

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

**JOSH GREEN, M.D.**  
GOVERNOR

**SYLVIA LUKE**  
LT. GOVERNOR

**JAMES KUNANE TOKIOKA**  
DIRECTOR

**DANE K. WICKER**  
DEPUTY DIRECTOR

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813  
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804  
Web site: [dbedt.hawaii.gov](http://dbedt.hawaii.gov)

Telephone: (808) 586-2355  
Fax: (808) 586-2377

DTS: 202412171013NA

December 18, 2024

The Honorable Ronald D. Kouchi,  
President and Members  
of the Senate  
Thirty-Third State Legislature  
State Capitol, Room 409  
Honolulu, Hawaii 96813

The Honorable Nadine K. Nakamura,  
Speaker and Members of the  
House of Representatives  
Thirty-Third State Legislature  
State Capitol, Room 431  
Honolulu, Hawaii 96813

Dear President Kouchi, Speaker Nakamura, and Members of the Legislature:

For your information and consideration, I am transmitting a copy of the Hawaii Green Infrastructure Authority's Annual Report for the year 2024, as required by Act 211 Session Laws of Hawaii 2013 and Act 107, Session Laws of Hawaii 2021.

In accordance with Section 93-16, Hawaii Revised Statutes, I am also informing you that the report may be viewed electronically at:

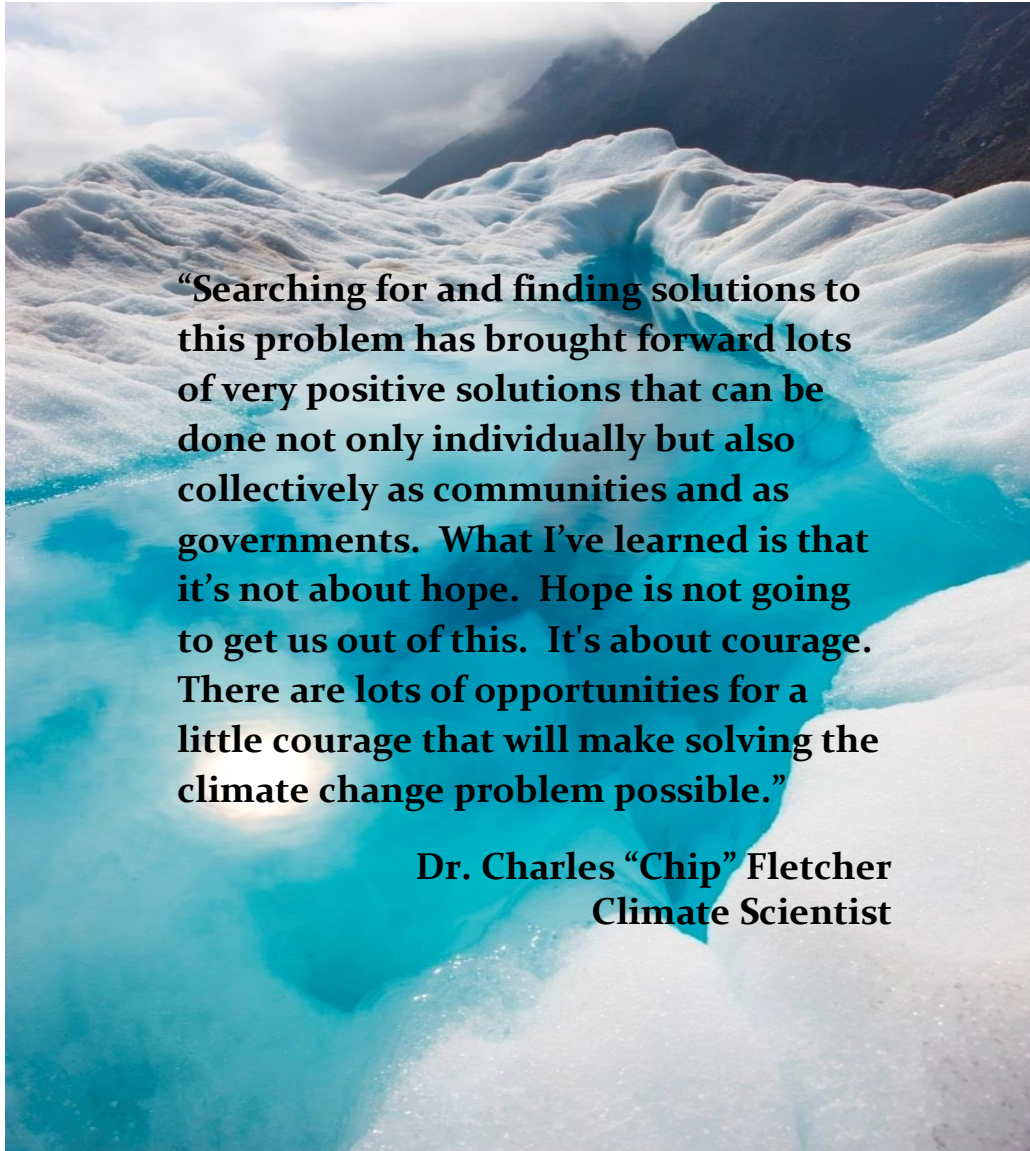
<http://dbedt.hawaii.gov/overview/annual-reports-reports-to-the-legislature/>.

Sincerely,

James Kunane Tokioka  
DBEDT Director

Enclosure

c: Legislative Reference Bureau



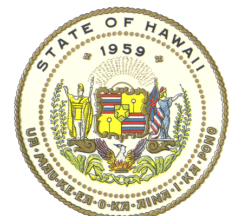
**“Searching for and finding solutions to this problem has brought forward lots of very positive solutions that can be done not only individually but also collectively as communities and as governments. What I’ve learned is that it’s not about hope. Hope is not going to get us out of this. It’s about courage. There are lots of opportunities for a little courage that will make solving the climate change problem possible.”**

**Dr. Charles “Chip” Fletcher  
Climate Scientist**

# 2024 Annual Report to the Governor and Legislature

HAWAI‘I GREEN INFRASTRUCTURE AUTHORITY

Department of Business, Economic Development & Tourism  
Pursuant to Act 211, SLH 2013 and Act 107, SLH 2021



# Table of Contents











Impacts .....	2
Reporting Requirements .....	3
Legislative Authorization .....	3
Hawai‘i Public Utilities Commission .....	4
Hawai‘i Green Infrastructure Authority .....	5
2024 Activities .....	7
Green Energy Money saver ON-Bill Financing .....	7
Equitable Clean water .....	7
Solar for all grant .....	8
C-PACER & Solar Hui Programs .....	8
HI-CAP Financing programs .....	9
Climate Advisory Team .....	10
Future Outlook .....	11
Loan capital for underserved ratepayers .....	11
Equitable clean water .....	11
Solar for ALL – HI (SFA-HI) Program .....	11
HI C-PACER Financing Program .....	12
Solar Hui Fund .....	13
Hawai‘i Green Infrastructure Authority Board .....	14

# Impacts<sup>1</sup>



## Hawaii Green Infrastructure Authority

As of September 30, 2024

 <p><b>\$15.9 Million</b> Cumulative Excess Revenue over Expenses prior to \$20.8 million transferred to PUC</p>	<p><b>\$341.5 Million</b> <b>Economic Multiplier Impact</b></p> 	<p><b>1,069,338,924</b> <b>kWh</b></p> 
<p><b>\$19.7 Million</b></p>  <p>Hawaii State Tax Revenue Generated</p>		<p>Estimated kWh Produced/Reduced over Lifetime</p>
 <p><b>321,663</b> <b>Estimated Metric Tons of CO2</b> Total Greenhouse Gas Avoided over Lifetime</p>	<p><b>656,607</b> <b>Barrels</b></p>  <p>Estimated Total Petroleum Displaced Over Lifetime</p>	
 <p><b>1,617</b> <b>Jobs Created or Retained</b></p>	 <p><b>88%</b> <b>Underserved Residential Households Served</b></p>	
 <p><b>SSBCI HI-CAP Collateral Support &amp; Loans Programs</b></p> <p>\$4.1 million in Federal SSBCI Funds have caused <b>\$20.0 million in loans</b> and credit facilities for eligible small businesses and nonprofits.</p>		

<sup>1</sup> Impacts are reported since inception. Cumulative excess revenues over expenses are before some \$20.8 million in “expenditures” for loan repayments transferred to the Public Utilities Commission’s Special Fund.

## Reporting Requirements

This document fulfills the statutory requirement to report on the status of the Authority's activities, including approved loan program description and uses; information and data on the implementation of its various financing programs to bridge the access to capital gap for underserved ratepayers, small businesses and nonprofits. The Authority respectfully submits this status report outlining the activities to further design, develop and deploy Green Energy Market Securitization ("GEMS") and other capital in 2024 as well as plans for 2025.

## Legislative Authorization

On April 30, 2013, the Legislature enacted, and on June 27, 2013, the Governor signed into law, Act 211 (SLH 2013), authorizing the establishment of a green infrastructure financing program, known as GEMS to deploy clean energy infrastructure to contribute towards Hawai'i's aggressive pursuit of its statutory 100% clean energy goals by 2045 while helping ratepayers lower their energy costs.

Act 211 also established a legal structure that enabled the Department of Business, Economic Development & Tourism ("DBEDT") to issue Green Energy Market Securitization bonds to capitalize the green infrastructure loan fund, leveraging public and private capital, to facilitate opportunities for underserved ratepayers to invest in and lower their energy burden from green infrastructure investments. The GEMS bonds are not an obligation of the State of Hawai'i. Its sole obligor are the ratepayers of the Hawaiian Electric Companies' through a non-by-passable Green Infrastructure Fee on ratepayers' utility bills.

Key objectives of the GEMS program are to:

1. Address financing market barriers to increase the installation of clean energy projects and infrastructure to meet the State's clean energy goals, including the RPS and EEPS;
2. Democratize clean energy by expanding access and affordability of renewable energy and energy efficiency projects for identified underserved markets, while expanding the market generally;
3. Enable more ratepayers to reduce their energy use and energy costs by helping them finance clean energy improvements;
4. Partner with and support existing market entities in the clean energy and financing sector to ensure GEMS can bridge market gaps and facilitate a sustainable and efficient private sector market; and



5. Balance the aforementioned goals and objectives with repayment risk to achieve an appropriate rate of return and build a sustainable financing program.

Act 121, SLH 2018 created a \$50.0 million energy efficiency revolving loan fund for state departments and agencies to Lead by Example and lower their energy costs.

The passage of Act 107, SLH 2021, established the Clean Energy and Energy Efficiency Loan fund, enabling HGIA to source additional loan funds from federal, state, local, and non-governmental resources. It also provided HGIA the ability to implement financing programs on behalf of sister agencies and departments through Memorandums of Agreements (MOA). On November 30, 2022, HGIA executed an MOA with the Hawai'i Technology Development Corporation to design, implement and administer three credit related programs, which will be funded with some \$40.0 million in Federal funds, under the State Small Business Credit Initiative. The HI-CAP Collateral, CDFI and Loans programs are designed to expand access to capital to eligible small businesses and nonprofits statewide.

Act 40, SLH 2024 established a Solar Hui Investment program to be administered by HGIA allowing multifamily property owners, including condominium owners to co-invest in solar + storage systems installed on ALICE rooftops through an energy services agreement.

Act 41, SLH 2024, modified Act 183, SLH 2022, by elevating the commercial property assessed financing program, also known as Commercial Property Assessed Clean Energy and Resiliency (C-PACER) to a state-level program and provided HGIA the authority to assess, collect and enforce financing assessments for C-PACER financed projects statewide. The HI C-PACER Financing Program launched on July 1, 2024.

## Hawai'i Public Utilities Commission

To effectuate Act 211, the GEMS financing program required Hawai'i Public Utilities Commission ("Commission" or "PUC") approval of its Financing Order and Program Order Applications. The PUC approved the GEMS [Bond] Financing Order on September 4, 2014, and the GEMS [Loan] Program Order on September 30, 2014.

The regulatory Orders approved by the Commission established the general parameters and program processes for GEMS. With feedback and support from several interveners - including but not limited to the Consumer Advocate and the

Hawai'i Solar Energy Association, the PUC granted GEMS the flexibility to work with the market to provide financing programs to enable more of Hawai'i's consumers to invest in and benefit from clean energy.

Pursuant to HRS 269-162, the Financing Order provided regulatory approval for the issuance of low-cost Green Infrastructure Bonds (GEMS Bonds) to capitalize the GEMS Loan Fund. Pursuant to HRS 269-170, the Program Order provided approval for the deployment of funds from the issuance of the GEMS Bonds. Included in the Program Order were general program parameters and specific deployment strategies, outlining a clean energy financing program that was best thought to serve Hawai'i's consumers at that time.

On October 26, 2017, the Hawai'i Public Utilities Commission issued Order No. 34930 ("Order") to change the priority of uses of GEMS Program Loan Repayments. This Order amended the order of loan repayments received to be applied first towards the replenishment of the Public Benefits Fee before the payment of program administrative costs. This Order resulted in the conversion of a sustainable financing program (Key Objective No. 5 above) to a non-sustainable financing program. As of this report date, the Authority has transferred over \$20.8 million to the PUC.

## Hawai'i Green Infrastructure Authority

The Authority, Hawai'i's Green Bank, was constituted in November 2014 to democratize clean energy by making clean energy improvements affordable and accessible to a broader cross-section of Hawai'i's ratepayers to lower the energy burden of underserved ratepayers while advancing the State's goal of achieving 100 percent renewable portfolio standard in the electricity sector by 2045.

HGIA's loan fund was capitalized with the \$146.0 million net proceeds of a \$150.0 million Green Energy Market Securitization ("GEMS") Bond issued in November 2014. The Authority began accepting loan applications in July 2015.

Working in concert with the Hawai'i Public Utilities Commission ("PUC") and the Hawaiian Electric Company, Inc., HGIA is also responsible for the administration and oversight of the \$150.0 million Green Energy Market Securitization Bonds.

HGIA is overseen by a five-person board of directors and is administratively attached to the Department of Business, Economic Development & Tourism. The Authority is tasked with administering and governing its financing Programs, while ensuring that capital is deployed effectively to achieve program objectives.

In April 2019, along with then Governor Ige, the Hawai'i Public Utilities Commission, and the Hawaiian Electric Company, Inc., the Authority announced the official launch of its Green Energy Money saver On-Bill Financing Program, with a risk mitigating loan repayment mechanism tied to the utility meter and paid through the Hawaiian Electric Companies' electric utility bill. This game-changing repayment mechanism enabled the Authority to abandon traditional credit underwriting and instead offer a more inclusive, non-traditional financing program that better serve disadvantaged communities and other underserved ratepayers.

With the GEMs on-bill repayment mechanism, the Authority strengthened its commitment to underserved ratepayers during its August 15, 2019, meeting by limiting the use of all remaining GEMs loan capital to only LMI<sup>2</sup> homeowners and renters, nonprofits, small businesses<sup>3</sup> and multi-family rental projects.

The Authority's inclusive financing program provides low-cost, long-term, flexible financing to Hawai'i's most vulnerable ratepayers, enabling said ratepayers to realize monthly energy cost savings while transitioning to clean energy.

The Authority also offers financing to state departments ("Departments") to lower its energy costs by installing energy efficiency retrofits or by exercising its purchase options in existing solar PV Power Purchase Agreements. At the Department's option, it may utilize this newfound cash flow to finance the installation of electric vehicle ("EV") charging stations or EVs.

During the summer of 2022, the Authority launched its HI-CAP Collateral Support, Loans and CDFI Loan Pool programs. These programs are designed to bridge the access to capital gap for small businesses, very small businesses, and nonprofits statewide. The HI-CAP Loans program is also designed to help kick-start catalytic projects for the state.

In addition to lowering the energy burden for our most vulnerable ratepayers, contributing to the State's clean energy impacts, and stimulating private capital to support ALICE households, nonprofits and small businesses, HGIA's financing programs also leverages innovative tools to mitigate risks and reach new markets, creates jobs, generates state tax revenue and provides other economic development benefits.

---

<sup>2</sup> Low and moderate income households are based on the U.S. Department of Housing and Urban Development's Area Median Income metrics.

<sup>3</sup> Small businesses are determined by the U.S. Small Business Administration's size standards.



## 2024 Activities

### GREEN ENERGY MONEY SAVER ON-BILL FINANCING

As a clean energy financing authority, HGIA originates, underwrites, processes, documents, funds and services residential and commercial loans for underserved ratepayers. Leveraging its Green Energy Money Saver On-Bill Program, HGIA provides inclusive financing for underserved ratepayers (through loans and power purchase agreements for residential and commercial ratepayers) by applying non-traditional underwriting to expand access to rate payers who typically may not qualify for bank or credit union financing, while mitigating lender risk. Please refer to the Infographics with the Authority's Impacts as of September 30, 2024.

### EQUITABLE CLEAN WATER

On April 10, 2024, the Coalition for Green Capital, in partnership with Quantified Ventures and with funding support from the Robert Wood Johnson Foundation, announced that HGIA, along with five other Green Banks in Connecticut, D.C., Arizona, Missouri and Florida, were selected to receive \$1.3 million in awards and technical assistance to finance equitable clean water infrastructure. One may wonder why HGIA was awarded this Technical Assistance grant. It is because there is a nexus between equitable water and a reduction in greenhouse gas emissions.

Over the past seven months, HGIA has had the opportunity to work with water experts seeking to solve water related challenges while reducing greenhouse gas emissions. While there is no question that Hawai'i is beautiful, our state also has a lot of "insecurities," such as:

- Energy insecurity;
- Food insecurity; and now even
- Water insecurity.

As part of this initiative, HGIA took a deeper dive to explore opportunities in onsite water reuse and found that potential inequities may exist due to the upfront additional costs in design and technology, as well as a longer approval process, that is likely to result in only luxury condominium owners benefitting from lower water and sewer bills over the long-term, while owners and tenants in affordable projects, may end up paying higher water and sewer bills in the future.

Hawai'i has an opportunity to significantly scale up water reuse at the building level, which is critical because the development of new housing and other projects

puts pressure on our [scarce] existing water and sewer resources, often limiting the development of much needed housing stock.

As a capstone and to increase visibility and engagement, HGIA hosted a Water Re-Use Workshop on December 12, 2024 at the Entrepreneur's Sandbox, to help participants learn about (1) a forward-looking developer's journey to incorporate water reuse in two new projects (one luxury and the other affordable) that will save an estimated 19.0 million gallons of water annually; (2) regulatory approvals needed; (3) technologies available; (4) increase visibility and engagement from private, public and nonprofit sectors; and (5) gather feedback from attendees on a strawman financing product with the goal of co-creating a financing program to facilitate more water conservation on new developments throughout Hawai'i.

Additionally, it is important for the state and county to also start thinking about and planning for water reuse retrofits, in order to be in compliance with Act 170, SLH 2016, which requires the utilization of reclaimed water for uses other than drinking and for potable water needs in 100% of state and county facilities by December 31, 2045.



Alana Kobayashi Pakkala, CEO, Kobayashi Group presenting; Joanna Seto & Jonathan Nagato, Department of Health; Shalini Vajjhala, Executive Director, PRE-Collective

### SOLAR FOR ALL GRANT

On Earth Day, April 22, 2024, the EPA announced a \$62.45 million Solar for All award for HGIA. On December 16, 2024, HGIA received its amended Award, Terms and Conditions and is now able to draw down the funds.

### C-PACER & SOLAR HUI PROGRAMS

On May 30, 2024, Governor Green signed Acts 40 and Act 41, SLH 2024 into law.



From left to right: Andy Kawano (City Budget Director); Karen Lee (City Corporation Counsel); Kihe (HGIA); Yamamoto Lau (HGIA); Rocky Mould (HSEA); Speaker Scott Saiki; Councilmember Matt Weyer; Murray Clay (Ulupono Initiative); Governor Green; Josh Wisch (Holomua Collective); Senator Jarrett Keohokalole; Damien Kim (IBEW 1186); Nonie Toledo (Toledo & Associates); Chris Benjamin (Climate Hawai'i)

On July 1, 2024, HGIA launched the Hawai'i Commercial Property Assessed Clean Energy and Resiliency (HI C-PACER) Financing Program under Act 41, SLH 2024. With thirteen Capital Providers registered, the program will provide financing for qualifying improvements including cesspool conversions, clean energy technology, water conservation, energy efficiency and resiliency measures to commercial, multi-family, non-profit, or condominium associations.

HGIA began laying the foundation for the Solar Hui Fund mandated by Act 40, SLH 2024, by working on program due diligence. It will be filling the Investment Fund Manager position on January 2, 2025 to accelerate the design and implementation of the program with a launch date expected in 4Q2025.

### HI-CAP FINANCING PROGRAMS

Under its HI-CAP Collateral Support Program, HGIA works with participating lenders to bridge the access to capital gap and encourage lenders to finance eligible nonprofits and small businesses by providing credit enhancement to mitigate risk.

The HI-CAP CDFI Loan program was designed to increase capacity for non-depository Community Development Financial Institutions (CDFI). HGIA provides low-cost, reliable loan capital to CDFIs to relend to their borrowers, which are typically micro and small minority businesses.



In September 2024, United States Treasurer, Chief Lynn Malerba and her aides visited C&C Tropicals and Big Island Moonbow Farms, two native Hawaiian businesses that received HI-CAP financing.



*Right to Left: Shane Castillo, C & C Tropicals owner, with Treasury Officials: Treasurer Chief Lynn Malerba, Fatima Abbas, and Emery Real Bird. (courtesy HTDC / HGIA news release)*

C & C Tropicals recently acquired another company. Its success story is shared in this reel: [https://gems.hawaii.gov/wp-content/uploads/2024/07/HI-CAP-CDFI-Program\\_CC-Tropical.mov](https://gems.hawaii.gov/wp-content/uploads/2024/07/HI-CAP-CDFI-Program_CC-Tropical.mov).

### CLIMATE ADVISORY TEAM

In response to the Maui wildfires, the State of Hawai‘i took a multifaceted approach to develop a solution. While addressing the immediate recovery needs, litigation settlement, and the efforts to rebuild, Governor Josh Green also recognized that the State’s response must include a forward-looking agenda to proactively mitigate the unmanageable costs and potential devastation of future climate-related disasters. This is the goal of Governor Green’s Climate Advisory Team (CAT): to design climate disaster mitigation and recovery frameworks and recommend policies for implementation.

The CAT is charged with developing policy recommendations to minimize the impacts of future climate-related natural disasters and to speed recovery from the physical and financial damage they cause.

HGIA's Executive Director was appointed to the CAT, under the leadership of Chris Benjamin, retired Alexander & Baldwin CEO, in August 2024. Through its efforts, the CAT has interviewed over 60 stakeholders statewide and is in the process of finalizing a White Paper to inform the Governor and policymakers of its findings.

## Future Outlook

November 2024 made a decade of service for the Hawai'i Green Infrastructure Authority. Since its somewhat rocky beginning as a de novo Green Bank, the Authority has expanded its scope to also include addressing access to capital challenges in arenas outside of clean energy. 2025 looks to be another busy and exciting year administrating existing programs and implementing new ones.

### LOAN CAPITAL FOR UNDERSERVED RATEPAYERS

With over 1,600 applications in process from low and moderate-income homeowners and renters, on November 30, 2024, HGIA placed a moratorium on the acceptance of new applications to provide the Authority's [small] staff to work through the backlog and determine how much, if any, GEMS and General Funds remains available.

The Authority is also working with developers to launch a new loan portal, to better leverage technology and increase efficiencies. HGIA plans to begin accepting new applications when the new loan portal is ready for launch in 2025.

### EQUITABLE CLEAN WATER

Based on the overwhelming interest and engagement from private, government and nonprofit stakeholders, HGIA will continue to collaborate with regulators, developers, and county water and wastewater agencies to explore innovative advances to scale onsite water reuse in Hawai'i.

### SOLAR FOR ALL – HI (SFA-HI) PROGRAM

HGIA will be receiving \$64.0 million from the US Environmental Protection Agency under its Solar for All Program in early 2025, which will allow the Agency to continue its clean energy financing program.

However, eligibility for the SFA-HI program will be restricted to:

1. Low and moderate-income households in eligible CEJST-Identified Census Tracts: [Explore the map - Climate & Economic Justice Screening Tool](#);
2. Low and moderate-income households in eligible EPA EJScreen: [EJScreen](#);
3. Individuals currently approved for assistance from or participation in at least one of the following income based or income-verified federal assistance programs, with an award letter within the last 12 months:
  - a. US Department of Health and Human Services Low Income Home Energy Assistance Program: [Low Income Home Energy Assistance Program \(LIHEAP\) | The Administration for Children and Families](#)
  - b. US Department of Agriculture Supplemental Nutrition Assistance Program: <https://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program>
  - c. US Department of Energy Weatherization Assistance Program: [Weatherization Assistance Program | Department of Energy](#)
  - d. Federal Communications Commission's Lifeline Support for Affordable Communities: [Lifeline Support for Affordable Communications | Federal Communications Commission](#)
  - e. USDA's National School Lunch Program: [National School Lunch Program | Food and Nutrition Service](#)
  - f. US Social Security Administration's Supplemental Security Income: [Supplemental Security Income \(SSI\) | SSA](#)
4. Low-income housing tax credits and other subsidized rental projects; and
5. Community solar projects

SFA-HI will also be providing technical assistance in the form of Solar Playbooks to low-income households and disadvantaged communities in collaboration with the Hawai'i State Energy Office's Wayfinders.

Unfortunately, however, except for specific census tracts, SFA-HI will not be available to assist moderate-income households lower their energy burden.

### HI C-PACER FINANCING PROGRAM

With thirteen qualified C-PACER capital providers, HGIA is looking forward to facilitating the financing of eligible C-PACER projects in 2025.

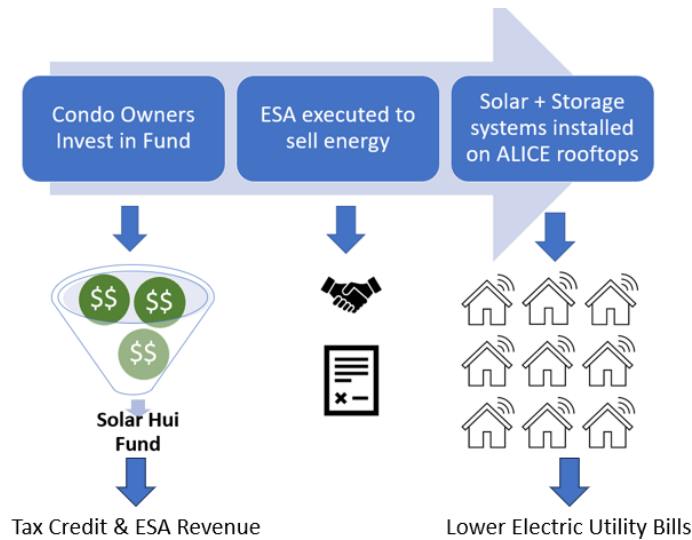
However, while Hawai'i expanded its C-PACER statute to include condominium associations during the year, even C-PACE capital providers are finding it challenging to finance condominium associations with significant deferred maintenance and other risks. If provided loan capital, HGIA will be able to



provide said condos with low-cost, long-term financing, allowing associations to complete necessary upgrades to become insurable (or lower their insurance costs), while setting aside funds to re-build its reserve balances.

### SOLAR HUI FUND

With HGIA’s Investment Fund Manager joining the team in January 2025, the Authority will work on completing due diligence and program design, creating program documents and launching the Solar Hui program during 4Q2025, which will provide condo owners locked out of solar to participate while lowering the energy burden for ALICE rooftops.



As a public financing agency, HGIA has expanded its role from a singular focus on clean energy financing, to also meeting financing gaps in the market for small businesses, nonprofits and commercial property owners. Leveraging scarce public funds with private capital, and re-investing that same public dollar over and over, provides exponentially greater economic development and environmental impacts for Hawai'i.

The Authority is appreciative of the Governor and Legislature’s support and guidance and looks forward to another productive legislative session.

## Hawai'i Green Infrastructure Authority Board



James Kunane Tokioka  
Chair



Dennis Wong  
Vice Chair



Mark Glick  
Secretary



Luis Salaveria  
Member



Richard Wallsgrove  
Member