



Hawaii Green
Infrastructure Authority

Residential Loan Programs

May 2025

HGIA – Hawai'i's Green Bank

- State Agency constituted in 2014 (2013 Leg Session, Act 211)
 - Attached to the Department of Business, Economic Development & Tourism
 - Mission: Making green energy accessible and affordable for Hawai'i
- Administers the **Green Energy Money \$aver (GEM\$)** Program
 - Approved in 2019, exclusively available for underserved markets
 - HGIA-exclusive financing for underserved homeowners, including renters; available in multiple modalities (purchase and energy service agreement)
 - Energy improvements (solar PV, solar water heaters, commercial energy efficiency, etc.) at below-market, long-term, fixed rates
- Also administers **HI-CAP Loans, HI-CAP Collateral** and **Commercial Property Assessed Clean Energy & Resiliency (C-PACER)**

What's Unique About HGIA Loans?

- **Eliminates credit barriers** – No conventional loan underwriting for residential customers

	Residential
Credit Reports	Not required, unless landlord/tenant
Financial Statements	Not required, unless landlord/tenant
Debt-To-Income Ratios	Not required

- **Underwriting based on estimated electric utility bill savings** (minimum of 5-15% based on number of disconnections)
- **Obligation tied to the utility meter** (allows for transfer from ratepayer to ratepayer)
 - Enables renters to benefit from solar
- **Payments conveniently made via monthly electric utility bill**

How does GEM\$ work?

GEM\$-On Bill Repayment Program

- No credit evaluation required: Not a loan
- Oversized systems NOT allowed
- Obligation tied to the utility meter (not a person)
- 5-15% immediate bill savings required (depending on disconnection notices)
- Payments conveniently made on your monthly electric utility bill

Third Party Owned Systems

- Landlords/Investors are considered “Borrowers” and undergo traditional underwriting and loan execution
- GEM\$ allows a homeowner assume debt to purchase the system, maximizing utility savings

Benefits:

- ✓ **Fixed Interest Rates Encourage leveraging GEMS funds with bank financing**
- ✓ **Up to 100% Financing – No Money Down**
- ✓ **Up to 25-Year Terms**
- ✓ **No Prepayment Penalties**

GEM\$ Applications Process

Contractor Approved by HGIA

STEP 1: PARTICIPANT ELIGIBILITY

- Based on utility bill payment history
- <140% Area Median Income

STEP 2: PROJECT ELIGIBILITY

- Energy Improvement (EI) must be on the Approved EI List
- Post-installation, the EI must provide a minimum 5 to 15% estimated utility bill savings

STEP 3: Execute Program Documents

Notice to Proceed Letter

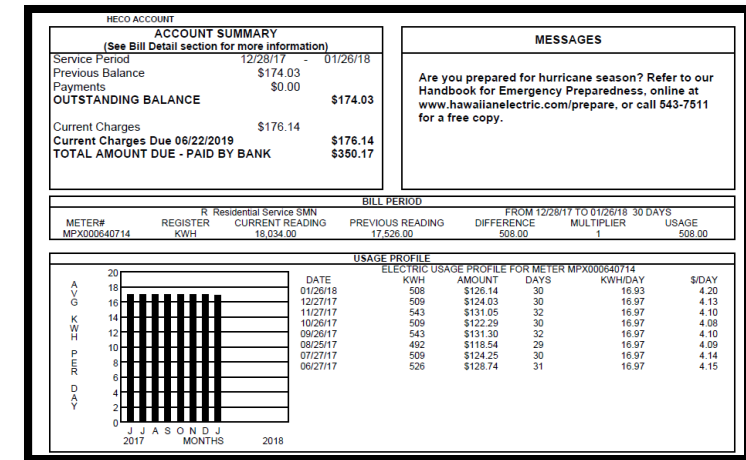
BEGIN INSTALLATION

**STEP 1 APPROVAL:
IS MY CUSTOMER
ELIGIBLE FOR
GEMS?**

Requirements

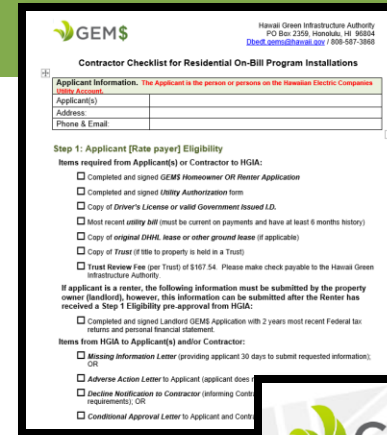
- Low and moderate income: less than 140% of HHFDC's Area Median Income
 - Estimated post-installation utility bill must meet required minimum savings determined by the number of disconnection notices
 - Estimated with 12 months of historical data
 - Applicants with at least 6 months of historical data may be accepted
- *It takes approximately 4 weeks to receive necessary utility documents.

		LIMITS BY FAMILY SIZE							
MEDIAN \$129,300		1 PERSON	2 PERSON	3 PERSON	4 PERSON	5 PERSON	6 PERSON	7 PERSON	8 PERSON
Adjustments for family size		0.7000	0.8000	0.9000	1.0000	1.0800	1.1600	1.2400	1.3200
% of Income	10%	\$10,640	\$12,160	\$13,680	\$15,200	\$16,420	\$17,640	\$18,850	\$20,070
	20%	\$21,280	\$24,320	\$27,360	\$30,400	\$32,840	\$35,280	\$37,700	\$40,140
	30%	\$31,920	\$36,480	\$41,040	\$45,600	\$49,260	\$52,920	\$56,550	\$60,210
	40%	\$42,560	\$48,640	\$54,720	\$60,800	\$65,680	\$70,560	\$75,400	\$80,280
	50%	\$53,200	\$60,800	\$68,400	\$76,000	\$82,100	\$88,200	\$94,250	\$100,350
	60%	\$63,840	\$72,960	\$82,080	\$91,200	\$98,520	\$105,840	\$113,100	\$120,420
	70%	\$74,480	\$85,120	\$95,760	\$106,400	\$114,940	\$123,480	\$131,950	\$140,490
	80%	\$85,120	\$97,280	\$109,440	\$121,600	\$131,360	\$141,120	\$150,880	\$160,560
	90%	\$95,760	\$109,440	\$123,120	\$136,800	\$147,780	\$158,760	\$169,650	\$180,630
	100%	\$106,400	\$121,600	\$136,800	\$152,000	\$164,200	\$176,400	\$188,500	\$200,700
	110%	\$117,040	\$133,760	\$150,480	\$167,200	\$180,620	\$194,040	\$207,350	\$220,770
	120%	\$127,680	\$145,920	\$164,160	\$182,400	\$197,040	\$211,680	\$226,200	\$240,840
	130%	\$138,320	\$158,080	\$177,840	\$197,600	\$213,460	\$229,320	\$245,050	\$260,910
	140%	\$148,960	\$170,240	\$191,520	\$212,800	\$229,880	\$246,960	\$263,900	\$280,980

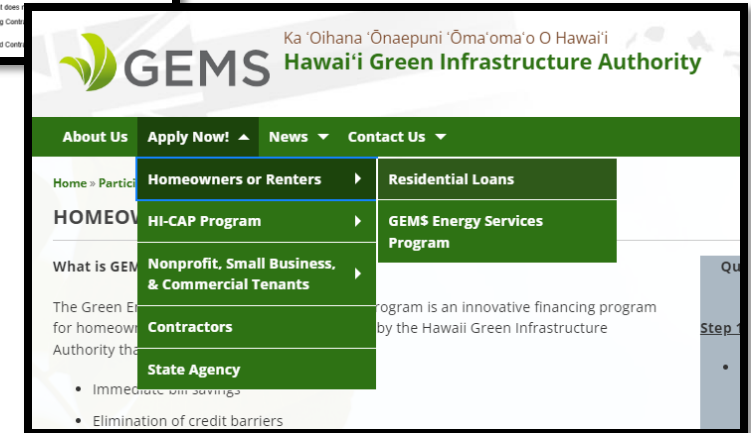


Application Process

- Use our contractor checklist as a guide
- Customer application
 - **Application:** <https://app.banyaninfrastructure.com/public-login/f4b448ff-c61f-4197-b739-758accf5bc30?access=phsULGshFo0W6kDT>
 - **Applicant Tutorial:** [Application Sign-Up Process](#)
 - Application, authorization to release information, privacy notice
- Customer must submit Utility Bill, Government ID
- Signed utility authorization
- Long-form trust, if applicable
- DHHL Lease, if applicable
- Registration and safety check for vehicle to be replaced with EV, if applicable

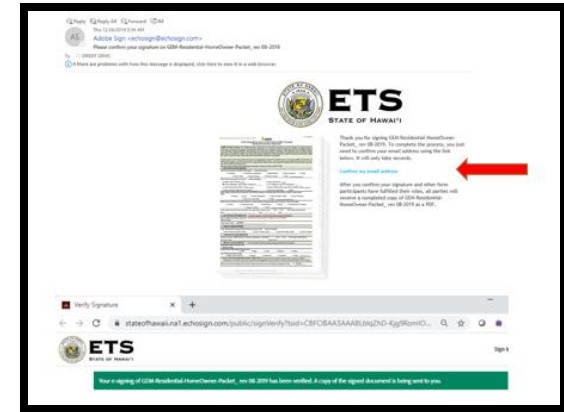


This is a checklist form for contractors. It includes sections for Applicant Information, Step 1: Applicant (Rate payer) Eligibility, and a section for renters. The checklist items include: Completed and signed GEMS Homeowner OR Renter Application, Completed and signed Utility Authorization form, Copy of Driver's License or valid Government Issued I.D., Most recent utility bill (must be current on payments and have at least 6 months history), Copy of original DHR, lease or other ground lease (if applicable), Copy of Trust (if title to property is held in a Trust), and Trust Review Fee (per Trust) of \$167.54. There are checkboxes for each item.



This is an 'AUTHORIZATION FOR RELEASE OF INFORMATION' form for the HGIA Green Energy Money Saver On-Bill Program. It includes fields for Customer Name, Date, Service Address, and Utility (with checkboxes for Hawaiian Electric, Maui Electric, and Hawaii Electric Light). There is also a field for Utility Account Number. A paragraph at the bottom states: 'I am applying to participate in the Hawaii Green Infrastructure Authority's (HGIA) Green Energy Money Saver On-Bill Program ("Program"). As part of the Program, HGIA needs access to my utility bill information. I understand that information about my utility bill will be shared with HGIA, both initially to evaluate my application and on an on-going basis for as long as I am a participant in the Program. I hereby authorize the utility indicated above to release the following information to HGIA and any of its representatives, agents, and contractors for the Program.'

- After customer applies via GEM\$ website and confirms email, decision sent to customer and contractor via Banyan



- Approval letter: valid for 30 days for you to submit project information



- Denial



**STEP 2 APPROVAL:
IS THIS PROJECT
ELIGIBLE FOR
GEMS?**

Notification of Step 1 Approval

- After Step 1 Approval, you will receive an email invitation with a link to a Contractor System Questionnaire in the Banyan Portal to upload system information and other necessary documents.
- Contractor Tutorial Video:
 - [Getting Started with Banyan](#) 🌴
 - [Questionnaire Review and Funding Document Submission](#)
- **All communication will be through the portal, including approval or denial**

Project Requirements

- **Eligible Energy Improvement (EI):**

- **Residential Installations:**
 - Solar Thermal Water Heaters
 - Solar PV Water Heaters
 - Heat Pump Water Heaters
 - Solar PV + Storage Systems

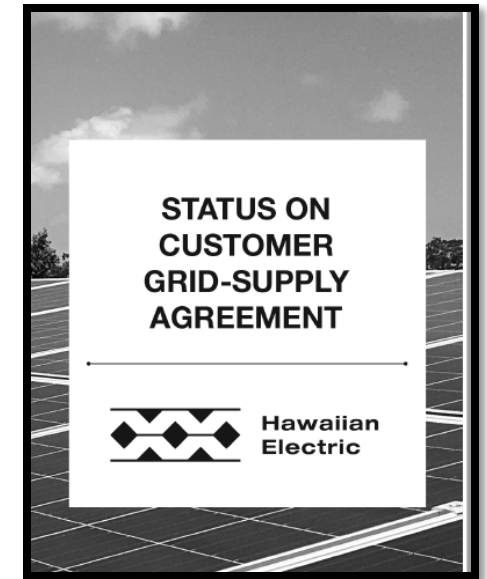
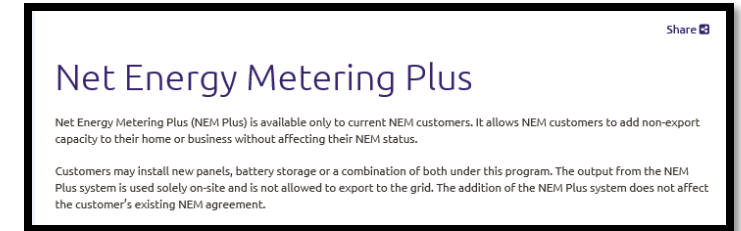
- **Post-installation, the EI must meet the minimum utility bill savings standards detailed in the table below:**

Disconnection Notices	Tiered Estimated Bill Savings Requirement
0	≥ 5% Savings
1 – 4	≥ 10% Savings
5+	≥ 15% Savings

- **Third-party owned: ≥20% Savings**

Solar PV Project Documents

- Executed PV sales contract listing installation costs, including:
 - System cost (cost of the PV system, excluding batteries, may not exceed \$4.50 per watt)
 - Battery cost if an energy storage system is included, may not exceed \$1100/kWh
 - Any discounts or down payments
 - System size
 - Equipment description and applicable warranties
- Conditional Utility Interconnection Approval indicating which Interconnection Program you will be applying for
- Estimated kWh production in Year 1:
 - PV Watts Calculator printout from the NREL website: <https://pvwatts.nrel.gov/>
 - PV Watts Certification comparing estimated Year 1 production to NREL's estimate
 - Variances greater than 10% must be provided on PV Watts Certification form found on your contractor portal
- For NEM Plus applications, please also provide the kW size and age of the existing solar PV system.



*Oversized systems not allowed

Online Calculator

BEFORE SUBMITTING TO THE PORTAL

Please use our online contractor calculator to check if the project meets our requirements before submitting into the portal.

Projects that do not meet our requirements in the last slide will be denied.

The client must re-apply in this scenario.

Hawai'i Green Infrastructure Authority |
Contractors

1	Select "Reset" to erase all input before and after use.	
2	Select island from dropdown	Oahu
3	GEM\$ loan or GEM\$ Energy Services Program?	Loan
4	What is the total system cost (including batteries)?	\$68,675.0000
5	What is the cost of the batteries (if applicable)?	\$27,000.00
6	What is the term of the manufacturer's warranty?	25
7	Select connection type from dropdown	Smart DER - R
8	What is total historical kWh on electric bill over most recent 12 months?	17,136
9	Estimated Y1 Production (kWh)	17,307
10	What is the system size?	12.9
11	Select battery type from dropdown (if applicable)	Enphase Enche
12	Number of Batteries (if applicable)	6
13	Number of disconnections	
14	If there is a water heater, what is the estimated savings? (If none, put 0)	0
15	If there is a water heater, what is the system cost? (If none, put 0)	0
16		
17	Oversized?	No
18	Cost Per Watt within accepted HGIA range (under \$4.50/watt)?	Yes
19	Loan amount after downpayment	\$68,675.00
20	Program Charge	\$ 429.97
21	Estimated year 1 savings needed for program eligibility	8.68%
22	Estimated downpayment needed for 5% bill-savings	\$0.00

- Follow our **Contractor On-Bill Program Checklist**, available on your contractor portal at <https://gems.hawaii.gov/>

Step 2: Project Eligibility

Items required from Homeowner or Landlord and/or Contractor to HGIA:

For **Solar PV** Installations:

- ☐ **Executed Sales Contract** or Addendum signed by contractor and Property Owner(s) to include:
 - ☐ System Cost: \$ _____ (may not exceed \$4.50/Watt)
 - ☐ System Size: _____ kW
 - ☐ Inverter Size: _____ kW
 - ☐ Estimated Year 1 Production: _____ kWh (may not exceed annual historical kWh consumption from utility bill)
 - ☐ Equipment description (# panels, # inverters, make, model, monitoring equipment, etc.)
 - ☐ 10-year Workmanship Warranty
 - ☐ 20-year Manufacturer's Warranty
- ☐ **Conditional Utility Interconnection Approval**
- ☐ **NREL PV Watts Calculator** (<https://pvwatts.nrel.gov/>) **Printout**
- ☐ **PV Watts Calculator Certification** completed and executed by the Contractor (include an explanation if the tolerance exceeds +/- 10%).
- ☐ For **NEM+**, provide the following information on the existing solar PV system:
 - ☐ Year solar PV system Installed: _____
 - ☐ System Size: _____ kW

For **Solar Thermal** and **Solar PV Hot Water Heaters**:

- ☐ Determine if Homeowner or Landlord will utilize Hawaii Energy rebate to buy-down the cost of the installation or buy down their GEM\$ interest rate.
 - ☐ Apply rebate to Installation Cost.
 - ☐ Copy of completed Hawaii Energy Rebate Application with Work Order # _____
 - ☐ Apply rebate to GEM\$ Interest Rate
- ☐ **Executed Sales Contract** or Addendum signed by contractor and Property Owner(s) to include:
 - ☐ 1-year Workmanship Warranty
 - ☐ 10-year Manufacturer's Warranty on Solar Hot Water panels and collectors
 - ☐ 6-year Manufacturer's Warranty on Hot Water Tank
 - ☐ Equipment description (panels, tank size, etc.)



Solar Hot Water Documents

- Executed contract detailing cost, tank size, equipment description and all applicable warranties
- Customer may opt to use the Hawaii Energy rebate
 - If applied to the cost of the system, documentation must be provided showing Hawaii Energy Solar Hot Water work order number has been issued,
 - If used to buy-down the interest rate on the loan, HGIA will submit the necessary paperwork to Hawaii Energy



Contractor Checklist

- **Criteria met** → Approval (may include down payment required for estimated bill savings)



* Post-approval changes (size, interconnection, production, etc.) → approval is **VOID** → reanalysis by HGIA → approval or denial



APPROVAL, NTP, AND FINAL FUNDING

Final Approval Letter & Program Docs

After approval, customer receives:

- Final approval letter
- Participant Agreement
- Request for Insurance Authorization
- System Monitoring Authorization
- Purchase Money Mortgage Documents for land court property



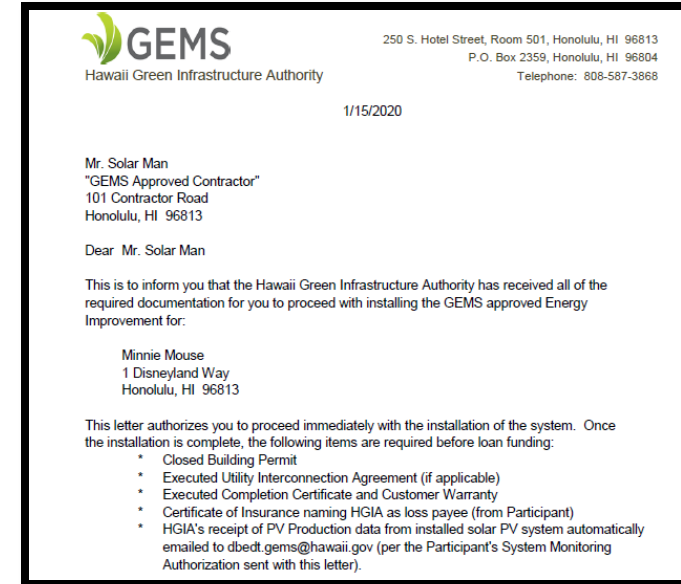
GEM\$		HAWAII GREEN INFRASTRUCTURE AUTHORITY	
GREEN ENERGY MONEY SAVER ("GEMS") ON-BILL PROGRAM			
<u>PARTICIPANT AGREEMENT</u>			
(Residential Homeowner)			
Participant Name(s):			
Mailing Address:			
Service Address:			
Phone Number (1):		Phone Number (2):	
Email (1):		Email (2):	
Utility Account #:		Premises No.:	
Property Owner(s):			
Property Owner(s):			
Property Owner(s):			
Property Owner(s):			
Contractor Name:			
Contact Name:			
Phone:			
Email:			

This Participant Agreement (Residential Homeowner) (this "Agreement"), while executed on the date indicated below on the signature page, is effective (the "Effective Date") as of _____, 20____, between the Hawaii Green Infrastructure Authority, an instrumentality of the State of Hawaii ("HGIA") and _____ (the "Participant(s)"). The Effective Date is the date HGIA pays my Contractor in full, on my behalf, for the complete installation of

Final Approval Letter & Program Docs

Upon receipt of program docs and valid Certificate of Insurance, Notice To Proceed (NTP) sent to contractor

- Includes authorization for HGIA monitoring
- You will have six months to complete installation



Issuance of NTP

- After issuance of NTP, you will receive an email invitation with a link to upload funding documents in the Banyan Portal.
- You will front cost unless you sign up for solar PV 50/50 payment option
 - Requires approved building permit
 - Certificate of Insurance listing HGIA as lender loss payee/mortgagee
- **All communication will be through the portal.**

Final payment

Upon project completion:

- Closed building permit
- Final utility interconnection approval with Permission to Operate
- Final Sales Contract
- Completion Certificate signed by an authorized signer for your company and your customer
- As applicable, either:
 - HGIA system monitoring access for installed solar PV system
 - OR Hawaii Energy Rebate form for solar hot water installations



Hawaii Green
Infrastructure Authority

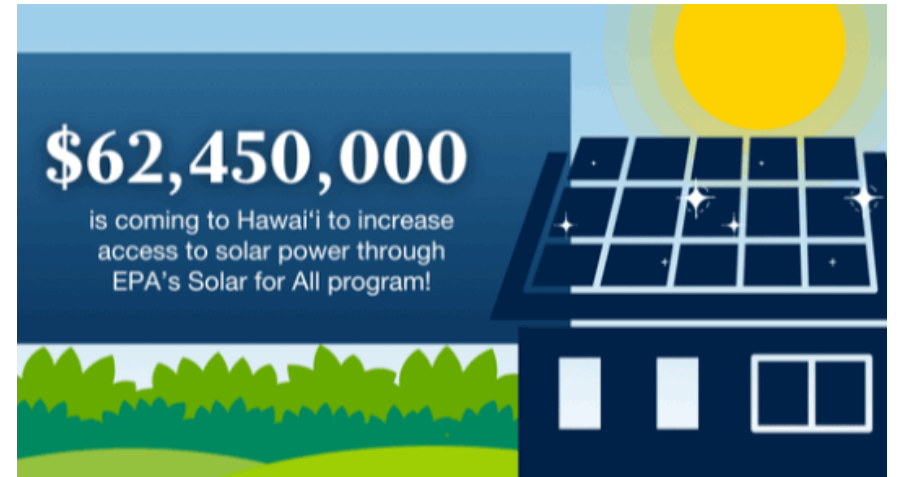
Residential Solar For All – HI Loan Programs

What is Solar For All?

- On April 22, 2024, the U.S. Environmental Protection Agency awarded **\$7 billion to 60 grant recipients** through the Solar for All program.
- Objectives:
 - Decrease greenhouse gas emissions.
 - 100% of the award must be used for the purposes of enabling Low-Income and Disadvantaged Communities to deploy and benefit from eligible zero emissions technologies, in a sustainable, ongoing program
 - A portion of the funds will also be used for capacity building, technical assistance, and workforce development in disadvantaged communities.
- Accountability & Transparency
 - Rigorous auditing processes
 - Detailed reporting requirements, including additional detailed information needed from Contractors

Solar For All – Hawaii (SFA-HI)

- HGIA received a **\$62,450,000 award** from the EPA under the Greenhouse Gas Reduction Fund's Solar for All (SFA) program.
- Through its inclusive on-bill financing program, HGIA launched its SFA-HI program to reduce the energy burden for **low-income households and disadvantaged communities** by financing the installation of **solar+storage systems on single family dwellings and multi-family rental projects**.
- HGIA also plans to finance at least **5 community solar projects** statewide, with the capacity to serve over **5000 residents**.



Solar For All – Hawaii (SFA-HI)

- In addition to providing financing to low-income households and disadvantaged communities, HGIA will:
 - Provide technical assistance to eligible applicants in the form of "Playbooks" covering:
 - Residential rooftop solar, with a simplified version designed for classrooms, with an additional section on careers in clean energy and science
 - Community Solar
 - Solar for Multi-Family Projects
- HGIA will collaborate with the HSEO Wayfinders, DCCA, DLNR and other stakeholders to deploy Playbooks
- Engage a Communications Contractor for ongoing energy education, including solar sales best practices, as well as visibility for HGIA's financing programs
- Provide **complimentary** financial education through an education provider

SFA-HI's Green Energy Money \$aver Product Terms

Eligible Participant (ratepayer)	Low-income and disadvantaged communities (see next slide)
Interest Rate	4.99%, fixed
Loan Term:	Up to 25 years (based on manufacturer's warranty)
Minimum Estimated Bill Savings Required:	20% throughout the loan term
Eligible Technologies:	Energy efficiency (must also install solar PV); Solar PV & Energy Storage Systems
Repayment:	On-bill. Kauai – Direct billed. Financing will be limited to only low-income housing tax credit multifamily projects.
Geographic Requirements:	City & County of Honolulu; County of Maui; County of Hawaii and County of Kauai (limited to only low-income housing tax credit multifamily projects).
Other conditions:	Except for the terms outlined above, all other terms and conditions under HGIA's Green Energy Money \$aver On-bill Financing program applies.

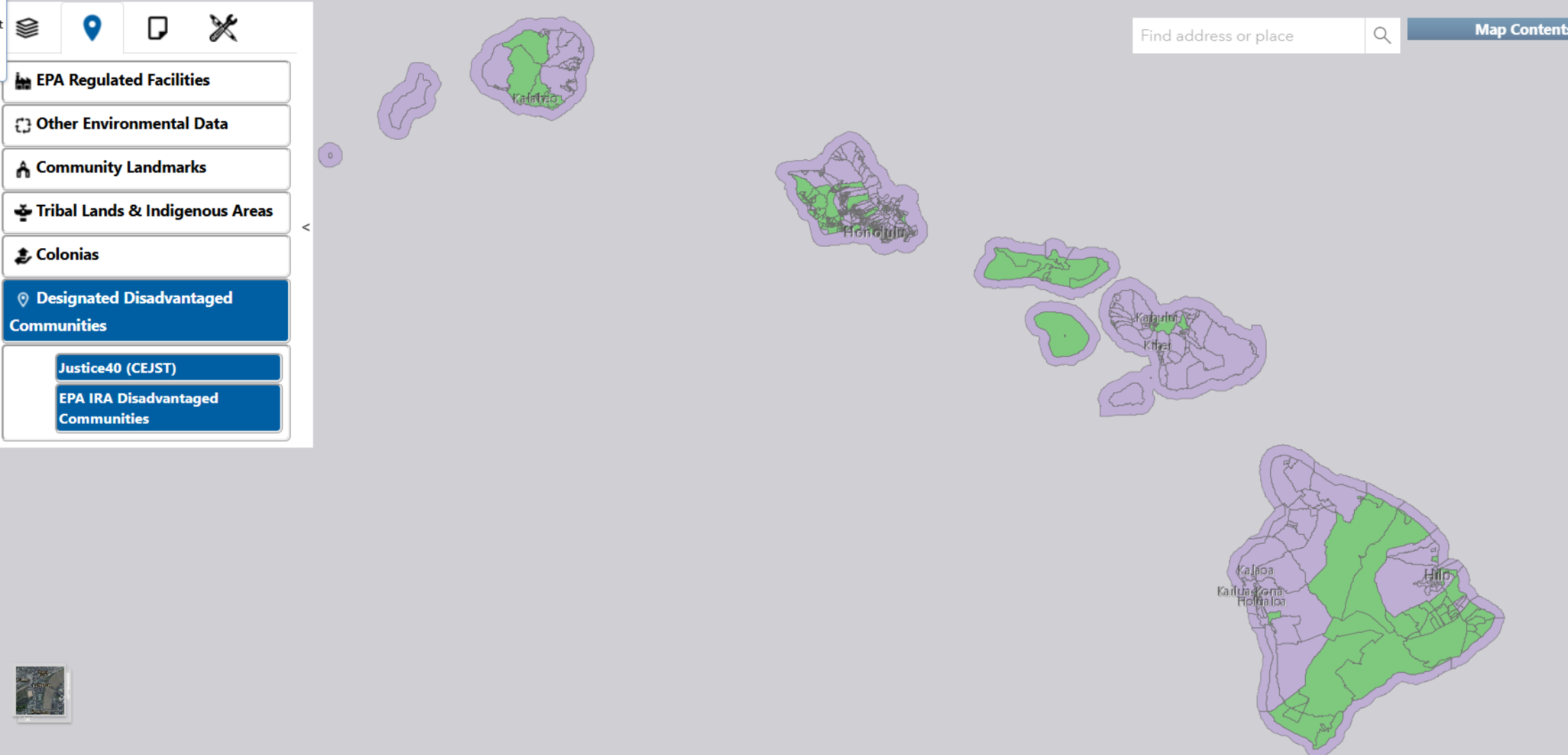
Applicant Eligibility – Single-Family Households

“Eligible” households must meet SFA grant requirements as one of the following:

1. Located in an eligible disadvantaged community identified by CEJST or EJSCREEN
2. 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:**

Eligible Program	Program Information	Sample Award Letter
US Department of Health and Human Services Low Income Home Energy Assistance Program/Hawaii Home Energy Assistance Program	Low Income Home Energy Assistance Program (LIHEAP) The Administration for Children and Families (hhs.gov)	HHEAP/LIHEAP Eligibility Letter
US Department of Agriculture Supplemental Nutrition Assistance Program	Supplemental Nutrition Assistance Program (SNAP) Food and Nutrition Service (usda.gov)	SNAP Eligibility Letter
US Department of Energy Weatherization Assistance Program	Weatherization Assistance Program Department of Energy	
USDA’s National School Lunch Program	National School Lunch Program Food and Nutrition Service (usda.gov)	National School Lunch Eligibility Letter
US Social Security Administration’s Supplemental Security Income	Supplemental Security Income (SSI) SSA	SSI Eligibility Letter

Eligible Census Tract Map



How do I determine if my customer is in a disadvantaged community?

1. Access the US Census Bureau's address geographies tool:
<https://geocoding.geo.census.gov/geocode/r/geographies/address?form>
2. Enter a specific house's address information, and ensure the categories are set to "Benchmark: Public-AR_Current" and "Vintage: Current_Current". Click "Get Results"
3. Scroll down to "2020 Census Blocks" and copy the first 12 digits of "GEOID". This is your address' census tract

Census Geocoder Find Locations Find Geographies Detailed Information and FAQs Contact Us

Find Address Geographies

House number and Street name:
250 S. Hotel Street

City:
Honolulu

State:
HI

ZIP Code:
96813

Benchmark:
Public_AR_Current

Vintage:
Current_Current

Get Results

CENTLAT: +21.2537976
AREAWATER: 33794362
AREALAND: 5218730
NAME: State House District 25

2020 Census Blocks:
STATE CODE: 15
CENTLON: -157.8584516
GEOID: 150030040001006
CENTLAT: +21.3089558
COUNTY CODE: 003
TRACT CODE: 004000
AREAWATER: 0
AREALAND: 20525
BLOCK CODE: 1006
UR: U
NAME: Block 1006

Census Tracts:

How do I determine if my customer is in a disadvantaged community? (Cont.)

4. Access the “Epa IRA Disadvantaged Data” pdf on the HGIA website:
[https:// gems.hawaii.gov/wp-content/uploads/2025/02/EPA_IRA_DisadvantagedData.pdf](https://gems.hawaii.gov/wp-content/uploads/2025/02/EPA_IRA_DisadvantagedData.pdf)

Census Tract	EJScreen	CEJST	SFA Eligible
150010201001	No	No	No
150010201002	No	No	No
150010201003	No	No	No
150010201004	Yes	No	Yes
150010202021	No	No	No
150010202022	No	No	No
150010203001	Yes	Yes	Yes

5. Hit CTRL+F and enter the 12-digit census tract.
6. Check the value of the fourth column. If it is marked Yes, the address qualifies as part of a disadvantaged community. If it is marked No, the address is not qualified as part of a disadvantaged community

150030038025	NO	NO	NO
150030039001	Yes	Yes	Yes
150030040001	No	No	No
150030040002	Yes	No	Yes
150030041011	Yes	No	Yes



Project Requirements

- **Estimated minimum 20% bill savings, including financing costs**
- **Eligible Energy Improvement (EI):**
 - **Residential Installations:**
 - Solar PV + Storage Systems
 - Energy Efficiency (must lead to PV installation):
 - Solar Thermal Water Heaters
 - Solar PV Water Heaters
 - Heat Pump Water Heaters
 - Enabling Upgrades



Notification of Step 1 Approval

- After Step 1 Approval, you will receive an email invitation with a link to a Contractor System Questionnaire in the Banyan Portal to upload system information and other necessary documents.
 - Contractor Tutorial Videos:
 - [Getting Started with Banyan](#) 🌴
[Questionnaire Review and Funding Document Submission](#)
 - **All communication will be through the portal, including approval or denial**
- **For applications outside of Banyan, the Contractor Addendum must be completed**, outlining specific SFA reporting data elements, such as meter type, solar panel type, system capacity, and project cost itemization. System, battery, and inverter sizes **must** include **two decimal places** (00.00)
 - [Solar for All Addendum Guide](#) ☀️
- Applications submitted in Banyan will have the addendum questions included in the Contractor System Questionnaire.

Final Approval Letter & Program Docs

After approval, customer receives:

- Final approval letter
- **Two** Participant Agreements -
 - GEM\$ Participant Agreement (Construction Loan)
 - SFA Participant Agreement (Permanent Loan)
- Request for Insurance Authorization
- System Monitoring Authorization
- Purchase Money mortgage Documents for land court property



Final payment

Upon project completion:

- Closed building permit
- Final utility interconnection approval with validation or Permission to Operate
- Final Sales Contract
- Completion Certificate signed by an authorized signer for your company and your customer, with lien release
- HGIA system monitoring access for installed solar PV system
- Contractor Addendum (if project is outside of Banyan portal)

HGIA will make the final payment to the Contractor signifying the end of the construction period.

The Construction loan will be refinanced with a SFA permanent loan.

Mahalo!

Hawaii Green Infrastructure Authority (HGIA)

- E-mail: dbedt.greenbank@hawaii.gov
- Telephone: 808-587-3868
- Fax: 808-587-3896
- Mailing Address: P. O. Box 2359, Honolulu, HI 96804
- Street Address: 250 S. Hotel St., #501, Honolulu, HI 96813