



Hawaii Green
Infrastructure Authority

Making green energy accessible & affordable for Hawaii's ratepayers.

2021 Annual Report to the Governor & Legislature

Department of Business, Economic Development & Tourism

Pursuant to Act 211, Session Laws of Hawaii 2013 & Act 107, Session Laws of Hawaii 2021

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Message from the Chair

December 28, 2021

Aloha kākou,

The Hawaii Green Infrastructure Authority (“HGIA” or “Authority”) was created by the Legislature to make clean energy investments accessible and affordable for Hawaii’s ratepayers. HGIA was capitalized with proceeds from the Green Energy Market Securitization (“GEMS”) Bond to advance the state’s Energy Efficiency Portfolio Standards and support efforts to achieve its 100% renewable portfolio standard goal in the electricity sector by 2045.

Areas of focus during the year included:

Focus on Collaboration – With the increased availability and deployment of vaccines, we started 2021 with hopeful optimism of economic recovery. However, the surge of the Delta variant, followed by the Omicron variant continues to temper economic recovery and clean energy installations. A positive outcome of this pandemic has been an increased spirit of collaboration within and outside of DBEDT.

Focus on Federal Funds – The availability of additional Federal funds will enable the Authority to expand eligible technologies and eligible ratepayers. Additionally, a collaboration with sister agency, HTDC will enable HGIA to launch two financing programs under the State Small Business Credit Initiative.

Focus on Lending – The prolonged pandemic has made it even more difficult for HGIA to assist underserved ratepayers struggling to make ends meet. Work has begun for future modifications and innovations to lower energy costs for our most vulnerable populations.

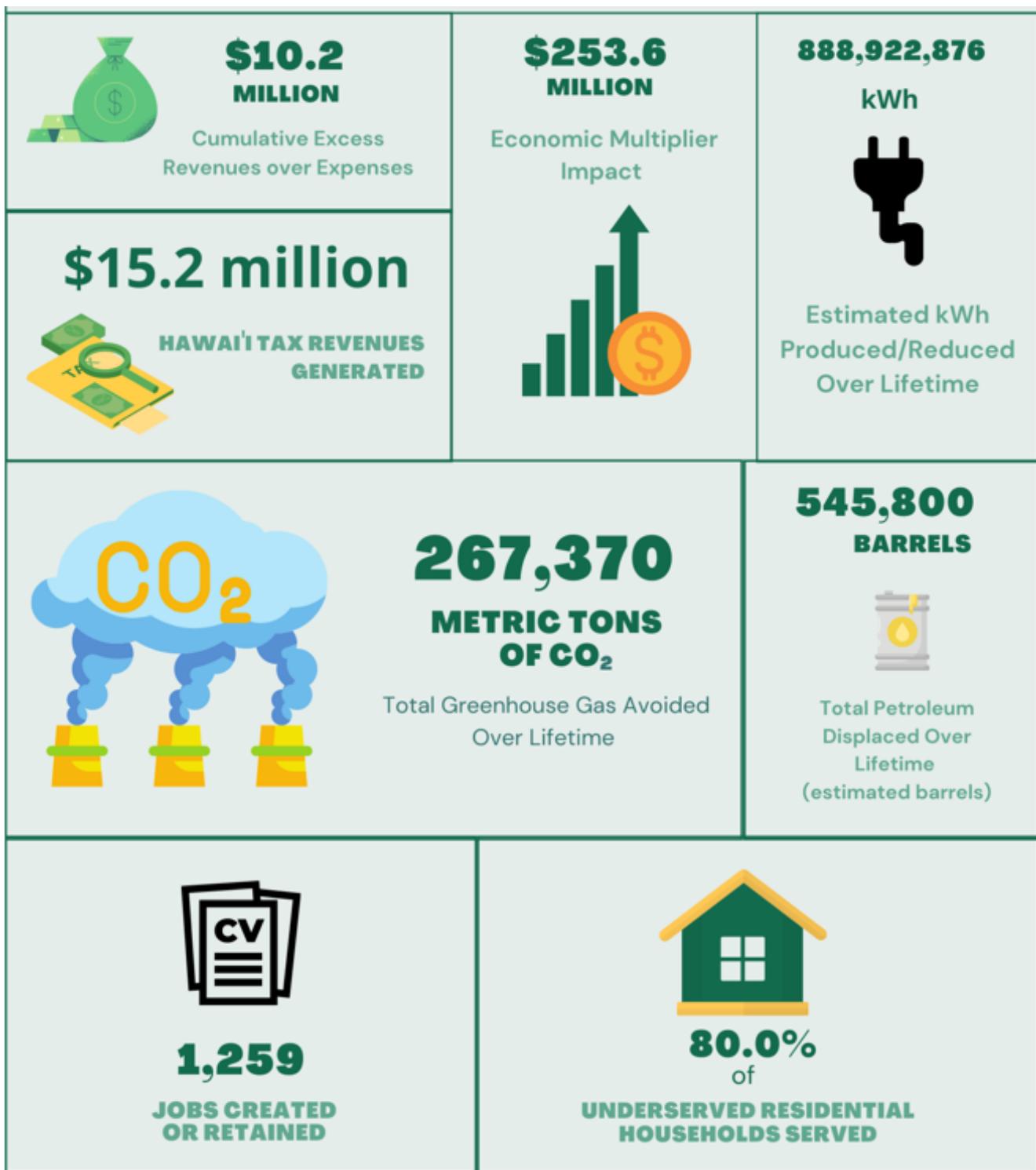
Focus on LMI outreach – Collaborating with entities outside of DBEDT, HGIA has increased its LMI outreach efforts to design and launch a Solarize pilot with a potential to scale to other communities.

Thank you to the Governor, Legislature, Hawaii Public Utilities Commission, GEMS-Approved Contractors, energy stakeholders and local banking industry for its continued support.

Mahalo nui,

Mike McCartney
HGIA Board Chair

Impacts*



* Impacts reported are since inception. Cumulative excess revenues over expenses is before some \$8.2 million in "expenditures" for loan repayments transferred to the Public Utilities Commission 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 the loan program; and analytical data relating to the deployment of clean energy technology. The Authority respectfully submits this status report outlining the activities further design, develop and deploy GEMS and other capital in 2021 as well as plans for 2022.

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 Hawaii's aggressive pursuit of its statutory 100% clean energy goals by 2045 while helping ratepayers lower their energy costs.

Act 211 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 save money from green infrastructure investments. The GEMS bonds are not an obligation of the State of Hawaii. 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.

On April 27, 2021, the Legislature enacted, and on June 28, 2021, the Governor signed into law Act 107 (SLH 2021) authorizing the establishment of a Clean Energy and Energy Efficiency Revolving Loan Fund ("CEEERLF") under the administration of the Hawaii Green Infrastructure Authority. Two key components of this Act include but are not limited to providing HGIA, with the approval of the Governor, the authority to borrow funds from Federal, County, private or

other funding sources as well as implement and administer loan programs on behalf of other state departments or agencies.

Hawaii Public Utilities Commission

To effectuate Act 211, the GEMS financing program required Hawaii 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 Hawaii Solar Energy Association, the PUC granted GEMS the flexibility to work with the market to provide financing programs to enable more of Hawaii’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 Hawaii’s consumers at that time.

On October 26, 2017, the Hawaii 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 had transferred over \$8.2 million to the PUC.

Hawaii Green Infrastructure Authority

The Authority was constituted in November 2014 to democratize clean energy by making clean energy improvements affordable and accessible to a broader cross-section of Hawaii’s ratepayers to advance 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 net proceeds of a Green Energy Market Securitization (“GEMS”) Bond issued in November 2014 and the Authority began accepting loan applications in July 2015.

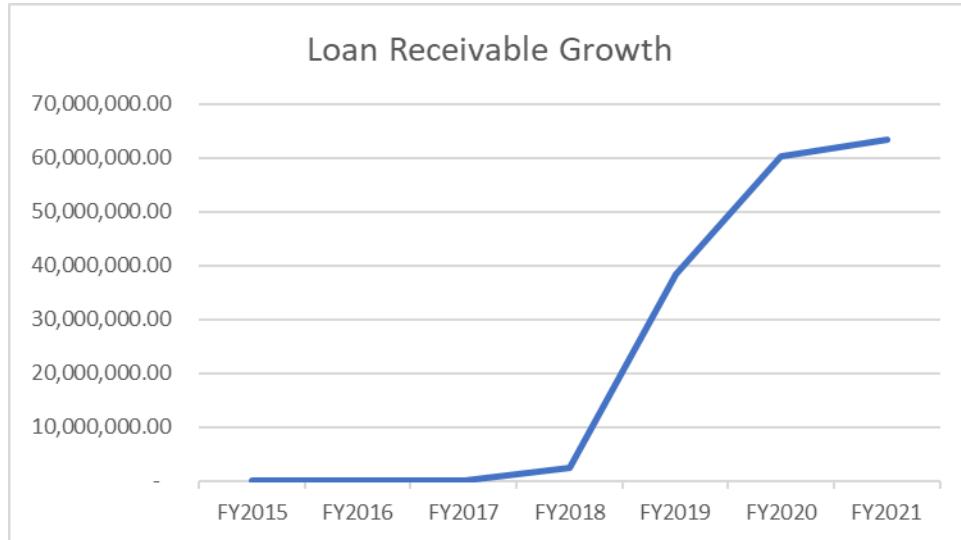
HGIA is overseen by a five-person board of directors and is administratively attached to the Department of Business, Economic Development & Tourism. The Authority is tasked with administering and governing its financing Programs, ensuring that capital is deployed effectively to achieve program objectives.

During its August 15, 2019 meeting, strengthening its commitment to low and moderate-income (“LMI”) and other underserved ratepayers, HGIA’s Board approved a change to its financing programs limiting the use of the remaining GEMS funds to LMI homeowners and renters, nonprofits, small businesses¹ and multi-family rental projects.

The Authority offers a suite of financing products providing low-cost, long-term, flexible financing to Hawaii’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.

HGIA’s financing programs fill market gaps, stimulates private investments and leverages innovative tools to mitigate risks and reach new markets. The Authority’s loan receivable (net of prepayments), since inception follows:



Lastly, working in concert with the Hawaii Public Utilities Commission (“PUC”) and the Hawaiian Electric Company, Inc., HGIA is responsible for the administration and oversight of the \$150.0 million Green Energy Market Securitization Bond.

2021 Activities

Focus on Collaboration

While the COVID-19 pandemic wreaked havoc on the health of Hawaii’s families, businesses and the state’s overall economy, it also resulted in some positive changes, namely an increased spirit of collaboration within and outside of DBEDT.

¹ Small businesses are defined by the U.S. Small Business Administration’s size standards.

DBEDT consists of four divisions and nine attached agencies. To increase efficiencies and impact by leveraging the strengths of the subject matter expertise of the staff, departments and agencies, pre-COVID, DBEDT's leadership had been working on an internal initiative to increase collaboration. However, with the issuance of the Stay-At-Home Order in March 2020, followed by the Federal funding provided to assist States and mitigate COVID impacts, not being "business as usual" accelerated the implementation of collaborative initiatives within and outside of DBEDT.

Small Business Outreach

In collaboration with Senator Bennette Misalucha; Representatives Aaron Johanson, Sam Kong, and Gregg Takayama; Council Member Brandon Elefante; SBA's Hawaii District Office and UH's Minority Business Development Agency, HGIA assisted in the planning implementation of a Restaurant Revitalization Fund ("RRF") Hybrid Town Hall on May 13, 2021 to help reach ESL and technology-challenged minority restaurant owners. According to a Civil Beat article², on a per capita basis, Hawaii received more RRF than any other state, second to the District of Columbia, with more than 1,100 of Hawaii's qualified eateries receiving \$414.0 million, before the RRF program closed in mid-July 2021.

In collaboration with the Molokai Chamber of Commerce, on November 17, 2021, SBA Hawaii District Office officials and HGIA met with small business owners, the current and past President of the Molokai Chamber of Commerce ,and President of Ho'āhu Energy Cooperative to discuss challenges and resource gaps for an island community with one of the highest poverty level and energy costs in the State. In addition to providing targeted technical assistance during Spring 2022, a Resource Fair will be offered in late Summer 2022, including workshops and seminars relevant for the needs of Molokai businesses. DBEDT's BDSD will also co-collaborate on the Resource Fair.

Sharing Best Practices in Energy Finance

In February 2020, HGIA was approved by the U.S. Department of State American Councils for International Education ("American Councils") to host a Professional Fellow during Spring 2020, however due to the COVID-19 pandemic, this in-person Fellowship was postponed. In early 2021, American Councils transitioned the in-person Fellowship to a virtual platform and during April to May 2021, HGIA hosted Evgheni Camenscic, a National Expert in Energy Efficiency for GIZ (Gesellschaft für International Zusammenarbeit) Moldova, a German technical development cooperation in the Republic of Moldova. During his Fellowship, Mr. Camenscic had the opportunity to learn from Hawaii's Chief Energy Officer, the Executive Director of Blue Planet Foundation, and other energy leaders in Hawaii.

In October 2021, American Councils informed Mr. Camenscic and HGIA that his Professional Fellow Reciprocal Outbound Proposal to create a long-lasing partnership between Hawaii and Moldova to share Hawaii's clean energy financing best practices with Moldova, was selected for implementation. During the first quarter 2022, HGIA will lead five online meetings and workshops on energy literacy and energy financing for Moldova's energy stakeholders and NGOs. In May 2022, HGIA's Executive Director will travel to Chisinau, Moldova meet with

² "Hawaii Restaurants Got \$414.0 million in Pandemic Aid" Civil Beat, July 14, 2021.

energy stakeholders, NGOs, policy makers, energy leaders and local Moldovan public authorities.

Focus on Federal Funds

USDA Rural Energy Savings Program

On June 28, 2021 the Governor signed Act 107 (SLH 2021) into law empowering HGIA to submit an application for additional loan capital to the United State Department of Agriculture under its Rural Energy Savings Program (“RESP”).

As required by Part 1719, Code of Federal Regulations (“CFR”), HGIA submitted a Letter of Intent to Apply, along with the information required, on July 27, 2021 to the USDA. On September 16, 2021 USDA’s Rural Utilities Service (“RUS”) informed HGIA that it is willing to consider a RESP loan application from HGIA in the amount of \$20.0 million, with an application package deadline of December 15, 2021.

On December 13, 2021, HGIA submitted its application package for a \$20.0 million loan. If approved, HGIA anticipates RUS notification by March 2022 and funding to be available during Summer 2022.

In addition to continuing its lending to underserved ratepayers, HGIA will be able to expand its lending to include energy storage systems (batteries) as well as energy efficiency and renewable projects to all municipal buildings located in rural communities.

State Small Business Credit Initiative

The American Rescue Plan Act (“ARPA”) of 2021 reauthorized funds to the existing State Small Business Credit Initiative (“SSBCI”) Program, which was created in direct response to local economic conditions and challenges facing small businesses, initially due to “The Global Financial Crisis of 2008-2009,” followed by the global economic meltdown caused by the COVID-19 pandemic.

Hawaii’s SSBCI 1.0 program, under the administration of the Hawaii Strategic Development Corporation was singularly focused on kick-starting Hawaii’s venture capital industry by investing Hawaii’s entire \$13.2 million allocation into Hawaii based venture funds.

Hawaii Technology Development Corporation (“HTDC”) is designated as the lead agency for the State’s SSBCI 2.0 program. With Hawaii’s minimum allocation of \$56.0 million, HTDC will be expanding the financing tools available by also including credit options, with its goal to (1) increase access to capital for small businesses; (2) maximize the allocation amount received by the U.S. Treasury; and (3) maximize impacts (e.g., number of small businesses assisted, private sector leverage, return on investment and economic development).

As a financing agency attached to DBEDT, since May 2021, HGIA has been collaborating with HTDC on the design and implementation of the financing portion of Hawaii’s SSBCI 2.0 program. Over a three-month period, over 13 informational sessions with individual follow-up meetings were conducted to gather financing needs, gaps and feedback from small businesses, trade associations, foundations, investor groups, commercial banks, credit unions and community development financial institutions (“CDFI”). HTDC expects to submit an

application to the Treasury in January 2022 for approval to deploy SSBCI funds under three programs (1) Venture Capital Program; (2) Loan Participation Program; and (3) Collateral Support Program.

The Loan Participation and Collateral Support Programs will be administered by HGIA to provide direct financing for catalytic projects, loan capital to CDFIs and cash collateral for near bankable small businesses obtaining credit from participating banks and credit unions.

HGIA expects to launch these new programs during the first quarter of 2022.

Economic Development Administration’s Build Back Better Regional Challenge

The Economic Development Administration (“EDA”) announced its Build Back Better (“BBB”) Regional Challenge at the end of July 2021. Between August 2021 and October 2021, on behalf of DBEDT, a collaboration consisting of HGIA, Natural Energy Laboratory of Hawaii Authority, HTDC, UH’s Minority Business Development Agency, and the Department of Agriculture, worked on and submitted an application focused on the Ocean Economy Regional Cluster to expand the oceans’ economic potential while preserving and safeguarding its long-term health.

While DBEDT was not successful in being named a finalist, the time and resources invested in this Application was not in vain as the application is still eligible for an EDA grant and more importantly, this initiative brought DBEDT one step closer to working together to collectively help solve some of Hawaii’s challenges while growing its economy.

Clean Energy Accelerator

As part of the American Green Bank Consortium (GBC), under the leadership of the Coalition for Green Capital, a Washington D.C. nonprofit, HGIA and other GBC members and the have been working on the passage of a bill to establish an independent, nonpartisan nonprofit finance entity that will operate as the U.S. national green bank, to be known as the Clean Energy Accelerator (“Accelerator”). The Accelerator will create jobs, strengthen communities, create new businesses and lower greenhouse gas emissions. By prioritizing 40% of its funding for communities in greatest need of jobs, the Accelerator will support disadvantaged communities. This legislation is included in President Biden’s Build Back Better budget reconciliation bill.

Focus on Lending

Continue Existing Financing Activities

With the onset of the COVID-19 pandemic in 2020 and continuing lingering impacts during 2021, residential loan applications fell by 48% in 2020 (from 2019 levels). During 2021, the Authority received 262 residential applications, up slightly from 2020.

However, with the Utility’s collection moratorium ending on May 31, 2021, the spike of utility disconnection notices are disqualifying underserved ratepayers from installing solar to help lower energy costs. Modifications to the Green Energy Money \$aver On-Bill Program is needed to help our most vulnerable ratepayers.

Community Solar

Community Solar is an innovative solution for ratepayers with rooftops that cannot support a solar system (prevalent in disadvantaged communities) and for ratepayers who don't own a rooftop (prevalent for low and moderate-income renters). However, for Community Solar Subscriber Organizations ("SO"), said underserved ratepayers increase project risk.

HGIA's on-bill repayment ("OBR") mechanism has been identified as a tool to mitigate SO credit risk and servicing costs which could open new market opportunities for underserved ratepayers to participate in Community Solar.

HGIA has been working with the Hawaiian Electric Companies to re-program its Community Based Renewable Energy Portal to integrate its OBR mechanism to electronically post debits and credits on subscriber utility bills. Preliminary quotes recently received estimate a six-month development timeframe.

Focus on LMI outreach

HECO LMI Customer Advisory Council

Since the onset of the pandemic, the Hawaiian Electric Companies have proactively implemented a number of tactics to assist struggling ratepayers, including its LMI Customer Advisory Council ("LMI Council").

On a quarterly basis, HECO convenes the LMI Council, unique to each County, to gather feedback and deploy solutions to help these vulnerable ratepayers. As it serves applicants and borrowers statewide, HGIA participates in all three LMI Council meetings quarterly.

Energy Equity Hui – Solarize Waianae

On a bi-weekly basis, Hawaii Energy convenes a group of public and private energy stakeholders to address energy equity issues. Out of these meetings, with guidance from the Rocky Mountain Institute ("RMI"), an independent non-partisan nonprofit, a sub-group was established to launch a "Solarize" campaign on Oahu. Together with the City and County of Honolulu, Hawaii Energy, RMI, Hawaii State Energy Office and the Council for Native Hawaiian Advancement, HGIA is working with leaders from the Waianae community to co-design a Solarize Waianae pilot that best meets the unique needs of their residents. The goal of this initiative, once launched, is to scale to other LMI communities statewide.

Reporting Metrics

The following are Fiscal 2022, year-to-date and since program inception metrics.

Energy & Environmental Impacts

Clean Energy Production of Projects Financed	7/1/21 - 9/30/21	Since Program Inception
Installed Capacity (Actual kW)	983	11,961
Total Yr 1 Production (Estimated kWh)	1,550,658	18,237,934
Total Project Production over Lifetime of Installed PV (Projected kWh, including 0.05% degradation)	29,383,844	321,901,511

Electricity Reductions from Energy Efficiency Projects Financed

Total Yr 1 kWh Reduction (Energy Efficiency)	0	38,693,672
Total kWh Reduction Over Lifetime of Installed EE	0	567,021,365

Petroleum Displaced by Clean Energy and Energy Efficiency Projects (1)

Total Petroleum Displaced/Saved over Lifetime (Estimated barrels)	18,047	545,800
Petroleum Displaced based on Yr 1 Clean Energy Generation (Estimated barrels)	952	11,201
Petroleum Displaced Over Lifetime of Installed PV (Estimated barrels)	18,047	197,438
Cumulative Annual Petroleum Saved from Yr 1 Efficiency Projects	0.0	23,764
Petroleum Saved of Lifetime of Efficiency Projects	0.0	348,251

(1) Reference unitjuggler.com for conversion metric

Greenhouse Gas Avoided (2)

Total Greenhouse Gas Avoided (2) Over Lifetime (Clean Energy and Energy Efficiency Projects) (Est. metric tons CO ₂)	8,842	267,370
Greenhouse Gas Avoided from Clean Energy Yr 1 Production (Est. metric tons CO ₂)	467	5,490
Greenhouse Gas Avoided Over Lifetime of Installed PV (Projected metric tons CO ₂)	8,842	96,738
Greenhouse Gas Avoided from Yr 1 Energy Efficiency	0	11,644
Greenhouse Gas Avoided over lifetime of Energy Efficiency Project	0	170,632

(2) Reference eia.gov for conversion metrics

Economic Development Impacts

	7/1/21 - 9/30/21	Since Program Inception
GEMS Revenues (Cash Basis)	\$ 461,888	\$ 13,953,763
GEMS Administrative & Program Costs (Cash Basis) (3)	\$ 204,855	\$ 6,656,702
GEMS Loans Funded	\$ 1,348,756	\$ 76,419,258
Indirect Economic Impact - Jobs Created/Retained (4)	\$ 49	\$ 1,259
State of Hawaii Tax Revenues Generated (5)	\$ 509,736	\$ 15,145,693
Economic Multiplier Impact (6)	\$ 8,536,059	\$ 253,630,259

(3) Excludes loan repayments transferred to the PUC.

(4) Jobs created or retained is calculated using the State's metric of \$88,165.25/job for 2015; \$91,345.19/job for 2016; \$94,633.63/job for 2017; \$98,034.06/job for 2018; \$101,550.09/job for 2019; \$105,185.44/job for 2020 and \$92,044/job for 2021.

(5) State taxes generated is calculated as \$0.126 per dollar of investment.

(6) Multiplier impact calculated as \$2.11 per dollar of investment.

Market Expansion Impacts

Projects Financed According to Technology Type/Category	7/1/21 - 9/30/21	Since Program Inception
Solar Photovoltaic (7)	21	757
Energy Storage	0	137
Lighting Upgrades (8)	0	965,037
HVAC Upgrades (8)	0	2,325
Mechanical Upgrades	0	1
Controls and Monitoring Devices	15	1,574
Energy/Water Nexus (9)	0	210
Total No. of Projects	36	970,041

(7) Including advanced inverters and smart modules

(8) State Energy Efficiency Projects

(9) Includes solar water heating

Residential Loan Program	7/1/21 - 9/30/21	Since Program Inception
Total Number of PV Loans, Direct	0	198
Total Number of PV Leases, Direct	0	64
Total Number of GEM\$ OBOs for PV (Loans)	15	151
Owner Occupied OBOs	15	150
Renter OBOs	0	1
Total Number of GEM\$ OBOs for PV (Leases)	0	29
Total Number of GEM\$ OBOs for EE (SWH)	0	15
Owner Occupied OBOs	0	15
Renter OBOs	0	0
Total Number of GEM\$ OBOs	15	195

	7/1/21 - 9/30/21	Since Program Inception
Number PV Loans/Leases/OBOs Serving Underserved Market (10)	15	354
Number EE Loans/Leases/OBOs Serving Underserved Market (10)	0	13
% Loans/Leases Serving Underserved Market	100%	80%

(10) See AMI Distribution

Status of Applications (WECC):

No. of Residential PV Applications Received	0	427
No. of Residential PV Applications in Process	0	N/A
No. of Residential PV Applications Declined	0	160
No. of Residential PV Applications Withdrawn/Expired	0	127
No. of Residential PV Applications Loan Docs Accepted	0	N/A

Status of Applications (Direct):

No. of Residential PV Applications Received	0	154
No. of Residential PV Applications in Process	0	N/A
No. of Residential PV Applications Declined	0	58
No. of Residential PV Applications Withdrawn/Expired	0	37
No. of Residential PV Applications Loan Docs Accepted	0	N/A

Status of Applications (Leases - all Leases):

No. of Residential PV Applications Received	8	196
No. of Residential PV Applications in Process	8	N/A
No. of Residential PV Applications Declined	0	7
No. of Residential PV Applications Withdrawn/Expired	0	83
No. of Residential PV Applications Notice to Proceed	3	N/A

Status of Applications (GEM\$ OBR-PV and EE):

No. of Residential GEM\$ Applications Received	62	950
No. of Residential GEM\$ Applications in Process	70	N/A
No. of Residential GEM\$ Applications Declined	6	219
No. of Residential GEM\$ Applications Withdrawn/Expired	18	410
No. of Residential GEM\$ Applications OBO Accepted	70	N/A

Geographic Location of Financing Products

Oahu	14	377
Maui	1	50
Molokai	0	2
Lanai	0	0
Hawaii	0	28

Profile of Customers Financed:	7/1/21 - 9/30/21	Since Program Inception
Number of Customers by Customer FICO Credit Score (11)		
700 and above	0	149
675-699	0	50
650-674	0	32
620-649	0	18
600-619	0	9
Below 600	0	2

(11) Excludes on-bill applicants

Number of Customers by Income Distribution (self-reported by customers)

Under \$15,000	0	0
\$15,000-\$24,999	0	1
\$25,000-\$34,999	0	5
\$35,000-\$49,999	1	30
\$50,000-\$74,999	0	54
\$75,000-\$99,999	1	98
\$100,000 and above	13	269

Number of Customers by Area Median Income (12)

<30% AMI (Extremely Low Income)	1	8
30% to <50% AMI (Very Low Income)	0	42
50% to <80% AMI (Low Income)	3	110
80% to <140% AMI (Moderate Income)	11	206
>140% AMI	0	91

(12) Area Median Income as provided by the U.S. Department of Housing and Urban Development (HUD)

Commercial Loan Program	7/1/21 - 9/30/21	Since Program Inception
Total Number of GEMS PV Loans	1	29
Total Number of GEMS EE Loans	0	4
Total Number of GEM\$ OBOs, PV	3	12
Owner-User	3	12
Commercial Tenant	0	0
Total Number of GEM\$ OBOs, EE	0	0
Owner-User	0	0
Commercial Tenant	0	0
Number of Nonprofits Participating in GEMS	3	21
Number of Small Businesses Participating in GEMS	1	8
Number of Rental Units Supported by GEMS	0	1082

Geographic Location of Loans (13)

Oahu	2	31
Maui	1	6
Molokai	0	1
Lanai	0	0

Hawaii	1	7
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(13) DOE loan benefits 241 public schools statewide (except Kauai)

Number of Small Businesses by Gross Receipts (14)	7/1/21 - 9/30/21	Since Program Inception
Up to \$9,999	0	0
\$10,000-\$24,999	0	0
\$25,000-\$99,999	0	0
\$100,000-\$499,999	0	1
\$500,000-\$999,999	0	2
\$1,000,000-\$4,999,999	0	2
Above \$5,000,000	1	0

(14) Depending on the North American Industry Classification System (NAICS), the side determination is based on gross revenues or number of employees

Cost Savings Impacts

Aggregate, Estimated, Gross (15) Electricity Cost Savings (\$)	7/1/21 - 9/30/21	Since Program Inception
from Energy Production and Reduction	\$ 8,781,857	\$ 317,752,751
from Energy Production (Consumer)	\$ 1,336,127	\$ 53,302,016
from Energy Production (Commercial)	\$ 7,445,731	\$ 93,544,023
from Energy Efficiency (Consumer)	\$ -	\$ 286,782
from Energy Efficiency (Commercial)	\$ -	\$ 170,619,931

Average, Estimated, Gross (15) Electricity Cost

Savings (\$)

from Energy Production (Consumer)	\$ 89,075	\$ 141,011
from Energy Production (Commercial)	\$ 1,861,433	\$ 2,281,562
from Energy Efficiency (Consumer)	#DIV/0!	\$ 19,119
from Energy Efficiency (Commercial)	#DIV/0!	\$ 42,654,983

(15) Gross savings calculation for the life of the system assumes a historical utility rate increase per island

Aggregate, Estimated, Net (16) Electricity Cost Savings (\$)

from Energy Production (Consumer)	\$ 1,030,852	\$ 30,884,708
from Energy Production (Commercial)	\$ 2,709,443	\$ 50,217,738
from Energy Efficiency (Consumer)	\$ -	\$ 140,384
from Energy Efficiency (Commercial)*	\$ -	\$ 115,544,468

Average, Estimated, Net (16) Electricity Cost Savings (\$)

from Energy Production (Consumer)	\$ 68,723	\$ 81,706
from Energy Production (Commercial)	\$ 677,361	\$ 1,224,823
from Energy Efficiency (Consumer)	#DIV/0!	\$ 9,359
from Energy Efficiency (Commercial)	#DIV/0!	\$ 28,886,117

(16) Net savings calculations include tax credits, assume historical utility rate increase per island and are net of loan payments required

Future Outlook

The Authority invested significant time and resources during the 2021 calendar year to establish the groundwork and foundation for program expansion during the upcoming year.

Additional loan capital from the USDA's RESP program and the Clean Energy Accelerator (if passed) will enable the Authority to further expand its clean energy financing programs and products.

The successful integration of HGIA's OBR mechanism into HECO's Community Solar portal and the launch of the Solarize Waianae campaign are initiatives targeted to assist more vulnerable ratepayers in lowering their energy bill.

Finally, the launch of the SSBCI 2.0 loan participation and collateral support programs will further assist Hawaii's small businesses statewide, leveraging the established retail channels and private capital of the local banking industry.

HGIA Board



Mike McCartney, Chair



Scott Glenn, Vice Chair



**Richard Wallsgrove,
Secretary**



Craig Hirai, Director



Dennis Wong, Director