

OFFICE OF PLANNING STATE OF HAWAII

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DAVID Y. IGE
GOVERNOR

LEO R. ASUNCION
DIRECTOR
OFFICE OF PLANNING

Statement of
LEO R. ASUNCION
Director, Office of Planning
before the
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
March 13, 2018
8:30 AM
State Capitol, Conference Room 325

in consideration of
SB 2965, SD1
**RELATING TO THE HAWAII CLIMATE CHANGE MITIGATION AND
ADAPTATION INITIATIVE.**

Chair Lee, Vice Chair Lowen, and Members of the House Committee on Energy & Environmental Protection.

SB 2965, SD1, (1) requires the Hawaii Climate Change Mitigation and Adaptation Commission (Climate Commission) to prioritize, among other matters, nature-based solutions (NbS) in its climate change mitigation and adaptation efforts at the regional, state, and local levels; (2) defines NbS; and (3) inserts language requiring the Climate Commission to develop a science-based carbon budget for Hawaii. The Office of Planning (OP) respectfully offers the following comments:

NbS use natural systems, mimic natural processes, or work cooperatively with traditional approaches (i.e. built projects) to help reduce exposure to coastal hazards and other impacts. OP suggests modifying the definition of NbS to clearly indicate that NbS does not exclude working in tandem with the built environment when it is appropriate and necessary for climate change mitigation and adaptation efforts. OP proposes the following amendment on Page 5, Lines 9-14:

“For purposes of this paragraph, “nature-based solutions” means actions that may work cooperatively and in tandem with built and modified ecosystems to protect, sustainably manage, and restore natural or modified ecosystems or built ecosystems, where appropriate and necessary, that address societal challenges effectively and adaptively, while simultaneously providing human well-being and biodiversity benefits.”

In addition, SB 2965, SD1 requires the Climate Commission to “develop a science-based carbon budget for Hawaii based on greenhouse gas analysis in the United Nations Intergovernmental Panel on Climate Change Fifth Assessment Report.” Specifically, the Climate Commission “may also develop individual carbon budgets for Hawaii’s major energy

use sectors, including electricity generation, ground transportation, marine, aviation, and industrial energy.” The carbon budget requirement in this measure, including analysis of energy sectors, may impact SB 2977, SD2, which instructs the Climate Commission to assess the effects of tourism on climate change, which could also include transportation, marine, aviation and the energy sectors, if reasonable and cost effective to do so. The carbon budget requirement of SB 2965, SD1 and SB 2977, SD2 should be aligned to avoid confusion and duplication of effort for the Climate Commission.

Thank you for the opportunity to comment on this measure.

DAVID Y. IGE
GOVERNOR OF
HAWAII



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

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

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.
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
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 House Committee on
ENERGY AND ENVIRONMENTAL PROTECTION**

**Tuesday, March 13, 2018
8:30 AM
State Capitol, Conference Room 325**

**In consideration of
SEANTE BILL 2965, SENATE DRAFT 1
RELATING TO THE HAWAII CLIMATE CHANGE MITIGATION AND
ADAPTATION INITIATIVE**

Senate Bill 2965, House Draft 1 proposes to require the Hawaii Climate Change Mitigation and Adaptation Commission (Climate Commission) to “Identify, utilize, and maintain nature-based solutions in its climate change mitigation and adaption efforts at the regional, state, and local level,” and develop a carbon budget for the State. **The Department of Land and Natural Resources (Department) supports this measure.**

The Department understands that protecting and increasing the footprint of our native forests, beaches and open spaces will contribute significantly to mitigating the effects climate change on native species, water supply, our coastal areas, and coral reefs. The Department is trying to increase our adaptive capacity by reforesting grasslands, protecting and expanding beaches and preserving open space.

One concrete way to mitigate greenhouse gas emissions at the regional, state, and local level is through afforestation. Since trees metabolize carbon dioxide into oxygen and store that carbon in their leaves, roots, and living material, planting more trees is an ideal way to scrub harmful greenhouse gasses from the atmosphere.

Hawaii’s forest and urban forests also mitigates climate change by keeping the island cooler, protecting our reefs from being smothered by runoff, protecting communities from the impacts from storm events and natural disasters through storm-water mitigation and absorption, and efficiently collecting rainwater for our aquifers.

Developing a carbon budget will provide us with information necessary to assess our performance and contribution to meeting Paris Accord goals to keep global warming below 2.0 degrees centigrade.

Thank you for the opportunity to comment on this measure.

SB-2965-SD-1

Submitted on: 3/12/2018 5:13:39 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

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

Comments:

PRESENTATION OF THE
OAHU COUNTY COMMITTEE ON LEGISLATIVE PRIORITIES
DEMOCRATIC PARTY OF HAWAII
TO THE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
THE HOUSE OF REPRESENTATIVES
TWENTY-NINTH LEGISLATURE
REGULAR SESSION OF 2018

Tuesday, March 13, 2018

8:30 p.m.

Hawaii State Capitol, Conference Room 325

RE: Testimony in **Support** of **SB2965 SD1**, RELATING TO THE HAWAII
CLIMATE CHANGE MITIGATION AND ADAPTION
INITIATIVE

To the Honorable Chris Lee, Chair; the Honorable Nicole E. Lowen, Vice-Chair and Members of the Committee on Energy & Environmental Protection:

Good morning. My name is Melodie Aduja. I serve as Chair of the Oahu County Committee ("OCC") Legislative Priorities Committee of the Democratic Party of Hawaii. Thank you for the opportunity to provide written testimony on **SB2965 SD1** relating to the Hawaii Climate Change Mitigation and Adaptation Initiative; Nature-Based Solutions'; and the Science-Based Carbon Budget.

The OCC Legislative Priorities Committee is in favor of **SB2965 SD1** and strongly supports its passage as it requires the Hawaii climate change mitigation and adaptation commission to prioritize, identify, utilize, and maintain nature-based solutions in its climate change mitigation and adaptation efforts at the regional, state, and local levels; defines "nature-based solutions;" and requires the commission to develop a science-based carbon budget for the State.

SB2965 SD1 is in accord with the Platform of the Democratic Party of Hawai'i ("DPH") which provides that "[t]he 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." (Platform of the DPH, P.8, Lines 417-420 (2016)).

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 peoples 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.8, Lines 435-439 (2016)).

Given that **SB2965 SD1** requires the Hawaii climate change mitigation and adaptation commission to prioritize, identify, utilize, and maintain nature-based solutions in its climate change mitigation and adaptation efforts at the regional, state, and local levels; defines "nature-based solutions;" and requires the commission to develop a science-based carbon budget for the State, it is the position of the OCC Legislative Priorities Committee to strongly 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



HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Tuesday, March 13, 2018 8:30 AM Conference Room 325

IN SUPPORT OF SB 2965 SD1

Relating to the Hawai'i Climate Change Mitigation and Adaptation Initiative

Aloha Chair Lee, Vice-Chair Lowen, and Committee Members:

The **HAWAI'I REEF AND OCEAN COALITION – HIROC**– was formed last year by coral reef scientists, educators, local Hawai'i environmental organizations, elected officials, and others to address a crisis facing Hawaii's coral reefs and ocean. We are currently asking the Legislature to pass a handful of very important bills to save our coral reefs – they are bills relating to sunscreens, plus bills on cesspools; Styrofoam; plastic marine debris; and sea level rise.

HIROC supports SB 2965 SD1, which calls for amending Chapter 225-3(i) to identify, utilize, and maintain nature-based solutions in its climate change mitigation and adaptation efforts at the regional, state, and local levels, and develop a science-based carbon budget for Hawaii in support of meeting global targets to limit carbon emissions.

It is one of several bills we back for addressing the challenges Hawai'i faces now and into the future in an era of sea level rise, increased frequency and intensity of storm events, and other climate change impacts.

This bill would support Motion 62 adopted at the International Union for Conservation of Nature (IUCN) World Conservation Congress held in Honolulu in 2016. Nature-based Solutions (NbS) are defined by IUCN as *“actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits”*.

Among other provisions, Motion 62 *“ENCOURAGES regional and local authorities to integrate these solutions into their territorial climate change adaptation and mitigation, energy and land-use planning policies and strategies, as well as their budgets where appropriate.”* Climate change adaptation and mitigation requires actions across the globe by governments, non-governmental organizations, and citizens. Adoption of SB 2965 SD1 would add to other steps already taken by the government and citizens of Hawai'i to address climate change threats.

In summary, we support this bill and encourage its passage.

Mahalo for the opportunity to present this testimony.

Submitted by Dave Raney on behalf of the Hawai'i Reef and Ocean Coalition.



ORGANIZING *for* ACTION

To: The House Committee on Energy & Environmental Protection
From: Brodie Lockard, OFA Hawaii Climate Lead, 808-262-1285
Date: Tuesday, March 13, 2018

In strong support of SB2965 SD1

Dear Chair Lee, Vice Chair Lowen 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. Organizing for Action strongly supports SB2965 SD1.

An amendment to include methane in a "greenhouse gas budget" would make this bill far more effective.

Methane is a global warming gas 84 times as potent as CO₂ over a 20-year period [1]. About **25% of the manmade global warming we're experiencing today is caused by methane** emissions. And the largest source of industrial methane emissions is the oil and gas industry [1]. Liquefied Natural Gas, for example (LNG), is 85 to 95% methane [2].

A science-based greenhouse gas budget would provide valuable quantification of acceptable carbon and methane emissions as Hawaii strives for 100% clean energy.

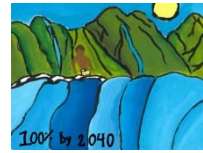
In addition, individual carbon and methane budgets for electricity generation, ground transportation, and marine, aviation, and industrial energy are sorely needed, especially as Hawaii emits far more greenhouse gases from marine and aviation sources than the average state.

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>

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



HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

March 13, 2018, 8:30 A.M.

Room 325

(Testimony is 1 page long)

TESTIMONY IN STRONG SUPPORT OF SB 2965 SD1

Aloha Chair Lee, Vice Chairs Lowen, and members of the Committee:

Blue Planet Foundation **strongly supports** SB 2965 SD1, directing the Hawaii Climate Change Mitigation and Adaptation Commission to develop a science-based “carbon budget” for Hawaii and to pursue “nature-based solutions” in exercising their duties in identifying and recommending climate change mitigation and adaptation efforts. We support providing this additional direction to the Commission, and we appreciate the amendments in the Senate Draft 1 of this measure to increase Hawaii’s resiliency to climate change and to better achieve our obligations to meet the goals of the Paris Climate Agreement.

Blue Planet Foundation strongly supports legislation to direct the Commission to develop a science-based “carbon budget” for Hawaii to guide mitigation goals, strategies, and recommendations. Act 32 (Session Laws of Hawaii 2017) sought to “expand strategies and mechanisms to reduce the greenhouse gas emissions statewide” in a manner that is “closely aligned with the climate change principles and goals adopted in the Paris Agreement.” Currently, there is some uncertainty about what, exactly, that means in terms of greenhouse gas or carbon emissions for the state. The development of a carbon budget would provide some clarity to the commission and decision makers.

A carbon budget can be defined as a tolerable quantity of greenhouse gas emissions that can be emitted in total over a specified time. The budget needs to be based on what is scientifically required to keep global warming and thus climate change “tolerable.” The United Nations Intergovernmental Panel on Climate Change and its contributors have quantified the remaining allowable carbon budgets globally to limit global warming at a certain temperature levels at various probabilities. It’s possible to calculate a budget like this because carbon dioxide, which is the biggest contributor to global warming, has a fairly predictable relationship with temperature. The warming the Earth experiences is almost directly proportional to the total amount of carbon dioxide that accumulates in the atmosphere.

Developing a science-based carbon budget for Hawaii (and the individual energy sectors) would help in the identification and prioritization of carbon mitigation strategies and timelines.

Thank you for the opportunity to testify.

info@blueplanetfoundation.org

55 Merchant Street 17th Floor • Honolulu, Hawai‘i 96813 • 808-954-6142 • blueplanetfoundation.org



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

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Tuesday, March 13, 2018 8:30 AM Conference Room 325

In SUPPORT of SB 2965 SD1

Relating to the Hawai'i Climate Change Mitigation and Adaptation Initiative

Aloha Chair Lee, Vice-Chair Lowen, and Committee Members:

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i, a member of the Common Good Coalition, **supports SB 2965 SD1**, which calls for amending Chapter 225-3(i) to identify, utilize, and maintain nature-based solutions in its climate change mitigation and adaptation efforts at the regional, state, and local levels, and develop a science-based carbon budget for Hawai'i in support of meeting global targets to limit carbon emissions.

This provision would support Motion 62 adopted at the International Union for Conservation of Nature (IUCN) World Conservation Congress held in Honolulu in 2016. Nature-based Solutions (NbS) are defined by IUCN as *"actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits"*.

Among other provisions, Motion 62 *"ENCOURAGES regional and local authorities to integrate these solutions into their territorial climate change adaptation and mitigation, energy and land-use planning policies and strategies, as well as their budgets where appropriate."* Climate change adaptation and mitigation requires actions across the globe by governments, non-governmental organizations, and citizens. Adoption of SB 2965 SD1 would add to other steps already taken by the government and citizens of Hawai'i to address climate change threats.

Mahalo for the opportunity to provide testimony on this important measure.

Dave Raney
Climate Change Volunteer Leader
Capitol Watch

Testimony of The Nature Conservancy of Hawai'i
Supporting SB 2965 SD1 Relating to the Hawai'i Climate Change Mitigation
and Adaptation Initiative
House Committee on Energy & Environmental Protection
Tuesday, March 13, 2018, 8:30AM, Room 325

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 important watershed forests and coral reefs.

The Nature Conservancy supports SB 2965 SD1 and would like to share two things with the Committees:

- The following op-ed by The Nature Conservancy's Jody Kaulukukui that appeared in the Honolulu Star-Advertiser on November 16, 2017; and
- This link to a new study on the positive effects of nature-based solutions to climate change: www.pnas.org/content/114/44/11645

Honolulu Star-Advertiser – Island Voices

Natural solutions like reforestation can mitigate climate change

By Jody Kaulukukui

November 16, 2017

(Jody Kaulukukui is director of protection and climate strategy lead for The Nature Conservancy's Hawai'i Program)
www.staradvertiser.com/2017/11/16/editorial/island-voices/natural-solutions-like-reforestation-can-mitigate-climate-change/

Hawaii is likely to experience — some would say is already experiencing — negative impacts from climate change.

These include more frequent and severe storms, less total rainfall and therefore less fresh water, higher temperatures, coral bleaching, and sea level rise and high waves that threaten coastal areas.

But a new study in the [Proceedings of the National Academy of Sciences](#) shows how improved land stewardship can play a massive role in reducing the impacts of climate change. This most comprehensive assessment to date shows that “natural climate solutions” like healthy and well-managed forests, agricultural lands, pastures and wetlands can reduce global greenhouse gas emissions by 11.3 billion tons per year by 2030.

That's equivalent to halting the burning of oil, and offering 37 percent of the emissions reductions needed to achieve the goal of holding global warming below 2 degrees Celsius by 2030.

The study — led by scientists from The Nature Conservancy and 15 other institutions — shows that protection, restoration and improved land management practices can help stabilize climate change.

Trees have the greatest potential to reduce carbon emissions because they absorb carbon dioxide as they grow, removing it from the atmosphere. Reforestation and improved forest management could

cost-effectively remove 7 billion tons of atmospheric carbon dioxide emissions annually by 2030, equivalent to taking 1.5 billion gasoline-burning cars off the roads.

Despite the great potential of natural climate solutions, these efforts receive only about 2.5 percent of global climate mitigation investment.

Hawai‘i is poised to do much better. Thanks to the Legislature and the governor, the state is committed to meeting the goals of the Paris Climate Agreement and has established the Hawai‘i Climate Change Mitigation and Adaption Commission and the Hawai‘i Carbon Farming Task Force. These groups will develop strategies to mitigate and adapt to climate change impacts.

The Nature Conservancy and state Department of Land and Natural Resources also are acting to address climate change. Over the last two years, we have partnered with the U.S. Forest Service and others to have carbon emissions absorbed (or sequestered) by Hawai‘i forests qualified under domestic and possibly international standards. The next step is putting pilot reforestation projects in the ground to demonstrate both the carbon sequestration capacity and economic viability of forest restoration in Hawai‘i.

Natural climate solutions offer other important benefits, an idea well-known and long held by indigenous cultures around the world.

In Hawai‘i, healthy forests not overrun by invasive species act like a sponge, collecting rain and moisture from passing clouds, slowly delivering fresh water into streams and aquifers, and reducing runoff and siltation onto our shorelines and coral reefs. These forests are home to native plants, birds and other animals, many of which exist only in Hawai‘i and are central to Hawaiian history and culture.

Coral reefs that are free of invasive algae and runoff and have healthy fish populations are better able to withstand the damaging effects of temperature increases and acidification caused by climate change, while continuing to provide food and storm protection for coastal areas. Healthy and abundant nearshore areas also are an essential economic driver and a cherished recreational and subsistence resource.

Investing in natural climate solutions will not only contribute to the global effort of mitigating climate change, it will enhance Hawai‘i’s prospects for achieving our goals for disaster resilience, water and food security, a robust economy and the quality of life we all desire. Natural climate solutions — like planting native trees, protecting native forests, restoring wetlands and bolstering the resilience of coral reefs — are essential to our ongoing ability to thrive and survive in the middle of the Pacific Ocean.



Testimony in support of SB2965 SD1

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

Hearing Tuesday, March 13, 2018 8:30 a.m.

Aloha Chair Lee, Vice-Chair Lowen and committee members,

Please support SB2965 SD1.

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

The benefits 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.

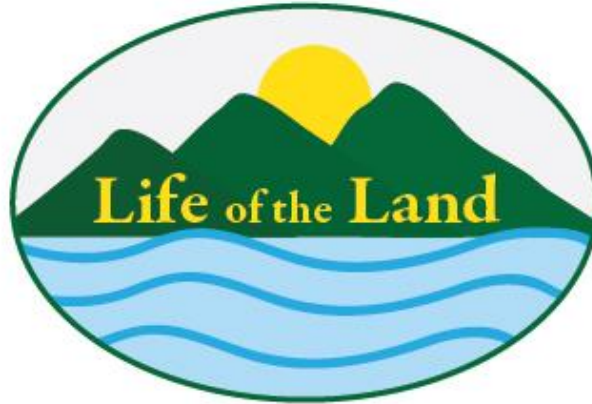
Mahalo,

Dr. Lisa Marten

Executive Director

Healthy Climate Communities

healthyclimate@hawaii.rr.com



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

COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Rep. Chris Lee, Chair

Rep. Nicole E. Lowen, Vice Chair

DATE: Tuesday, March 13, 2018

TIME: 8:30 a.m.

PLACE: Conference Room 325

SB 2965 HAWAII CLIMATE CHANGE MITIGATION AND ADAPTION INITIATIVE **Comments**

Aloha Chair Lee, Vice Chair Lowen, and Members of the Committee

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

Developed nations have exported manufacturing and greenhouse gas emissions to Less Developed Countries while continuing to consume the goods. The net effect is outsourcing emissions. A Production-Based greenhouse gas accounting system maintains this illusion and makes individual choices difficult. One third of Chinese emissions are to produce goods for the US and other developed nations.

A Customer-Based greenhouse gas accounting system corrects this illusion by charging the consumer with the emission. Thus Hawaii would be charged with the emissions from imports. This would allow Hawai`i residents to understand their choices and to switch to lower climate impacting materials.

Mahalo

Henry Curtis, Executive Director

LATE

SB-2965-SD-1

Submitted on: 3/12/2018 4:39:55 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Lisa Bishop	Friends of Hanauma Bay	Support	No

Comments:

SB-2965-SD-1

Submitted on: 3/10/2018 10:29:45 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

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

Comments:

This bill is a sorely needed effort to bring more environmental science into planing. Its passage could save billions in wasted resources from failing to anticipate climate change.

SB-2965-SD-1

Submitted on: 3/10/2018 12:49:52 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Rene Umberger	Individual	Support	No

Comments:

SB-2965-SD-1

Submitted on: 3/10/2018 4:30:32 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Erica Scott	Individual	Support	No

Comments:

SB-2965-SD-1

Submitted on: 3/11/2018 5:18:47 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Mio Chee	Individual	Support	No

Comments:

SB-2965-SD-1

Submitted on: 3/11/2018 5:25:41 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Dyson Chee	Individual	Support	No

Comments:

SB-2965-SD-1

Submitted on: 3/11/2018 5:32:14 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Micah Chee	Individual	Support	No

Comments:

SB-2965-SD-1

Submitted on: 3/11/2018 5:40:02 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
David Chee	Individual	Support	No

Comments:

SB-2965-SD-1

Submitted on: 3/11/2018 5:11:01 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

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

Comments:

Aloha,

An amendment to include methane in a "greenhouse gas budget" would make this bill far more effective.

Methane is a global warming gas 84 times as potent as CO2 over a 20-year period[1]. About 25% of the manmade global warming we're experiencing today is caused by methane emissions. And the largest source of industrial methane emissions is the oil and gas industry[1]. Liquefied Natural Gas, for example (LNG), is 85 to 95% methane[2].

A science-based greenhouse gas budget would provide valuable quantification of acceptable carbon emissions as Hawaii strives for 100% clean energy.

In addition, individual carbon budgets for electricity generation, ground transportation, and marine, aviation, and industrial energy are sorely needed, especially as Hawaii emits far more greenhouse gases from marine and aviation sources than the average state.

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

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

Mahalo,

John

SB-2965-SD-1

Submitted on: 3/11/2018 5:16:14 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

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

Comments:

SB-2965-SD-1

Submitted on: 3/11/2018 6:36:42 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

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

Comments:

SB-2965-SD-1

Submitted on: 3/11/2018 6:39:11 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

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

Comments:

SB-2965-SD-1

Submitted on: 3/11/2018 7:19:29 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Sherry Pollack	Individual	Support	No

Comments:

SB-2965-SD-1

Submitted on: 3/11/2018 7:45:57 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

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

Comments:

An amendment to include methane in a "greenhouse gas budget" would make this bill far more effective.

Methane is a global warming gas 84 times as potent as CO2 over a 20-year period[1]. About 25% of the manmade global warming we're experiencing today is caused by methane emissions. And the largest source of industrial methane emissions is the oil and gas industry[1]. Liquefied Natural Gas, for example (LNG), is 85 to 95% methane[2].

A science-based greenhouse gas budget would provide valuable quantification of acceptable carbon emissions as Hawaii strives for 100% clean energy.

In addition, individual carbon budgets for electricity generation, ground transportation, and marine, aviation, and industrial energy are sorely needed, especially as Hawaii emits far more greenhouse gases from marine and aviation sources than the average state.

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

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

SB-2965-SD-1

Submitted on: 3/11/2018 7:47:02 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

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

Comments:

An amendment to include methane in a "greenhouse gas budget" would make this bill far more effective.

Methane is a global warming gas 84 times as potent as CO2 over a 20-year period[1]. About 25% of the manmade global warming we're experiencing today is caused by methane emissions. And the largest source of industrial methane emissions is the oil and gas industry[1]. Liquefied Natural Gas, for example (LNG), is 85 to 95% methane[2].

A science-based greenhouse gas budget would provide valuable quantification of acceptable carbon emissions as Hawaii strives for 100% clean energy.

In addition, individual carbon budgets for electricity generation, ground transportation, and marine, aviation, and industrial energy are sorely needed, especially as Hawaii emits far more greenhouse gases from marine and aviation sources than the average state.

SB-2965-SD-1

Submitted on: 3/11/2018 10:37:48 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
tlaloc tokuda	Individual	Support	No

Comments:

I belong to 350HI and we try to assist policy makers to create bills that promote renewables, keep fossil fuels in the ground and try to make State Funds join the divestment movement so we support the following:

Technological development and R&D in PV, Wind generation, battery storage and driving prices down so that wind and PV are competitive with coal without all the environmental, social, health, poverty externalities. So we should try and implement the United Nations' Global Goals.

An amendment to include methane in a "greenhouse gas budget" would make this bill far more effective.

Methane is a global warming gas 84 times as potent as CO2 over a 20-year period[1]. About 25% of the manmade global warming we're experiencing today is caused by methane emissions. And the largest source of industrial methane emissions is the oil and gas industry[1]. Liquefied Natural Gas, for example (LNG), is 85 to 95% methane[2].

A science-based greenhouse gas budget would provide valuable quantification of acceptable carbon emissions as Hawaii strives for 100% clean energy.

In addition, individual carbon budgets for electricity generation, ground transportation, and marine, aviation, and industrial energy are sorely needed, especially as Hawaii emits far more greenhouse gases from marine and aviation sources than the average state.

SB-2965-SD-1

Submitted on: 3/11/2018 10:55:58 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
tia pearson	Individual	Support	No

Comments:

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SB-2965-SD-1

Submitted on: 3/11/2018 11:24:48 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Philipp LaHaela Walter	Individual	Support	No

Comments:

SB-2965-SD-1

Submitted on: 3/12/2018 12:18:43 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

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

Comments:

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SB-2965-SD-1

Submitted on: 3/12/2018 7:58:56 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Rebeca Zamora	Individual	Support	No

Comments:

SB-2965-SD-1

Submitted on: 3/12/2018 8:24:48 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

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

Comments:

Dear Chair Lee, Vice Chair Lowen and Committee Members:

Please ammend this bill to include methane as a greenhouse gas. Methane is 84 times more potent than carbon dioxide when it comes to global warming. Currently it is responsible for 25% of anthropogenic climate change, according to the Environmental Defense Fund. It is not a clean source of energy.

Thank you for care,

Seena Clowser

SB-2965-SD-1

Submitted on: 3/12/2018 9:50:39 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
elizabeth riegels	Individual	Oppose	No

Comments:

protect us against climate change!! - that is your number one issue - a vote for a clean environment is a vote for the people of this state - strength, integrity, awareness and leadership is what the voting public is looking for on all environmental issues.

SB-2965-SD-1

Submitted on: 3/12/2018 10:41:21 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
june chee	Individual	Support	No

Comments:

SB-2965-SD-1

Submitted on: 3/12/2018 11:05:00 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
R. Kinslow	Individual	Support	No

Comments:

This initiative is admirable. One notable improvement could be the establishment of a citizens climate communication corp that promotes to the community. These initiatives should be community facing not just for policymakers. Current communication efforts by NGOs are not near enough to move our people towards a sustainable resilient future

SB-2965-SD-1

Submitted on: 3/12/2018 12:35:55 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jordan Moniuszko	Individual	Support	No

Comments:

An amendment to include methane in a "greenhouse gas budget" would make this bill far more effective.

Methane is a global warming gas 84 times as potent as CO2 over a 20-year period[1]. About 25% of the manmade global warming we're experiencing today is caused by methane emissions. And the largest source of industrial methane emissions is the oil and gas industry[1]. Liquefied Natural Gas, for example (LNG), is 85 to 95% methane[2].

A science-based greenhouse gas budget would provide valuable quantification of acceptable carbon emissions as Hawaii strives for 100% clean energy.

In addition, individual carbon budgets for electricity generation, ground transportation, and marine, aviation, and industrial energy are sorely needed, especially as Hawaii emits far more greenhouse gases from marine and aviation sources than the average state.

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

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

SB-2965-SD-1

Submitted on: 3/12/2018 1:12:24 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Asia Leong	Individual	Support	No

Comments:

Aloha,

I am a long time resident of Hawaii. I am in strong support for this bill.

Anywhere GEMS monies can be used to save energy, they should be. Providing all state agencies and departments the chance to save money and lower GHG emissions makes perfect sense.

This bill lets the state set an example for energy efficiency that, perhaps, the private sector will follow.

Sincerely,

Asia Leong

SB-2965-SD-1

Submitted on: 3/12/2018 5:21:28 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Barbara Best	Individual	Support	No

Comments:

LATE

SB-2965-SD-1

Submitted on: 3/12/2018 6:39:40 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Ken Stover	Individual	Support	No

Comments:

LATE

SB-2965-SD-1

Submitted on: 3/12/2018 11:59:03 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

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

Comments:

Dear EEP Committee,

I strongly support SB2965.

Hawaii has a goal of 100% renewable energy by 2045, but that goal will not be met without serious thought and discussion about what needs to be done and how we can make it happen. SB2965 provides the needed structure to design and implement such a plan.

I support, as much as possible, nature-based solutions (NBS) to mitigate climate change for the reasons already outlined by the Nature Conservancy in their testimony. For the most part, NBS will be more cost-effective and result in more resilient solutions than untried technical remedies.

I also support carbon budgets for electricity generation, ground transportation, and marine, aviation, and industrial energy. Such budgets will give us targets to shoot for in our quest to clean up the environment.

Delaying the planning for climate mitigation will only make the task more difficult.

For these reasons I ask you to support SB2965 now. It gives a rudder to our goal of 100% renewable energy.

Thank you.

Sincerely,

Jan Pappas

Aiea, HI 96701