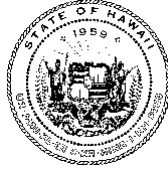


DAVID Y. IGE  
GOVERNOR



CURT T. OTAGURO  
COMPTROLLER  
AUDREY HIDANO  
DEPUTY COMPTROLLER

**STATE OF HAWAII**  
**DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES**  
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

WRITTEN TESTIMONY  
OF  
CURT T. OTAGURO, COMPTROLLER  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
TO THE HOUSE COMMITTEE ON  
CONSUMER PROTECTION & COMMERCE

TUESDAY, FEBRUARY 16, 2021, 2:00 A.M.  
CONFERENCE ROOM 329 AND VIA VIDEOCONFERENCE, STATE CAPITOL

H.B. 550 HD1

RELATING TO ENERGY EFFICIENCY

Chair Johanson, Vice Chair Kitagawa, and Members of the Committee, thank you for the opportunity to submit testimony on H.B. 550 HD1.

The Department of Accounting and General Services (DAGS) appreciates the intent of the bill to increase the energy efficiency of State buildings. DAGS offers the following comments for the committee's consideration:

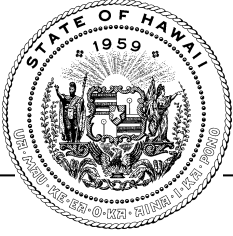
- 1) The DAGS would like to emphasize that the projects within performance contracting typically qualify for the use of Capitol Improvement Project (CIP) funds; and when performance contracting projects are done, these projects will be paid using future operating funds. This has the effect of paying for CIP qualified projects with operating funds and will not decrease a program's expenditure of operating funds.
- 2) The DAGS would like to emphasize that when performance contracting projects are done, the design and construction are not subject to bidding and costs are typically much higher.

- 3) In Section 2, paragraphs (1) and (2) (page 5, line 1) both describes different timing of when agencies should perform the same actions.

Section 2, paragraph (2) (page 5, line 5) – The statement “provided that the simple payback period shall not exceed the performance period of the contract.” should apply both instances in paragraph (1) and (2).

We recommend that this statement is moved to its own paragraph within Section 2.(a), without numbering it (3).

Thank you for the opportunity to submit testimony on this matter.



# HAWAII STATE ENERGY OFFICE STATE OF HAWAII

DAVID Y. IGE  
GOVERNOR

SCOTT J. GLENN  
CHIEF ENERGY OFFICER

235 South Beretania Street, 5th Floor, Honolulu, Hawaii 96813  
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-3807  
Fax: (808) 586-2536  
Web: energy.hawaii.gov

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

before the  
**HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE**

Tuesday, February 16, 2021  
2:00 PM  
State Capitol, Conference Room 329

In support of  
**HB 550 HD1**  
**RELATING TO ENERGY EFFICIENCY.**

Chair Johanson, Vice Chair Kitagawa, and Members of the Committee, the Hawaii State Energy Office (HSEO) supports HB 550 HD1, which establishes deadlines for all state facilities 10,000 square feet and larger to implement cost-effective energy efficiency measures; provides that agencies that perform energy efficiency retrofitting may receive appropriations for such measures; authorizes HSEO to have access to and collect all utility bills and energy usage data for state-owned facilities and to make this data available to the public; establishes a goal of achieving at least a twenty-five percent reduction by 2025 in electricity consumption of state facilities; and requires 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 objectives of energy efficiency, cost control, lower energy bills, and leading by example outlined in HB 550 HD1, are consistent with HSEO's mission "to promote energy efficiency, renewable energy, and clean transportation to help achieve a resilient clean energy economy" per Section 196-71(a), HRS. It is also 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 a number of state agencies in Hawaii that have participated, or are currently participating 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 Hawaii Energy and state agencies to assess opportunities to reach a target goal of 25% by 2025 reduction from a 2005 baseline year. HSEO has consistently been measuring facility electricity reduction using 2005 as the baseline year. The commitment to the 25% reduction, and the use of 2005 as the baseline year, are consistent with the United Nations’ baseline year and 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 17 percent. HSEO believes that, with the recommended changes to the bill and the Energy Efficiency in State Buildings Project, which is described in the attachment, that amount can increase to 25 percent by 2025.

HSEO respectfully requests the following amendment to the language of HB 550 HD1, beginning on page 4, line 16 (suggested revisions in red):

SECTION 2. Chapter 196, Hawaii Revised Statutes, is amended by adding three new sections to part II to be appropriately designated and to read as follows:

**"§196- Energy efficiency implementation for state facilities. (a) Provided that nothing in this paragraph shall prohibit facilities from implementing**

**energy efficiency measures sooner than indicated**

**herein,** state facilities shall implement  
cost-effective energy efficiency measures or enter  
into performance contracts for the implementation of  
cost-effective energy efficiency measures as follows:

The suggested amendment is intended to make it clear that facilities may take energy savings actions earlier than required by subparagraph (1) or (2).

In summary, HSEO supports HB550 HD1, to maximize the near-term savings and long term energy performance of State buildings.

Thank you for the opportunity to testify.

**Energy Efficiency in State Buildings (EESB)**  
 25% energy use reduction by 2025

Proactive management of energy costs by State agencies is expected to result in cost savings as well as improved facility operation. The Energy Efficiency in State Buildings project takes a comprehensive and coordinated approach to this objective.

**Goal: Reduce state departmental energy use by 25% (from 2005 levels) by 2025.**<sup>1</sup>

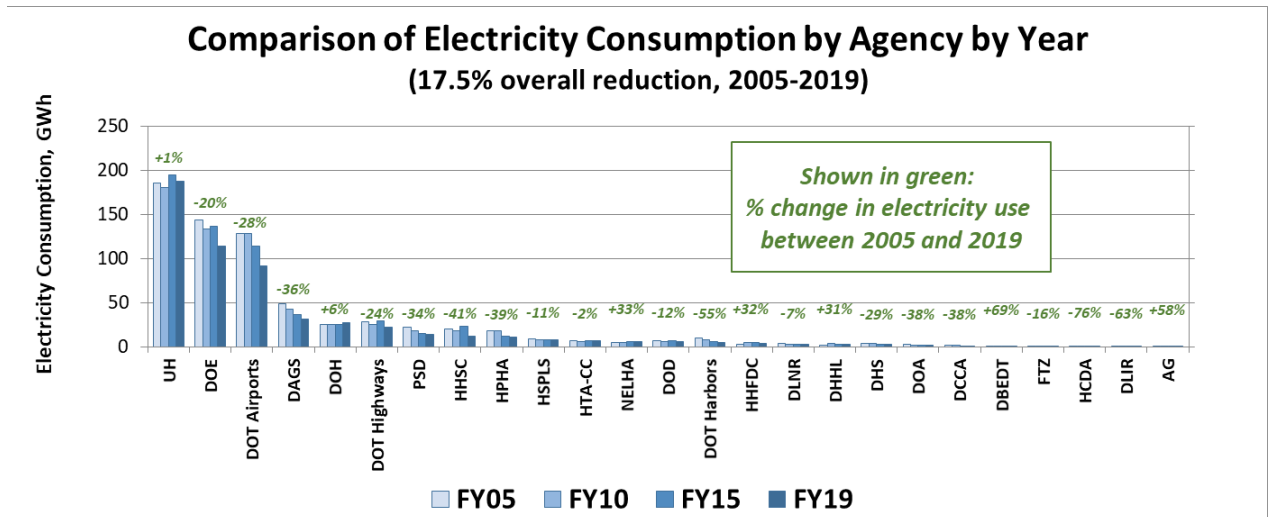
Hawaii Revised Statutes, Section 196-30, requires that “each state department with responsibilities for the design and construction of public buildings and facilities” is to evaluate the energy efficiency of public buildings larger than 5,000 square feet or using more than 8,000 kilowatt-hours annually. The goal of 25% reduction by 2025 builds upon that requirement by setting a target amount and date.

**Coordination:**

Coordination will be provided by the Hawaii State Energy Office (HSEO) and Hawaii Energy.

**Status:**

A previous State (HSEO and partners) project benchmarked 416 public facilities, including more than 2,600 buildings covering more than 29 million square feet. By the end of 2019, the State agencies’ energy use was 17.5% less that it was in 2005, the baseline year. The figure below shows the percentage change from 2005 to 2019 and the relative magnitude of electricity purchases by agencies.



**Background:**

Energy Performance Contracting in Hawai’i

Agencies have been pursuing energy retrofits since 1996. State and local government agencies’ savings from the performance contracting program\*<sup>2</sup> (since its introduction by the State Energy Office in 1996) are expected to total an estimated \$1.1 billion in energy costs over the life of the contracts, and a cumulative amount of electricity equal to the amount used by 396,586 homes in one year. The projects comprise over 112 million square feet in 295 existing buildings and facilities. Hawaii Revised Statutes, Section 196-30, also requires that every five years, major facilities be “retro-commissioned.”

**Plan:**

HSEO coordinates provision of technical assistance and training with Hawaii Energy to support State agencies in financing energy efficiency and cost reductions via operational changes, energy savings performance contracts, or other mechanisms.

Funding: Pursue-federal funding and use of existing HSEO consultants to support technical assistance and to finance and incentivize the proposed work with state agencies.

Year 1 (2021-2022)

Identify highest potential ("Tier 1") State facilities for immediate action using the results of the previous benchmarking study, working with agencies that are among the highest energy users and have not yet achieved the 25% energy savings goal.

Tier 1 agencies include: University of Hawaii, Department of Education, Department of Health, Department of Defense, Hawaii Public Library System, and Hawaii Health Systems Corporation. DAGS, as the building operations and manager for many state facilities, would also assist and participate in both Tiers 1 and 2. In partnership with HSEO and Hawaii Energy, this State agency cohort would identify, address, and implement energy retrofit and operational savings opportunities.

| Agency | FY05<br>kWh | FY19<br>kWh | Change<br>FY05 -<br>FY19<br>% | Maximum<br>Annual Use<br>with 25%<br>Reduction<br>kWh | Additional<br>Reduction<br>from 2019<br>Levels to<br>Reach Goal<br>kWh | Estimated<br>Additional<br>Savings<br>\$ |
|--------|-------------|-------------|-------------------------------|---|--|--|
| UH     | 186,135,017 | 187,264,956 | 0.6                           | 139,601,263   | 47,663,693   | 14,156,117                               |
| DOE    | 143,491,511 | 114,391,027 | -20.3                         | 107,618,633   | 6,772,394  | 2,011,401                                |
| DOH    | 25,800,739  | 27,273,819  | 5.7                           | 19,350,554  | 7,923,265  | 2,353,210                                |
| HSPLS  | 8,477,520   | 7,508,738   | -11.4                         | 6,358,140   | 1,150,598  | 341,728                                  |
| DOD    | 6,703,102   | 5,885,274   | -12.2                         | 5,027,327   | 857,947  | 254,810                                  |

Year 2 (2022-2023)

Identify "Tier 2" State facilities with energy efficiency retrofit potential. For both Tier 1 and Tier 2 sites, identify demand response or other potential tariff /aggregator participation options to reduce State agency energy (electricity and fuel) costs. Tier 2 agencies would include: DBEDT, DLNR, FTZ, HTA-CC and NELHA. HHFDC and DHHL would be the housing and other agencies included in Tier 2.

## Energy Performance Contracts in Hawaii as of October, 2020

| Agency                                   | Year(s)          | Contract Amount (\$) | Est. Savings Over Life of Contract (\$) |
|--|------------------|----------------------|---|
| <b>UH-Hilo</b>                           | <b>1996-2012</b> | <b>\$6,402,695</b>   | <b>\$14,630,066</b>                     |
| County of Hawaii                         | 1997-2026        | \$2,215,546          | \$8,157,880                             |
| County of Kauai                          | 1998-2012        | \$525,965            | \$1,205,990                             |
| City & County of Honolulu                | 2001-2025        | \$11,900,205         | \$36,066,761                            |
| <b>Hawaii Health Systems Corporation</b> | <b>2002-2022</b> | <b>\$21,936,997</b>  | <b>\$55,766,364</b>                     |
| <b>Judiciary</b>                         | <b>2003-2012</b> | <b>\$1,474,406</b>   | <b>\$9,785,036</b>                      |
| <b>DAGS Phase I</b>                      | <b>2009-2029</b> | <b>\$36,873,266</b>  | <b>\$72,580,767</b>                     |
| <b>PSD</b>                               | <b>2010-2030</b> | <b>\$25,511,264</b>  | <b>\$57,211,112</b>                     |
| <b>UH Community Colleges</b>             | <b>2012-2032</b> | <b>\$34,207,392</b>  | <b>\$37,000,000</b>                     |
| City & County HNL<br>Kailua Wastewater   | 2013-2033        | \$6,054,178          | \$13,693,910                            |
| <b>DAGS Phase II</b>                     | <b>2013-2033</b> | <b>\$17,400,000</b>  | <b>\$28,000,000</b>                     |
| <b>DOT</b>                               | <b>2013-2034</b> | <b>\$309,506,592</b> | <b>\$795,560,746</b>                    |
| Honolulu Board of Water<br>Supply        | 2016-2036        | \$33,125,398         | \$56,846,668                            |
|  | <b>Total</b>     | <b>\$507,133,904</b> | <b>\$1,186,505,300</b>                  |

Notes:

- <sup>1</sup> The commitment to the 25% reduction, and the use of 2005 as the baseline year, are consistent with the United Nations' baseline year and the Paris Agreement, which Hawai'i committed to support and to "be aligned with" in Part I of [Act 32 of 2017](#).
- <sup>2</sup> With an Energy Performance Contract, a State or County agency enters into an agreement with a private Energy Services Company (ESCO) to purchase and install an Energy Conservation Measure (possibly including photovoltaics). The agency uses a portion of the electricity bill savings from those energy conservation measures to, over time, reimburse the ESCO for the cost of the equipment and installation (and maintenance, if included in the agreement). This allows the private contractor to purchase and install equipment that reduces energy and water use in government-owned facilities, based on the future savings from the energy conservation measures, with no required up-front payment by the government agency. Under the agreement, the ESCO will guarantee the savings – and pay for any shortfall.



DAVID Y. IGE  
GOVERNOR



DR. CHRISTINA M. KISHIMOTO  
SUPERINTENDENT

STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P.O. BOX 2360  
HONOLULU, HAWAII 96804

**Date:** 02/16/2021

**Time:** 02:00 PM

**Location:** 329 Via Videoconference

**Committee:** House Consumer Protection  
& Commerce

**Department:** Education

**Person Testifying:** Dr. Christina M. Kishimoto, Superintendent of Education

**Title of Bill:** HB 0550, HD1 RELATING TO ENERGY EFFICIENCY.

**Purpose of Bill:** Requires and establishes deadlines for state facilities, except smaller facilities and facilities at Aloha Stadium, 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 a twenty-five percent reduction in the electricity consumption of state facilities. Provides that certain agencies that perform energy efficiency retrofitting may continue to receive appropriations for energy expenditures. Beginning 7/1/2022, 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. Effective 7/1/2050. (HD1)

**Department's Position:**

The Hawaii State Department of Education (Department) provides comments on HB 0550, HD1.

Adequate funding will be needed to implement energy efficiency measures. Significant up-front capital investments are required to implement energy efficiency projects to achieve goals.

The Hawaii Green Infrastructure Authority's Hawaii Green Energy Market Securitization (GEMS) Loan Program is the most cost effective way to implement energy efficiency for

state agencies, which allows the agencies to recapture most of the energy savings. The GEMS Loan Program requires agencies to justify the return on the up-front capital investments for cost-effective energy efficiency measures, which are financed by a low interest rate. As a result, the state agency, and not the third parties, receive most of the energy efficiency savings. To date, the Department used \$46 million in GEMS loan financing to reduce energy consumption by 15 million kWh per year. These savings are recaptured by the Department instead of going to Energy Services Company contracts.

Thank you for the opportunity to testify on this measure.

The Hawai'i State Department of Education is committed to delivering on our promises to students, providing an equitable, excellent, and innovative learning environment in every school to engage and elevate our communities. This is achieved through targeted work around three impact strategies: school design, student voice, and teacher collaboration. Detailed information is available at [www.hawaiipublicschools.org](http://www.hawaiipublicschools.org).

**HB-550-HD-1**

Submitted on: 2/14/2021 7:37:38 PM

Testimony for CPC on 2/16/2021 2:00:00 PM

| <b>Submitted By</b> | <b>Organization</b> | <b>Testifier Position</b> | <b>Present at Hearing</b> |
|---------------------|---------------------|---------------------------|---------------------------|
| Sherry Pollack      | 350Hawaii           | Support                   | No                        |

Comments:

Please support this bill that will reduce the taxpayer burden of state energy bills, create new jobs in clean energy, and decrease our carbon emissions.



Email: [communications@ulupono.com](mailto:communications@ulupono.com)

HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE  
Tuesday, February 16, 2021 — 2:00 p.m.

**Ulupono Initiative supports HB 550 HD 1, Relating to Energy Efficiency**

Dear Chair Johanson 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 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 550 HD 1**, which requires and establishes deadlines for state facilities, except smaller facilities and facilities at Aloha Stadium, 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; provides that certain agencies that perform energy efficiency retrofitting may continue to receive appropriations for energy; and, beginning 7/1/2022, 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*



Before the House Committee on Consumer Protection & Commerce  
Tuesday, February 16, 2021, 2:00pm

Testimony in Support of HB550 HD1: Relating to Energy Efficiency

Chair Johanson, Vice-Chair Kitagawa, and Members of the Committee:

Thank you for the opportunity to testify in support of House Bill 550 HD1.

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 emphasis on improving energy efficiency in 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. Hawai'i Energy estimates 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.

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.

Tackling energy use at state facilities will take time, manpower, and, in some instances, funding. We need to support energy efficiency contractors who have been negatively impacted by COVID-19, including loss of business, project delays and staff reduction. Hawai'i Energy stands ready to assist agencies with educational and engineering resources, as well as financial incentives to help launch these projects.

As the State looks at ways to help businesses recover from COVID-19, efficiency projects at state facilities can help to expand the economy and create opportunities for economic growth in the energy industry.

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 2020 version. Thank you for the opportunity to testify in support of HB550 HD1.

Sincerely,  
Brian Kealoha  
Executive Director  
Hawai'i Energy

**HB-550-HD-1**

Submitted on: 2/15/2021 1:00:31 PM

Testimony for CPC on 2/16/2021 2:00:00 PM

| Submitted By              | Organization              | Testifier Position | Present at Hearing |
|---------------------------|---------------------------|--------------------|--------------------|
| Climate Protectors Hawaii | Climate Protectors Hawaii | Support            | No                 |

Comments:

To: The Honorable Aaron Ling Johanson, Chair,

The Honorable Lisa Kitagawa, Vice Chair, and Members of the

House Committee on Consumer Protection and Commerce

From: Climate Protectors Coalition

Hearing Date: Tuesday, February 16, 2021, 2:00 pm

**Position: STRONG SUPPORT of HB550 HD1 RELATING TO ENERGY EFFICIENCY!**

Aloha Chair Johanson, Vice Chair Kitagawa, and Consumer Protection and Commerce Committee members:

The Climate Protectors Coalition is a group focused on reversing the climate crisis. As a tropical island State, Hawaii 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 at least carbon neutral as soon as possible. The planet faces an existential climate crisis and we must act now! 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. If we are to solve the climate crisis, it will require **all of us** working together. 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 children.

One of the areas where Hawaii can make the most progress in reducing greenhouse gas emissions is with energy efficiency measures in State facilities. This will also save costs for the State. Please pass this bill!

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

Climate Protectors Coalition (by Ted Bohlen)



## HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE

February 16, 2021, 2:00 P.M.

Video Conference

### TESTIMONY IN SUPPORT OF HB 550 HD1

Aloha Chair Johanson, Vice Chair Kitagawa, and members of the Committee:

Blue Planet Foundation **supports HB 550 HD1**, 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 550 is needed today

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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 550 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 550 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.

[info@blueplanetfoundation.org](mailto:info@blueplanetfoundation.org)

55 Merchant Street 17<sup>th</sup> Floor • Honolulu, Hawai'i 96813 • 808-954-6161 • [blueplanetfoundation.org](http://blueplanetfoundation.org)



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 inefficient equipment in many facilities that do not meet this requirement and waste taxpayer money. House Bill 550 would help to identify new energy savings opportunities and revitalize the successful performance contracting program.

## House Bill 550 Helps Address the State’s Employment, Economic, and Budget Challenges

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Energy efficiency is not only foundational to achieving our critical climate and clean energy goals, it boosts employment, economic activity, and tax revenue. State energy efficiency projects will keep hundreds of people employed at a time when the State is struggling to find new economic engines without tourism. As indicated in the “Hawai’i Clean Energy Initiative 2008-2018” report, energy efficiency employed 5,100 people statewide.<sup>1</sup> A BW Research Partnership report on COVID-19’s economic crisis in August 2020 reported that Hawai’i lost nearly 3,800 clean jobs, or 25.2% of the clean energy workforce, since before the pandemic spread—including 1,704 in the energy efficiency sector.<sup>2</sup> These are well-paying jobs that could be regained through the adoption of HB 550.

The reduction in state energy costs resulting from the energy efficiency projects can help reduce the projected budget shortfall. Critically, investment in energy efficiency projects through innovative performance contracting do not require any state or capital improvement project funds and instead can be funded through the energy savings. Further, energy efficiency projects will generate tax revenues for the state through the construction projects subject to the state’s general excise tax.

## Conclusion

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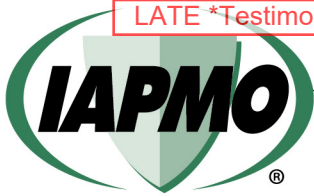
House Bill 550 is a keystone energy efficiency measure that will reduce the taxpayer burden of state energy bills, create new jobs in clean energy, and decrease our carbon emissions. At its core, however, HB 550 is about more than just operating efficient buildings. This measure is a promise that the 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 550 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 550 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.

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<sup>1</sup> See <https://www.nrel.gov/docs/fy18osti/70709.pdf>

<sup>2</sup> See [https://bwresearch.com/covid/docs/BWResearch\\_CleanEnergyJobsCOVID-19Memo\\_July2020.pdf](https://bwresearch.com/covid/docs/BWResearch_CleanEnergyJobsCOVID-19Memo_July2020.pdf)



### **Testimony for HB 550 HD 1**

#### **Consumer Protection & Commerce Committee Hearing on February 16, 2021**

Position: The IAPMO Group Supports HB 550 HD 1 and Offers Language Clarification

Dear House Consumer Protection & Commerce Committee Members,

The International Association of Plumbing and Mechanical Officials (IAPMO) is an international trade association that is a critical voice for the plumbing, mechanical and parts of the solar industry. We are very supportive of the State's efforts to improve efficiency in buildings and feel water efficiency systems should also be prioritized to help with conservation and affordability.

IAPMO has developed the [Water Efficiency and Sanitation Standard](#) (WE•Stand) with a broad range of experts through an inclusive process that follows requirements established by the American National Standards Institute. It is the most progressive water savings standard available and is updated every three years to ensure all methods, products, and guidelines stay up-to-date. IAPMO's WE•Stand has been carefully developed to work seamlessly with currently-adopted codes – designed to bolster and complement current requirements.

WE•Stand includes a [Peak Water Demand Calculator](#), which was scientifically-vetted and can actually help generate cost-savings. The Water Demand Calculator is an innovative tool that updates pipe sizing methods for single- and multi-family dwellings, providing savings on overall cost of construction. This tool decreases the amount of water being used in a system, which reduces energy costs and improves public health and safety. Depending on the size and number of fixtures within a dwelling unit, applying the Calculator's provisions saves 10 – 15% in material and labor costs.

There are additional chapters in WE•Stand that provide guidelines and standards for onsite non-potable graywater and blackwater reuse. The threats of climate change will reduce the quantity and quality of freshwater in Hawaii, and these provisions provide effective ways to help communities to increase water and wastewater resilience, while also reducing energy consumption. The reuse systems also align with the objective of HB 444 that was signed into law in 2019 and requires the Department of Health to adopt rules for onsite non-potable water reuse systems by January 1, 2021.

HB 550 HD 1 places great emphasis on energy efficiency but improving water system efficiencies will also lead to better energy cost savings, workforce development, and environmental protection.

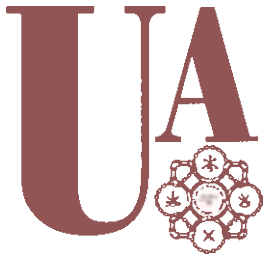
Given IAPMO's technical expertise and years of vetted scientific data for plumbing systems, as well as the ever-growing need to safeguard limited freshwater supplies, we strongly encourage the Committee on Consumer Protection & Commerce to make a technical correction to the HB 550 HD 1 in Section 4(d)(1), which refers to the design of state buildings. Specifically, on page 7, line 7 we urge the Committee to include the following language:



(1) Maximize energy and water efficiency measures, *by utilizing the Peak Water Demand Calculator and other relevant chapters listed in the most current edition of Water Efficiency and Sanitation Standard, as published by the International Association of Plumbing and Mechanical Officials;*

The inclusion of this language allows for the State to utilize technologically innovative products and practices that will increase water efficiency and conservation measures within buildings of all sizes.

IAPMO's primary goal is to protect the public's health and safety through innovative and effective plumbing systems that benefit communities, the environment and labor. We believe these recommendations will enhance the impact of HB 550 HD 1 and help to conserve the valuable freshwater resources in Hawaii.



Founded 1889

# PLUMBERS AND FITTERS LOCAL 675 UNITED ASSOCIATION



February 16, 2021

Representative Aaron Ling Johanson, Chair  
Representative Lisa Kitagawa, Vice Chair  
House Committee on Consumer Protection and Commerce  
State Capitol, 415 South Beretania Street, Video Conference  
Honolulu, Hawaii 96813

Re: HB550 HD1 Relating To Energy Efficiency  
Tuesday, February 16, 2021 at 2:00 pm

Aloha Chair, Vice-Chair, and Committee Members;

Chartered in 1919, the Plumbers and Fitters UA, Local 675 is one of the oldest organized labor unions in Hawai'i and one of three 'licensed' skilled-construction trades, steeped in a rich history as one of Hawai'i's construction-industry pioneers.

The Plumbers and Fitters UA Local 675, Business Manager Val Ceria and its hard-working members and their families, would like to thank this Committee for considering SB1407 relating to the State Building Code Council.

Local 675 appreciates and supports the intent behind HB550 HD1, specifically as it pertains to requiring, where feasible and cost-effective, the design of all new state building construction to maximize water efficiency. Local 675 through the state's plumbing code, and in partnership with the State Building Code Council and the International Association of Plumbing and Mechanical Officials (IAPMO), continue to support efforts to implement plumbing codes and standards that further support state efforts to conserve natural resources and maximize efficiencies.<sup>1</sup>

Building upon recent legislation like HCR86, SD1 (2018) and Act 202 (HB444, CD1-2019) , Local 675 continues to actively participate in and support measures that offer new and improved methods, solutions and overall efficiencies in the way we deliver one of our most precious natural resources... our water.

HB550 HD1 creates the opportunity for codes and standards like the Water Efficiency and Sanitation Standard (WEStand) published by IAPMO, to offer such water efficiency standards. As such, we support HB550, HD1 and proposed amendments offered by IAPMO to enhance the impact of HB550, HD1 and help conserve the valuable freshwater resources of Hawai'i.

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<sup>1</sup> Benefits and Costs of Implementing the IAPMO Green Plumbing and Mechanical Code Supplement in Hawaii, UHERO, The Economic Research Organization at the University of Hawai'i, December 18, 2014.



**HB-550-HD-1**

Submitted on: 2/16/2021 11:30:48 AM

Testimony for CPC on 2/16/2021 2:00:00 PM

| <b>Submitted By</b> | <b>Organization</b> | <b>Testifier Position</b> | <b>Present at Hearing</b> |
|---------------------|---------------------|---------------------------|---------------------------|
| Janet Pappas        | Individual          | Support                   | No                        |

Comments:

Dear CPC Committee members,

Ensuring that all State buildings are energy efficient will encourage the public to become energy efficient as well. Energy efficiency saves taxpayers money: retro-fitting older buildings to be energy efficient saves us the cost of a new building. Energy efficiency is the most cost-effective way to reduce emissions and results in cleaner air and a healthier planet.

Please support this bill (HB550 HD1).

Jan Pappas

Aiea, Hawaii