



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

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GOVERNOR

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Testimony of
SCOTT J. GLENN, Chief Energy Officer

before the
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Tuesday, February 1, 2022
9:00 AM
State Capitol, Conference Room 325 & Videoconference

In SUPPORT of
HB 1801
RELATING TO ENERGY EFFICIENCY.

Chair Lowen, Vice Chair Marten, and Members of the Committee, the Hawaii State Energy Office (HSEO) supports HB 1801, which requires and establishes deadlines for state facilities, except for smaller facilities, to implement cost-effective energy efficiency measures. In addition, HB 1801 directs HSEO to collect utility bill and energy usage data for state-owned buildings and to make the data publicly available. HB 1801 also establishes a goal of achieving at least a twenty-five percent reduction by 2025 in electricity consumption of state facilities; provides that agencies that perform energy efficiency retrofitting may receive appropriations for such measures; and beginning 7/1/2023, requires, where feasible and cost-effective, the design of all new state building construction to maximize energy and water efficiency, maximize energy generation potential, and use building materials that reduce the carbon footprint of the project.

HSEO's comments are guided by its mission to promote energy efficiency, renewable energy, and clean transportation to help achieve a resilient, clean energy, decarbonized economy.

HSEO supports HB 1801 to maximize the near-term savings and long-term energy performance of state buildings. The objectives of energy efficiency, cost control, lower energy bills, and leading by example outlined in HB 1801 are consistent with the

Chief Energy Officer's duties to "provide technical assistance to state and county agencies to assess and implement projects and programs related to energy conservation and efficiency, renewable energy, clean transportation, energy resiliency, and related measures."

HSEO agrees that energy efficiency is the most cost-effective way to reduce energy usage and has worked over the years with state agencies in Hawai'i that are currently participating or have participated in facility benchmarking, energy audits, and energy savings performance contracts. HSEO has observed that there are always more, and sometimes new, energy savings and bill reduction opportunities.

HSEO also agrees that designing new state buildings to maximize energy and water efficiency, identifying energy generation potential, and using building materials that reduce the carbon footprint, where feasible and cost-effective, are in alignment with the State's clean energy and decarbonization goals.

HSEO is working closely with Hawai'i Energy and state agencies in a project on energy efficiency for state buildings to assess and promote opportunities to reach a target goal of 25 percent by 2025 reduction, from a 2005 baseline year. HSEO has consistently been measuring facility electricity reduction using 2005 as the baseline year. Also, the use of 2005 as the baseline year is consistent with the United States' baseline year for its commitment pursuant to the Paris Agreement, which Hawai'i committed to support and to "be aligned with" in Part I of [Act 32 of 2017](#).

HSEO's analysis shows that since 2005, state agencies' total electricity consumption has declined by 20 percent. HSEO believes that with legislative and administrative support that amount could become 25 percent by 2025.

Thank you for the opportunity to testify.

HB-1801

Submitted on: 1/29/2022 12:02:23 PM

Testimony for EEP on 2/1/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Henry Curtis	Life of the Land	Support	Yes

Comments:

Please pass. Mahalo



Before the House Committee on Energy & Environmental Protection
Tuesday, February 1, 2022 at 9:00a.m.

Testimony in Support of HB1801: Relating to Energy Efficiency

Chair Lowen, Vice Chair Marten, and Members of the Committees:

Thank you for the opportunity to testify in support and provide comments on House Bill 1801.

Hawai'i Energy works to empower island families and businesses on behalf of the Hawai'i Public Utilities Commission (PUC) to make smart energy choices to reduce energy consumption, save money, and pursue a 100% clean energy future. Energy efficiency is the cheapest option to help us achieve our 100% clean energy goal by eliminating waste and being more efficient.

Hawai'i Energy applauds the legislature's efforts to support energy efficiency for State facilities. The State of Hawai'i has benefitted from a successful Energy Savings Performance Contract (ESPC) program that drove a significant level of energy savings projects between 2009 and 2015. We estimate that since 1996, Hawai'i government agencies have saved, on average, more than 5 million kilowatt hours a year, equating to over \$24 million in savings, with the majority of this coming through ESPCs.

However, ESPC procurements have significantly dropped since 2015, due to a number of potential factors, including previously completed projects, the expiration of the approved ESCO vendor list, and other non-energy priorities among others. With advances in technologies that increase efficiency coupled with the number of buildings that are still largely inefficient, opportunity remains for further improvement. ESPCs have demonstrated the ability to help the State save money without any capital budget allocation, which is now more important than ever.

This bill requires the State agencies to implement cost-effective energy efficiency measures, meaning that the savings will be greater than the cost of upgrade. Given Hawai'i has the highest energy rates in the country, energy efficiency can deliver significant cost savings which need to be harvested during these challenging budgetary times. Upgrades that cannot pay for themselves do not need to be implemented, ensuring fiscal responsibility.

We suggest a modification to the part of the bill that “establishes the State to achieve at least a 25% reduction in the electricity consumption of state facilities.” We feel it should be higher, up to 30%. As reported in the Hawai'i State Energy Office's 2020 [Hawai'i Energy Facts & Figures](#) (pg. 14), through FY19, government agencies saw a 17.5% reduction in electricity usage for State buildings over a 2005 baseline. By setting a higher reduction goal in this bill, the State will demonstrate its commitment to energy efficiency.

Tackling energy use at state facilities will take time, manpower, and, in some instances, funding. State agencies have the flexibility to implement energy efficiency measures through ESPC, but it could also be funded through the Green Energy Market Securitization (GEMS) so that no upfront capital is required. The legislation does not limit state agencies from also funding the upgrades through capital

improvement budgets if that is preferred. With increased federal funding for energy efficiency and green banks, there isn't a better time for the State to move forward.

We appreciate the efforts made by the State Legislature, the Hawai'i State Energy Office and other State agencies, and various stakeholders to improve on the 2021 version. Thank you for the opportunity to testify in support of House Bill 1801.

Sincerely,
Brian Kealoha
Executive Director
Hawai'i Energy



Email: communications@ulupono.com

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Tuesday, February 1, 2022 — 9:00 a.m.

Ulupono Initiative supports HB 1801, Relating to Energy Efficiency

Dear Chair Lowen and Members of the Committee:

My name is Micah Munekata, and I am the Director of Government Affairs at Ulupono Initiative. We are a Hawai'i-focused impact investment firm that strives to improve the quality of life throughout the islands by helping our communities become more resilient and self-sufficient through locally produced food; renewable energy and clean transportation; and better management of freshwater and waste.

Ulupono supports HB 1801, which requires and establishes deadlines for state facilities, except smaller facilities, to implement cost-effective energy efficiency measures; directs the Hawai'i State Energy Office to collect utility bill and energy usage data for state-owned buildings and to make the data publicly available; establishes a goal for the State to achieve at least a 25% reduction in the electricity consumption of state facilities; and, beginning 7/1/2023, requires, where feasible and cost-effective, the design of all new state building construction to maximize energy and water efficiency, maximize energy generation potential, and use building materials that reduce the carbon footprint of the project.

Ulupono supports energy efficiency measures to lower consumption across the State. As Hawai'i's energy issues become increasingly complex and challenging, we appreciate this committee's efforts to look at policies that reduce the State's overall energy demand, which in return should save the State, and taxpayers, money. We recommend adding in a deadline to meet the State's 25% reduction of electricity consumption goal.

Meeting the State's 100% renewable goal by 2045 will require everyone's commitment and it is important for the State government to lead the way.

Thank you for the opportunity to testify.

Respectfully,

Micah Munekata
Director of Government Affairs

Investing in a Sustainable Hawai'i



To: The House Committee on Energy and Environmental Protection
From: Sherry Pollack, 350Hawaii.org
Date: Tuesday, February 1, 2022, 9am

In support of HB1801

Aloha Chair Lowen, Vice Chair Marten, and Energy and Environmental Protection Committee members,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org **supports HB1801** that would reduce the taxpayer burden of state energy bills and decrease our carbon emissions.

One of the areas where the State can **lead in reducing greenhouse gas emissions** while at the same time **maximizing savings of taxpayer dollars**, is by installing energy efficient equipment and taking energy efficiency measures at State facilities. This bill would establish a goal of reducing electricity consumption at State facilities by at least 25%. For State building construction design, it would require, where reasonable and cost effective, maximizing energy and water efficiency, maximizing energy generation potential, and using building materials that reduce the carbon footprint of the project. With respect to building materials, we strongly urge that plant-based products such as industrial hempcrete and structural bamboo be considered to replace carbon-intensive materials such as concrete and steel.

This plan will help substantially in reducing greenhouse gases and addressing our existential climate crisis while saving taxpayers money via energy efficiency.

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

Sherry Pollack
Co-Founder, 350Hawaii.org



HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

February 1, 2022, 9:00 A.M.

Video Conference

TESTIMONY IN STRONG SUPPORT OF HB 1801, WITH SUGGESTED AMENDMENT

Aloha Chair Lowen, Vice Chair Marten, and Committee members:

Blue Planet Foundation **supports HB 1801**, an important energy efficiency measure that will reduce the taxpayer burden of state energy bills, create new jobs in clean energy, and decrease our carbon emissions. These are critical objectives—particularly given the dramatic economic challenges that Hawai'i faces. What's more, passing this measure will demonstrate that the State of Hawai'i leads by example.

House Bill 1801 Is Needed Today

Energy efficiency is foundational to achieve Hawai'i's critical clean energy and climate objectives, such as the state's 100% renewable energy requirement, carbon neutrality goal, and commitments to the Paris climate targets. House Bill 1801 amplifies existing state efficiency efforts and brings renewed focus to the successful Energy Savings Performance Contract program. The measure also brings needed transparency on state building energy use to make visible even more savings opportunities. Finally, HB 1801 ensures that new construction anticipates our future energy and climate goals by maximizing feasible and cost-effective energy efficiency and energy generation design features and using building materials that reduce the carbon footprint of the project.

While the state has made some strides toward energy efficiency, considerable opportunities remain to decarbonize state buildings and reduce energy costs for taxpayers. The facilities that the State of Hawai'i owns and/or manages comprise one of the largest electricity users in the state. While the use of energy savings performance contracting—mainly during the period between 2009 and 2014—helped some agencies reduce their energy consumption, many agencies did not participate. Additionally, no new energy service contracts have been awarded by state agencies for nearly five years and, in some cases, some performance contracts were last awarded ten years ago. Since that time, technology has evolved significantly and is far more efficient, resulting in greater cost-saving benefits for the state.

HRS 196-19 states “Agencies shall retire inefficient equipment on an accelerated basis where replacement results in lower life-cycle costs.” Instead, the State continues to utilize old and

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inefficient equipment in many facilities that do not meet this requirement and waste taxpayer money. House Bill 1801 would help to identify new energy savings opportunities and revitalize the successful performance contracting program.

Suggested Amendment

Blue Planet recommends that the Committee increase the percentage goal for reduction of electricity consumption of state facilities in Section 2 from 25% to at least 30-35%. State agencies have already reduced energy consumption roughly 17.5% since 2005.¹ A more ambitious—yet still attainable—goal will ensure that deeper energy efficiency upgrades and their associated cost savings are pursued, rather than merely “checking the box” on the lowest hanging fruit. Further, if Hawai‘i hopes to achieve its vision of a carbon negative economy by 2045, we must ensure we are taking action to reduce emissions *now* and that our state-level goals put us on track to actually achieve that vision.

Conclusion

House Bill 1801 is a keystone energy efficiency measure that will reduce the taxpayer burden of state energy bills, create new jobs in clean energy, and decrease our carbon emissions. At its core, however, HB 1801 is about more than just operating efficient buildings. This measure is a promise that the state will lead by example and serve as a model for residents and the private sector for our clean energy transformation. The new requirements in HB 1801 will inspire and demonstrate to everyone—consumers, building owners and managers, contractors—on how we use energy, make changes, and construct our buildings today for generations of tomorrow. House Bill 1801 shows how the State of Hawai‘i is leading by example on how our energy culture is changing.

Thank you for the opportunity to provide testimony.

¹ See Hawaii Energy Facts and Figures, 2020 Edition, Hawaii State Energy Office, at 14, https://energy.hawaii.gov/wp-content/uploads/2020/11/HSEO_FactsAndFigures-2020.pdf.



**Testimony to the House Committee on Energy & Environmental Protection
Tuesday, February 1, 2022, at 9:00 A.M.
Conference Room 325 & Via Videoconference**

RE: HB 1801 Relating to Energy Efficiency:

Chair Lowen, Vice Chair Marten, and Members of the Committee:

The Chamber of Commerce Hawaii ("The Chamber") **supports** HB 1801, which:

- Establishes deadlines for state facilities, except smaller facilities, to implement cost-effective energy efficiency measures.
- Directs the Hawaii State Energy Office to collect utility bill and energy usage data for state-owned buildings and to make the data publicly available.
- Establishes a goal for the state to achieve at least 25% reduction in the electricity consumption of state facilities.
- Beginning 7/1/2023, requires, where feasible and cost-effective, the design of all new state building construction to maximize energy and water efficiency, maximize energy generation potential and use building materials that reduce the carbon footprint of the project.

The Chamber is Hawaii's leading statewide business advocacy organization, representing about 2,000+ businesses. Approximately 80% of our members are small businesses with less than 20 employees. As the "Voice of Business" in Hawaii, the organization works on behalf of members and the entire business community to improve the state's economic climate and to foster positive action on issues of common concern.

Hawaii continues to play a leading role in protecting our environment and increasing energy efficiency. We believe in the benefits of a sustainable future, but we must ensure that solutions that would affect the business community do not impede or create unintended burdens on entrepreneurs. Policies need to be shaped to create common ground, especially so that businesses can have the flexibility to develop and create sound solutions to address these important issues.

As such, we believe this measure is leading by example to advance clean energy benefits in state facilities. The business community would follow the lead of government in protecting our environment and increasing energy efficiency.

Thank you for the opportunity to testify.

HB-1801

Submitted on: 1/31/2022 8:30:14 AM

Testimony for EEP on 2/1/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Ted Bohlen	Climate Protectors Hawaii	Support	Yes

Comments:

To: The Honorable Nicole Lowen, Chair, the Honorable Lisa Marten, Vice Chair, and Members of the House Committee on Energy and Environmental Protection

From: Climate Protectors Hawaii (by Ted Bohlen)

Re: Hearing **HB1801 RELATING TO ENERGY EFFICIENCY.**

Hearing: Tuesday, February 1, 2022, 9:00 a.m., by videoconference

Aloha Chair Lowen, Vice Chair Marten, and members of the House Committee on Energy and Environmental Protection:

The Climate Protectors Hawai‘i is a group focused on reversing the climate crisis. **The Climate Protectors Hawai‘i STRONGLY SUPPORTS HB1801, an important energy efficiency measure that will reduce the taxpayer burden of state energy bills, create new jobs in clean energy, and decrease our Greenhouse gas emissions.**

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. Hawaii 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 our keiki.

One of the areas where the State can lead in reducing greenhouse gas emissions is by installing energy efficient equipment and taking energy efficiency measures at State facilities. **This bill would establish a goal of reducing electricity consumption at State facilities by at least 25%.**

Another important way this bill would reduce greenhouse gases is by requiring State building design, where reasonable and cost effective, to maximize energy and water efficiency, maximize energy generation potential, and use building materials that reduce the carbon footprint of the project. This plan will help substantially in reducing greenhouse gases and addressing our existential climate crisis. State building designs for new buildings

should consider the potential for plant-based products such as industrial hempcrete and structural bamboo to replace massively carbon-intensive materials used today such as concrete and steel.

Hawai'i must lead on climate. **Reducing the energy usage and carbon footprint of State buildings is an excellent way for Hawai'i to show how to begin to mitigate the climate emergency!**

Please pass this bill! Mahalo!

Climate Protectors Hawai'i (by Ted Bohlen)

February 01, 2022

TO: Representative Nicole E. Lowen
Chair, Energy & Environmental Protection Committee

FR: Michael A. Trovato
Johnson Controls Inc.

RE: HB1801 Relating to Energy Efficiency. - **SUPPORT**

No question that HB1801 along with its Companion Bill, SB2166 is ready for prime time. The legislator should be applauded for recognizing that energy efficiency is the most cost-effective way to reduce emissions associated with electricity generation and consumption. Furthermore, we agree that maximizing efficiency and thereby reducing demand for power generation is a necessary component of reaching the State's goal of one hundred per cent renewable energy by 2045. And yes, Energy used to power buildings accounts for more than fifty per cent of the electricity consumed in the State, yet the State has not undertaken improvements for increased efficiency in many of its own facilities, forgoing millions of dollars in potential savings.

I have first- hand knowledge of this in Hawaii as the Johnson Controls, Inc. sales leader who along with my team have implemented significant energy efficiency measures at both the University of Hawaii Community Colleges and the Hawaii Department of Transportation, two organizations that are doing their part, saving the state hundreds of millions of dollars in energy costs over the term of those energy savings projects.

Please accept this testimony as not merely a Johnson Controls, Inc. position but both as a concerned citizen as well as an individual who isn't afraid to represent the energy services community, which includes my competitors.

As previously stated, this bill is well written and captures all the salient points, including protecting a certain amount of budget appropriations for energy expenditures, to hopefully jump start the goal of getting state owned facilities to control their energy usage and lower their utility bills in the interest of being responsible with taxpayer dollars.

One area however where I think the bill can be strengthened is, "however, those efforts lack statewide **coordination**, preventing economies of scale to maximize savings" which I whole-heartedly agree with. Again, the state recognizes that 1st and foremost that they have created a goal to be 100% renewable by 2045 so then why allow state facilities

- Beginning on January 1, 2024, for all state facilities that have not implemented section 36-41 since 2010; and
- Beginning on January 1, 2026, for all other state facilities.

this amount of time when it isn't necessary. What offsets this and in my opinion contributes to this bill is that it includes language on **coordination** and focus between the energy office and DAGS Public Works. Yes, the energy office can work with facilities to plan for energy measures but in parallel and in conjunction to that the Public Works team needs to ensure that procurement vehicles exist to implement the state's wishes. I know this is a high priority of the state and there is no reason why projects couldn't be underway as early as calendar year 2023. Collecting utility bills is merely contacting the utility and requesting them, please recognize I am not trying to oversimplify this, identifying energy

measures is typically nothing more than visiting the site with energy engineers and creating a preliminary plan. What takes the lion's share of the time is getting through the procurement process. Those templates exist today and would require tailoring for any specific facility needs. In summary, a plan **coordinated** by both the energy office and DAGS public works can be completed, both of these entities have much prior experience in creating energy efficiency projects, in months and projects underway much quicker than the bill currently indicates. If the state truly wants to lead by example, now is the time.

Thank you for allowing me to provide this testimony.



**Written Statement of Elemental Excelerator
before the House Energy and Environmental Protection Committee**

In consideration of HB 1801 RELATING TO ENERGY EFFICIENCY Feb 1, 2022

Aloha Chair Lowen, Vice-Chair Marten, and Members of the House Committee on Energy and Environmental Protection:

Elemental Excelerator respectfully submits **strong support** for HB 1801.

Elemental Excelerator is a Honolulu-based non-profit organization that supports climate positive startup companies that are helping solve Hawai'i's most urgent environmental problems. Each year, we select 15-20 companies annually that best fit our mission and fund each company up to \$1 million. To date, we have awarded over \$48 million to 135 companies resulting in 80 demonstration projects in Hawai'i & the Asia Pacific.

We strongly support HB 1801 and the requirement for state facilities to implement cost-effective energy efficiency measures, establish a goal for the State to achieve at least twenty-five percent reduction in the electricity consumption of state facilities, and use building materials that reduce the carbon footprint of new state building projects.

Elemental Excelerator has helped support dozens of climate tech solution companies that create good jobs, help transition our economy to 100% clean energy, and lower the energy burden for companies and households throughout the islands. HB 1801 will help the State of Hawaii lead by example in the areas of energy efficiency, energy savings, and smart green building that will save taxpayer funds for years into the future as well as drive down carbon emissions in our built environment. It would also provide an opportunity for the climate tech sector to help Hawaii meet climate goals and increase the number of green jobs in the sector.

Mahalo for the opportunity to provide testimony.

HB-1801

Submitted on: 1/29/2022 12:32:21 PM

Testimony for EEP on 2/1/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Douglas Perrine	Individual	Support	No

Comments:

HN1801 will not only help Hawaii slow our progress toward a distopian future of extreme weather events and rising seas, but should help the state save significant amounts of money that are now being wasted through energy inefficiency.

HB-1801

Submitted on: 1/30/2022 8:31:59 PM

Testimony for EEP on 2/1/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Paul Bernstein	Individual	Support	Yes

Comments:

Aloha Chair Lowen and Vice Chair Marten:

I'm writing in support of HB 1801. The bill will help us meet our environmental goals by reducing emissions from state buildings. The bill helps correct a market failure around energy efficiency. Often energy efficiency projects are not undertaken because too short of a timeline is considered when analyzing the project's cost-effectiveness. By requiring energy efficiency projects to be undertaken based on a 20 year payback, this bill helps correct the problem of using too high of a discount rate. In 2021, the Hawaii State Energy Office found that the 25% reduction target by 2025 is feasible. Therefore, putting the target date at 2026 should make the target feasible and make the bill's timing based on sound research.

Please pass this bill out of your committee.

Mahalo nui loa,

Paul Bernstein

HB-1801

Submitted on: 1/30/2022 11:09:38 PM

Testimony for EEP on 2/1/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Dylan Ramos	Individual	Support	No

Comments:

Aloha Chair Lowen, Vice Chair Marten, and EEP Committee Members,

As a resident of Hawaii, I strongly support HB1801 and its bolstering of State energy efficiency measures.

If we purport to value sustainability and climate action, then the public sector should reflect those values and set the example for efforts across Hawaii. Not only does this bill prompt the State to make good on its commitments to clean energy and decarbonization, but it expands on the good example set by numerous agencies that have already adopted energy efficiency measures. Such projects have proven that public energy efficiency is feasible.

Furthermore, by proposing a realistic 20-year timeframe for calculating cost-effectiveness, HB1801 encourages reliable long-term investments that literally pay for themselves.

For all these reasons and more, please pass this bill and encourage your colleagues to do the same.

Mahalo,
Dylan Ramos