



JOSH GREEN, M.D.
GOVERNOR

HAWAII GREEN INFRASTRUCTURE AUTHORITY

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EXECUTIVE DIRECTOR

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Testimony of
Gwen Yamamoto Lau
Executive Director
Hawaii Green Infrastructure Authority
before the
Senate Committee on Ways and Means
Tuesday, April 4, 2023, 10:30 AM
State Capitol, Conference Room 211
in consideration of
House Bill No. 949, HD2
RELATING RENEWABLE TO ENERGY

Chair Dela Cruz, Vice Chair Keith-Agaran and Members of the Ways and Means Committee:

Thank you for the opportunity to testify and provide comments on House Bill No. 949, HD2, relating to renewable energy. The Hawai'i Green Infrastructure Authority (HGIA) **strongly supports** this bill which establishes and appropriates funds for a program to provide low and moderate-income households with below market loans to install photovoltaic and energy storage systems.

HGIA, Hawai'i's Green Bank, works to advance the State's goals of a 100% renewable portfolio standard in energy production by leveraging innovative financing mechanisms to democratize clean energy by making financing more affordable and accessible to ratepayers previously locked out of solar. The State's efforts to achieve its clean energy goal in the electricity sector rely on a plan that includes 100% of the residential rooftops bearing solar, requiring an estimated \$15.0 billion in solar + storage investments over the next twenty-two years.

More importantly, with 44% of Hawaii's families classified as asset limited, income constrained, employed ("ALICE"), our underserved ratepayers are facing disproportionate financial burdens with rising inflation and unprecedented spikes in electricity costs, straining their already tight household budgets, with an estimated 15% of their income being used to pay for electricity¹. Based on the Federal Reserve Bank's unbanked/underbanked metric, an estimated 75,000 rooftops may not qualify for traditional financing, representing a **\$3.75 billion financing gap**. This additional loan capital, which will allow HGIA to also finance energy storage systems, will be a game-changer helping underserved ratepayers reduce their energy burden while facilitating an equitable transition to renewable energy, and enhancing resiliency and grid stability. With the launch of Solarize808 campaigns and additional tax incentives for disadvantaged

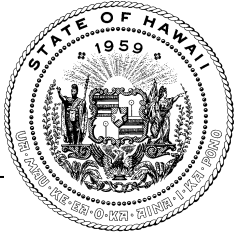
¹ According to DBEDT's Research & Economic Analysis department, approximately 15% of total income for Hawaii's low-income households are needed to pay the electric bill, as compared to an average 1.4% of total income for households in the mainland U.S.

communities in the Inflation Reduction Act, this is a timely opportunity to assist our ALICE families decrease their electric utility bills with long-term savings expected over the life of the system that can be used toward necessary household expenses.

Unlike HGIA's existing GEMS loan funds, with all principal and interest repaid transferred to the Hawaii Public Utilities Commission on an annual basis, appropriations approved under this bill are intended to capitalize a revolving loan fund, with interest earned providing a revenue stream to become a financially self-sustaining program, and principal repaid to be recycled and re-invested to assist more ALICE families lower their cost of energy.

HGIA intends to also apply for Federal funds under the Inflation Reduction Act's Greenhouse Gas Reduction Funds. While matching funds are not required, the EPA has indicated that leveraging Federal funds will be the 3rd priority for this highly competitive grant application process, making this bill and appropriations even more important to attract additional Federal funds into Hawaii to reduce greenhouse gas emissions (1st priority) and deliver benefits to disadvantaged communities (2nd priority).

Thank you for this opportunity to testify and provide comments in support of HB 949, HD2.



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

JOSH GREEN, M.D.
GOVERNOR

MARK B. GLICK
CHIEF ENERGY OFFICER

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Testimony of
MARK B. GLICK, Chief Energy Officer

before the
SENATE COMMITTEE ON WAYS AND MEANS

Tuesday, April 4, 2023
10:30 AM
State Capitol, Conference Room 211 & Videoconference

In SUPPORT of
HB 949, HD2

RELATING TO RENEWABLE ENERGY.

Chair Dela Cruz, Vice Chair Keith-Agaran, and Members of the Committee, the Hawai'i State Energy Office (HSEO) supports HB 949, HD2, which would establish and appropriate funds for a solar energy storage system loan program to provide asset limited, income constrained, employed households with low-interest loans to purchase and install solar energy storage systems.

HSEO's comments are guided by its mission to promote energy efficiency, renewable energy, energy resiliency, and clean transportation to help achieve a decarbonized economy. With the Federal Reserve Bank increasing interest rates to combat inflation, the cost of capital to finance energy efficiency and solar projects is becoming more unattainable, especially for the economically disadvantaged.

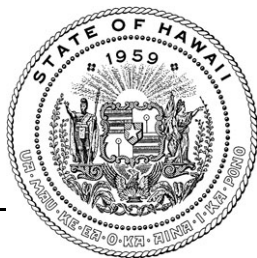
HSEO supports providing mechanisms and funding to provide lower cost financing to help undeserved ratepayers reduce their utility bills as well as acquire storage systems that will assist with grid stability. In addition, a revolving loan fund that is capitalized by appropriations as proposed in this bill would offer significant benefits in that the principal and interest repaid could be used in perpetuity to issue more loans supporting residential solar projects. The establishment of this program would also place Hawai'i in a more competitive position when applying for federal grants under the

Inflation Reduction Act, where proof of a sustainable source of matching funds would bolster the chances of acquiring additional funding to support Hawai'i's energy initiatives.

HSEO defers to the Hawai'i Green Infrastructure Authority on matters pertaining to appropriations and revolving loan funds.

HSEO appreciates the intent of the proposal to increase the proliferation of PV solar systems and energy storage systems that will help us reach the goal of 100% renewable electricity.

Thank you for the opportunity to testify.



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**
KA 'OIHANA HO'OMOHALA PĀ'OIHANA, 'IMI WAIWAI
A HO'OMĀKA'IKĀ'I

JOSH GREEN, M.D.
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CHRIS J. SADAYASU
DIRECTOR

DANE K. WICKER
DEPUTY DIRECTOR

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Statement of
CHRIS J. SADAYASU
Director
Department of Business, Economic Development, and Tourism
before the
SENATE COMMITTEE ON WAYS AND MEANS
Tuesday, April 4, 2023
10:30 AM
State Capitol, Conference Room 211 & Videoconference
in consideration of
HB 949, HD2
RELATING TO RENEWABLE ENERGY.

Chair Dela Cruz, Vice Chair Keith-Agaran and Members of the Committee.

The Department of Business, Economic Development and Tourism ("DBEDT") **supports** HB949, HD2, which establishes and appropriates funds for a program to provide low and moderate-income households with below market loans to install photovoltaic and energy storage systems.

Additional loan capital for solar+storage investments are necessary to help underserved ratepayers reduce their growing financial energy burdens, facilitate an equitable transition to renewable energy, and enhance the resiliency and stability of electrical grids. Expanding the Hawaii Green Infrastructure Authority's ability to finance rooftop solar is a necessary step in helping Hawaii achieve its goal of a 100% renewable portfolio standard in energy production by 2045.

We support this bill provided that its passage does not replace or adversely impact priorities indicated in our Executive Budget.

Thank you for this opportunity to testify in support of House Bill 949, HD2.

April 2, 2023

Senator Donovan M. Dela Cruz, Chair
Senator Gilbert S.C. Keith-Agaran, Vice Chair
Committee on Ways and Means
Tuesday, April 4, 2023
10:30 AM
Via Videoconference



RE: **HB949 HD2** Relating to Renewable Energy (**Support**)

Dear Chair Dela Cruz, Vice Chair Keith-Agaran & Members of the Committee,

Chamber of Sustainable Commerce offers this testimony in support of HB949 HD2, which establishes and appropriates funds for a solar energy storage system loan program to provide asset limited, income constrained, employed households with low-interest loans to purchase and install solar energy storage systems, and establishes and appropriates funds for a renewable energy system installation loan program to provide asset limited, income constrained, employed households with low-interest loans to purchase and install residential photovoltaic and energy storage systems, including battery storage systems.

As business owners who strive for a triple bottom line and know we can strengthen our economy without hurting workers, consumers or the environment, we urge this committee to vote in favor of passing HB949 HD2 because without this program, capital constrained households will be unable to switch to lower, cleaner sources of electricity – and we will not be able to achieve the state’s 2045 carbon emission goals without more households on board.

Furthermore, as the cost of solar energy is currently about one-half the cost of oil-fired electricity, ALICE households would directly benefit from a program that helps overcome financial challenges such as high electricity costs and inflation.

**Hawaii
Legislative
Council**

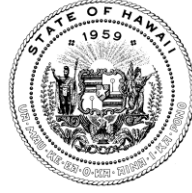
Maile Meyer
Na Mea Hawaii
Honolulu

Russel Rudderman
Island Naturals
Hilo / Kona

Tina Wildberger
Kihei Ice
Maui

Joell Edwards
Wainiha Country Market
Kauai

Kim Coco Iwamoto
AQuA Rentals, LLC
Honolulu



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAI'I
OFFICE OF THE DIRECTOR
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JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

NADINE Y. ANDO
DIRECTOR | KA LUNA HO'OKELE

DEAN I HAZAMA
DEPUTY DIRECTOR | KA HOPE LUNA HO'OKELE

Testimony of the Department of Commerce and Consumer Affairs

**Before the
Senate Committee on Ways and Means
Tuesday, April 4, 2023
10:30 a.m.
Conference Room 211**

**On the following measure:
H.B. 949, H.D. 2, RELATING TO RENEWABLE ENERGY**

WRITTEN TESTIMONY ONLY

Chair Dela Cruz and Members of the Committee:

My name is Dean Nishina and I am the Acting Executive Director for the Department of Commerce and Consumer Affairs' (Department) Division of Consumer Advocacy. The Department supports this bill.

The purpose of this bill is to establish and appropriate funds for: (1) a solar energy storage system loan program to provide asset limited, income constrained, employed households with low-interest loans to purchase and install solar energy storage systems; and (2) a renewable energy system installation loan program to provide asset limited, income constrained, employed households with low-interest loans to purchase and install residential photovoltaic and energy storage systems, including battery storage systems.

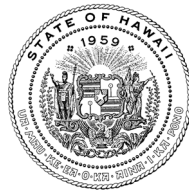
The Department supports this bill since it would establish and provide funds that would allow low to moderate income households to take advantage of renewable energy technology and reduce their energy burden. Low to moderate income households pay a

disproportionately higher percentage of their income towards energy bills and do not have the financial means to pursue the installation of renewable energy technologies. The proposed solar energy system revolving fund would directly address the financial barrier that has prevented many struggling households from reducing their energy burden and moving towards energy independence.

The Department especially appreciates that the solar energy system revolving loan fund will be funded by the general fund and not through fees assessed on utility customers through their monthly bills. Other programs that seek funding through utility rates do not adequately consider that utility rates are regressive and will increase utility bills for all customers, especially low to moderate income households whose energy burden will only increase. Additional fees to pay for the loan fund through utility rates would further increase the energy bills that many customers have struggled to pay, especially during the pandemic and over the last year when significant bill increases occurred. As currently drafted, this measure avoids placing an additional financial burden on those households that this bill attempts to support.

Thank you for the opportunity to testify on this bill, and we respectfully ask the Committee to pass this bill.

JOSH GREEN, M.D.
GOVERNOR



LUIS P. SALAVERIA
DIRECTOR

SABRINA NASIR
DEPUTY DIRECTOR

EMPLOYEES' RETIREMENT SYSTEM
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND
OFFICE OF THE PUBLIC DEFENDER

STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
Ka 'Oihana Mālama Mo'ohelu a Kālā
P.O. BOX 150
HONOLULU, HAWAII 96810-0150

ADMINISTRATIVE AND RESEARCH OFFICE
BUDGET, PROGRAM PLANNING AND MANAGEMENT DIVISION
FINANCIAL ADMINISTRATION DIVISION
OFFICE OF FEDERAL AWARDS MANAGEMENT

WRITTEN ONLY
TESTIMONY BY LUIS P. SALAVERIA
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE
TO THE SENATE COMMITTEE ON WAYS AND MEANS
ON
HOUSE BILL NO. 949, H.D. 2

April 4, 2023
10:30 a.m.
Room 211 and Videoconference

RELATING TO RENEWABLE ENERGY

The Department of Budget and Finance (B&F) offers comments on this bill.

House Bill (H.B.) No. 949, H.D. 2: 1) establishes the Solar Energy Storage System Loan Program (SESSLP) and the Renewable Energy System Installation Loan Program (RESILP) to be administered by the Hawai'i Green Infrastructure Authority (HGIA) of the Department of Business, Economic Development and Tourism; 2) establishes the Solar Energy System Revolving Loan Fund (SESRLF); 3) appropriates an undetermined amount of general funds for FY 24 to be deposited into the SESRLF; and 4) appropriates an undetermined amount of special funds out of the SESRLF for FY 24 to issue loans as provided for by the SESSLP and RESILP.

As a matter of general policy, B&F does not support the creation of any revolving fund which does not meet the requirements of Section 37-52.4, HRS. Revolving funds should: 1) serve a need as demonstrated by the purpose, scope of work and an explanation why the program cannot be implemented successfully under the general fund appropriation process; 2) reflect a clear nexus between the benefits sought and

charges made upon the users or beneficiaries or a clear link between the program and the sources of revenue; 3) provide an appropriate means of financing for the program or activity; and 4) demonstrate the capacity to be financially self-sustaining. Regarding H.B. No. 949, H.D. 2, it is difficult to determine whether the proposed revolving fund would be self-sustaining as there does not appear to be any significant source of revenues to support the SESRLF aside from appropriations from the Legislature, contributions from public or private partners, and interest earned or accrued on moneys deposited into the fund.

One point of concern is that other sub-accounts and/or sub funds for loan programs administered by the HGIA serve as revolving lines of credit within the HGIA special fund and were funded with proceeds from the HGIA special fund, thus these sub-accounts/sub funds are also special funded. This measure does not make a distinction as to whether the SESRLF will also serve as a special funded revolving line of credit, or if the SESRLF, which will be used for the new SESSLP and RESILP is a separate revolving fund within the HGIA.

Finally, it should be pointed out that H.B. No. 949, H.D. 2, does not include language addressing the deposit of revenues received as repayment for principal and interest of any loans issued under either program.

Thank you for your consideration of our comments.

HB-949-HD-2

Submitted on: 4/1/2023 5:07:32 PM

Testimony for WAM on 4/4/2023 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
laurel brier	Testifying for Kauai Climate Action Coalition	Support	Written Testimony Only

Comments:

It's about environmental and social justice and helping everyone make the transition to clean, affordable energy. As solar energy is currently about one-half the cost of oil-fired electricity, those in the ALICE population would directly benefit from a program that helps them overcome financial challenges such as high electricity costs and inflation.



Email: communications@ulupono.com

SENATE COMMITTEE ON WAYS & MEANS
Tuesday, April 4, 2023 — 10:30 a.m.

Ulupono Initiative supports HB 949 HD2, Relating to Renewable Energy.

Dear Chair Dela Cruz 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 choices, and better management of freshwater resources.

Ulupono supports HB 949 HD2, which establishes and appropriates funds for a solar energy storage system loan program to provide asset limited, income constrained, employed households with low-interest loans to purchase and install solar energy storage systems; and, establishes and appropriates funds for a renewable energy system installation loan program to provide asset limited, income constrained, employed households with low-interest loans to purchase and install residential photovoltaic and energy storage systems, including battery storage systems.

Ulupono supports the State's commitment to generate 100% of its electricity from renewable energy sources by 2045. The State should consider various innovative financing measures to support renewable energy's equitable adoption island-wide. This bill seeks to solidify that commitment by making solar and energy storage systems affordable and accessible for those in the ALICE (Asset Limited, Income Constrained, Employed) population. As solar energy is currently about one-half the cost of oil-fired electricity, this population would directly benefit from a program that helps them overcome financial challenges such as high electricity costs and inflation.

Thank you for the opportunity to testify.

Respectfully,

Micah Munekata
Director of Government Affairs

Investing in a Sustainable Hawai'i



Environmental Caucus of The Democratic Party of Hawai'i

WAM_04-04-23 HB346, 949

TO: THE COMMITTEE ON WAYS AND MEANS
Senator Donovan M. Dela Cruz, Chair
Senator Gilbert S.C. Keith-Agaran, Vice Chair

CONCERNING: HB 346, HD2, SD1 (SSCR1415) RELATING TO ELECTRIC VEHICLE
CHARGING INFRASTRUCTURE
HB 949, HD2 (SSCR1321) RELATING TO RENEWABLE ENERGY.

POSITION: Enthusiastic Support

Aloha Chair Cruz, Vice Chair Keith-Agaran and Members of the Committee

The Environmental Caucus supports all legislation which promotes increasing access to electric power charging stations as integral to promoting the purchase and use of electric vehicles. We also support all bills which encourage and assist the private sector to install and use solar panels to create electricity.

Bill 346 would require new State facilities to include electric car charging stations and would encourage retrofitting current buildings, where plausible, with the same, and provides funds related to these requirements. The Hawaiian Islands would benefit in many ways from more people driving electric or hybrid cars but without infrastructure it will be difficult at best to achieve.

We also encourage you to pass HB949, which would encourage and assist middle and low income home owners to install solar panels and storage batteries for their energy needs and hopefully for adding power to the current grids.

The immediate costs of installing solar/photovoltaic systems with storage batteries the have made it difficult for average income families to consider doing it. The reduction in electricity costs may be significant but it takes a long time for the overall budget boost to be felt. Without an excellent credit rating and or savings set aside for it, it becomes another unaffordable dream for so many. It did not have to be this way but special interests have profited from the unnecessarily long delays in Hawaii producing more solar generated power.

This measure would be a valuable step in rectifying the inability of average home owners from benefiting from solar power.

Our state has made a major commitment to “clean” and renewable energy by 2045 which we can only hope will not be too late to make a difference in our area climate. One of the most practical ways to do this is to make it easier, more affordable, and more convenient for average income residents to install solar power on their homes and to invest in electric and hybrid transportation.

Martha E Randolph
DPH Environmental Caucus SCC Representative Democratic Party of Hawaii



To: The Senate Committee on Ways and Means (WAM)
From: Sherry Pollack, 350Hawaii.org
Date: Tuesday, April 4, 2023, 10:30am

In strong support of HB949 HD2

Aloha Chair Dela Cruz, Vice Chair Keith-Agaran, and WAM Committee members;

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org is in **strong support of HB949 HD2** that would establish and appropriate funds for a solar energy storage system loan program to provide asset limited, income constrained, employed households with low-interest loans to purchase and install solar energy storage systems. This measure further establishes and appropriates funds for a renewable energy system installation loan program to provide low- and moderate-income families with low-interest loans to purchase and install residential photovoltaic and energy storage systems, including battery storage systems.

Hawaii will not be able to reach its carbon reduction goals if we do not enact policies that support these outcomes. 350Hawaii fully supports efforts by the legislature to establish social equity as a foundational principle in the State's efforts to strengthen climate resilience, including low-interest loan programs as described in this measure. Without this program, capital constrained households will be unable to switch to lower, cleaner sources of electricity. Furthermore, as solar energy is currently about one-half the cost of oil-fired electricity, ALICE (Asset Limited, Income Constrained, Employed) households would directly benefit from a program that helps overcome financial challenges such as high electricity costs and inflation.

A Just Transition means leaving no one behind. That includes efforts such as HB949 HD2 that help to remove barriers and increase access to affordable renewable energy.

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

Sherry Pollack
Co-Founder, 350Hawaii.org



**Hawaiian
Electric**

**TESTIMONY BEFORE THE SENATE COMMITTEE ON
WAYS AND MEANS**

HB 949, HD 2

Relating to Renewable Energy

Tuesday, April 4, 2023
10:30 am, Agenda Item #11
VIA VIDEOCONFERENCE
Conference Room 211
State Capitol
415 South Beretania Street

Ka'iulani Shinsato
Director, Customer Energy Resources Programs
Hawaiian Electric

Aloha Chair Dela Cruz, Vice Chair Keith-Agaran, and Committee Members,

My name is Ka'iulani Shinsato and I am testifying on behalf of Hawaiian Electric in support of HB 949, HD2.

HB949, HD2 establishes and appropriates funds for a solar energy storage system loan program to provide asset limited, income constrained, employed ("ALICE") households with low-interest loans to purchase and install solar energy storage systems. It establishes and appropriates funds for a renewable energy system installation loan program to provide low-interest loans to ALICE households for the purchase and installation of residential solar and energy storage systems.

Hawaiian Electric supports HB949, HD2. While Hawai'i already leads the nation in the adoption of customer-sited rooftop solar, the continued growth of customer energy resources, such as rooftop solar and energy storage, is critical to achieving Hawai'i's decarbonization and renewable energy goals. Thus, Hawaiian Electric is continuously seeking ways to expand access of rooftop solar and energy storage

systems to customers -- in particular, ALICE households -- in a way that is fair and sustainable to all customers. HB949, HD2 is aligned with that objective because it would provide a financing mechanism for ALICE households to have access to rooftop solar and energy storage systems. Expanding access to underserved communities will greatly enhance Hawai'i's resilience, sustainability, and equity as we decarbonize our economy and electric grids and transition to clean energy.

Thank you for this opportunity to provide testimony in support of HB 949, HD2.



Hawaii Environmental Change Agents' Decarbonization of Buildings Task Force

April 3, 2023

Position: **Support** of HB949 HD2

Aloha Chair Dela Cruz and Members of the WAM Committees:

I am submitting testimony in **strong support** of HB949 HD2. This Act will do the following:

- Aid the state in an equitable transition to clean energy
- This bill seeks to solidify that commitment to this transition by making solar and energy storage systems affordable and accessible for those in the ALICE (Asset Limited, Income Constrained, Employed) population.
- Without this programs, capital constrained households will be unable to switch to lower, cleaner sources of electricity.
- As solar energy is currently about one-half the cost of oil-fired electricity, this population would directly benefit from a program that helps them overcome financial challenges such as high electricity costs and inflation.

Please pass this bill out of your committees.

Respectfully,

Paul Bernstein

Chair of HECA's Decarbonization of Buildings Task Force



**Testimony of Elemental Excelerator to the
WAM Committee
in consideration of HB 949 HD2, April 4, 2023**

Dear Chair Dela Cruz, Vice Chair Keith-Agaran, and distinguished Members of the Committee on Ways and Means:

Elemental Excelerator respectfully submits our **strong support for HB 949 HD2** (hereafter “HB 949”).

Elemental Excelerator is a Honolulu-based non-profit organization that supports climate positive startup companies that help solve Hawai'i's most urgent environmental problems. Each year we select 15-20 companies that advance climate technology and social equity, then fund each company with up to \$1 million in investment and support. To date, we have awarded over \$50 million to 150+ companies, and additionally supported more than 100 new tech demonstration projects right here in Hawai'i & the Asia Pacific.

HB 949 will: 1) establish and appropriate funds for a solar energy storage system loan program to provide asset limited, income constrained, employed (ALICE) households with low-interest loans to purchase and install solar energy storage systems; and, 2) establish and appropriate funds for a renewable energy system installation loan program to provide ALICE households with low-interest loans to purchase and install residential photovoltaic and energy storage systems, including battery storage systems.

HB 949 is a critical tool to advance equitable climate solutions in Hawai'i and leverage federal funds to help our residents. The federal Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA) have the potential to offer hundreds of millions in federal funding to help Hawai'i residents - particularly those with low- and moderate-income - benefit from the clean energy transition in the short and medium term. Additional benefits from these federal climate funds include less pollution in communities, reduced energy and transportation costs, an increase in good jobs, investment in the local economy rather than spending on imported oil, and reducing dangerous greenhouse gas emissions.

Enabling state and local policies are necessary, however, to ensure that these federal funds (especially competitive funds) can be secured and expeditiously deployed in Hawai'i versus flowing to other jurisdictions. Most federal funds under the IIJA and IRA will be distributed over the next five years. We are now in the formative period of this deployment, and it is essential to ensure conditions are set for successful competition and implementation here in Hawai'i. The timing is therefore essential - during this legislative session - to address barriers and to prepare

for future rounds of funding. HB 949 is an important enabling policy to support successful IIJA and IRA deployment in Hawai'i by ensuring that local matching and leveraging funds are available to attract federal programs.

In 2022, 44 percent of Hawai'i households fell below the ALICE threshold, a new statewide high of families struggling to make ends meet.¹ With assistance such as the loan programs in HB 949, ALICE families and other low- and moderate-income households will be provided the financial tools to install renewable distributed energy systems – lowering utility bills and the cost of living for these households and providing multiple other community benefits. The loan programs established by HB 949 will be complementary to the federal funding from the IIJA and IRA, help make the clean energy transition accessible to low- and moderate-income communities, and equitably accelerate progress towards Hawai'i's 100% renewable portfolio standard (RPS) by 2045.² Rooftop solar is a critical aspect of the state's clean energy portfolio, making up 44.6% of all renewable energy in the state.³ Hawai'i can fully leverage residential decarbonization technology and minimize the number of large, utility-scale energy projects needed to be built if we:

1. Support innovative financing mechanisms such as the loan programs in HB 949 and coordinate closely to compete for additional federal funding available to make these decentralized improvements happen more quickly and at lower cost;
2. Update our permitting process to lower barriers to small-scale residential renewable energy, efficiency, and storage projects through sensible measures such as SB 781 and HB 217; and,
3. Support the development of new, efficient climate and energy technologies and the accelerators and entrepreneurs that are innovating towards an efficient and clean energy economy.

Elemental Excelerator has helped support dozens of climate tech companies that create solid jobs, transition our economy to 100% clean energy, and accelerate equitable access to zero emission solutions for all residents. By passing this bill, Hawai'i will take full advantage of the availability of current federal resources, empower entrepreneurs and workers, and dramatically lower the barrier for low- and moderate-income residents to benefit from the clean energy transition.

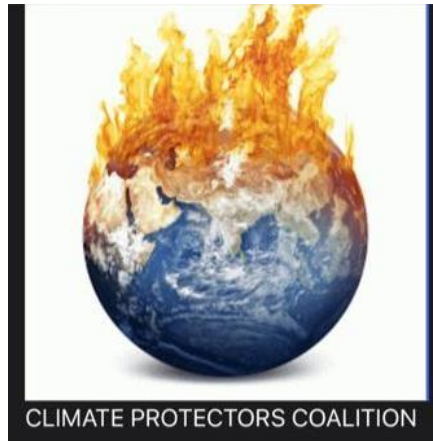
HB 949 is a key piece of climate and community legislation, and we believe it is critical to pass to ensure we meet the climate and clean economy goals the State has established. **Elemental Excelerator strongly supports the passage of HB 949.**

Thank you for the opportunity to testify.

¹ <https://www.boh.com/siteassets/files/community/alice-report-2022.pdf>

² <https://energy.hawaii.gov/what-we-do/clean-energy-vision/>

³ <https://www.hawaiianelectric.com/about-us/performance-scorecards-and-metrics/renewable-energy>



To: The Honorable Chair and Donovan Dela Cruz, the Honorable Vice Chair Gilbert Keith-Agaran, and Members of the Committees on Ways and Means

From: Climate Protectors Hawai'i (by Ted Bohlen)

Re: **Hearing HB949 HD2 RELATING TO RENEWABLE ENERGY**

Hearing: Tuesday April 4, 2023, 10:30 a.m., room 211

Aloha Chair Dela Cruz, Vice Chair Keith-Agaran, and Members of the Committee on Ways and Means:

The Climate Protectors Hawai'i seek to educate and engage the local community in climate change action, to help Hawai'i show the world the way back to a safe and stable climate.

The **Climate Protectors Hawai'i STRONGLY SUPPORTS HB949 HD2!**

This bill would help lower income families afford electricity bills! It would **democratize residential access to less expensive rooftop solar power by funding**

a low interest loan program to help asset-limited, income-constrained, employed (“ALICE”) working family households purchase and install residential solar photovoltaic and energy storage systems. By establishing a low interest loan program, this bill would make cheaper solar electricity more available for lower income households.

The bill would also help the State reach its net negative carbon clean economy target (as soon as practicable but not later than 2045), while reducing our carbon footprint and mitigating the climate emergency that the Hawaii Legislature has declared.

Please pass this bill!

Mahalo!

Climate Protectors Hawaii (by Ted Bohlen)



Legislative Testimony of Sunrun Inc.
Before the WAM Committee
April 4, 2023

IN SUPPORT of HB949 HD2 – Relating to Renewable Energy

Dear Chair Dela Cruz, Vice Chair Keith-Agaran, and distinguished Members of the Committee on Ways and Means,

Sunrun is the nation’s leading home solar, battery storage and energy services company, and has a long and proud history in Hawai‘i with office and warehouse locations on O‘ahu, Maui, and Hawai‘i Island. We employ more than 350 professionals across the islands, including sales/marketers, customer experience professionals, and installation team members including electrical inspectors, technicians, forepersons and warehouse personnel.

Sunrun strongly supports HB949 HD2 (hereafter “HB949”), which would 1) establish and appropriate funds for a solar energy storage system loan program to provide asset limited, income constrained, employed (ALICE) households with low-interest loans to purchase and install solar energy storage systems; and 2) establish and appropriate funds for a renewable energy system installation loan program to provide ALICE households with low-interest loans to purchase and install residential photovoltaic and energy storage systems, including battery storage systems.

As of 2022, 44 percent of Hawai‘i households were below the ALICE threshold – a new statewide high.¹ For the almost half of the households in the state struggling to make ends meet, upgrading home energy systems is likely not possible without additional funding or external assistance. According to the Federal Reserve Bank’s unbanked/banked metric, there is an estimated \$3.75 billion financing gap due to the ~75,000 rooftops which do not qualify for traditional financing.² The loan financing included in HB949 would reduce the energy burden for ALICE families, resulting in cost savings which may be used towards other critical living expenses. This bill presents a timely opportunity to build on the efforts of Solarize808 and the tax incentives for low- and moderate-income households in the Inflation Reduction Act to expand clean energy access to frontline communities, benefiting those which have historically and disproportionately suffered the negative effects of a fossil fuel driven economy.

In addition to the equity benefits, HB949 is an important innovative financing tool to reach Hawai‘i’s 100% renewable portfolio standard (RPS) by 2045.³ In 2020, solar power generated nearly 17% of the state’s total electricity, largely due to the rapid uptake of small-scale, customer-sites solar systems.⁴ In 2021, Hawaiian Electric (HECO) achieved 38% renewable generation, attributed to “a full year of geothermal production and an increase in private rooftop solar.”⁵ Furthermore, rooftop solar is the leading

¹ <https://www.boh.com/siteassets/files/community/alice-report-2022.pdf>

² https://www.capitol.hawaii.gov/sessions/session2023/Testimony/HB949_HD2_TESTIMONY_FIN_02-27-23_.PDF

³ <https://energy.hawaii.gov/what-we-do/clean-energy-vision/>

⁴ <https://www.eia.gov/state/?sid=HI#tabs-1>

⁵ <https://www.hawaiianelectric.com/hawaiian-electric-hits-38-renewable-energy-in-2021>

contributor to Hawai'i's clean energy portfolio making up 44.6% of all renewable energy in the state.⁶ Continued implementation of rooftop solar has proven to be a strong component of the state's renewable energy generation and contributes to a more resilient energy system, and must be done so in a way that includes frontline communities. This bill is a powerful tool to remove barriers for low- and moderate income households to access clean energy, resulting in cost savings benefits and community resilience.

Sunrun strongly supports HB949 and respectfully urges the committee to advance this measure. Mahalo for the opportunity to provide testimony on this critical legislation. As a national solar, storage and energy services company, Sunrun has a broad view of states' clean energy policies and stands ready to assist Hawai'i with its policy goals.

Sincerely,



Steven Rymsha
Director Grid Solutions, Public Policy
steven.rymsha@sunrun.com
808-220-7377

⁶ <https://www.hawaiielectric.com/about-us/performance-scorecards-and-metrics/renewable-energy>



SENATE COMMITTEE ON WAYS AND MEANS

April 4, 2023, 10:30 AM
Conference Room 211

TESTIMONY IN SUPPORT OF HB 949 HD2

Aloha Chair Dela Cruz, Vice Chair Keith-Agaran, and members of the Committee:

Blue Planet Foundation **supports HB 949 HD2**, which will help to expand access to solar battery storage systems by providing low-interest loans for asset limited, income constrained, employed (ALICE) households in Hawai'i. ALICE residents face many challenges including a high cost of living, lack of affordable housing, and an increasingly serious climate crisis. This bill will incentivize the adoption of solar energy— helping us meet our climate goals, improve grid resiliency, and provide utility savings to low- and moderate-income homeowners and ratepayers.

The State of Hawai'i has committed to a decisive and irreversible transition away from fossil fuels. The legislature has passed aggressive carbon reduction goals, including a mandate to achieve 100% renewable electricity by 2045 (Act 97 of 2015), and a goal to be carbon-negative by 2045 (Act 15 of 2018). Setting these bold targets is important, but alone it is insufficient. Hawai'i needs equitable and implementation-focused policies, such as HB 949, if we hope to achieve our clean energy and climate goals in a way that uplifts all of Hawai'i's residents.

Hawaiian Electric's current plan for achieving Hawai'i's 100% renewable energy goal includes power generation from the rooftop of nearly every home across the islands. Over 96,900 homes on O'ahu, Maui, and Hawai'i island¹ and 6,000 homes on Kauai² have already installed rooftop solar. Residential rooftop solar is a proven tool to help homeowners and renters save money and reduces the need for utility investments in the power grid. When paired with batteries, rooftop solar panels can also increase resiliency in neighborhoods, helping homes keep the lights on and communication powered during a blackout.

Blue Planet supports HB 949 to expand Hawai'i's existing solar energy loan program to battery storage systems to help remove barriers for ALICE households to adopt clean energy solutions. By reducing imports of fossil fuel, decreasing monthly utility bills, and reducing carbon

¹ "Cumulative Installed PV - As of December 2022" *Hawaiian Electric Company*. Accessed February 27, 2023. (https://www.hawaiianelectric.com/documents/clean_energy_hawaii/clean_energy_facts/pv_summary_4Q_2022.pdf)

² Per KIUC testimony on SB 781, page 12 see: https://www.capitol.hawaii.gov/sessions/session2023/Testimony/SB781_TESTIMONY_EET-GVO_02-09-23_.PDF

emissions, HB 949 is a smart policy response for Hawai'i's future. Thank you for the opportunity to provide testimony in support of this measure.



Hawaii Solar Energy Association
Serving Hawaii Since 1977

Testimony of The Hawaii Solar Energy Association (HSEA) Regarding HB949 HD2, Relating to Renewable Energy, Before the Senate Committee on Ways and Means

Tuesday, April 4, 2023

Aloha Chair Dela Cruz, Vice Chair Keith-Agaran, and committee members:

The Hawaii Solar Energy Association (HSEA) **strongly supports HB949 HD2**, which establishes a solar energy storage loan program and a renewable energy loan program to provide asset limited, income constrained, employed households with low-interest loans to purchase and install residential photovoltaic and energy storage systems.

HSEA members include the majority of locally owned and operated renewable energy companies doing business in the State and leading global cleantech manufacturers and service providers that invest and sell in our market. We employ thousands of residents in diverse green economy jobs that innovate, design, and build our path to a renewable energy future. We advocate for policies that help Hawaii achieve critical climate and resilience goals by enabling residents and businesses to invest in and benefit from the transition to clean energy. These investments provide resilient power that reduces energy burden for all and contributes to energy security and reliability as we decarbonize our economy and electric grid.

HSEA and its members are actively engaged in efforts to remove barriers and increase access to affordable renewable energy. This bill would create a powerful tool to extend the benefits of distributed, rooftop solar and energy storage to underserved market segments and frontline communities, and greatly enhance Hawaii's resilience, sustainability, and equity as we decarbonize our economy and transition to clean energy. Should the measure advance, we also urge the committee to assure that the program is sufficiently funded in its budget appropriation to the Hawaii Green Infrastructure Authority.

HSEA **strongly supports HB949 HD2** and urges the committee to move this measure forward.

Thank you for the opportunity to testify.

Respectfully,

/s/ Rocky Mould

HB-949-HD-2

Submitted on: 3/31/2023 11:54:11 AM

Testimony for WAM on 4/4/2023 10:30:00 AM

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

Comments:

Dear Chair Dela Cruz, Vice Chair Keith-Agaran, and Committee members,

I'm in STRONG SUPPORT of HB949 HD2.

Sincerely,

Noel Morin

Climate, Sustainability, and Resilience Advocate

Hilo

HB-949-HD-2

Submitted on: 3/31/2023 12:20:31 PM

Testimony for WAM on 4/4/2023 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Cards Pintor	Individual	Support	Written Testimony Only

Comments:

Aloha,
I support this bill.
Mahalo nui,
Cards Pintor

HB-949-HD-2

Submitted on: 3/31/2023 12:59:51 PM

Testimony for WAM on 4/4/2023 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Douglas Perrine	Individual	Support	Written Testimony Only

Comments:

I support HB949, not only to benefit the low-income families who will be able to use these loans to lower their electric bills by installing pv + battery systems, but to benefit all Hawaii residents, as we all benefit from every addition of non-polluting power generation through better air quality and lowered climate risk.

HB-949-HD-2

Submitted on: 3/31/2023 3:48:55 PM

Testimony for WAM on 4/4/2023 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Lisa Diaz	Individual	Support	Written Testimony Only

Comments:

Aloha WAM Committee members:

Aloha EEP Chair Lowen, & EEP Committee members:

I support HB 949: RELATING TO RENEWABLE ENERGY. Establishes and appropriates funds for a solar energy storage system loan program to provide asset limited, income constrained, employed households with low-interest loans to purchase and install solar energy storage systems. Establishes and appropriates funds for a renewable energy system installation loan program to provide asset limited, income constrained, employed households with low-interest loans to purchase and install residential photovoltaic and energy storage systems, including battery storage systems.

Mahalo with Aloha,

Lisa Diaz, 76-223 Haoa St.; Kailua-Kona, HI 96740

scidiaz@gmail.com

HB-949-HD-2

Submitted on: 4/1/2023 11:43:25 AM

Testimony for WAM on 4/4/2023 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Helen Cox	Individual	Support	Written Testimony Only

Comments:

Aloha Committee Chair and Members,

Please pass HB949, a loan program for low-income residents to purchase photovoltaic systems and energy storage. We all know we must make the transition away from fossil fuels, but that transition cannot be successful unless it is also equitable. This bill will enable employed low income residents to purchase solar systems and battery storage. As renewable energy becomes less expensive this will not only help with the needed transition away from fossil fuels, it will also save these residents money. As an owner of a photovoltaic system, battery storage, EV, and EV charger, I am well aware of the convenience and the savings that this allows. However, we also recognize that not all residents are in the position to move in these directions. Please assist the state to make an equitable and necessary transition to renewable energy. Mahalo!

Helen Cox

Kalaheo

HB-949-HD-2

Submitted on: 4/1/2023 2:01:00 PM

Testimony for WAM on 4/4/2023 10:30:00 AM

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

Comments:

HB949 is one of the best bills for promoting the advantages of solar energy for working, low and moderate income Hawaiians. Solar energy storage is the answer to firm energy, especially in Hawaii. Please support HB949!

HB-949-HD-2

Submitted on: 4/2/2023 7:18:17 AM

Testimony for WAM on 4/4/2023 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Virginia Tincher	Individual	Support	Written Testimony Only

Comments:

Members of the Ways and Means Committee,

I strongly support HB949 HD2 because it will

- - Aid the state in its transition to clean energy
 - Solidify the commitment to this transition by making solar and energy storage systems affordable and accessible for those in the ALICE (Asset Limited, Income Constrained, Employed) population.
 - Without this programs, capital constrained households will be unable to switch to lower, cleaner sources of electricity.
 - As solar energy is currently about one-half the cost of oil-fired electricity, this population would directly benefit from a program that helps them overcome financial challenges such as high electricity costs and inflation

Mahalo for this opportunity to testify.

Virginia Tincher

Aina Haina, Oahu

HB-949-HD-2

Submitted on: 4/2/2023 8:37:59 AM

Testimony for WAM on 4/4/2023 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Melissa Barker	Individual	Support	Written Testimony Only

Comments:

Honorable Members,

I respectfully ask that you support HB949-HD2 which aids in the state's transition to clean energy.

Thank you for your attention and courtesy.

Melissa Barker

Kapaa, HI

HB-949-HD-2

Submitted on: 4/2/2023 12:21:52 PM

Testimony for WAM on 4/4/2023 10:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Barbara Best	Individual	Support	Written Testimony Only

Comments:

This bill is needed so that everyone regardless of income, if employed, will have access to solar energy, since we need to move to renewables in order to phase out fossil fuels.

HB-949-HD-2

Submitted on: 4/3/2023 9:31:06 AM

Testimony for WAM on 4/4/2023 10:30:00 AM

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

Comments:

Aloha Chair Dela Cruz and members of the Ways and Means Committee,

re: strong support for HB949

The need for expanded access for ALICE households will be addressed by this bill and by doing so benefit all Hawaii's residents.

Thank you for your consideration, Ron Reilly, Volcano Village

LATE

SENATE COMMITTEE ON WAYS AND MEANS

TESTIMONY IN SUPPORT OF HB 949 HD2

April 4th 2023

Dear Chair Cruz, Vice Chair Keith-Agaran, and Members of the Committee,

My name is Olivia Cropper and I'm currently a student at Hawai'i Pacific University studying environmental studies. I want to voice my **support for HB949 HD2** which establishes funds for a solar energy storage system loan program to provide asset-limited, income-constrained, employed households with low-interest loans to purchase and install solar energy storage systems. As we take steps towards reaching the goal of 100 percent clean energy by 2045, it's important that we provide viable options for citizens to do the same. By supporting clean energy initiatives, we lift up the importance of switching to renewable energy sources. As a leader in the world for environmental protection, it is important that support bills that allow us to not only reach our goals but set an example.

By taking this step we allow households access to, not just clean energy, but more affordable energy which would be a great financial burden lifted off their shoulders. Solar energy is half the cost of oil-produced electricity and finding ways to lower the cost of living in one of the most expensive states is extremely important to keeping a thriving and productive population. Furthermore, we have a duty to future generations to support policies that allow them the resources and environment we are able to enjoy today. By furthering and expanding our individual capacity for solar production, we decrease the number of households dependent on petroleum for electricity. It is clear that it is both an unsustainable and environmentally damaging source of energy that we cannot continue to rely on. The reduced CO² emissions are a huge benefit of solar energy and through the diversification of our energy portfolio, we can make cuts that bring us closer to our 2045 goal.

With so many families in Hawai'i struggling to make ends meet, it is unlikely that they would be able to make this transition to solar on their own. By providing programs, low-interest loans, and supplements, the switch becomes much more plausible and likely. Not only does this allow homeowners and renters to save money, but it reduces the need for utility investment around the city. **I strongly support HB949 HD2** and urge the committee to move forward with this measure.

Thank you for the opportunity to testify,

Olivia Cropper