

**HB-1800-HD-2**

Submitted on: 3/17/2022 12:15:35 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Brian Barbata	Individual	Support	In Person

Comments:

Members of the committee:

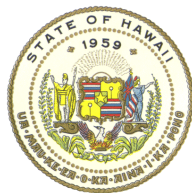
HB1800 HD2 is well-intentioned, but leaves out **CRITICAL objectives for the energy office study.**

First, the energy office study contemplated by the Bill must spell out the requirements for “firm” power. The use of batteries to qualify a HECO supply contract as “firm” power has no basis in the project’s ability to produce to demand consistently, and the PUC has not independently determined how battery capacity relates to reliable power for rate payers. The Legislature has recognized in many bills that the ability of any utility to supply power to rate payers **MUST** replicate the same capability the utility currently provides. The expression “24/7/365” has been used to define this. Yet, the battery capacity of “firm” power proposals being approved by HECO is unrelated to the ability of such projects to continue to provide that power if its intermittent source is not generating. In other words, when the sun doesn’t shine or the wind doesn’t blow. As we all know, Hawaii has plenty of periods like these. **This is a very complex, but absolutely critical determination if the lights are going to stay on in 2045 without fossil fuels.**

Second, the study should provide graphic visualizations of scenarios for 2045 that allow residents to understand what the necessary proliferation of solar and wind might look like. As we all saw in Kahuku, once they’re up, it’s too late. It’s important for the people of Hawaii to be able to make the tradeoff between visual impacts and climate change impacts with a clear understanding. **A picture is worth 1000 words, and few people, on their own are able to visualize these things.** The energy office has the tools to assess the number of windmills and solar panels needed to achieve the state’s 100% renewable goal, and can model the productivity of sites for both solar and wind, leading to the capacity and gigawatt-hours of production needed to displace fossil fuels. Various scenarios assuming different mixes of wind and solar would lead to an informative study showing a range of visual outcomes.

Finally, the proposed study in HB1800 makes no mention of the obvious transition away from fossil fueled power plants and the refinery. **This transition is one that holds a high level of risk,** ultimately leading to a time when all three are demolished. What does that transition look like? Are there strategic considerations? How does the Defense Department feel about losing the refinery here? How will the replacement of spent renewable projects be managed so that our 100% renewable system can continuously supply demand as it deteriorates?

Thank you for considering adding these points to HB1800 HD2 and passing it.



STATE OF HAWAII  
HAWAII CLIMATE CHANGE MITIGATION & ADAPTATION  
COMMISSION  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

**Testimony of  
Leah Laramee  
Coordinator, Hawaii Climate Change Mitigation and Adaptation Commission  
(Temporality Assigned)**

**Before the Senate Committees on  
AGRICULTURE AND ENVIRONMENT  
and  
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM**

**Monday, March 21, 2022  
1:00 PM**

**State Capitol, Via Videoconference, Conference Room 224**

**In support of  
House Bill 1800 House Draft 2  
RELATING TO CLIMATE MITIGATION**

House Bill 1800 House Draft 2 establishes a goal for the statewide greenhouse gas emissions limit to be at least fifty per cent below 2005 levels by 2030. Requires the Hawaii state energy office to conduct a study to determine Hawaii's pathway to decarbonization and identify challenges, opportunities, and actions that will be needed to achieve those goals and appropriate funds. **On behalf of the Hawaii Climate Change Mitigation and Adaptation Commission (Commission) I support this measure.**

The Hawaii Climate Change Mitigation and Adaptation Commission “recognizes the urgency of climate threats and the need to act quickly. It promotes ambitious, climate-neutral, culturally responsible strategies for climate change adaptation and mitigation in a manner that is clean, equitable and resilient.” The Commission, established by Act 32 SLH 2017 to uphold the United States’ pledges under the Paris Agreement, is the coordinating body for policies on climate change mitigation and adaptation for the state. It is a high-level multi-jurisdictional body that guides the priorities of the state’s climate response. Co-chaired by DLNR and Office of Planning, it consists of 20 members—chairs of four legislative committees, and executive department heads at the county and state levels.

Setting an interim target and identifying pathways to decarbonization in an important step for Hawaii to achieve its goal of a net-negative carbon economy no later than 2045. This measure is in alignment with the Commission’s 2021 *Final Statement on Decision Making & Investment Guidance to Address the Climate Emergency in Hawaii* specifically Climate Ready Priority A: The ambitious mitigation of greenhouse gases through elimination and reduction of emissions

**Co-Chairs:**  
Chair, DLNR  
Director, OPSD

**Commissioners:**  
Chair, Senate AEN  
Chair, Senate WAL  
Chair, House EEP  
Chair, House WTH  
Chairperson, HTA  
Chairperson, DOA  
CEO, OHA  
Chairperson, DHHL  
Director, DBEDT  
Director, DOT  
Director, DOH  
Chairperson, DOE  
Director, C+C DPP  
Director, Maui DP  
Director, Hawai'i DP  
Director, Kaua'i DP  
The Adjutant General  
Manager, CZM

and Climate Ready Priority C: The accelerated sequestration of carbon, production of local foods and protection of public health and ecosystems. The Commission defers to the appropriate agencies for comment on matters specific to them.

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



**Hawaiian  
Electric**

**TESTIMONY BEFORE THE SENATE COMMITTEES ON  
AGRICULTURE AND ENVIRONMENT  
AND ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM**

**H.B. 1800 HD2**

**Relating to Climate Mitigation**

Monday, March 21, 2022

1:00 pm, Agenda Item #3

State Capitol, Conference Room 224 & Videoconference

Marc Asano

Director, Integrated Grid Planning

Hawaiian Electric

Chairs Gabbard and Wakai, and Members of the Committees:

My name is Marc Asano and I am testifying on behalf of Hawaiian Electric Company **in support of H.B. 1800 H.D. 2**, Relating to Climate Mitigation, **with comments in opposition to Section 2.**

H.B. 1800 H.D. 2 amends HRS Section 225P-5 to achieve a statewide greenhouse gas emissions (GHG) limit by 2030 that is at least 50 percent below statewide GHG emissions in 2005. This bill also requires the State Energy Office to conduct a study to determine Hawaii's pathway to decarbonization and actions that will be needed to achieve these goals.

Hawaiian Electric is committed to reducing carbon emissions in 2030 by as much as 70 percent below 2005 levels within the electric sector. Our ambitious Climate Change Action Plan for the next eight years anticipates a steady pace of cost-effective renewable energy resources coming online to reduce the use of fossil fuels to generate electricity. Key elements of the Company's 2030 plan include:

- Shutting down the state's last coal plant in 2022;

- Adding nearly 50,000 rooftop solar systems to the 90,000 now online;
- Retiring at least 6 fossil-fueled generating units and significantly reducing the use of others as new renewable resources come online;
- Adding renewable energy projects capable of generating a total of at least 1 gigawatt, including shared solar (community-based renewable energy);
- Using more grid-scale and customer-owned energy storage;
- Expanding geothermal resources; and
- Creating innovative programs that provide customers incentives for using clean, lower-cost energy at certain times of the day and using less fossil-fueled energy at night.

By 2030, Hawaiian Electric's renewable portfolio standard is targeted to exceed 70%, with renewable resources available to provide close to 100% of the electricity generated on Hawaii Island and in Maui County.

For these reasons, Hawaiian Electric supports Section 3 of this bill to provide a measurement of the 2005 statewide emissions, and to complete an on-going statewide inventory and tracking of emissions. We also support Section 4 of this bill for the state to conduct a decarbonization pathways analysis.

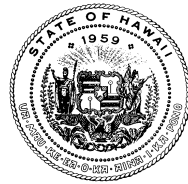
Hawaiian Electric appreciates amendments made to Section 2 to reduce the 2030 milestone from 70 percent to 50 percent; however, Hawaiian Electric believes that setting interim targets should be based on sound analysis as described in Section 4. The 50 percent reduction target will be extremely challenging to accomplish in Hawaii, which is just eight years away. The transportation sector represents a large portion of the current emissions in the State. Setting the proposed 50 percent emissions target by 2030 in ground transportation alone will be challenging to achieve without significantly

more investment and resources in this sector. Even with an aggressive adoption of electric vehicles, the long lifetime of vehicles (i.e., average 15 years) means that the stock share of electric vehicles will grow at a relatively slow rate. Hawaiian Electric's Electrification of Transportation Strategic Roadmap forecasts, 55 percent of personal light-duty vehicles on Oahu roads will be fully electric in 2045, supported by approximately 2,200 public charging ports. Hawaiian Electric recently filed a \$79 million electric vehicle public charging station application, which will address only 14 percent of the aforementioned 2045 charging forecast. The aviation sector will also be challenged to accomplish the interim target due to the lack of commercially available zero emissions fuel and technologies for air transportation. We are also concerned with the economic impacts aggressive policies might have on underserved communities. These issues should be comprehensively examined as outlined in Section 4, before setting any GHG limits, and should be based on emission reduction measures that are practically and technically feasible and cost-effective.

Accordingly, we recommend that the amendment proposed in Section 2 (page 5, lines 5-8) that states, "provided that the statewide target includes a greenhouse gas emissions limit, to be achieved no later than 2030, of at least fifty per cent below the level of the statewide greenhouse gas emission in 2005" be deleted until the analysis described in Section 4 is completed.

Hawaiian Electric looks forward to further discussions on this very important topic as it will truly take a statewide effort of collaboration.

Accordingly, Hawaiian Electric supports H.B. 1800 H.D. 2, with comments in opposition to Section 2. Thank you for this opportunity to testify.



**STATE OF HAWAII  
DEPARTMENT OF HEALTH**

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

**Testimony in SUPPORT of H.B. 1800, HD 2  
RELATING TO CLIMATE MITIGATION**

SENATOR MIKE GABBARD, CHAIR  
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT  
SENATOR GLENN WAKAI, CHAIR  
SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

Hearing Date: 3/21/2022

Room Number: 224 & Via  
Videoconference

1 **Fiscal Implications:** The fiscal implications of this measure are unknown at this time.

2 **Department Testimony:** The Department of Health (Department) supports this measure that  
3 proposes to establish a 2030 statewide greenhouse gas (GHG) emissions limit under Hawaii  
4 Revised Statutes, Section 225P, to help ensure that the State can meet its 2045 zero emissions  
5 clean economy target.

6 The Department stands ready to fulfill its duties set forth in Section 3 of the bill: to  
7 determine the 2005 statewide GHG emissions level, which establishes the baseline for  
8 reductions, and to continue to produce statewide GHG emissions inventory reports that will be  
9 widely accessible.

10 We also strongly support the proposed Hawaii State Energy Office study to determine  
11 Hawaii's pathways to decarbonization. Having a detailed and comprehensive plan for carbon  
12 reduction will be critical as the proverbial "low hanging fruit" are already being picked, leaving  
13 us to find new, breakthrough alternatives or to make difficult choices in traditional areas. As  
14 described in the bill, Act 234 of 2007 set a landmark goal to reduce GHG emissions and the  
15 Department utilized its regulatory authority in air pollution control permitting to limit GHG  
16 emissions from the largest stationary sources to meet that goal. However, data from the 2017  
17 GHG Emissions Inventory that projects emissions levels for 2030 shows that we can no longer



1 rely primarily on reductions from stationary sources of combustion, but must look beyond  
2 traditional stack emissions and also explore reduction opportunities in a variety of other  
3 sectors/categories to continue our progress in meeting Hawaii’s decarbonization goals.

4         The emissions inventory report indicates that in the near future, as it is now, the focus  
5 area for large scale reductions must come from the Energy Sector, which make up approximately  
6 86% of the statewide GHG emissions, primarily from the Transportation subsector. The problem  
7 is that reductions are not easily made in key subsectors such as domestic aviation, which would  
8 impact our tourism-based island economy, or military transportation, which could threaten  
9 national security. In addition, the largest share of Transportation emissions can be found in  
10 ground transportation but federal preemptions prevent Hawaii, and other states that are in  
11 attainment of the National Ambient Air Quality Standards, from following California’s lead in  
12 prohibiting fossil fuel motor vehicles based on emissions.

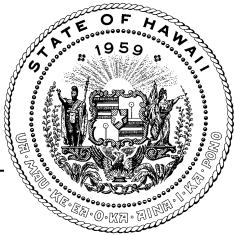
13         All of this points to a need for a detailed, extensive, integrated decarbonization plan that  
14 can help us identify how we can reduce or sequester carbon emissions, what the costs would be,  
15 and which agencies must be responsible. Achieving Hawaii’s decarbonization goals will require  
16 reductions to come from a variety of economic sectors utilizing a multijurisdictional approach  
17 that could involve agencies ranging from agriculture to tax. Multiple state agencies working  
18 together on this important task will enable Hawaii to meet both the 2045 zero emissions clean  
19 economy target and the proposed intermediary 2030 statewide GHG emissions limit, but only if  
20 we have clear and coordinated guidance.

21         The Department proposes a minor amendment to Section 3, proposed HRS 342B-71(c),  
22 to add the word “for.” Our concern is the unintended implication that the Department was  
23 required to complete reports in the years 2018 to 2022. While we cannot go back and meet the  
24 requirement of the current language, we have awarded a contract for this work, which is  
25 anticipated to start in April, and we are committed to producing an emissions inventory report for  
26 every year from 2018 on. The lag in data availability, processing and review by other agencies,  
27 complexity of the analyses, and unexpected delays also makes it difficult to ensure that a report

1 will be published in each calendar year. Some of our previous reports have been completed in  
2 approximately one year, however, others have taken longer. The offered amendment will clarify  
3 that we will complete a new report using data for 2018 and every year thereafter.

4 **Offered Amendments:** (c) The director shall complete a greenhouse gas emissions inventory  
5 report for each year beginning after 2017 to track emissions and determine the State's progress  
6 in the reduction of greenhouse gas emissions.

7 Thank you for the opportunity to testify on this measure.



# HAWAII STATE ENERGY OFFICE STATE OF HAWAII

DAVID Y. IGE  
GOVERNOR

SCOTT J. GLENN  
CHIEF ENERGY OFFICER

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Testimony of  
**SCOTT J. GLENN, Chief Energy Officer**

before the  
**SENATE COMMITTEES ON  
AGRICULTURE AND ENVIRONMENT  
AND  
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM**

Monday, March 21, 2022  
1:00 PM  
State Capitol, Conference Room 224 & Videoconference

**SUPPORT  
HB 1800, HD2  
RELATING TO CLIMATE MITIGATION.**

Chairs Gabbard and Wakai, Vice Chairs Nishihara and Misalucha, and Members of the Committees, the Hawai'i State Energy Office (HSEO) supports HB 1800, HD2, which establishes a goal for the statewide greenhouse gas (GHG) emissions limit to be at least fifty per cent below 2005 levels by 2030; requires HSEO to conduct a study to determine Hawai'i's pathway to decarbonization and identify challenges, opportunities, and actions that will be needed to achieve those goals; and appropriates funds out of the Energy Security Special Fund (ESSF) for the study.

HB 1800, HD2 is an important next step in implementing Senate Concurrent Resolution 44, adopted last year, declaring a climate emergency, and calling for a statewide commitment to a decarbonized economy. The bill also builds on the success of Act 234, Session Laws of Hawai'i (SLH) 2017, which established a target to reduce GHG emissions to 1990 levels by 2020 and which Hawai'i achieved on time. The Department of Health's GHG Inventory has been a critical tool for decarbonizing the economy and HSEO appreciates the Department's continual improvement of it.

Setting an interim target of 50% GHG reduction by 2030 compared to 2005 levels is consistent with the Legislature's commitment pursuant to Act 32, SLH 2017, which is

for Hawai'i to address its share of national emissions in the US' commitment to the Paris Agreement<sup>1</sup>. The commitment for a US State to mitigate and adapt to climate change consistent with the principles of the Paris Agreement and to declare a climate emergency received worldwide attention and established Hawai'i as a global leader on climate policy.

The US commitment, and what HB 1800, HD2 proposes, includes economy-wide emissions, measuring progress (Part II of the bill), and identifying pathways to decarbonization (Part III of the bill). Undertaking this effort for Hawai'i will ensure progress towards Hawai'i's zero emission clean economy target, Section 225P-5, Hawai'i Revised Statutes (HRS). HSEO is willing to undertake the analysis identified in Part III of the bill, which is consistent with HSEO's statutes as set forth in Sections 196-71 and 196-72, HRS.

The ESSF has funds available to support the analysis. The Legislature has set the allowable uses of the ESSF in Section 201-12.8, HRS, among which include "(3) To support achieving the zero emissions clean economy target set forth in section 225P-5." Use of the ESSF requires a direct appropriation by the Legislature as the current FY23 ESSF spending ceiling of \$500,000 was appropriated for the purpose of providing matching funds to leverage federal grant funding. Absent a direct appropriation by the Legislature, the balance of ESSF funds would remain unused in the account for the upcoming fiscal year.

HSEO defers to the appropriate agencies on matters specific to them.

Thank you for the opportunity to testify.

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<sup>1</sup> National commitments to the Paris Agreement are called "Nationally Determined Contributions" or "NDCs". The US Nationally Determined Contribution is available here: <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/United%20States%20of%20America%20Final/United%20States%20NDC%20April%202021%202021%20Final.pdf>

**HB-1800-HD-2**

Submitted on: 3/19/2022 11:43:54 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Ted Bohlen	Testifying for Climate Protectors Hawai'i	Support	Remotely Via Zoom

Comments:

To: The Honorable Michael Gabbard, Chair, The Honorable Clarence Nishihara, Vice Chair, and Members of the Senate Committee on Agriculture and Environment, and

The Honorable Glenn Wakai, Chair, the Honorable Bennette Misalucha, Vice Chair, and members of the Senate Committee on Energy, Economic Development, and Tourism.

Re: Hearing **HB1800 HD2 RELATING TO CLIMATE MITIGATION.**

Hearing: Monday, March 21, 2022, 1:00 p.m., CR 224 and by videoconference

Aloha Chairs Gabbard and Wakai, Vice Chairs Nishihara and Misalucha, and Members of the Committees on Agriculture and Environment and Energy, Economic Development, and Tourism:

The Climate Protectors Hawai'i is a group focused on reversing the climate crisis and encouraging Hawai'i to lead the world towards a safe and sustainable climate and future. The Climate Protectors Hawai'i **SUPPORTS HB1800 HD2's intent** to encourage reduction of greenhouse gases, but **proposes an amendment to make the reductions effective and not just a goal.**

The bill would set a goal in the State planning statute, HRS c. 225P. That law is intended to guide agencies, but unfortunately it is often not followed. **What is needed is also to put limits in the state's air pollution control law, HRS c. 342B, as implemented by rules thereunder, for statewide greenhouse gas emissions that are designed to actually achieve reductions at least fifty percent below the 2005 base level by 2030.**

The bill also charges the State Energy office (and appropriates funding) to study Hawaii's path to decarbonization and identify challenges, opportunities and actions needed to achieve these goals.

**The Climate Protectors Hawaii support the bill's provisions for goals and a decarbonization study. It is important and useful for Hawaii to have a goal in reducing greenhouse gases to mitigate the climate emergency we are facing.** As a tropical island State, Hawai'i will be among the first places harmed by the global climate crisis, with more intense storms, loss of protective coral reefs, food insecurity, and rising sea levels destroying our shorelines. We must do all we can to reduce our carbon footprint and become carbon negative as soon as possible. Hawai'i can and should be a leader in showing the world the way forward

towards a safe and sustainable climate and future. The sooner we inspire others to take action and lead by example, the better off the future will be for ourselves, our keiki and succeeding generations.

**Hawai'i especially needs this goal because it currently has no milestone decarbonization targets until 2045. The latest science, including frightening feedback loop data, indicates that 2045 will be too late! Hawai'i must decarbonize in this decade in order to lead and help mitigate the climate emergency!**

The 50% reduction target is feasible through greenhouse gas emission reductions in all aspects of our life, e.g., buildings, transportation, agriculture and food, and waste. We need to set this goal **and implement requirements soon in order to meet it**, or we and our progeny will face a darker future!

**A goal without any accountability is just an aspiration. In order to make this bill effective in reducing greenhouse gas emissions, Section 3 of the bill on page 5, line 11, needs to be amended back to the original language in HB1800, which was in Section 3 on page 4, line 11, through page 5, line 15.**

**This amendment would require the Department of Health, through rules, to establish: 1) greenhouse gas emissions limits applicable to sources or categories of sources to be achieved by 2030; and 2) emission reduction measures to achieve maximum practically and technically feasible and cost-effective reductions in greenhouse gas emissions. These changes are needed to enable the bill to achieve its intent of reducing greenhouse gas emissions by fifty percent below the 2005 level by 2030.**

**Please pass this bill!**

Mahalo!

Climate Protectors Hawai'i (by Ted Bohlen)



COMMERCIAL REAL ESTATE  
DEVELOPMENT ASSOCIATION

HAWAII CHAPTER

March 21, 2022

Senator Mike Gabbard, Chair  
Senator Clarence Nishihara, Vice Chair  
Members of the Committee on  
Agriculture and Environment

Senator Glenn Wakai, Chair  
Senator Bennette E. Misalucha, Vice Chair  
Members of the Committee on  
Energy, Economic Development and Tourism

RE: **HB 1800 – Relating to Climate Change Mitigation**  
**Hearing date – March 21, 2022 at 1:00 p.m.**

Aloha Chair Gabbard, Chair Wakai and members of the committees,

Thank you for allowing NAIOP Hawaii to submit testimony with COMMENTS on HB 1800 – Relating to Climate Change Mitigation. NAIOP Hawaii is the Hawaii chapter of the nation’s leading organization for office, industrial, retail, residential and mixed-use real estate. NAIOP Hawaii has over 200 members in the State including local developers, owners, investors, asset managers, lenders and other professionals.

HB 1800 proposes to establish a goal for the statewide greenhouse gas emissions limit to be at least fifty per cent below 2005 levels by 2030 and requires the Hawaii state energy office (HSEO) to conduct a study to determine Hawaii's pathway to decarbonization and identify challenges, opportunities, and actions that will be needed to achieve those goals. NAIOP Hawaii supports the intent of legislature’s goal to reduce statewide greenhouse gas emissions to mitigate the impact of climate change, however, such goals should be achieved in a manner that will not raise the already high cost of living in Hawaii.

Primarily, NAIOP Hawaii is concerned with the impact of recommendations from the study that may increase the high cost of living. Government regulations in the past years have significantly increased the cost of living in Hawaii with **our state being ranked as the highest and Honolulu ranked as the third highest city cost of living in the US as of 2021**. Further, impacts of recommendations from the study could raise the cost of housing which as of **February 2022 set a new median sales price record for a Single Family at \$1,125,000**.

Senator Mike Gabbard, Chair  
Senator Clarence Nishihara, Vice Chair  
Members of the Committee on  
Agriculture and Environment  
March 21, 2022  
Page 2

Accordingly, in order to reach the State's decarbonization goals in a cost-effective manner NAIOP Hawaii recommends the following:

1. Each of the recommendations made by the HSEO have a cost-benefit- analysis attached to the recommendation when presented;
2. Each recommendation should also include the industry or industries that could be affected by the recommendation; and
3. The committee formulating the recommendations should include other stake holders from private business that will be impacted.

We appreciate the legislature's commitment to climate change mitigation and decarbonization goals and look forward to working together on this issue. Thank you for the opportunity to testify on this measure.

Mahalo for your consideration,

A handwritten signature in black ink, appearing to read "Camp", with a small flourish at the end.

Jennifer Camp, President  
NAIOP Hawaii





SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT  
SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

March 21, 2022, 1:00 P.M.  
Room 224

Offering support for HB 1800 HD2 if amended

Aloha Chairs Gabbard and Wakai and members of the committees:

My name is Jeff Mikulina, and I am submitting this testimony as a local resident who cares deeply about our state and the future of our shared planet. Mahalo for considering HB 1800 HD2, which ostensibly establishes a goal to reduce Hawaii's statewide greenhouse gas emissions. *Unfortunately, this measure will not accomplish its stated purpose as currently drafted.* Amendments made in the HD1 removed the establishment of binding, enforceable greenhouse gas limits (in HRS §342B) and instead simply created a nonbinding, unenforceable goal in the state's planning statutes (HRS §225).

**I respectfully ask this committee to amend HB 1800 HD2 back to its original form, which included a binding greenhouse gas emissions limit in §342B** and a mechanism for the Department of Health to develop rules to achieve the target. This is necessary to move our climate policy from aspiration to accountability.

**URGENT NEED FOR A STATEWIDE GREENHOUSE GAS LIMIT**

Regrettably, Hawaii lacks a binding, enforceable, statewide goal to reduce its overall carbon emissions. These emissions contribute to global climate change that threatens to destabilize our economic security, way of life, and very survival. Strong policy is needed immediately to reduce and eliminate carbon emissions. A report released this week by the United Nations Intergovernmental Panel on Climate Change (IPCC) underscored how any further delay in reducing emissions will force humanity to miss the “brief and rapidly closing window of opportunity to secure a livable and sustainable future.”<sup>1</sup>

Hawaii is at ground zero for the destructive impacts of climate change. In recent years the islands have experienced record high air and water temperatures. Research at the University of Hawaii shows that Hawaii's tradewinds have decreased by half over the past 40 years—making temperatures feel even hotter. The melting of land-based ice and snow globally contributes to rising sea levels that are starting to have devastating impacts on coastlines in Hawaii (a home in Haleiwa was just lost to coastal erosion this week). The state estimates that a sea level rise of one meter will result in \$19

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<sup>1</sup> Climate Change 2022: Impacts, Adaptation and Vulnerability, Summary for Policymakers. Intergovernmental Panel on Climate Change (IPCC), February 2022 ([https://report.ipcc.ch/ar6wg2/pdf/IPCC\\_AR6\\_WGII\\_FinalDraft\\_FullReport.pdf](https://report.ipcc.ch/ar6wg2/pdf/IPCC_AR6_WGII_FinalDraft_FullReport.pdf)).

billion in lost land and structures, with billions more in damaged or lost infrastructure. Higher temperatures and more moisture in the atmosphere have also caused heavier precipitation events. In 2018, Hawaii experienced a “rainbomb” on the islands of Oahu and Kauai. It rained so much in Hanalei, Kauai, that it broke the local rain gauge—and broke the national record for the most rain over a 24-hour period. Although Hawaii has avoided direct hits from numerous hurricanes over the past few decades, climate modeling suggests that hurricanes could become larger, stronger, and more frequent in the Pacific.

While relatively small compared with the global total, Hawaii’s emissions are significant. Hawaii residents currently emit nearly four times as much carbon into the atmosphere as the typical global resident. Our state’s disproportionate contribution—and disproportionate vulnerability—require us to take responsibility for our carbon emissions. What’s more, Hawaii is uniquely positioned to demonstrate leadership on climate policy, with no indigenous fossil resources in the islands, a history of innovation and sustainability, and the special place Hawaii has in the imaginations of people worldwide.

### GOAL SETTING POLICY WORKS—IF THERE IS ACCOUNTABILITY

Hawaii has a proud history of setting and achieving bold policy goals for climate and clean energy—if they are binding and enforceable. For example:

- In 2007, the legislature passed and Governor Linda Lingle enacted Act 234, Hawaii’s first greenhouse gas limit. The policy set a target to reduce Hawaii’s statewide greenhouse gas emissions to 1990 levels by 2020 and directed the Department of Health to adopt rules to achieve the target. Penalties were developed for noncompliance. This statewide goal was met in 2020.
- Between 2001 and 2015, the legislature passed a number of increasing targets on the provision of renewable electricity by certain dates (2010, 2015, 2020, 2030, 2040, and 2045) and energy efficiency (2015, 2020, 2025, and 2030). The Public Utilities Commission is tasked with ensuring compliance with these targets. Penalties were developed for noncompliance. Every renewable energy and energy efficiency target to date has been met or exceeded.

State goal setting only works if a specific agency is tasked with its achievement and enforcement and penalties developed. *In other words, the current version of the bill is an aspiration (“we should all drive slower”), whereas the original version of HB 1800 is a law (a speed limit sign with a cop, radar gun, and ticket book).*

### DEPARTMENT OF HEALTH IS THE APPROPRIATE AGENCY TO REGULATE GREENHOUSE GAS

To set an effective decarbonize goal for Hawaii, HB 1800 HD2 should be amended back to its original form where the Department of Health (DOH) is tasked with achieving the target and directed to adopt

rules to attain the necessary carbon reductions. The DOH is broadly charged with ensuring the protection of Hawaii's environmental health—among other duties, they specifically regulate air pollution. House Bill seeks to limit the emissions of climate change pollution (greenhouse gases) into the air (largely from the combustion of fossil fuel). Despite suggesting otherwise in their February 1, 2022, testimony on this measure, the DOH has the authority to regulate greenhouse gas emissions from all “sources,” defined in HRS §342B-1 as “any property, real or personal, which emits or may emit any air pollutant.” This includes transportation sources of air pollution (including greenhouse gas emissions). They are not limited to stationary sources only.

To meet our obligation to solving catastrophic climate change, I strongly support the establishment of a statewide greenhouse gas limit by 2030. The creation of a limit in 2007 proved successful in reducing our growth in carbon pollution. **It is time to set a new limit across all sources, and again task DOH with the authority to establish new rules for binding, enforceable carbon reductions in HRS §342B.**

I respectfully urge you to amend HB 1800 HD2 to its original form.

Thank you for the opportunity to provide this testimony.

**HB-1800-HD-2**

Submitted on: 3/17/2022 12:28:31 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Dana Keawe	Individual	Support	Written Testimony Only

Comments:

Support HB1800 HD2

**HB-1800-HD-2**

Submitted on: 3/17/2022 3:52:32 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Kimo Cruz	Individual	Oppose	Written Testimony Only

Comments:

Opposed. Won't change anything.

**HB-1800-HD-2**

Submitted on: 3/17/2022 3:54:36 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Douglas Perrine	Individual	Support	Written Testimony Only

Comments:

Passing HB1800 is perhaps the most important thing the legislature can do this session. The most recent report of the UN climate panel makes it clear that we have only a narrow window of time left to take action to avert the most dire consequences of climate change. It is our kuleana to protect these islands and to leave the aina in habitable condition for our keiki and their keiki. Please act without delay.



# SIERRA CLUB OF HAWAI'I

**SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT**  
**SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM**

March 21, 2022      1:00 PM      Conference Room 224

**In SUPPORT of HB1800 HD2:** Relating to Climate Mitigation

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Aloha Chair Gabbard, Chari Wakai, Vice Chair Nishihara, Vice Chair Misalucha, and Members of the Committees

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i **supports HB1800 HD2**, which provides critical stepping stones needed to achieve our carbon emissions and climate resiliency goals in a timely and equitable manner.

Hawai'i's continued dependency on fossil fuels not only contributes to the climate change crisis that has already reached our islands' shores – in the form of historic floods, droughts, wildfires, coral bleaching events, the proliferation of invasive species, and the extinction of native species, among others – but also subjects our residents and businesses to the ever-increasing costs of fossil fuels, exacerbating the financial stability challenges faced by so many who call these islands home. Notably, the environmental and public health costs of fossil fuel-based energy generation has also disproportionately impacted the health and well-being of certain rural and Native Hawaiian communities to a far greater degree than the urban communities that contribute most significantly to our energy consumption rates.

By setting clear milestones and resources for our transition to a fossil-fuel free future, this measure will help to ensure that we meet our decarbonization goals in a timely and equitable manner, and thereby contribute our part to addressing the climate crisis while also ensuring greater resiliency for our islands going forward. The Sierra Club particularly appreciates the proposed role of the Hawai'i State Energy Office ("HSEO") in analyzing and developing recommendations for pathways to achieve these goals; we are happy to commit to working with the office to facilitate any needed stakeholder consultation, including with respect to dialogue with and input from communities who may be asked to bear any disproportionate burdens from potential decarbonization initiatives. The Sierra Club does defer to the HSEO as to what resources may be needed to carry out its responsibilities under this measure and believes that the provision of such support would represent a highly worthwhile investment in our islands, our planet, and our future.

Accordingly, the Sierra Club of Hawai'i respectfully urges the Committee to **PASS** HB1800 HD2. Mahalo nui for the opportunity to testify.

**HB-1800-HD-2**

Submitted on: 3/17/2022 7:24:04 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
laurel brier	Testifying for Kauai women's caucus	Support	Written Testimony Only

Comments:

Important Bill. If we are to lower our GHG we need a clear pathway to decarbonize. And let's set the goal higher - that is what is needed.



**HB-1800-HD-2**

Submitted on: 3/18/2022 8:56:59 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Keith Neal	Individual	Support	Written Testimony Only

Comments:

I support HB 1800 HD2

I support setting Hawaii greenhouse gas emissions limit to be achieved no later than 2030 of at least fifty per cent below the level of 2005.

I support returning the establishment of binding, enforceable greenhouse gas limits (in HRS §342B) language, in a previous version of the bill.

Respectfully submitted,

Keith Neal

**HB-1800-HD-2**

Submitted on: 3/18/2022 9:07:39 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Mark Henry Deakos	Testifying for Hawaii Association for Marine Education and Research	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Chair Wakai, Vice Chair Nishihara, Vice Chair Misalucha, and members of the Committees:

I am testifying in support of House Bill 1800, which establishes a goal to reduce statewide greenhouse gas emissions 50% below 2005 levels by 2030, and requires a decarbonization pathways analysis to help identify specific and actionable steps to help us reach the goal.

The Hawaii Association for Marine Education and Research has set priorities to play its part in reducing its carbon footprint by committing to being a Net Zero Carbon business by reducing emissions through renewables and sequestering carbon through revegetation and soil regeneration.

In order for Hawaii to reach our goal of 100% renewable energy future by 2045, and prevent the very worst impacts of climate change, our state needs to take specific and measurable actions now. While our greenhouse gas emissions have decreased in recent years, they have not dropped at a rate fast enough to avoid total catastrophe in our islands.

The 50% reduction goal and deadline outlined in HB 1800 would provide more structure in decarbonizing our state and is in alignment with the target that Hawaiian Electric publicly set in 2021 for reducing emissions in power generation.

Please pass HB 1800 to support Hawaii's clean energy future.

Thank you for considering my testimony.

Mark Deakos, PhD.

Executive Director

Hawaii Association for Marine Education and Research

Lahaina, HI 96761

**HB-1800-HD-2**

Submitted on: 3/18/2022 9:08:21 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
B.A. McClintock	Individual	Support	Written Testimony Only

Comments:

Please support of House Bill 1800, which establishes a goal to reduce statewide greenhouse gas emissions 50% below 2005 levels by 2030, and requires a decarbonization pathways analysis to help identify specific and actionable steps to help us reach the goal.

In order for Hawaii to reach our goal of 100% renewable energy future by 2045, and prevent the very worst impacts of climate change, our state needs to take specific and measurable actions now. While our greenhouse gas emissions have decreased in recent years, they have not dropped at a rate fast enough to avoid total catastrophe in our islands.

The 50% reduction goal and deadline outlined in HB 1800 would provide more structure in decarbonizing our state and is in alignment with the target that Hawaiian Electric publicly set in 2021 for reducing emissions in power generation.

Please pass HB 1800 to support Hawaii's clean energy future.

Thank you for considering my testimony.

MICHAEL P. VICTORINO  
Mayor

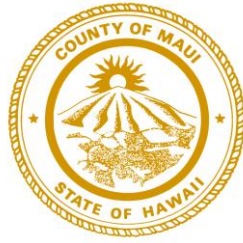
ERIC A. NAKAGAWA, P.E.  
Director

ROBERT SCHMIDT  
Deputy Director

MICHAEL KEHANO, P.E.  
Solid Waste Division

SCOTT R. ROLLINS, P.E.  
Wastewater Reclamation Division

TAMARA L. FARNSWORTH  
Environmental Protection &  
Sustainability Division



**COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**

2145 KAOHU STREET, SUITE 102  
WAILUKU, MAUI, HAWAII 96793

March 21, 2022

TESTIMONY OF TAMARA L. FARNSWORTH  
MANAGER, COUNTY OF MAUI, ENVIRONMENTAL PROTECTION & SUSTAINABILITY  
DIVISION

BEFORE THE HOUSE COMMITTEES ON AGRICULTURE AND ENVIRONMENT AND  
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

Monday, March 21, 2022, 1:00 p.m.

Via Videoconference

In consideration of **HOUSE BILL 1800 HD 2 RELATING TO CLIMATE MITIGATION**

Honorable Mike Gabbard and Glenn Wakai, Chairs

Honorable Clarence K. Nishihara and Bennette E. Misalucha, Vice Chairs

Honorable Members of the Committees on Agriculture and Environment and Energy, Economic  
Development, and Tourism

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The County of Maui Department of Environmental Management stands in **SUPPORT of**  
**HB1800 HD 2** which would establish a goal for the statewide greenhouse gas emissions limit to  
be at least fifty percent below 2005 levels by 2030. This bill would also require the Hawai'i state  
energy office to conduct a study to determine Hawai'i's pathway to decarbonization and identify  
challenges, opportunities, and actions needed to achieve those goals.

The build-up of anthropogenic greenhouse gas emissions poses a serious threat to the  
environment, to lives and to livelihoods. Currently, the County of Maui is facing urgent and  
significant challenges as a result of climate change including severe drought, wildfires, floods  
and temperature swings. At the State level, drought alone has cost Hawai'i millions of dollars in  
agricultural losses. Careful planning and active management can help reduce the impacts. Two  
years ago, the Maui County Council declared our recognition of the climate emergency by  
unanimously adopting Resolution 19-209. Setting decarbonization targets would allow for a  
coordinated effort to reduce emissions and carbon footprint of the state and so help protect our  
unique island system from further loss and damage.

Maui County recognizes the critical nature of preparing for the effects of climate change.  
Therefore, we also support Hawai'i state energy office in conducting a study to determine  
Hawai'i's pathway to decarbonization and identify challenges, opportunities, and actions to  
achieve those goals.

We respectfully urge this committee to pass HB1800 HD 2.

Thank you for the opportunity to provide testimony on this important issue.

**HB-1800-HD-2**

Submitted on: 3/18/2022 11:44:19 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Sarah Daigle	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Chair Wakai, Vice Chair Nishihara, Vice Chair Misalucha, and members of the Committees:

I am testifying in support of House Bill 1800, which establishes a goal to reduce statewide greenhouse gas emissions 50% below 2005 levels by 2030, and requires a decarbonization pathways analysis to help identify specific and actionable steps to help us reach the goal.

While some may not believe in climate change, I think either way we can admit that the way we are operating as a human species is unsustainable, and our slow approach to creating big changes isn't sufficient. We need game changers leading the way that can rally our Hawaii communities to get stoked on the changes that are needed and to do it together, along side of each other.

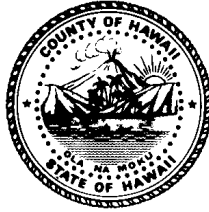
The pandemic seemed to put Hawaii government in motion quite quickly. May we act with steadfastness on this matter as well. Yet, may we hope that the leaders can Listen to the professionals in the field of innovation, sustainability and climate change so we make the Right changes and don't have to ever look back.

The most important changes in our day to day life that can bring about the biggest and quickest change in our climate are actually quite Easy, which makes it completely do-able! Eliminate toxic agriculture that is stripping the soils (and the food) of the soil rich carbon that naturally offsets carbon emissions. Eliminate it and replace it with organic/natural farming. It would create more jobs, teach people how to take care of the land again and heal the aina, the air, the waters, the people. Teach people how to compost and create massive composting system for the island. And of course the many other things that we need to look at, but those two big things are massive and easy!

I truly believe we can do this. We just need leaders that believe it as well and are willing to lead the way into the future, a healthy future. I trust that we will get there. You have my vote.



REBECCA VILLEGAS  
Council Member  
District 7, Central Kona



PHONE: (808) 323-4267  
FAX: (808) 323-4786  
EMAIL: [Rebecca.villegas@hawaiicounty.gov](mailto:Rebecca.villegas@hawaiicounty.gov)

## HAWAI'I COUNTY COUNCIL

West Hawai'i Civic Center, Bldg. A  
74-5044 Ane Keohokalole Hwy.  
Kailua-Kona, Hawai'i 96740

March 18, 2022

TESTIMONY OF REBECCA VILLEGAS  
COUNCIL MEMBER, HAWAI'I COUNTY COUNCIL  
ON HB 1800 HD2, RELATING TO CLIMATE MITIGATION  
Committee on Agriculture and Environment  
Committee on Energy, Economic Development, and Tourism  
Monday, March 21, 2022 1:00 p.m.

Aloha Chair Gabbard, Chair Wakai, and Members of the Committees:

I thank you for the opportunity to testify in SUPPORT of HB 1800 HD2. The purpose of this Act is to

- (1) Establish a goal for the statewide greenhouse gas emissions limit to be at least seventy per cent below 2005 levels by 2030; and
- (2) Require and appropriate funds for the Hawaii state energy office to conduct a study to determine Hawaii's pathway to decarbonization and identify challenges, opportunities, and actions that will be needed to achieve those goals.

Climate change is the overriding challenge of the twenty-first century. Climate change poses immediate and long-term threats to Hawaii's economy, public health, natural resources, environment, and way of life.

In 2007 Act 234, of the Session Laws of Hawaii established a goal to reduce statewide greenhouse gas emissions to below 1990 levels by 2020, that goal was achieved. Supporting this measure will help the State achieve the laws adopted through Act 74, Session laws of Hawaii 2021; Act 15 Session Laws of Hawaii 2018; and Act 97, Session Laws of Hawaii 2015. Hawaii is the first State to declare a climate emergency and call for a statewide commitment to decarbonized economy, and the first state to set out to eliminate fossil fuels from the electric grid.

For the reasons stated above I urge the Committee on Finance to SUPPORT this measure. Should you have any questions, please feel free to contact me at (808) 323-4267.

Mahalo for your consideration.

Rebecca Villegas  
Council Member, Hawai'i County Council

*Hawai'i County is an Equal Opportunity Provider and Employer.*

**HB-1800-HD-2**

Submitted on: 3/18/2022 4:54:49 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Adriann Gin	Individual	Support	Written Testimony Only

Comments:

TO: Senate Committee on Agriculture and Environment and Senate Committee on Energy, Economic Development, and Tourism  
SUBJECT: Support for HB 1800, RELATING TO CLIMATE MITIGATION, March 21, 2022, 1:00 PM hearing

Aloha Chair Gabbard, Chair Wakai, Vice Chair Nishihara, Vice Chair Misalucha, and members of the Committees:

I am testifying in support of House Bill 1800, which establishes a goal to reduce statewide greenhouse gas emissions 50% below 2005 levels by 2030, and requires a decarbonization pathways analysis to help identify specific and actionable steps to help us reach the goal.

Legislation like this is critical to address the very real existential crisis that climate change confronts humanity with. The UN most recent report - written by 270 researchers from 67 countries - on climate change with the take-home message: Climate change is likely going to make the world sicker, hungrier, poorer, gloomier and way more dangerous by 2040, with an "unavoidable" increase in risks. 2040 is in our lifetime, just 18 years away from today. I implore you, please act now, we must do everything we can, as quickly as we can, to change our course, as we are fast-approaching the point of no return. As an island community, we can't afford the luxury of time - we couldn't afford it 20 years ago, and we certainly can't afford it now. Please act now.

In order for Hawaii to reach our goal of 100% renewable energy future by 2045, and prevent the very worst impacts of climate change, our state needs to take specific and measurable actions now. While our greenhouse gas emissions have decreased in recent years, they have not dropped at a rate fast enough to avoid total catastrophe in our islands.

The 50% reduction goal and deadline outlined in HB 1800 would provide more structure in decarbonizing our state and is in alignment with the target that Hawaiian Electric publicly set in 2021 for reducing emissions in power generation.

Please pass HB 1800 to support Hawaii's clean energy future.

Thank you for considering my testimony.



Adriann Gin, Honolulu, Hawaii 96821

**HB-1800-HD-2**

Submitted on: 3/18/2022 6:52:35 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Daniel Boren	Testifying for Skyline Hawaii	Support	Written Testimony Only

Comments:

In order for Hawaii to reach our goal of a 100% renewable energy future and prevent the very worst impacts of climate change, our state needs to take specific and measurable actions now. While our greenhouse gas emissions have decreased in recent years, they have not dropped at a rate fast enough to avoid total catastrophe in our islands.

-- I support this bill, but with an important amendment. Drastically cutting our carbon emissions is a necessary part of addressing the climate crisis, the effects of which are already here. Further, Hawaii must take specific, measurable and *enforceable* actions in order to reach our 100% clean energy goals and do our part to help avert the worst of climate breakdown. That is why **I strongly urge the committee to amend HB1800HD2 back to its original form.** The original bill included a mechanism for the Department of Health to develop rules to achieve the target, along with a target that matches the scale of the response we need if we are serious about tackling climate breakdown. NO MORE BLAH BLAH BLAH. We need **real** climate action! Please pass HB1800 in its original form.

**HB-1800-HD-2**

Submitted on: 3/18/2022 9:03:47 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Koohan Paik	Individual	Support	Written Testimony Only

Comments:

I support this bill, but with an important amendment. Drastically cutting our carbon emissions is a necessary part of addressing the climate crisis, the effects of which are already here. Further, Hawaii must take specific, measurable and *enforceable* actions in order to reach our 100% clean energy goals and do our part to help avert the worst of climate breakdown. That is why **I strongly urge the committee to amend HB1800HD2 back to its original form.** The original bill included a mechanism for the Department of Health to develop rules to achieve the target, along with a target that matches the scale of the response we need if we are serious about tackling climate breakdown. NO MORE BLAH BLAH BLAH. We need **real** climate action! Please pass HB1800 in its original form.

**HB-1800-HD-2**

Submitted on: 3/18/2022 9:18:01 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
DIPANKAR SENGUPTA	Individual	Oppose	Written Testimony Only

Comments:

I oppose the Bill because it does not mandate execution of the bill. I would like to retain the original form of the bill.

**HB-1800-HD-2**

Submitted on: 3/18/2022 11:17:33 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Janet L Pappas	Individual	Support	Written Testimony Only

Comments:

Dear AEN and EET committee members,

From Bill HB1800 SD1:

"The legislature finds that climate change is the overriding challenge of the twenty-first century. Climate change poses immediate and long-term threats to Hawaii's economy, public health, natural resources, environment, and way of life."

Pretty scary. So what must we do?

Although the State of Hawaii has established long-range goals around climate change and has many laws on the books, we have yet to lay out a definitive plan with clear, interim goals dealing with all forms of emissions.

HB1800 and HB1800 SD1 would have set the goal of limiting statewide greenhouse gas emissions to 70% below 2005 levels by 2030, a standard that we need to reach. But the current HD2 version has backpedaled to 50% below 2005 levels by 2030 with no mention of air travel emissions.

This is unacceptable. We must return to the terms of the original bill (70% below 2005 levels by 2030) and include at least a best estimate for air travel in and out of Hawaii. A well-defined, detailed plan will require three or more years which means we cannot delay to another session. Only then can we determine Hawaii's pathway to decarbonization and identify the challenges we will face.

I support this bill in its attempt to limit emissions to the above levels and to formulate a detailed plan with interim milestones leading to zero emissions.

Please pass the original bill (HB1800) with the amendments noted so that work can get started in earnest. There are grandchildren counting on us.

Sincerely,

Jan Pappas

Aiea, HI 96701

**HB-1800-HD-2**

Submitted on: 3/19/2022 9:19:28 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Stacy K. Tang	Individual	Support	Written Testimony Only

Comments:

I support this bill, but WITH AN IMPORTANT AMENDMENT.

In order for Hawaii to reach our goal of 100% renewable energy future and prevent the worst impacts of climate change, our state needs to take specific and measurable actions NOW.

While our greenhouse gas emissions have decreased in recent years they have NOT DROPPED at a rate fast enough to avoid total catastrophe in our islands.

Drastically cutting our carbon emissions is A NECESSARY PART OF ADDRESSING THE CLIMATE CRISIS. Furthermore, Hawaii must take specific, measurable and ENFORCEABLE ACTIONS, in order to reach our 100% clean energy goals. I strongly urge the committee to amend HB1800 HD2 BACK TO ITS ORIGINAL FORM!

The original bill included a mechanism for the Dept. of Health to develop rules to achieve the target, along with a target that matches the scale of the response we need if we are serious about tackling climate breakdown.

LET'S FACE REALITY. If we position our state to REDUCE DRASTICALLY, it's dependency on **fossil fuels**, strengthen and increase our local ORGANIC AGRICULTURE AND RENEWABLE ENERGY AND CUT OUR WASTE, the current increases in prices resulting from the war in Europe, wouldn't affect us. Hawaii is in the middle of the ocean, we really need to position our state for self-reliance.

Please STOP TALKING ABOUT ACTION AND GET IT DONE!

**HB-1800-HD-2**

Submitted on: 3/19/2022 9:36:26 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
TOM DIGRAZIA	Individual	Support	Written Testimony Only

Comments:

I strongly support the spirit of HB 1800. However it needs to me amended back to its original form to really be useful. Mahalo, Tom



**HB-1800-HD-2**

Submitted on: 3/19/2022 11:45:44 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
P Noel Bobilin	Individual	Support	Written Testimony Only

Comments:

Aloha, I support this important bill, but with an important amendment. Drastically cutting our carbon emissions is a necessary part of addressing the climate crisis, the effects of which are already here. Further, Hawaii must take specific, measurable and *enforceable* actions in order to reach our 100% clean energy goals and do our part to help avert the worst of climate breakdown. That is why **I strongly urge the committee to amend HB1800HD2 back to its original form.** The original bill included a mechanism for the Department of Health to develop rules to achieve the target, along with a target that matches the scale of the response we need if we are serious about tackling climate breakdown. NO MORE BLAH BLAH BLAH. We need **real** climate action! Please pass HB1800 in its original form.

Mahalo

**HB-1800-HD-2**

Submitted on: 3/19/2022 1:28:38 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Tadia Rice	Individual	Support	Written Testimony Only

Comments:

In order for Hawaii to reach our goal of a 100% renewable energy future and prevent the very worst impacts of climate change, our state needs to take specific and measurable actions now.

I support HB 1800, but with an important amendment. Drastically cutting our carbon emissions is a necessary part of addressing the climate crisis, the effects of which are already here. Further, Hawaii must take specific, measurable and *enforceable* actions in order to reach our 100% clean energy goals and do our part to help avert the worst of climate breakdown. That is why I strongly urge the committee to amend HB1800HD2 back to its original form. The original bill included a mechanism for the Department of Health to develop rules to achieve the target, along with a target that matches the scale of the response we need if we are serious about tackling climate breakdown. Please pass HB1800 in its original form.



**SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT  
SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM**

March 21, 2022, 1:00 P.M.

Conference Room 224 & Video Conference

**TESTIMONY IN SUPPORT OF HB 1800 HD2**

Aloha Chair Gabbard, Chair Wakai, Vice Chair Nishihara, Vice Chair Misalucha, and members of the Committees:

Blue Planet Foundation **supports HB 1800**, which establishes a goal to reduce statewide greenhouse gas emissions 50% below 2005 levels by 2030, and requires a decarbonization pathways analysis to help identify specific and actionable steps to help us reach the goal. Setting this **goal will align Hawai'i with the target set at the federal level by the Biden-Harris Administration**, which aims to achieve a 50-52% emissions reduction by 2030.<sup>1</sup>

## **The Climate Emergency Requires Deep Decarbonization**

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In August 2021, the United Nations Intergovernmental Panel on Climate Change issued its loudest wake-up call on climate to date. The nearly 4,000-page report on climate science leaves no room for debate: human's activities are unequivocally changing our planet's climate. Our fossil fuel use is responsible for the dramatic unnatural disasters we've been witnessing worldwide—from the firestorms on the West Coast to the flooding in Europe and Asia, to the slipping away of Hawai'i's beaches. The report makes clear what we must do now: we must put an expiration date on burning fossil fuels and make deep decarbonization efforts economy-wide, not only in the electricity sector.

In a time where many of us are experiencing “disaster fatigue,” the UN report did share one silver lining. While some consequences are irreversible, we can still prevent the very worst effects of climate change. But only if we act now.

Last year, Hawai'i lawmakers took an inspiring step by passing a resolution (SCR 44) declaring a “climate emergency.” House Bill 1800 offers an opportunity to transform the words of the

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<sup>1</sup> *FACT SHEET: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies*, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/>.

climate emergency resolution into meaningful and measurable actions that match the scale and urgency of the challenge we face.

House Bill 1800 takes an important step by updating our economy-wide emissions reduction goals to match what science tells us about the climate emergency. In Act 234, Session Laws of Hawai'i 2007, the Hawai'i legislature set a policy to reduce statewide greenhouse gas emissions to 1990 levels by 2020 (and no stated target beyond that date). In Act 234, the legislature recognized that "climate change poses a serious threat to the economic well-being, public health, natural resources, and the environment of Hawaii." Yet nearly fifteen years later, the potential for deep decarbonization remains untapped. While our emissions have slowed, they have not dropped at the speed and scale necessary to avoid climate catastrophe. This measure would codify the urgency and commitment articulated in the legislature's 2021 climate emergency resolution by setting a target to reduce carbon emissions economy-wide in the state by 50% over 2005 levels no later than 2030. It also provides a much-needed interim benchmark on our way to being carbon-negative by 2045.

Blue Planet supports HB 1800. It is time to update our statewide greenhouse gas emissions reduction targets and identify specific pathways to achieve those goals while also ensuring we are consistently measuring our progress with annual reporting.

Thank you for the opportunity to provide testimony.

**HB-1800-HD-2**

Submitted on: 3/19/2022 2:58:48 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Roseann Michaud	Individual	Support	Written Testimony Only

Comments:

Please pass this in its original form.

**HB-1800-HD-2**

Submitted on: 3/19/2022 3:07:53 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Racquel Segato-Figueroa	Individual	Support	Written Testimony Only

Comments:

Aloha! I am a Hawai'i resident deeply concerned about the climate crisis. It is critically important that we pass strong legislation in order to mitigate climate change. I urge you to support this bill but with an important ammendment. Please **amend HB1800HD2 back to its original form.** Hawaii must take specific, measurable and *enforceable* actions in order to reach our 100% clean energy goals. The original bill included a mechanism for the Department of Health to develop rules to achieve the target, along with a target that matches the scale of the response we need if we are serious about tackling climate breakdown. And we should be a leader in climate legislation and meet the **70% reduction goal** that was originally set, which is completely doable and would bring more jobs and save us money. We need **real** climate action! **Please pass HB1800 in its original form.** Mahalo!

**HB-1800-HD-2**

Submitted on: 3/19/2022 4:05:50 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
noel kent	Individual	Support	Written Testimony Only

Comments:

HD1800 HD2 will confirm that our state is committed to genuine reduction of the greenhouse gases which are threatening our civilization. It pledges to cut the level of greenhouse gas emissions in 2005 by half by 2030. This provides the goals and guidelines we desperately need to make our contribution to moderating the impact of the climate crisis. Mahalo.

Noel Kent Professor Emeritus UH Manoa

**HB-1800-HD-2**

Submitted on: 3/19/2022 7:19:52 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Hannah Shi	Testifying for Clean Future Team at Center for Tomorrow's Leader Program	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Chair Wakai, Vice Chair Nishihara, Vice Chair Misalucha, and members of the Committees:

I am testifying in support of House Bill 1800, which establishes a goal to reduce statewide greenhouse gas emissions 50% below 2005 levels by 2030, and requires a decarbonization pathways analysis to help identify specific and actionable steps to help us reach the goal.

In order for Hawaii to reach our goal of 100% renewable energy future by 2045, and prevent the very worst impacts of climate change, our state needs to take specific and measurable actions now. While our greenhouse gas emissions have decreased in recent years, they have not dropped at a rate fast enough to avoid total catastrophe in our islands.

The 50% reduction goal and deadline outlined in HB 1800 would provide more structure in decarbonizing our state and is in alignment with the target that Hawaiian Electric publicly set in 2021 for reducing emissions in power generation.

Please pass HB 1800 to support Hawaii's clean energy future.

Thank you for considering my testimony.

Hannah Shi Honolulu, Hawaii, 96826



**HB-1800-HD-2**

Submitted on: 3/19/2022 8:13:51 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Ryan Christopher	Individual	Support	Written Testimony Only

Comments:

In order for Hawaii to reach our goal of a 100% renewable energy future and prevent the very worst impacts of climate change, our state needs to take specific and measurable actions now. While our greenhouse gas emissions have decreased in recent years, they have not dropped at a rate fast enough to avoid total catastrophe in our islands.

I support this bill, but with an important amendment. Drastically cutting our carbon emissions is a necessary part of addressing the climate crisis, the effects of which are already here. Further, Hawaii must take specific, measurable and *enforceable* actions in order to reach our 100% clean energy goals and do our part to help avert the worst of climate breakdown. That is why **I strongly urge the committee to amend HB1800HD2 back to its original form.** The original bill included a mechanism for the Department of Health to develop rules to achieve the target, along with a target that matches the scale of the response we need if we are serious about tackling climate breakdown. We need **real** climate action! Please pass HB 1800 in its original form

Ryan Christopher

Honokaa HI

**HB-1800-HD-2**

Submitted on: 3/19/2022 8:15:51 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Gerard Silva	Individual	Oppose	Written Testimony Only

Comments:

This green house Gas thing is alot of Crap. I have bin here all my life and have not seen any such thing this is all BULL SHIT. just to steal money from the people and Money lander that money Back into there Pockets. We are Sick of all the Bull Shit. Stop lying to the People our You will Be paying the Price for it!!

**HB-1800-HD-2**

Submitted on: 3/19/2022 8:51:27 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Cheryl Ho	Individual	Support	Written Testimony Only

Comments:

Aloha, Chair Gabbard, Vice Chair, and Members of the AEN/EET, and WAM committees-

I support this bill, but with an important amendment. Drastically cutting our carbon emissions is a necessary part of addressing the climate crisis, the effects of which are already here. Further, Hawaii must take specific, measurable and *enforceable* actions in order to reach our 100% clean energy goals and do our part to help avert the worst of climate breakdown. That is why **I strongly urge the committee to amend HB1800HD2 back to its original form.**

This included a mechanism for the Department of Health to develop rules to achieve the target, along with a target that matches the scale of the response we need! The original language of this bill **required** the Department of Health to develop a rule framework for achieving the limit, and penalties for noncompliance.

For the sake of our state, I urge you to pass HB1800, with the recommended amendment to return to the original language.

Mahalo nui,

Cheryl Ho, Nu‘uanu



**HB-1800-HD-2**

Submitted on: 3/19/2022 10:13:29 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Elizabeth Hansen	Individual	Support	Written Testimony Only

Comments:

Aloha Representatives:

-- I support this bill, but with an important amendment. Drastically cutting our carbon emissions is a necessary part of addressing the climate crisis, the effects of which are already here. Further, Hawaii must take specific, measurable and *enforceable* actions in order to reach our 100% clean energy goals and do our part to help avert the worst of climate breakdown. That is why **I strongly urge the committee to amend HB1800HD2 back to its original form.** The original bill included a mechanism for the Department of Health to develop rules to achieve the target, along with a target that matches the scale of the response we need if we are serious about tackling climate breakdown. We need **real** climate action! Please pass HB 1800 in its original form.

Mahalo

Elizabeth Hansen  
Registered Voter  
Hakalau HI 96710

**HB-1800-HD-2**

Submitted on: 3/19/2022 10:16:55 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Rodger Hansen	Individual	Support	Written Testimony Only

Comments:

Aloha Representatives:

Please support this bill, but with an important amendment. Drastically cutting our carbon emissions is a necessary part of addressing the climate crisis, the effects of which are already here. Further, Hawaii must take specific, measurable and *enforceable* actions in order to reach our 100% clean energy goals and do our part to help avert the worst of climate breakdown. That is why **I strongly urge the committee to amend HB1800HD2 back to its original form.** The original bill included a mechanism for the Department of Health to develop rules to achieve the target, along with a target that matches the scale of the response we need if we are serious about tackling climate breakdown. We need **real** climate action! Please pass HB 1800 in its original form.

Mahalo

Rodger Hansen  
Registered Voter  
Hakalau HI 96710

**HB-1800-HD-2**

Submitted on: 3/20/2022 7:58:33 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Severine Busquet	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Gabbard, Chair Wakai, Vice Chair Nishihara, Vice Chair Misalucha, and members of the Committees:

I am testifying in support of House Bill 1800, which establishes a goal to reduce statewide greenhouse gas emissions 50% below 2005 levels by 2030, and requires a decarbonization pathways analysis to help identify specific and actionable steps to help us reach the goal.

The only way to ensure a safe, clean, and resilient future for our children is to stop burning fossil fuels.

In order for Hawaii to reach our goal of 100% renewable energy future by 2045, and prevent the very worst impacts of climate change, our state needs to take specific and measurable actions now. While our greenhouse gas emissions have decreased in recent years, they have not dropped at a rate fast enough to avoid total catastrophe in our islands.

The 50% reduction goal and deadline outlined in HB 1800 HD2 would provide more structure in decarbonizing our state and is in alignment with the target that Hawaiian Electric publicly set in 2021 for reducing emissions in power generation.

For these reasons, I strongly support HB 1800 HD2.

Thanks for your attention

Severine Busquet

Hawaii Kai, Honolulu, 96825

**HB-1800-HD-2**

Submitted on: 3/20/2022 8:48:21 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Melissa Lawrence	Individual	Support	Written Testimony Only

Comments:

I support this house bill relating to climate mitigation



**HB-1800-HD-2**

Submitted on: 3/20/2022 8:49:50 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Paul Bernstein	Individual	Comments	Written Testimony Only

Comments:

Aloha Chair Gabbard, Vice Chair Nishihara, Chair Wakai, Vice Chair Misalucha, and members of the AEN and EET committees:

Because of the climate crisis, I'm in strong support of Hawaii reducing its emissions, and I would like us to reduce emissions in the most effective, efficient, and equitable manner. But because little research has been done into the costs and benefits of achieving this target, I do not have a position on how much emissions should be reduced by 2030. Therefore, I'm in strong support of conducting a study as per this bill. Achieving 50% or any significant level of reduction will require major changes in how consumers and producers use and produce energy. To make these changes meaningful policies will need to be enacted. But until the completion of the study, it will be unclear what are the best set of policies. Therefore, given the short amount of time until 2030, the **completion date of the study** or at least a significant draft needs to be moved forward to **12/31/2022** so that new policies can be enacted as soon as possible. To allow enough time to complete the study, the work needs to be contracted no later than June 30 2022.

Respectfully,

Paul Bernstein

**HB-1800-HD-2**

Submitted on: 3/20/2022 10:14:12 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
tlaloc tokuda	Individual	Support	Written Testimony Only

Comments:

Aloha AEN, EET Chairs, Vice Chairs & Committee,

Gov Ige set the bar at 100% renewable energy future, but said nothing about how we get there. HB1800 HD2 hopefully will set us on the right path. HOWEVER the first problem is that the bill only sets this emissions reduction target as a **planning goal** which can then be **ignored**. The original language of this bill **required** the Department of Health to develop a rule framework for achieving the limit and **penalties for noncompliance and enforceable actions!** Hopefully HD2 will **incorporate penalties and enforceable actions!** The chairs, vice chairs and committees know that if the wording of the bill use the targets as **planning goals** they know its a paper tiger without any claws. I hope the Chairs, Vice Chairs and committees amend HB1800 HD2 back to its original form and content! We need a stick not a carrot!

Mahalo for your consideration,

Tlaloc Tokuda

Kailua Kona HI 96740

**HB-1800-HD-2**

Submitted on: 3/20/2022 10:29:29 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Noel Morin	Testifying for Big Island Electric Vehicle Association	Comments	Written Testimony Only

Comments:

Dear Chairs Gabbard and Wakai, Vice Chairs Nishihara and Misalucha, and Committee members,

Big Island Electric Vehicle Association (BIEVA) supports the intention of HB1800 HD2.

The pathway analysis will help us better define the actions required to drawdown carbon across all relevant sectors of our economy. The GHG emission goal of "50% below 2005 levels by 2030" will create the tension needed for all segments of our society to address the emission reductions required.

The original version of the bill is recommended. The association of the goal with HRS 342B-71 will allow it to be more aggressively addressed as it will be associated with pollution control. The latest version calls for the goal to be associated with section HRS 225P-5.

BIEVA recommends that the measure be reverted to the original version of the bill or amended to restore the enforcement mechanism suggested in HB1800. This will help Hawaii achieve the statewide GHG emission goal.

Sincerely,

Noel Morin

President - Big Island EV Association

[bigislandev.org](http://bigislandev.org)

TESTIMONY OF  
JAMES P. GRIFFIN, Ph.D.  
CHAIR, PUBLIC UTILITIES COMMISSION  
STATE OF HAWAII

TO THE  
SENATE COMMITTEES ON  
AGRICULTURE AND ENVIRONMENT  
AND  
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

March 21, 2022  
1:00 p.m.

Chair Gabbard, Chair Wakai, and Members of the Committees:

**MEASURE:** H.B. No. 1800, HD2

**TITLE:** RELATING TO CLIMATE MITIGATION.

**DESCRIPTION:** Establishes a goal for the statewide greenhouse gas emissions limit to be at least fifty per cent below 2005 levels by 2030. Requires the Hawaii state energy office to conduct a study to determine Hawaii's pathway to decarbonization and identify challenges, opportunities, and actions that will be needed to achieve those goals. Appropriates funds out of the energy security special fund for the study. Effective 7/1/2100. (HD2)

**POSITION:**

The Public Utilities Commission ("Commission") offers the following comments for consideration.

**COMMENTS:**

The Commission supports the intent of this measure to reduce statewide greenhouse gas emissions and study Hawaii's pathway to decarbonization. Should this measure pass, the Commission will coordinate with the Hawaii State Energy Office on implementing these goals as they pertain to the state's energy utilities.

Thank you for the opportunity to testify on this measure.

**HB-1800-HD-2**

Submitted on: 3/20/2022 10:43:47 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Katherine Fryer	Individual	Support	Written Testimony Only

Comments:

I support this bill, but **I strongly urge the committee to amend it back to its original form.** The original bill specified a greenhouse gas emissions reduction goal of 70% by 2030, and included a mechanism for the Department of Health to develop rules to achieve the target. This ambitious goal and the mandate to meet it are necessary if we are serious about doing our part to prevent a climate crisis. Hawaii's climate is already breaking down, and threatening us with increasingly severe wildfires and hurricanes. We need real action. Please pass HB1800 in its original form.

**HB-1800-HD-2**

Submitted on: 3/20/2022 11:02:59 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Virginia Tincher	Individual	Support	Written Testimony Only

Comments:

I am in support of the green house gas reduction goals of HB1800 HD2 with the following change as presented by the Hawaii Electric Vehicle Association - Revert to HB1800 enforcement mechanism

This enforcement mechanism is key to reaching the goals established by the bill.

Thank you for this opportunity to testify.

Virginia Tincher

Aina Haina, Honolulu



## HB 1800, HD 2, RELATING TO CLIMATE MITIGATION

MARCH 21, 2022 · SENATE COMMITTEES ON AGRICULTURE AND ENVIRONMENT AND ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM · CHAIRS SEN. MIKE GABBARD AND SEN. GLENN WAKAI

**POSITION:** Support with amendments.

**RATIONALE:** Imua Alliance supports and suggests an amendment for HB 1800, HD 2, relating to climate mitigation, which establishes a goal for the statewide greenhouse gas emissions limit to be at least fifty per cent below 2005 levels by 2030; and requires the Hawaii state energy office to conduct a study to determine Hawai'i's pathway to decarbonization and identify challenges, opportunities, and actions that will be needed to achieve those goals.

According to a report produced by the Hawai'i Climate Change Mitigation and Adaptation Commission, global sea levels could rise more than three feet by 2100, with more recent projections showing this occurring as early as 2060. In turn, over the next 30 to 70 years, approximately 6,500 structures and 19,800 people statewide will be exposed to chronic flooding.

Additionally, an estimated \$19 billion in economic loss would result from chronic flooding of land and structures located in exposure areas. Finally, approximately 38 miles of coastal roads and 550 cultural sites would be chronically flooded, on top of the 13 miles of beaches that have already been lost on Kaua'i, O'ahu, and Maui to erosion fronting shoreline armoring, like seawalls.

Furthermore, according to research conducted by Michael B. Gerrard from Columbia Law School, modern-day slavery tends to increase after natural disasters or conflicts where large numbers of people are displaced from their homes. In the decades to come, says Gerrard, **climate change will very likely lead to a significant increase in the number of people who are displaced and, thus vulnerable, to human trafficking.** While the Paris Climate Agreement of 2015 established objectives to limit global temperature increases and several international agreements are aimed at combating modern-day slavery, it is highly uncertain whether they will be adequate to cope with the scale of the problem that is likely to occur as a result of climate change.

As we work to reduce carbon emissions and stave off the worst consequences of climate change, we must begin preparing for the adverse impact of sea level rise on our shores. We are now quantifying the speed at which we must act. We cannot continue to develop the 25,800-acre statewide sea level rise exposure area—one-third of which is designated for urban use—without risking massive structural damage and, potentially, great loss of life.

Therefore, we should take steps to accelerate Hawai'i's efforts to address climate change and develop a clean economy, including by accelerating goals to limit greenhouse gas emissions. This is especially important in light of the islands' carbon-intensive visitor industry. **In 2019, for example, Civil Beat reported that flights to and from Hawai'i from all over the world produced approximately 6.3 million tons of carbon, which is the equivalent of the CO2 produced by generating electricity for almost 1.1 million homes in a year.**

That said, to strengthen Hawai'i's response to the climate crisis, **we urge your committees to restore this measure's original goal of limiting statewide greenhouse gas emissions to be at least seventy per cent below 2005 levels by 2030.** For the sake of our keiki, we must take quick action to preserve climate for generations to come.

**Kris Coffield · Executive Director, Imua Alliance · (808) 679-7454 · [kris@imuaalliance.org](mailto:kris@imuaalliance.org)**



**HB-1800-HD-2**

Submitted on: 3/20/2022 11:16:06 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Caroline Kunitake	Individual	Support	Written Testimony Only

Comments:

Dear Chair Gabbard, Vice Chair Nishihara, Committee on Agriculture and Environment, Chair Wakai, Vice Chair Misalucha and Committee on Energy, Economic Development and Tourism,

I support this bill, but with an important amendment. Drastically cutting our carbon emissions is a necessary part of addressing the climate crisis, the effects of which are already here. Further, Hawaii must take specific, measurable and *enforceable* actions in order to reach our 100% clean energy goals and do our part to help avert the worst of climate breakdown. That is why **I strongly urge the committee to amend HB1800HD2 back to its original form.** The original bill included a mechanism for the Department of Health to develop rules to achieve the target, along with a target that matches the scale of the response we need if we are serious about tackling climate breakdown.

Thank you for the opportunity to provide testimony on this bill. I appreciate the time and energy spent on this important matter.

Respectfully yours,

Caroline Kunitake



To: The Senate Committee on Agriculture and Environment (AEN)  
and  
The Senate Committee on Energy, Economic Development, and Tourism (EET)  
From: Sherry Pollack, Co-Founder, 350Hawaii.org  
Date: Monday, March 21, 2022, 1pm

**COMMENTS for support of HB1800 in original form**

Aloha Chairs Gabbard and Wakai, Vice Chairs Nishihara and Misalucha, and Committee members,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. HB1800 HD2 would establish a goal for the statewide greenhouse gas emissions limit to be at least 50% below 2005 levels by 2030. This bill would also require the Hawaii state energy office to conduct a study to determine Hawaii's pathway to decarbonization and identify challenges, opportunities, and actions that will be needed to achieve those goals. 350Hawaii.org provides **comments, and supports this measure's intent but with proposed amendments.**

350Hawaii supports and encourages the efforts of the legislature to move towards a fully decarbonized economy. We applaud the inclusion of emissions associated with air travel and shipping in the analysis and development of recommendations to be made from the Hawaii State Energy Office. These industries, and the associated greenhouse gas emissions, must be addressed for Hawaii to achieve its goal to sequester more atmospheric carbon and greenhouse gases than emitted.

Drastically cutting our carbon emissions is a necessary part of addressing the climate crisis, the effects of which are already here. However, Hawaii must take specific, measurable and **enforceable** actions if we are to reach our 100% clean energy goals and do our part to help avert the worst of climate breakdown. To successfully accomplish this, we need to establish accountability, as was done in HB1800. The original bill provided for **binding, enforceable emissions reductions**, directing the Department of Health to develop rules to achieve the target. The bill also set an emissions reduction target of at least **70% below 2005 levels by 2030**, which better matches the scale of the response we need if we are serious about tackling climate breakdown. For these reasons, **we strongly urge the committee to amend HB1800 HD2 back to its original form.**

Regarding air travel, we suggest that it is specified in this bill that measures include the entirety of air travel both in and out of the islands to more fully and accurately support the goals and intention of this legislation. Current reporting of greenhouse gas emissions for our state only includes inter-island flights and flights departing from Hawaii to the US continent. Emissions from arrivals and international flights are not included, which provides an inaccurate picture of our state's contribution to climate-destroying greenhouse gas emissions.

Let's be clear. Climate change is happening now, we are causing it, and the longer we wait to act, the more we lose. **Children living today will live to see a 1.5°C warmer world because of the failure of adults to take real action when there still was time to do so.** Scientists have made clear that we are part of the last generation that can stop or at least mitigate the devastating impacts of climate change.

In the words of a young climate activist who was nominated for the Nobel Peace Prize, Greta Thunberg:

“Blah, blah, blah. This is all we hear from our so-called leaders. Words that sound great but so far have led to no action. Our hopes and dreams drown in their empty words and promises.”

Let Hawaii show Greta, her generation, and the world what true leadership means as we forge the way forward towards a safe and sustainable climate and future. The sooner we inspire others to take action and lead by example, the better off the future will be for our children. We need efforts like those described in the original form of HB1800, and we need them in earnest.

Mahalo for the opportunity to testify in **support with amendments** for this important legislation.

Sherry Pollack  
Co-Founder, 350Hawaii.org

**HB-1800-HD-2**

Submitted on: 3/20/2022 11:35:23 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Carol Cam	Individual	Support	Written Testimony Only

Comments:

I support **HB1800** and believe it is a good companion bill to the widely-sponsored and well-timed **HB2278** (Carbon Cashback bill). I sincerely hope the Senate will schedule public hearings for **HB2278** this year for an efficient, zero-carbon infrastructure transition to develop and prosper in a timely manner for the sake of all life on earth.

**HB-1800-HD-2**

Submitted on: 3/20/2022 11:53:35 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Ruta Jordans	Individual	Support	Written Testimony Only

Comments:

-- I support this bill, but with an important amendment. Drastically cutting our carbon emissions is a necessary part of addressing the climate crisis, the effects of which are already here. Further, Hawaii must take specific, measurable and *enforceable* actions in order to reach our 100% clean energy goals and do our part to help avert the worst of climate breakdown. That is why **I strongly urge the committee to amend HB1800HD2 back to its original form.** The original bill included a mechanism for the Department of Health to develop rules to achieve the target, along with a target that matches the scale of the response we need if we are serious about tackling climate breakdown. NO MORE BLAH BLAH BLAH. We need **real** climate action! Please pass HB1800 in its original form.

**HB-1800-HD-2**

Submitted on: 3/20/2022 12:11:49 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Sara Bower	Individual	Support	Written Testimony Only

Comments:

**My name is Sara Bower and I am 22 years old. I support HB1800 because my generation needs climate change mitigation legislation to ensure a safe and healthy world. We need to start moving to a fully decarbonized economy and setting goals is part of that. I have spent the last 4 years of my life studying global environmental science at UH Manoa. All the science shows that we need strong legislation in order to curb the worst effects of climate change. We are already seeing effects like rising sea levels and coral bleaching in our own islands. Please support HB1800.**

**However, I strongly urge the committee to amend HB1800HD2 back to its original form. The original bill included a mechanism for the Department of Health to develop rules to achieve the target. The original version also called for a 70% reduction in greenhouse gas emissions. This number better matches the scale of the response that we need.**

**Mahalo,**

**Sara Bower**

**Hawaii Electric Vehicle Association**

hawaiiev.org  
info@hawaiieva.com



March 20, 2022

Dear Chairs Gabbard and Wakai, Vice Chairs Nishihara and Misalucha, and members of the Committees,

Hawaii Electric Vehicle Association (Hawaii EV) supports the intention of HB1800 HD2, which “Establishes a goal for the statewide greenhouse gas emissions limit to be at least fifty percent below 2005 levels by 2030. Requires the Hawaii state energy office to conduct a study to determine Hawaii’s pathway to decarbonization and identify challenges, opportunities, and actions that will be needed to achieve those goals.”

The pathway analysis will help us further hone our efforts to reduce emissions across all sectors. It will help us prioritize and support initiatives that will help us cut and draw down greenhouse gas (GHG) emissions.

The statewide GHG emission limit goal (50% below 2005 levels by 2030) is notable and is consistent with the Biden administration’s goal. **However, upon closer review, it’s clear that the current version of the bill is devoid of the enforcement mechanism present in HB1800.**

The following amendment introduced in HD1 weakens the bill, making it less enforceable.

“(1) Establishing the statewide greenhouse gas emissions limit of at least seventy percent below 2005 levels by 2030 in section 225P-5, Hawaii Revised Statutes, rather than section 342B-71, Hawaii Revised Statutes;”

**HRS 225P-5 addresses our “Zero emissions clean economy target.”** It establishes the emissions targets and empowers the Climate Change Mitigation and Adaptation Commission to develop plans and strategies to meet the goals.

**HRS 342B-71 addresses air pollution control.** By including the goal in this section, it will be subject to enforcement, leveraging agencies that have the mandate to control pollution and protect our health and well-being.

**We ask that the measure be amended so that the enforcement mechanism suggested in HB1800 be restored so that we can actually achieve the statewide GHG emission goal.**

Thank you for this opportunity to testify.

Sincerely,

A handwritten signature in black ink, appearing to read "Noel Morin".

Noel Morin  
President  
Hawaii EV Association

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**Hawaii EV Association** is a grassroots non-profit group representing electric vehicle owners in Hawaii. Our mission is to accelerate the electrification of transportation through consumer education, policy advocacy, and electric vehicle charging infrastructure expansion. For more information, please visit [hawaiiev.org](http://hawaiiev.org).

#### Hawaii EV Board

Noel Morin, President  
Nanette Vinton, Secretary, and Treasurer  
Bill Bugbee – Director  
Tam Hunt - Director  
Sonja Kass – Director  
Rob Weltman – Director

#### Hawaii EV Clubs

Big Island EV Association  
Kauai EV  
Maui Nui EV  
Tesla Hawaii Club



**HB-1800-HD-2**

Submitted on: 3/20/2022 12:27:44 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Ron Reilly	Individual	Support	Written Testimony Only

Comments:

Dear Chairs Gabbard and Wakai, Vice Chairs Nishihara and Misalucha, and members of the Committees,

I support HB 1800 HD2, but with an important amendment.

I urge you to please reverse the amendment introduced in HD1 that reads, “ Establishing the statewide greenhouse gas emissions limit of at least [seventy percent] below 2005 levels **by 2030 in section 225P-5, Hawaii Revised Statutes, rather than section 342B-71, Hawaii Revised Statutes;**”

HRS 225P-5 addresses our “Zero emissions clean economy target.” It establishes the emissions targets and empowers the Climate Change Mitigation and Adaptation Commission to develop plans and strategies to meet the goals. Goals without an enforcement mechanism can be ignored.

HRS 342B-71 addresses air pollution control. By including the goal in this section, it will be subject to enforcement, leveraging agencies that have the mandate to control pollution and protect our health and well-being.

Please amended HB 1800 HD2 so that the enforcement mechanism suggested in HB1800 be restored and so we can actually achieve the statewide GHG emission goal.

Thank you for your consideration, Ron Reilly

Volcano Village, Hawaii 96785  
co-Lead Citizens' Climate Lobby – Hawaii Island Chapter  
Member of 350Hawaii  
Member of Hawaii EV Association

**HB-1800-HD-2**

Submitted on: 3/20/2022 12:30:02 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Darren David	Individual	Support	Written Testimony Only

Comments:

I strongly support his measure as a way to help Hawaii become the most sustainable state in the nation.

**HB-1800-HD-2**

Submitted on: 3/20/2022 12:34:35 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Jessica Redford	Individual	Support	Written Testimony Only

Comments:

This will serve to accelerate investment in EVs and charging infrastructure. It will also accelerate the transition to renewable energy.

**HB-1800-HD-2**

Submitted on: 3/20/2022 2:33:45 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Lorn Douglas	Individual	Support	Written Testimony Only

Comments:

Our goals will be difficult to meet and the more we know the better our strategy. Please support this.

Lorn DOuglas

Lower Puna

**HB-1800-HD-2**

Submitted on: 3/20/2022 2:57:18 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Diane Ware	Individual	Support	Written Testimony Only

Comments:

Dear Chairs and Committee Members,

I strongly support mitigation of climate emergency and this bill will help to direct a path. It will also accelerate the transition to renewable energy.

Mahalo for the Earth 🌍,

Diane Ware, 99-7815 Kapoha Pl, Volcano Hi 96785

## HB 1800 HD 2 TESTIMONY

To: Senate Committee on Agriculture and Environment  
Senate Committee on Energy, Economic Development, and Tourism  
Hearing on March 21, 2022 at 1:00 p.m.

From: John Kawamoto

Position: Support with amendments

The proportion of carbon dioxide in the atmosphere as measured at the Mauna Loa Observatory has increased each year since 1958, when the data started being collected. Atmospheric carbon dioxide is insidious. When carbon dioxide is emitted into the atmosphere, it stays there for 300 to 1,000 years, according to NASA.

Humanity must do much more to prevent a global climate catastrophe that threatens to destroy civilization as we know it.

Based on recent data about climate change, many climate scientists now say that we have less than 10 years to take the drastic action needed to limit the emissions of greenhouse gases to limit catastrophic storms, heat waves, droughts, sea level rise, and other climate disasters to ensure a livable environment.

This bill sets as a statewide goal that by 2030, greenhouse gas emissions will be 50% below what it was in 2005. It might be a good idea, but the structure of the bill makes it weak and ineffective.

The bill places the emissions goal in Chapter 225P, Hawaii Revised Statutes, the Hawaii Climate Change Mitigation and Adaptation Initiative. This law creates a commission that has only advisory authority and no regulatory power. The bill is ineffectual.

The bill should be amended to place the emissions goal in Chapter 342B, Hawaii Revised Statutes, the Hawaii Air Pollution Control Act. The Director of Health is responsible for achieving the goals in that Chapter, and the Director has the power to control emissions.

The bill should also be amended to increase the reduction in emissions to 80% below the 2005 level by 2030.

**HB-1800-HD-2**

Submitted on: 3/20/2022 5:48:34 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Carolyn Eaton	Individual	Support	Written Testimony Only

Comments:

Aloha, Chairs Gabbard and Wakai, Vice Chairs Nishihara and Misalucha and members of the Committees,

My name is Carolyn Eaton and I strongly support this bill. Setting intermediate goals is a very wise way to help ourselves reach the longer term fossil-free energy goal. I have adult sons and young grandsons who love Hawai'i dearly, and I hope to encourage your action today which will allow our State to remain attractive and hold sea level rise to a minimum. Rising seas, but also wildly fluctuating weather are potential hazards for our islands. We must act wisely today to avert the worst of these.

Mahalo for wisely acting to mitigate these life-changing conditions by supporting this bill.

**HB-1800-HD-2**

Submitted on: 3/20/2022 7:51:07 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Steve Parsons	Individual	Support	Written Testimony Only

Comments:

Aloha Trusted Lawmakers,

Vote yes on this, as we need to do everything we can to accerate off Fossil Fuels. ASAP!

Steve Parsons,

Wailua Kauai



**HB-1800-HD-2**

Submitted on: 3/20/2022 8:07:47 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Sara DiGrazia	Individual	Support	Written Testimony Only

Comments:

Please support with requested amendements! Thank you!

**HB-1800-HD-2**

Submitted on: 3/20/2022 8:02:27 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Taylor Roberts	Individual	Support	Written Testimony Only

Comments:

Thank you for supporting this Bill!

**HB-1800-HD-2**

Submitted on: 3/20/2022 8:33:15 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Dave Mulinix	Testifying for Our Revolution Hawaii	Support	Written Testimony Only

Comments:

Aloha Committee,

My name is David Mulinix, Cofounder & Community Organizer for Our Revolution Hawaii, and on behalf of our 5,000 members and supporters statewide we stand in strong support of HB1800, but with an important amendment. Drastically cutting our carbon emissions is a necessary part of addressing the climate crisis, the effects of which are already here. Further, Hawaii must take specific, measurable and *enforceable* actions in order to reach our 100% clean energy goals and do our part to help avert the worst of climate breakdown. That is why **we strongly urge the committee to amend HB1800HD2 back to its original form.** The original bill included a mechanism for the Department of Health to develop rules to achieve the target, along with a target that matches the scale of the response we need if we are serious about tackling climate breakdown.

Mahalo for your kind attention,

David Mulinix, Cofounder & Statewide Community Organizer

Our Revolution Hawaii

**HB-1800-HD-2**

Submitted on: 3/20/2022 9:35:40 PM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Sonja Kass	Testifying for KauaiEV	Support	Written Testimony Only

Comments:

March 20, 2022

Dear Chairs Gabbard and Wakai, Vice Chairs Nishihara and Misalucha, and members of the Committees,

I am writing on behalf of KauaiEV, a grassroots organization with over 100 members on Kauai. Our members are electric vehicle drivers and we believe that EVs are the personal transportation of the future.

We were much happier with the original bill before HD1 weakened it and removed enforcement mechanisms, and HD2 changed it from 70% to 50%, but we are still in support of this measure.

If at all possible please strengthen it again, and put back enforcement.

Mahalo for your consideration.

Sonja Kass  
President, KauaiEV



## FOUNDERS

David Gottfried  
Michael Italiano  
S. Richard Fedrizzi

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Suite 600  
Washington, DC 20037
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- 💻 usgbc.org

March 21, 2022

### RE: HI HB 1800

Dear Chairman Gabbard and Chairman Wakai,

On behalf of the U.S. Green Building Council (USGBC) more than 1,000 LEED credentialed professionals in Hawaii, we are pleased to **provide our full support for HB 1800**, which is before both the Committee on Agriculture & Environment and the Committee on Energy, Economic Development, and Tourism.

USGBC is a nonprofit organization working to build healthy, resilient, and equitable green buildings and communities to improve the quality of life for all. Best known for the successful Leadership in Energy & Environmental Design (LEED) green building certification system, we leverage our education, credentials, events, communications, and policy advocacy activities to support the public and private sectors in advancing high-performance, buildings that support health and the environment. There are 235 LEED-certified buildings in Hawaii alone, spanning over 25 million square feet of real estate.

HB 1800 would establish a goal for the statewide greenhouse gas emissions limit to be at least 70% below 2005 levels by 2030 and would require the state energy office to determine potential pathways to decarbonization. Considering that buildings are one of the largest emissions-producing sectors, it is critical that any pathway include measures that address the built environment – such as building performance standards and incentives to drive high-performance and net zero buildings. If enacted, USGBC stands ready to work with the State Energy Office to identify policies and regulations that would decarbonize Hawaii's buildings.

We look forward to working with the Committees on Agriculture & Environment and Energy, Economic Development, and Tourism and the rest of Hawaii's legislature to pass HB 1800. Please do not hesitate to contact us if you have any questions.

Sincerely,

*Jennifer Gunby*  
Jennifer Gunby

State & Local Advocacy Manager  
US Green Building Council  
[igunby@usgbc.org](mailto:igunby@usgbc.org)



[usgbc.org](http://usgbc.org)

**HB-1800-HD-2**

Submitted on: 3/21/2022 7:33:31 AM

Testimony for AEN on 3/21/2022 1:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Megan Lamson Leatherman	Individual	Support	Written Testimony Only

Comments:

Mahalo for the opportunity to testify in FULL SUPPORT on bill (HB1800 HD2), that "Establishes a goal for the statewide greenhouse gas emissions limit to be at least fifty per cent below 2005 levels by 2030. Requires the Hawaii state energy office to conduct a study to determine Hawaii's pathway to decarbonization and identify challenges, opportunities, and actions that will be needed to achieve those goals. Appropriates funds out of the energy security special fund for the study."

Many thanks for your time, consideration, and passing this climate mitigation bill into law.

Best,

*Megan Lamson Leatherman, M. Sc.*

Honalo, North Kona