of Hawai'i's central objectives are to preserve and protect clean air and clean water resources. Therefore, we support efforts across the state that steward and manage the terrestrial and aquatic regions and the natural resources offered by them. Climate change poses an imminent threat to the aforementioned natural resources. The science is clear that the climate is changing, temperatures are warming, and we are on the path to an unsustainable future; all of which is resulting from exponential increases of greenhouse gases into the atmosphere in the last century. *Any effort to sequester carbon and other greenhouse gases (i.e., remove it from the atmosphere and store it in trees, soil, the ocean, etc) is critical as we move forward in our efforts to combat climate change.*

We supported the creation of the Carbon Farming Task Force last year in full. As illustrated by numerous peer-reviewed studies and practiced the world over, climate-smart agriculture, including agroforestry systems, can have multiple environmental, social, and economic benefits. Among the different land uses, forest ecosystems and long rotation systems such as agroforests, permaculture, home gardens, and boundary plantings have the capacity to sequester greenhouse gases in plant biomass and in long-lasting wood products. Agroforestry

plays an integral part in historic native Hawaiian land use and was found to be one of the land uses with most potential to reduce emissions from agriculture. Many agroforestry systems can also increase below-ground carbon storage, both in plant biomass and soil organic matter. Integrating trees and shrubs into agricultural practices, which leads to higher rates of carbon storage, agroforestry systems provide a multitude of benefits such as:

- Improved soil protection and ameliorated microclimatic conditions due to their windbreak capabilities
- Improved soil fertility due to a higher composition of soil organic matter and increased biological activity
- Improved nutrient cycling
- Reduced soil toxicities
- Increased efficiency of solar energy intake
- Reduced incidence of pests and disease

Additional efforts to sequester carbon, such as the implementation of carbon forestry--with projects already occurring in Hawai'i, are hugely beneficial in efforts to sequester carbon not only in soil, but also in tree biomass. The benefits of these efforts are many, including supporting native ecosystems and enhancing watershed restoration and protection.

We urge the committee to pass HB 2182 HD2. *Sequestering greenhouse gases not only benefits Hawai'i by improving soil quality and restoring forested ecosystems, but it also important global advantages as we press forward together in the the fight to stop climate change.*

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



To: The Senate Committee on Agriculture and Environment
From: Sherry Pollack, 350Hawaii.org
Date: Monday, March 19, 2018

In support of HB2182 HD2

Dear Chair Gabbard, Vice Chair Riviere and Committee members,

I am the Vice President of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org supports HB2182 HD2.

It becomes more obvious every week that climate change is impacting Hawaii in myriad negative ways, and that we must do everything in our power to fight it. A permanent greenhouse gas sequestration task force is an important piece of that fight.

A zero-greenhouse gas emissions target for the State is another crucial piece of that same fight.

We note that methane is a global warming gas 84 times as potent as CO2 over a 20-year period [1], and has in recent years become recognized as at least as big a threat as carbon – if not more. **About 25% of the manmade global warming we're experiencing today is caused by methane emissions [1],** and large methane deposits in places like arctic permafrost may soon be freed by climate change that is already taking place. OFA hopes that in its efforts, the task force will give methane the serious consideration and attention it deserves.

Please support HB2182 HD2.

Thank you for the opportunity to testify.

Sherry Pollack
Vice President, 350Hawaii.org

[1] <https://www.edf.org/methane-other-important-greenhouse-gas>

HB-2182-HD-2

Submitted on: 3/18/2018 12:38:57 PM

Testimony for AEN on 3/19/2018 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	Testifying for OCC Legislative Priorities Committee, Democratic Party of Hawai'i	Support	No

Comments:

To the Honorable Mike Gabbard, Chair; the Honorable Gil Riviere, Vice-Chair, and Members of the Senate Committee on Agriculture and Environment:

To the Honorable Lorraine R. Inouye, Chair; the Honorable Will Espero, Vice-Chair, and Members of the Senate Committee on Transportation and Energy:

Good afternoon. My name is Melodie Aduja. I serve as Chair of the Oahu County Committee ("OCC") on Legislative Priorities of the Democratic Party of Hawaii. Thank you for the opportunity to provide written testimony on **HB2182 HD2** relating to Environmental Protection; Carbon; Sequestration; Emissions; Farming; Office of Planning; Task Force; and an appropriation.

The OCC Legislative Priorities Committee is in support of **HB2182 HD2** and is in favor of its passage.

HB2182 HD2 is in accord with the Platform of the Democratic Party of Hawai'i ("DPH"), 2016, as it makes permanent the Carbon Farming Task Force established by Act 33, Session Laws of Hawaii 2017, and renames it the Greenhouse Gas Sequestration Task Force; aligns the State's clean energy and carbon sequestration efforts with climate initiative goals; amends membership and duties of the Task Force; establishes a zero-greenhouse gas emissions target for the State; and makes an appropriation.

Specifically, the DPH Platform provides that "[w]e believe in supporting best management practices in sustaining our environment and in increased citizen involvement. We support programs that encourage sustainable clean, efficient, creative and environmentally-friendly modes of transportation, recycling, and waste reduction.

The conservation, preservation, and restoration of Hawaii's natural resources are connected to the health and welfare of our people; therefore, we support the conservation and protection of our natural environment, which includes reducing our carbon footprint for the benefit of current and future generations.

We support the protection of our 'aina against destruction by corporate, government, or military usage and expect full restoration and reparation of environmental damage to handle current and future demands for water, we mu assess the current condition of our aquifer and take appropriate action to secure our freshwater

resources.

We support the democratic participation of citizens and residents to protect (i) valuable coastal ecosystems and reefs from misuse and (ii) beaches for public use and recreation. The Hawai'i Coastal Zone Management (CZM) law, HRS Chapter 205A, currently provides for public participation in the management of coastal resources.

We believe in the vigorous enforcement of our environmental laws and increased public-private stewardships and citizen involvement in protecting our resources.

We know that climate change is a real threat to our islands and the world. We strongly urge our candidates and elected officials to take immediate action to mitigate and adapt to the consequences of climate change. This includes funding adaptation measures including coastal retreat, effective participation of indigenous people in climate change governance, and recognition that indigenous, local, and traditional ecological knowledge is key in climate change adaptation solutions." (Platform of the DPH, P. 7, Lines 413-439 (2016)).

Given that **HB2182 HD2** makes permanent the Carbon Farming Task Force established by Act 33, Session Laws of Hawaii 2017, and renames it the Greenhouse Gas Sequestration Task Force; aligns the State's clean energy and carbon sequestration efforts with climate initiative goals; amends membership and duties of the Task Force; establishes a zero-greenhouse gas emissions target for the State; and makes an appropriation, it is the position of the OCC Legislative Priorities Committee to support this measure.

Thank you very much for your kind consideration.

Sincerely yours,

/s/ Melodie Aduja

Melodie Aduja, Chair, OCC Legislative Priorities Committee

Email: legislativepriorities@gmail.com, Text/Tel.: (808) 258-8889

HB-2182-HD-2

Submitted on: 3/12/2018 6:29:48 PM

Testimony for AEN on 3/19/2018 1:30:00 PM

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

Comments:

HB-2182-HD-2

Submitted on: 3/12/2018 7:34:51 PM

Testimony for AEN on 3/19/2018 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Michelle Matson	Individual	Support	No

Comments:

HB-2182-HD-2

Submitted on: 3/14/2018 10:36:48 AM

Testimony for AEN on 3/19/2018 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jennifer Milholen	Individual	Support	No

Comments:

Mike Gabbard, Chair of AEN
Agriculture and Environment (AEN)

Bill HB 2182

Monday, March 19, 2018

1:30 PM in Conference Room 224, State Capitol

Hello, my name is Gavril Ibaan and I am a senior at Mililani High School. I providing testimony in regards to bill HB 2182. This bill proposes the following “Makes permanent the Carbon Farming Task Force established by Act 33, Session Laws of Hawaii 2017, and renames it the Greenhouse Gas Sequestration Task Force. Aligns the State's clean energy and carbon sequestration efforts with climate initiative goals. Amends membership and duties of the Task Force. Establishes a zero-greenhouse gas emissions target for the State.”

I am in support of bill HB 2182, especially in regards to this bill’s acknowledgement of Act 32 of the Session Laws of Hawaii 2017. The island of Hawaii is one of the most rich and isolated areas of biodiversity on this planet, and within the last 50 years Hawaii has seen grave amounts of destruction of its endemic populations. The restoration of wetlands, upland and coastal forests would help rebound the dying native populations of this island, many of which are unique only to us. I have seen firsthand, the numerous beneficial effects of restoring native plants as I have helped to restore the coast along Shark’s Cove with native species. The coastline erosion and sediment protection that the plants helped to ensure is essential to, not only preserving the coastline, but also for harbored fish populations and nearby fish nurseries. I have also seen the negatives of invasive plants along trails and streams, vast populations of monocultures like strawberry guava litter the forest without a single native in sight. The lack of an understory provided by the native species weakened the topsoil, and eroded parts of the stream, even the scenic vistas were ruined by the lack of diversity among the sights.

I believe that it is necessary to drive more action to conserve and restore Hawaii’s endemic populations if we want to preserve its natural beauty and have a healthier environment. We need to address Hawaii’s suffering from invasive species and for those reasons I wholeheartedly support bill HB 2182. Thank you all for taking time to listen to my testimony and and for work you commit to legislation.

Gavril Ibaan
2018ibaang@mililanihs.k12.hi.us

HB-2182-HD-2

Submitted on: 3/17/2018 12:16:58 PM

Testimony for AEN on 3/19/2018 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
janice palma-glennie	Individual	Support	No

Comments:

HB-2182-HD-2

Submitted on: 3/17/2018 12:22:13 PM

Testimony for AEN on 3/19/2018 1:30:00 PM

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

Comments:

I urge you to support this environmental bill because it establishes zero-greenhouse gas emissions target for the State by making an appropriation which is a wise investment for our future.

Thus please support HB2182 HD2.

MAHALO.

HB-2182-HD-2

Submitted on: 3/17/2018 12:42:46 PM

Testimony for AEN on 3/19/2018 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Michele Nihipali	Individual	Support	No

Comments:

Aloha Committee Members,

I am writing in support of HB1801. As climate change continues, Hawaii is in a precarious position due to rising sea level. Our state needs to take action now to move to zero emissions. By continuing Act 33 we can work for permanent carbon sequestration. I urge you to pass this bill.

Mahalo for reviewing my testimony,

Michele Nihipali



Hauula, HI 96717

HB-2182-HD-2

Submitted on: 3/17/2018 3:20:05 PM

Testimony for AEN on 3/19/2018 1:30:00 PM

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

Comments:

Please support this important bill

HB-2182-HD-2

Submitted on: 3/17/2018 4:08:26 PM

Testimony for AEN on 3/19/2018 1:30:00 PM

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

Comments:

HB-2182-HD-2

Submitted on: 3/17/2018 7:39:53 PM

Testimony for AEN on 3/19/2018 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Pauline Mac Neil	Individual	Support	No

Comments:

A 2007 article by Dr. Charles W. Rice and Debbie Reed: "Soil Carbon Sequestration and Greenhouse Gas Mitigation: A Role for American Agriculture", refers to soil carbon sequestration as "charismatic carbon" because reducing green house gases through improved agricultural methods can not only have long term benefits for improving agricultural sustainability but can also enhance soil water retention, improve air and water quality, soil fertility, and productivity.

They also suggests that charismatic carbon reduction from agriculture could have great appeal in the global carbon markets.

The Greenhouse Sequestration Task Force proposed in HB. No. 2182 H.D. would help Hawaii gain a more thorough understanding of how agricultural land management practices can better sequester carbon and decrease our carbon footprint. Please support this important legislation.

Mahalo,

Pauline Mac Neil

Kailua HI 96734

HB-2182-HD-2

Submitted on: 3/17/2018 9:31:58 PM

Testimony for AEN on 3/19/2018 1:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Nancy Davlantes	Individual	Support	No

Comments:

HB-2182-HD-2

Submitted on: 3/18/2018 1:48:51 AM

Testimony for AEN on 3/19/2018 1:30:00 PM

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

Comments:

SUPPORT!

HB-2182-HD-2

Submitted on: 3/18/2018 12:21:31 PM

Testimony for AEN on 3/19/2018 1:30:00 PM

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

Comments:

I am in strong support Bill 2182 that is crucial to the success of our state's ambitious goal of 100% renewable energy by 2045.

Thank you for the opportunity to offer testimony.

Sincerely,

Denise Boisvert

Waikiki

Frank Manker

HB 2182, HD

Good Afternoon chair and vice chair of the two respecting committees, my name is Frank Manker, I am a third-year student at the University of Hawaii at Manoa and I am here today to support house bill 2182 which would make permanent the Carbon Farming Task Force established by Act 33. With the goals of obtaining a sustainable Hawaii in terms of clean energy, local food, natural resources, solid waste, smart sustainable communities, and a green education and workforce well integrated within the task force, we will dramatically reduce our carbon footprint. With Hawaii being the most isolated civilization on the planet, it only makes sense for us to spearhead the movement of a more sustainable future. Eliminating our dependence on imported goods will not only stimulate the local economy, but it will also erase the fact that if the cargo ships stopped coming today, we would only have a two-week supply of food for the entire island. Along with the solution to these social problems, the preservation of this task force would also solve several environmental complications. At my home in Big Island, I have noticed over the years that there has been a steady decline in the native avian population in my area. After doing some research I found that because of climate change the overall mosquito line, which is the maximum elevation that mosquitos can survive, has been gaining altitude which has dramatically reduced the refuge area for these birds. The reason this carries so much importance is because most mosquitos carry a strain of avian malaria that is lethal to birds once infected. With the continual depletion of this refuge zone, we will one day experience the extinction of all endemic bird species on Hawaii. Thank you for giving me the opportunity to express my concerns here today

Thank You.

HB-2182-HD-2

Submitted on: 3/18/2018 1:46:39 PM

Testimony for AEN on 3/19/2018 1:30:00 PM

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

Comments:

HB2182 is a very important bill to protect the environment in many ways! Please pass it.

HB-2182-HD-2

Submitted on: 3/18/2018 2:46:06 PM

Testimony for AEN on 3/19/2018 1:30:00 PM

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

Comments:

HB-2182-HD-2

Submitted on: 3/19/2018 8:40:12 AM

Testimony for AEN on 3/19/2018 1:30:00 PM

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

Comments: