



# HAWAII STATE ENERGY OFFICE STATE OF HAWAII

235 South Beretania Street, 5<sup>TH</sup> Floor, Honolulu, HI 96813 | energy.hawaii.gov

DAVID Y. IGE  
GOVERNOR

SCOTT J. GLENN  
CHIEF ENERGY OFFICER

(808) 587-3807

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

before the  
**HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**  
Tuesday, January 28, 2020  
8:30 AM  
State Capitol, Conference Room 325

In consideration of  
**HB 1669**  
**RELATING TO RENEWABLE ENERGY.**

Chair Lowen, Vice Chair Wildberger, and members of the Committee. HB 1669 proposes to assign the Hawaii State Energy Office to work with the Counties to establish a new program that would allow a property owner to obtain a private loan for a renewable energy system on a property and to pay back the loan via an addition to the owner's property tax bill. This concept is called "Property Assessed Clean Energy" (PACE). A fact sheet on the concept is attached to our testimony.

The HSEO appreciates the intent of the legislation, and the Legislature's interest in providing support for renewable energy. The PACE concept is one that has been used, with varying degrees of success and changes over the years, in other locations. The attached fact sheet provides a summary of the concept, and lists advantages and disadvantages.

Several of advantages listed on the attached fact sheet (i.e. financing over a longer term, making more projects cash flow positive; spreading repayment over many years; avoiding the need for upfront payment; removing the requirement that the debt be paid at sale or refinance; low interest rates; the ability to tap into large sources of private capital) are already provided via other mechanisms, including programs operated by the Hawaii Green Infrastructure Authority and the availability of on-bill financing. To avoid diluting these efforts, we recommend that the focus remain on the existing programs.

If a PACE program is determined to be necessary to augment or extend beyond current programs, we recommend that any PACE-type program be placed with the Hawaii Green Infrastructure Authority, as they are familiar with and have expertise related to bond administration and financing.

We look forward to continuing to work with the Legislature, agencies, and stakeholders to evaluate the necessity and effectiveness of the wide variety of means to meet our energy goals.

Thank you for the opportunity to testify.

ATTACHMENT TO TESTIMONY

Excerpt from Property Assessed Clean Energy on-line fact sheet of the United States Department of Energy: <https://www.energy.gov/eere/slsc/property-assessed-clean-energy-programs>

## Property Assessed Clean Energy Programs

The property assessed clean energy (PACE) model is an innovative mechanism for financing energy efficiency and renewable energy improvements on private property. PACE programs exist for:



- **Commercial properties** (commonly referred to as Commercial PACE or C-PACE)
- **Residential properties** (commonly referred to as Residential PACE or R-PACE).

Commercial and residential PACE programs share a common foundation. PACE programs allow a property owner to finance the up-front cost of energy or other eligible improvements on a property and then pay the costs back over time through a voluntary assessment. The unique characteristic of PACE assessments is that the assessment is attached to the property rather than an individual.

PACE financing for clean energy projects is generally based on an existing structure known as a "land-secured financing district," often referred to as an assessment district, a local improvement district, or other similar phrase. In a conventional assessment district, the local government issues bonds to fund projects with a public purpose such as streetlights, sewer systems, or underground utility lines.

The recent extension of this financing model to energy efficiency and renewable energy allows a property owner to implement improvements without a large up-front cash payment. Property owners that voluntarily choose to participate in a PACE program repay their improvement costs over a set time period—typically 10 to 20 years—through property assessments, which are secured by the property itself and paid as an addition to the owners' property tax bills. Nonpayment generally results in the same set of repercussions as the failure to pay any other portion of a property tax bill.

A PACE assessment is a debt of property, meaning the debt is tied to the property as opposed to the property owner(s). In turn, the repayment obligation may transfer with property ownership if the buyer agrees to assume the PACE obligation and the new first mortgage holder allows the PACE obligation to remain on the property. This can address a key disincentive to investing in energy improvements because many property owners are hesitant to make property improvements if they think they may not stay in the property long enough for the resulting savings to cover the upfront costs.

<b>Advantages</b>	<b>Disadvantages</b>
<ul style="list-style-type: none"><li>• Allows for secure financing of comprehensive projects over a longer term, making more projects cash flow positive.</li><li>• Spreads repayment over many years, seldom requires an upfront payment, and removes the requirement that the debt be paid at sale or refinance.</li><li>• Can lead to low interest rates because of the high security of loan repayments attached to the property tax bill.</li><li>• Helps some property owners deduct payments from their income tax liability.</li><li>• Allows municipalities to encourage energy efficiency and renewable energy without putting general funds at risk.</li><li>• Taps into large sources of private capital.</li></ul>	<ul style="list-style-type: none"><li>• Available only to property owners.</li><li>• Cannot finance portable items (screw-in light bulbs, standard refrigerators, etc.).</li><li>• Can require dedicated local government staff time.</li><li>• May require high legal and administrative setup obligations.</li><li>• Not appropriate for investments below \$2,500.</li><li>• Potential resistance by lenders/mortgage-holders whose claims to the property may be subordinated to the unpaid assessment amount should the property go into foreclosure.</li></ul>

## Residential PACE

Residential PACE allows homeowners to finance energy efficiency, renewable energy and other eligible improvements on their homes using private sources of capital. PACE programs are typically enabled through state legislation, and authorized at the local government level. Municipalities may directly administer residential PACE programs, or through public-private partnerships with one or more PACE providers.

As of 2019, over 200,000 homeowners have made \$5 billion in energy efficiency and other improvements to their homes through PACE financing. Typical home improvement projects include replacement of broken or failing heating and cooling systems and hot water heaters; air sealing and insulation; ENERGY STAR doors, windows, roofing; ENERGY STAR appliances; solar photovoltaic systems; and water conservation and resiliency measures (e.g., seismic retrofits and wind hazard protection). Residential PACE financing programs are currently available in the following states:

- California (10 active programs)
- Florida (4 active programs)
- Missouri (3 active programs).



DAVID Y. IGE  
GOVERNOR

GWEN S. YAMAMOTO LAU  
EXECUTIVE DIRECTOR

## HAWAII GREEN INFRASTRUCTURE AUTHORITY

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Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804  
Web site: [gems.hawaii.gov](http://gems.hawaii.gov)

Telephone: (808) 587-3868  
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**Testimony of**  
**Gwen Yamamoto Lau**, Executive Director  
**Hawaii Green Infrastructure Authority**  
before the  
**HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**  
Tuesday, January 28, 2020  
8:30 A.M.  
State Capitol, Conference Room 325  
in consideration of  
**HOUSE BILL NO. 1669**  
**RELATING TO RENEWABLE ENERGY**

Chair Lowen, Vice Chair Wildberger and Members of the Energy & Environmental Protection Committee:

Thank you for the opportunity to testify and provide comments on House Bill 1669, relating to renewable energy. This bill proposes to establish a residential property assessed clean energy (PACE) program allowing residential property owners to finance qualified renewable energy improvements through a non-ad valorem property assessment and revenue bonds. The Hawaii Green Infrastructure Authority (“HGIA”) **supports** this bill and offers the following comments.

In order to reach our clean energy goals and ensure no ratepayer is left behind, it is important for the State to provide a variety of financing options to convert to clean energy. Banks, credit unions and traditional sources of capital are available to finance the bulk of the clean energy investments in Hawaii and PACE is not meant for everyone. However, for many of the 48% of Hawaii’s households who are classified as ALICE (Asset Limited Income Constrained, Employed) or below, having non-traditional financing options like PACE becomes even more critical as this segment is often locked out of access to flexible financing at a reasonable cost.

Although HGIA is able to provide non-traditional solar financing to the ALICE population utilizing its on-bill repayment mechanism, many of these households are still not able to install solar due to the poor roof condition. Thus, we respectfully suggest that “Qualifying Improvements” also include roof repair/replacement, structural improvements, and electrical upgrades necessary to support the installation of the solar systems. This will not only enable the installation of solar, but it will also increase the value of the home.

Thank you for this opportunity to testify and provide comments in support of HB1669.

**HB-1669**

Submitted on: 1/27/2020 11:27:11 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Javier Mendez-Alvarez	350Hawaii.org	Support	No

Comments:

# TAX FOUNDATION OF HAWAII

126 Queen Street, Suite 304

Honolulu, Hawaii 96813 Tel. 536-4587

SUBJECT: RENEWABLE ENERGY

BILL NUMBER: HB 1669

INTRODUCED BY: HASHEM

EXECUTIVE SUMMARY: Establishes a residential property assessed clean energy (PACE) program. Allows residential property owners to finance qualified renewable energy improvements through a non-ad valorem property assessment and revenue bonds.

SYNOPSIS: Adds a new part to chapter 196, HRS, establishing the PACE program. One of the new sections allows a residential property owner to apply to the county in which the property is located for funding to finance a qualifying improvement. The financing agreement is to include an annual assessment over a fixed term that will appear annually on the owner's property tax bill, where such assessment is to constitute a lien of equal dignity to county taxes and assessments from and after the date of recordation of the financing agreement.

Defines a qualifying improvement as a new energy technology system that captures and converts a renewable source of energy, such as solar or wind energy, into: (1) a usable source of thermal or mechanical energy; (2) electricity; or (3) fuel.

Provides that at least thirty days before entering into a financing agreement, the property owner shall provide to the holders or loan servicers of any existing mortgages encumbering or otherwise secured by the property a notice of the owner's intent to enter into a financing agreement together with the maximum principal amount to be financed and the maximum annual assessment necessary to repay that amount. Provides that the senior lienors may not accelerate their debt solely as a result of the homeowner entering into the financing agreement, but may increase the required monthly escrow by an amount necessary to annually pay the improvement assessment.

EFFECTIVE DATE: Upon approval.

STAFF COMMENTS: This bill essentially turns the counties into lenders that are supposed to finance green energy improvements. However, county governments typically don't lend money as a core government function and aren't expected to know the first thing about lending money. Sure, they can partner with the Hawaii state energy office, but the latter isn't a money lending agency either. Without some assurance that the proper competencies will be exercised by county and state governments in responsible fashion, it may be a steep uphill struggle, to say the least, to get revenue bond underwriters on board.

PACE programs are in other areas around the country and can work with proper preparation and coordination of government resources. The U.S. Department of Energy summarized the advantages and disadvantages of PACE programs thus:

### **Advantages**

- Allows for secure financing of comprehensive projects over a longer term, making more projects cash flow positive.
- Spreads repayment over many years, seldom requires an upfront payment, and removes the requirement that the debt be paid at sale or refinance.
- Can lead to low interest rates because of the high security of loan repayments attached to the property tax bill.
- Helps some property owners deduct payments from their income tax liability.
- Allows municipalities to encourage energy efficiency and renewable energy without putting general funds at risk.
- Taps into large sources of private capital.

### **Disadvantages**

- Available only to property owners.
- Cannot finance portable items (screw-in light bulbs, standard refrigerators, etc.).
- Can require dedicated local government staff time.
- May require high legal and administrative setup obligations.
- Not appropriate for investments below \$2,500.
- Potential resistance by lenders/mortgage-holders whose claims to the property may be subordinated to the unpaid assessment amount should the property go into foreclosure.

U.S. Department of Energy, Property Assessed Clean Energy Programs, at <https://www.energy.gov/eere/slsc/property-assessed-clean-energy-programs>.

Digested 1/24/2020

Presentation to The  
Committee on Energy & Environmental Protection  
January 28, 2020 8:30 A.M.  
State Capitol Conference Room 325

**Testimony in Opposition to HB 1669**

TO: The Honorable Nicole E. Lowen, Chair  
The Honorable Tina Wildberger, Vice Chair  
Members of the Committee

My name is Neal K. Okabayashi, the Executive Director of the Hawaii Bankers Association (HBA). HBA is the trade association representing eight Hawaii banks and two banks from the continent with branches in Hawaii.

The intent of HB 1669 is admirable, but the consequences of its adoption will not be appreciated by Hawaii residents, including first time home buyers. It will reduce mortgage availability and may bring back memories of the Great Recession. If loans are not available for “qualifying improvements” as defined in the bill, there are certainly alternatives rather than harming Hawaii’s housing market.

To offer historical perspective, HB 1669 is a PACE bill like that introduced by then Governor Lingle which would have created a state loan program secured by a lien which would have been senior to a first mortgage loan. Fortunately, the legislature recognized the harm that could be done to those seeking to buy or sell a home and did not pass the bill.

There are many flaws in the structure of PACE loans. First, it becomes a senior lien comparable to real property tax, and the lien of a first mortgage lien will be subordinated to the PACE loan without the consent of the first mortgagee. The PACE loan may become a senior lien after the first mortgage is made, thus the first mortgagee does not have the ability to protect itself against the unforeseen risk of a loan appearing out of nowhere.

In effect, the first mortgage will become second mortgage which normally carries a higher cost and lenders, as a matter of safety and soundness, will have to take protective steps.

Secondly, it lacks the consumer protection protections inherent in first mortgage loans under the Truth in Lending Act including consumer disclosures and a requirement that the lender conclude that the borrower has the ability to repay the mortgage (known as the ability to repay rule or ATR).

Because the PACE loan will have been made without any investigation into the borrower’s ability to repay the PACE loan, the lender will be in an unenviable position that the PACE loan borrower may not be able to pay the PACE loan and fall into default.

In 2010, President Obama signed into a law the Dodd-Frank Act, to address problems which were factors in the Great Recession. The Dodd-Frank Act was one of the signature acts of President



Obama. One provision of the Dodd-Frank Act was the requirement that mortgage lenders assess the borrower's ability to repay the loan, rather than base the loan on the value of the asset which may lead to repayment in full only if the property is sold such as in foreclosure. Dodd-Frank provides certain criteria, if met, assures the lender that it satisfied the ability to repay rule. One method of assuring satisfaction with the ATR is a calculation of the Debt-To-Income ratio (DTI) which is a measure of the ratio of the borrower's debt to income which projects the borrower's ability to repay the loan. The threshold of the DTI cannot be greater than 43%. In Hawaii, it is difficult to meet the 43% threshold because of housing cost and income and thus, the loan is likely to remain on the books of the lender. If there is a PACE loan, it will be even more difficult to meet the DTI threshold because the debt will be larger.

The problems caused by PACE loans motivated Congress to amend the Dodd-Frank Act to require the Consumer Financial Protection Bureau (created under the Dodd-Frank Act) to prescribe regulations on PACE loans impacting the ability-to-repay rules. The Consumer Financial Protection Bureau is in the process of creating rules in compliance with the amendments.

To counter the risks of PACE loans, the Federal Housing Finance Agency (FHFA) has mandated that Fannie Mae and Freddie Mac, the largest buyers of home loans in Hawaii and is regulated by the FHFA, to not buy or refinance a loan if the property is encumbered by a PACE loan. However, because the PACE loan may become a senior lien at any time after the mortgage, the FHFA is considering severe protective guidelines in states which authorize PACE loans.

The harm done to credit availability is not a proper remedy in a time of concerns about housing availability especially when there is ample credit available for "qualifying improvements" as defined in the bill. Lack of affordable mortgages will impede acquisition of homes.

There have been a number of consumer protection failures in PACE loans as reflected in the FHFA notice of rulemaking as well as a letter to the Council of State Governments signed by consumer protection advocates arguing against a proposed resolution endorsing PACE loans due to lack of consumer protections. The consumer groups included the Consumer Federation of America, National Consumer Law Center, and National Fair Housing Alliance. The resolution was not adopted.

Somewhat surprising, although the PACE loan will have a senior status and thus carry less risk of repayment, the FHFA reports the interest rates on PACE loans may be as high as double the interest rate of a first mortgage loan.

Because a PACE loan is not covered by the Truth in Lending Act (Act), consumer protection measures embedded in the Act are not afforded to PACE borrowers such as disclosures and notice of the costs of closing the loan. The Consumer Financial Protection Bureau has promulgated protective measures for borrowers who are unable to pay their mortgage, including loan mitigation procedures, which may enable borrowers to keep their home. PACE loan borrowers do not enjoy the protection of the Consumer Financial Protection Bureau.

Because PACE loans are based on the value of the loan (otherwise known as asset based lending and thus more susceptible to foreclosure) rather than the income of the borrower, it mirrors asset based lending which became frowned upon and discouraged by the Dodd-Frank Act.

Another protective measure is a lender must calculate the Loan-to-Value ratio (LTV) when analyzing a mortgage loan application. HB 1669 allows a borrower to borrow up to 20% of the value of the property which may eliminate any equity the borrower has in the home and require the borrower to obtain mortgage property insurance. If one could borrow a PACE loan for 20% of the value of the home, in effect, this will transform the loan on the property to a "no down payment" loans since there would be no equity in the home. The FHFA is considering requiring Fannie Mae and Freddie Mac

to decrease the required LTV in states which authorize PACE loans to ameliorate the risks posed by PACE loans. Any decrease in the required LTV would make it more difficult to buy or sell a home because it would require a larger down payment and down payment is a common obstacle to buying a home especially for first-time buyers.

For example, for an \$500,000 home, an 80% LTV means a down payment of \$100,000 and a mortgage of \$400,000. However, a PACE loan can be as large as 20% of the value or \$100,000. Thus, the borrower no longer has equity in the home. If the LTV requirement is lowered from 80% to 60% to account for a future PACE loan, the borrower will need to have a down payment of \$200,000 and thus make it twice as difficult to buy a home.

Because Fannie Mae and Freddie Mac will not buy a loan if there is a PACE loan, mortgage credit will be less available and makes it difficult to buy or sell a home. The FHFA is in the process of adopting more stringent loan requirements in states authoring PACE loans and thus, it will be harder to obtain a mortgage loan, as stated above.

Another repayment issue is that unlike mortgage loans, real property taxes are paid twice a year. Thus, PACE loans will be paid twice a year and the borrower may not save the necessary funds to make the necessary payment. By paying twice a year, it will take longer to repay the PACE loan and the interest paid by the borrower over the loan term will be greater as interest on the loan will continue to accrue during the intervening months.

It should be noted that there is no need for PACE loans. There are loans available to homeowners to finance the projects and the interest rate is likely to be less than a PACE loan.

On January 18, 2020 the Star-Advertiser reported that Hawaiian Electric announced a 21% jump in solar generation capacity, the largest ever annual increase since 2005. The Star-Advertiser thought that a major factor in the increase was the anticipated declination of the federal tax credit. The growth of solar generation demonstrates there are loans to finance purchase of “qualifying improvements”.

Thank you for the opportunity to submit this testimony in opposition to HB 1669. Please let us know if we can provide further information.

Neal K. Okabayashi  
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Email: [info@hcul.org](mailto:info@hcul.org)



Testimony to the House Committee on Energy and Environmental Protection  
Tuesday, January 28, 2020  
Hawaii State Capitol, Room 325

In Opposition to HB 1669, Relating to Renewable Energy

To: The Honorable Nicole Lowen, Chair  
The Honorable Tina Wildberger, Vice-Chair  
Members of the Committee

**LATE**

My name is Stefanie Sakamoto, and I am testifying on behalf of the Hawaii Credit Union League, the local trade association for 51 Hawaii credit unions, representing over 800,000 credit union members across the state. We offer the following testimony in opposition to HB 1669, Relating to Renewable Energy.

This bill establishes a residential property assessed clean energy (PACE) program, allowing property owners to finance qualified renewable energy improvements through bonds.

While we understand the intent of establishing a PACE program, we have serious concerns. Because the structure of the PACE loan would make the mortgage lien second to the PACE lien, lenders would have to take the risk into account when making the loan. With the home tied to the PACE loan, there is also a significantly higher risk to the borrower.

Further, a PACE loan program such as this is unnecessary in a time when many financial institutions, including credit unions, already offer low-cost loans for “green” home improvements.

Thank you for the opportunity to provide comments on this issue.

**HB-1669**

Submitted on: 1/28/2020 4:33:07 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Brodie Lockard	350Hawaii.org	Support	No

Comments:

**LATE**

**HB-1669**

Submitted on: 1/26/2020 10:13:45 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Judith A Mick	Individual	Support	No

Comments:

**HB-1669**

Submitted on: 1/27/2020 4:31:37 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Nanea Lo	Individual	Support	No

Comments:

Hello,

My name is Nanea Lo and I am a lifelong resident and kanaka maoli (Native Hawaiian) of this land. I am writing to say I fully support this bill and I'm asking for you all to do the same.

Me ke aloha 'Ä• ina,

Nanea Lo

**HB-1669**

Submitted on: 1/27/2020 8:17:24 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Noel Morin	Individual	Support	No

Comments:

Aloha,

Please support HB1669.

This bill will allow for a more rapid transition to a renewable energy future for Hawaii. Importantly, it will allow for renewable energy to be democratized by allowing for the cost of these energy systems (e.g., solar, wind, hydro, storage) to be spread out over a long period. I believe that this will allow residents - homeowners and renters to benefit from lower energy costs and the ability to contribute to saving our environment.

Thank you,

Noel Morin - Hilo

808 987 7428

**HB-1669**

Submitted on: 1/27/2020 12:34:55 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Louis Herman	Individual	Support	No

Comments:

Strongly support.



**HB-1669**

Submitted on: 1/27/2020 5:26:57 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Lynn Aaberg	Individual	Support	No

Comments:

Please support this bill to help with the climate crisis!

**HB-1669**

Submitted on: 1/27/2020 12:11:17 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
christine trecker	Individual	Support	No

Comments:

**HB-1669**

Submitted on: 1/27/2020 9:01:58 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Peg Sullivan-Miller	Individual	Support	No

Comments:

**HB-1669**

Submitted on: 1/26/2020 10:55:19 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Joy Silver	Individual	Support	No

Comments:

**HB-1669**

Submitted on: 1/26/2020 10:15:39 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
John Nix	Individual	Support	No

Comments:

A;oha all,

Please support HB1699 and lead us into the future away from toxic exposure and away from a dying planet. Support increasing good paying jobs and let us all benefit from doing the right thing,

Mahalo,

Dr. John and Debra Nix

Kihei

**HB-1669**

Submitted on: 1/26/2020 10:15:13 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Zoe Malia Ozoa Loos	Individual	Support	No

Comments:

Anything and everything needs to be done in order to take protect our aina, our keiki, our community during the climate crisis. We must do what it takes, we must lead the way as an island nation that will deal with more problems than the mainland. Problems that only an island nation will have to deal with. There should be no reason for me or anyone to convince legislators to enact laws that will fight to protect the land and do what needs to be done in order to help alleviate and reverse what is happening in our Aloha State.

Mahalo for all the work you have been doing and will be doing, I full-heartedly support all legislation that will work towards climate justice.

**HB-1669**

Submitted on: 1/27/2020 9:37:25 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Tanya Aynessazian	Individual	Support	No

Comments:

**HB-1669**

Submitted on: 1/27/2020 11:15:33 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
janice palma-glennie	Individual	Support	No

Comments:

please support this measure which will supports wise efforts to prevent Climate Crisis.

mahalo and sincerely,

janice palma-glennie

kailua-kona



**HB-1669**

Submitted on: 1/27/2020 1:19:08 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jesse Brown-Clay	Individual	Support	No

Comments:

**HB-1669**

Submitted on: 1/27/2020 1:46:16 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jonathan Boyne	Individual	Support	No

Comments:

I support HB1669.

**HB-1669**

Submitted on: 1/27/2020 2:50:59 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Charles K. Burrows	Individual	Support	No

Comments:

**HB-1669**

Submitted on: 1/27/2020 6:25:23 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Caroline Kunitake	Individual	Support	No

Comments:

Please support HB1669.

**LATE**

Mahalo,

Caroline Kunitake

**HB-1669**

Submitted on: 1/27/2020 7:10:23 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Matthew Geyer	Individual	Support	Yes

Comments:

These small incremental changes are important, but we need to do so much more to fight climate change in order to leave a decent world for our children to thrive in.

**LATE**

**HB-1669**

Submitted on: 1/27/2020 7:20:46 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Koohan Paik	Individual	Support	No

Comments:

**LATE**

**HB-1669**

Submitted on: 1/27/2020 8:24:24 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Carolynn Bell-Tuttle	Individual	Support	No

Comments:

**LATE**

**HB-1669**

Submitted on: 1/27/2020 8:31:25 PM

Testimony for EEP on 1/28/2020 8:30:00 AM



Submitted By	Organization	Testifier Position	Present at Hearing
Bradford Baang	Individual	Support	No

Comments:

Dear Chair Lowen, Vice Chair Wildberger, and members:

I VERY strongly support HB 1851.

As Hawaii strives for zero greenhouse gas emissions, we need to capitalize on every reasonable innovation that will reduce our energy use.

Among other benefits, a smarter energy grid will reduce our energy use by sharing information and redistributing energy where and when it's needed from where and when it's not.

Grid-interactive water heaters can communicate with electric utilities to spread electrical loads efficiently and participate in demand response programs, i.e., changes in a customer's power use to better match the demand for power with the supply. In this case, water heaters can automatically turn off during times of peak energy use, if they are grid-interactive. They turn on again when the grid doesn't need as much power. This avoids firing up additional equipment at power plants during peak demand times.

Better yet, the excess thermal energy stored in GIWHs can be sent back to the grid to be used when and where it's most needed.

GIWHs are a simple way for our connected communities to save energy. The more appliances that share information this way, the more efficient the grid can be. Every home should have one.

Mahalo for caring for our future.

Brad Baang, Waianae, HI 96792



**HB-1669**

Submitted on: 1/27/2020 8:40:34 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
John NAYLOR	Individual	Support	No

Comments:

**LATE**

**HB-1669**

Submitted on: 1/27/2020 9:07:59 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
John Grandinetti	Individual	Support	No

Comments:

**LATE**

**LATE**

**HB-1669**

Submitted on: 1/28/2020 10:26:01 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
donald erway	Individual	Support	No

Comments:

The GEMS program was a great idea for offering accessible, affordable, cost-effective green infrastructure financing options to customers. The building energy efficiency revolving loan fund went far in helping low-income residents borrow from the State to make energy efficiency improvements to buildings. But they've had limits.

\* These programs suffered from inefficient bond financing.

\* Because it's expended annually, a revolving loan fund will improve these flaws.

**LATE**

**LATE**

**HB-1669**

Submitted on: 1/28/2020 3:10:02 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Malachy Grange	Individual	Support	No

Comments:

Please do the right thing and pass this wise environmentally wise bill

**LATE**

**LATE**

**HB-1669**

Submitted on: 1/28/2020 3:40:35 PM  
Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Phaethon Keeney	Individual	Support	No

Comments:

To: The House Committee on Energy & Environmental Protection

From: Phaethon Keeney

Strong SUPPORT for HB1669

Aloha! HB1669 provides a way for homeowners to finance renewable energy improvements via Property Assessed Clean Energy (PACE) loans connected to the property, not the owners. This provides flexibility for Hawaii's homeowners and offers a common sense way for everyone to do their part in transitioning to Clean Energy. This just makes sense.

Mahalo!

Phaethon Keeney

Honokaa Hawaii

**LATE**

**LATE**

**HB-1669**

Submitted on: 1/28/2020 6:12:53 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Mark A. Koppel	Individual	Support	No

Comments:

AND RENEWABLE DOES not MEAN CHOPPING DOWN TREES AS IN HU HONUA.

THEY MUST BE STOPPED NOW!!!

**LATE**

**LATE**

**HB-1669**

Submitted on: 1/28/2020 11:36:16 AM  
Testimony for EEP on 1/28/2020 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Barbara Hershey	Individual	Support	No

Comments:

**LATE**