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January 28, 2021

The Honorable Chair and Members of the
Hawaii Public Utilities Commission
465 South King Street, First Floor
Kekuanaoa Building
Honolulu, Hawaii 96813

Dear Commissioners:

Subject: Docket No. 2014-0135 – GEMS Program Quarterly Report

The Hawaii Green Infrastructure Authority respectfully submits this Green Energy Market Securitization Program Quarterly Report for the period from October 1, 2020 to December 31, 2020. This report fulfills the requirement for the Quarterly Report as specified in Decision and Order No. 32318, filed on September 30, 2014 in Docket No. 2014-0135.

As always, should you have any questions or if I can be of assistance to you, please do not hesitate to contact me.

Sincerely,

Gwen S. Yamamoto Lau
Executive Director

Attachment

cc: Service List

SERVICE LIST

An electronic copy of the GEMS Quarterly Report for October 1, 2020 to December 31, 2020 has been filed in Docket No. 2014-0135, together with this Certificate of Service, in addition to the following, at the following addresses:

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Dated: Honolulu, Hawaii, January 28, 2021



State of Hawaii

Hawaii Green Infrastructure Authority

GREEN ENERGY MARKET SECURITIZATION PROGRAM

QUARTERLY REPORT:

October 1, 2020 – December 31, 2020

REPORT TO THE
STATE OF HAWAII
PUBLIC UTILITIES COMMISSION
Pursuant to

Decision and Order No. 32318 filed in Docket No. 2014-0135

January 2021

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1 Introduction and Context

The Green Infrastructure Loan Program (a.k.a. the “Green Energy Market Securitization Program,” “GEMS Program” or “Program”) leverages public-private capital to deploy clean energy infrastructure that will contribute towards Hawaii’s pursuit of its statutory 100% clean energy goals by 2045 while helping ratepayers lower their energy costs. The GEMS Program is the result of Act 211, Session Laws of Hawaii 2013 (“Act 211”), which created the framework for establishing the GEMS Program, including its oversight, governance, and reporting processes. The Program is governed by the Hawaii Green Infrastructure Authority which consists of five members: The Director of Business, Economic Development, and Tourism, the Director of Finance, the Chief Energy Officer (fka Energy Program Administrator), and two members appointed by the Governor with the advice and consent of the Hawaii State Senate.

1.1 Procedural History and Reporting Requirements

The State of Hawaii Public Utilities Commission (“Commission” or “PUC”) issued Decision and Order No. 32318¹ (the “Program Order”), which approved the “Application of the Department of Business, Economic Development, and Tourism for an Order Approving the Green Infrastructure Loan Program,”² (“Application”) for the Hawaii Green Infrastructure Authority (“Authority” or “HGIA”).³ The Application requested, and the Program Order approved, the use of funds deposited in the Green Infrastructure Special Fund to establish and institute the GEMS Program, subject to the modifications described within the Program Order.⁴ In addition to complying with reporting requirements mandated by Act 211, the Authority proposed providing the Commission with Quarterly Reports which offer a snapshot of program activities as a part of the Application.⁵ The Commission approved the quarterly reporting proposal made by the Authority, adding additional requirements that arose during the docket process, including one from the Consumer Advocate⁶ that included requirements concerning the financing of utility-scale projects, when applicable.⁷

The Commission’s approval of the Quarterly Report process, with modifications, stated that Quarterly Reports must provide information on the progress of the GEMS Program development and include, at a minimum:

- (1) All information proposed in [the] Application or as otherwise indicated by DBEDT in the course of this proceeding to be included in Quarterly Reports;
- (2) Summaries of all metrics approved pursuant to [the] Program Order, and as developed and approved through the metrics and data collection development process;

¹ Filed on September 30, 2014 in Docket No. 2014-0135

² Filed on June 6, 2014 in Docket No. 2014-0135

³ HRS §196-63 provides that until the Authority is duly constituted, the Department of Business, Economic Development, and Tourism of the State of Hawaii (DBEDT) may exercise all powers reserved to the Authority pursuant to HRS §196-64, and shall perform all responsibilities of the Authority. As the Authority has now been duly constituted, the Authority assumes in its own right, pursuant to statute, all of the functions, powers, and obligations, including responsive or informational submissions in this Docket, which had heretofore been assigned to DBEDT.

⁴ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 1.

⁵ See “Application of Department of Business, Economic Development, and Tourism; Verification; Exhibits; and Certificate of Service,” filed in Docket No. 2014-0135 on June 6, 2014 at p. 17.

⁶ “Consumer Advocate” refers to the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs of the State of Hawaii.

⁷ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 93.

- (3) Accumulated year-to-date tallies of quantitative, and to the extent possible, non-quantitative metrics provided in preceding Quarterly Reports for the applicable annual reporting period;
- (4) Any additional information required by this Program Order to be included as part of one or more Quarterly Reports; and
- (5) Actuals to date as compared to the immediately preceding Annual Plan budget.⁸

In the Application, the Authority proposed Quarterly Reports to include a snapshot of program activities, provide a financial summary, and address adjustments planned or made to the GEMS Program to accommodate market changes.⁹ The Authority submitted its first Quarterly Report for the period of October 1, 2014 to December 31, 2014 on January 30, 2015. More information about the procedural background for the GEMS Program can be found in the various filings in Docket No. 2014-0135 on the Commission's website: <http://dms.puc.hawaii.gov/dms/>.

1.2 Overview of Program Status and Market Outlook

During the quarter, while the Authority continued to approve, commit and deploy capital under its various loan programs, it was also responsible for administration of the CARES Act funded Hawaii Restaurant Card program, which injected almost \$70.0 million into the State's economy, with almost 2.0 million transactions, over a 60-day period. The economic multiplier of these funds exceeded \$151.2 million, helping over 4,200 businesses in the restaurant and food supply chain industry, creating or retaining over 1,100 jobs and assisting over 142,500 eligible UI and PUA claimants.



As of December 31, 2020, \$87.4 million of the GEMS loan funds have been committed, leaving approximately \$40.8 million available to lend. Of these remaining amounts, approximately \$3.1 million is available under the State Revolving Loan Fund and \$37.7 million are available for all other eligible segments.

Additional GEMS Program highlights, as of December 31, 2020, are as follows:

Excess Operational Revenues over Expenditures – YTD FY21 ¹⁰	\$168,808
Jobs Created / Retained Since Inception	1,175
State of Hawaii Tax Revenues Generated Since Inception	\$14,382,806
Economic Multiplier Impact	\$238,958,436
Total Estimated kWh Production / Reduction Over Lifetime Since Inception	851,019,829
Total Petroleum Displaced Over Lifetime (Estimated Barrels)	522,521

⁸ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 97.

⁹ See “Application of Department of Business, Economic Development, and Tourism; Verification; Exhibits; and Certificate of Service,” filed in Docket No. 2014-0135 on June 6, 2014 at p. 17.

¹⁰ Excess Operational Revenue over Expenditures are before loan repayments returned to the PUC per Order No. 34930 Amending Decision and Order No. 32318 By Changing the Priority uses of GEMS Program Loan Repayments, bad debt expense and unrealized gains or losses on investments.

Total Greenhouse Gas Avoided Over Lifetime (Estimated Metric Tons CO2)	255,964
% Underserved Residential Households Served	78.0%

For the six-month period ending December 31, 2020, the Authority posted modest Excess Operational Revenues over Operational Expenditures aggregating \$169,000 prior to the repayment of interest and principal collected to the Commission, aggregating over \$1.6 million. Please refer to the Financial Summary in Section 4 for details on the financial results for the current quarter.

2. Summary of Program Activities

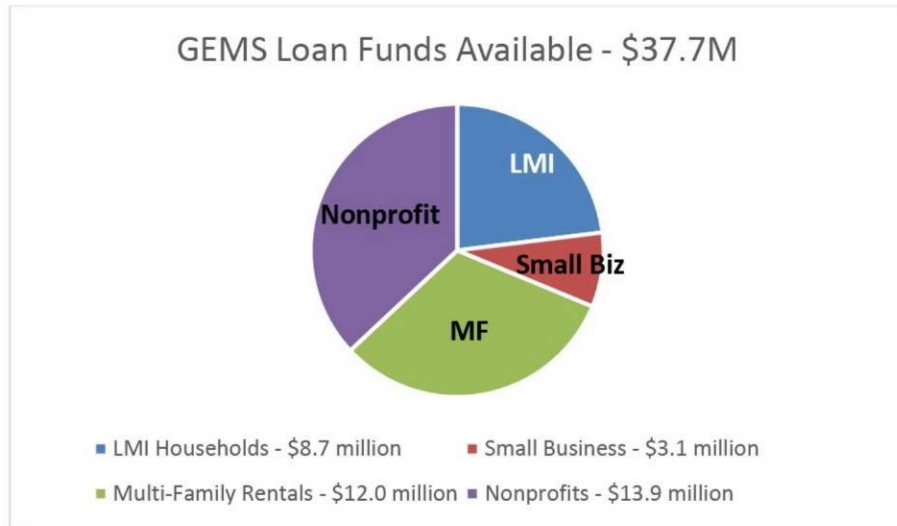
The following is a summary of the activities that have occurred between October 1, 2020 and December 31, 2020.

2.1 Administration

The following timeline of activities pertain to the administration of the GEMS Program:

- **Information Request.** A request for information on the \$4,004,860.68 that HGIA transferred to the Public Utilities Commission was filed by the Commission on October 26, 2020 in Docket No. 2014-0135.
- **Board Meeting.** The Authority held a board meeting on October 28, 2020, during which it approved HGIA's Quarterly Report for the period ended September 30, 2020.
- **Quarterly Report.** The Quarterly Report covering the period of September 1, 2020 to December 31, 2020 was filed with the Commission on October 30, 2020 in Docket No. 2014-0135.
- **Response.** The Authority filed a Response to the Commission's Information Request on November 9, 2020 in Docket No. 2014-0135.
- **Board Meeting.** The Authority held a board meeting on December 18, 2020, during which it accepted the HGIA Loan Fund Audit for the fiscal year ended June 30, 2020; accepted the GEMS Bond Fund Audit for the fiscal year ended June 30, 2020; and approved the Authority's 2020 Report to the Governor and Legislature.
- **2020 Report to the Governor and Legislature.** On December 29, 2020, HGIA's report was distributed to the Governor, Legislature and other required recipients.

With the allocation of remaining loan funds, effective September 1, 2019, HGIA's Board felt it important to provide visibility on the funds available per segment on an ongoing basis. As such, below is a pie chart reflecting the amount of loan funds available as of December 31, 2020:



With only \$3.1 million remaining under the Small Business allocation, and with the economic crisis facing many small businesses due to the COVID-19 pandemic, the Authority may need to consider reallocating funds to make additional resources available to help small businesses lower their energy costs.

Status of Programs: Residential Portfolio

2.2.1 Residential PV – WECC Originated

WECC Originated (From 6/2015 to 11/2017)	Applications Received	In Process	Committed	Funded
# of loans	427	0	0	140
\$ value of loans	n/a	n/a	\$0	\$4,836,268

HGIA terminated its contract with WECC on December 31, 2017 and is no longer purchasing loans originated by WECC.

2.2.2 Residential PV – Direct

At a glance (as of 12/31/20):

HGIA Originated (Effective 11/9/17)	Applications Received	In Process¹¹	Committed¹²	Funded
# of loans	155	1	2	55
\$ value of loans	n/a	n/a	\$50,930	\$1,918,224

¹¹ This category includes loan that being processed and/or pending additional information.

¹² Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

2.2.3 Residential PV - Consumer Leases

At a glance (as of 12/31/20):

Consumer Leases (Effective 5/1/17)	Applications Received	In Process¹³	Committed¹⁴	Funded¹⁵
# of leases	128	0	0	64
\$ value of loans	n/a	n/a	\$0.00	\$1,811,357

2.2.4 Residential PV - On-Bill

At a glance (as of 12/31/20):

Residential PV OBR (Effective 6/1/18)	Applications Received	In Process¹⁶	Committed¹⁷	Funded¹⁸
# of OBO	631	22	52	105
\$ value of OBO	n/a	n/a	\$1,549,410	\$2,844,043

2.2.5 Residential PV – On-Bill Lease Fund

At a glance (as of 12/31/20):

OBR Leases (Effective 6/1/18)	Applications Received	In Process¹⁹	Committed²⁰	Funded²¹
# of OBO	48	0	12	21
\$ value of loans	n/a	n/a	\$226,085	\$711,839
			3,540,609 ²²	

2.2.6 Residential EE – On-Bill

At a glance (as of 12/31/20):

Residential EE OBR (Effective 6/1/18)	Applications Received	In Process²³	Committed²⁴	Funded
# of OBO	147	3	2	14
\$ value of OBO	n/a	n/a	\$13,822	\$88,083

¹³ This category includes requests being processed and/or pending additional information.

¹⁴ Includes projects that have been approved and solar systems in the process of being installed. May include loans that are partially funded. The amount(s) funded are in the "Funded" category.

¹⁵ May include loans that are partially funded. The remaining amount(s) to be funded are in the "Committed" category.

¹⁶ This category includes loans that are being processed and/or pending additional information.

¹⁷ Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

¹⁸ Partially funded loans are counted as Funded, however, the value of the loan only includes the funded portion of the loan. The unfunded portion is included in the Committed

¹⁹ This category includes requests being processed and/or pending additional information.

²⁰ Includes projects that have been approved and solar systems in the process of being installed. May include loans that are partially funded. The amount(s) funded are in the "Funded" category.

²¹ May include loans that are partially funded. The remaining amount(s) to be funded are in the "Committed" category.

²² GEMS funds committed to borrowers in the process of originating consumer PV+ Storage leases.

²³ This category includes loan that being processed and/or pending additional information.

²⁴ Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

As the State’s recovery efforts begin, it will be critical to help more LMI households lower its energy costs and the GEM\$ Program existing “no disconnection notice” criteria will preclude many households who may need it the most.

Delinquent Status for the entire Residential Loan Portfolio as of December 31, 2020:

Loan Balance	Current	%	31 – 60 Days*	%	61 – 90 Days*	%	91+ Days	%
\$7,181,117	\$6,971,941	97.1%	\$87,925	1.2%	\$23,413	0.3%	\$97,838	1.4%
No.: 261	254	97.3%	3	1.1%	1	0.4%	3	1.1%

As of December 31, 2020, 2.9% of the Authority’s residential loan portfolio was past due and consisted of seven loans aggregating \$209,176. All of the loans except one are on-bill.

Beginning March 27, 2020, the Authority suspended all collection activity on delinquent loans.

Hawaiian Electric has extended its moratorium on disconnections through March 31, 2021, in alignment with a recent order by the Public Utilities Commission. Similarly, the Authority will continue to suspend its collection efforts to be in alignment with Hawaiian Electric.

2.3 Status of Programs: Commercial Portfolio

2.3.1 Commercial PV – Direct

At a glance (as of 12/31/20):

Commercial PV (Effective 11/2016)	Applications Received	In Process²⁷	Committed²⁸	Funded²⁹
# of loans	46	4	10	27
\$ value of loans	n/a	n/a	\$1,793,589	\$16,762,143

Commercial activity is starting to increase. During the quarter, the Authority approved a direct loan for a small business and a nonprofit. Additionally, seven new applications were received.

²⁷ The Authority is currently awaiting additional information from the applicant and/or underwriting the loan requested.

²⁸ These loans have been approved and are currently in the documentation process and/or the projects are currently under development.

²⁹ May include loans that are partially funded. The remaining amount(s) to be funded are in the “Committed” category.

2.3.2 Commercial PV – On-Bill

At a glance (as of 12/31/20):

Commercial PV OBR (Effective 6/1/18)	Applications Received	In Process³⁰	Committed³¹	Funded³²
# of OBO	27	8	5	6
\$ value of OBO	n/a	n/a	\$1,721,537	\$2,721,755

During the quarter, the Authority approved four on-bill loans for small businesses.

2.3.3 Commercial EE – On-Bill

At a glance (as of 12/31/20):

Commercial EE OBR (Effective 6/1/18)	Applications Received	In Process³³	Committed³⁴	Funded
# of OBO	3	1	0	0
\$ value of OBO	n/a	n/a	\$0.00	\$0.00

2.3.4 Commercial EE – Direct

At a glance (as of 12/31/20):

Commercial EE (Effective 4/2/18)	Applications Received	In Process	Committed³⁵	Funded^{36,37}
# of loans	2	1	0	0
\$ value of loans	n/a	n/a	\$0.00	\$0.00

Delinquent Status as of December 31, 2020 for the entire commercial loan portfolio:

Loan Balance	Current	%	31 – 60 Days	%	61 – 90 Days	%	91+ Days	%
\$20,976,122	\$20,976,122	100.0%	\$0.00	0.0%	\$0.00	0.0%	\$0.00	0.0%
No.: 47 ³⁸	47	100.0%	0	0.0%	0	0.0%	0	0.0%

As of December 31, 2020, all commercial loans were being paid as agreed.

³⁰ This category includes loans that are being processed and/or pending additional information.

³¹ Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

³² While not included in the Commercial EE – OBR counts so not to double count the applications, one solar PV project also included solar thermal.

³³ This category includes loan that being processed and/or pending additional information.

³⁴ Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

³⁵ Loan funds will be advanced based on achievement of milestone progress payment criteria by Contractors.

³⁶ Partially funded loan. The remaining amount(s) to be funded are in the “Committed” category.

³⁷ While not accounted for under Commercial EE - Direct so not to double count the applications, two solar PV projects also included solar thermal installations.

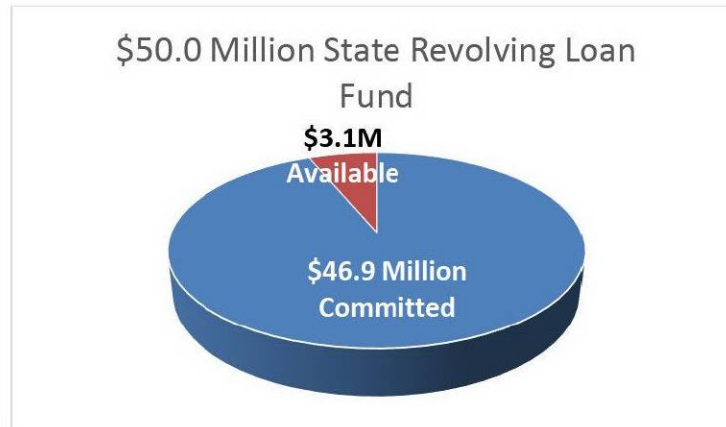
³⁸ Although individual metrics for consumer leases are reported under the Residential Portfolio, advances for consumer leases are actually commercial loans. As such, these loans are included in the Commercial Portfolio for delinquency reporting purposes.

2.3.5 State Energy Efficiency Revolving Line of Credit

At a glance (as of 12/31/20) from program inception:

	Applications Received	In Process	Committed ³⁹	Funded ⁴⁰
# of loans	4	0	4	2
\$ value of loans	n/a	n/a	\$12,791,049	\$39,613,450

During the quarter, the Authority approved a \$2.4 million loan to the University of Hawaii for its HVAC replacement project, leaving \$3.1 million available for other state departments and agencies.



Delinquent Status as of December 31, 2020:

Loan Balance	Current	%	31 – 60 Days	%	61 – 90 Days	%	91+ Days	%
\$34,063,875	\$34,063,875	100.0%	\$0.00	0.0%	\$0.00	0.0%	\$0.00	0.0%
No.: 2	2	100.0%	0	0.0%	0	0.0%	0	0.0%

As of December 31, 2020, all state loans were being paid as agreed.

2.4 Status of Programs: Miscellaneous

Energy Service Company (“ESCO”) Financing

In July 2016, Metrus Energy was approved as a capital partner for the Commercial Energy Efficiency Product, however, to date, has not originated any GEMS financed project.

Subsequent to quarter end, a new Energy Professional from Metrus has indicated renewed interest in sourcing nonprofit and state energy efficiency projects.

Open Solicitation for Financing Arrangements. On July 14, 2016, the Authority established an Open Solicitation for Financing Arrangements process for proposals related to deployment of GEMS funds. This is consistent with best practice by Green Banks and similar State entities and provides a consistent,

³⁹ Loan funds will be advanced based on achievement of milestone progress payment criteria by Contractors.

⁴⁰ Partially funded loan. The remaining amount(s) to be funded are in the “Committed” category.

transparent approach to sourcing opportunities for capital deployment. HGIA did not receive any requests during the quarter.

2.5 Status of Programs: Other Programs Under Development

PV plus Storage Financing

The Authority filed Program Notification No. 7 with the Commission on July 22, 2016 regarding deployment of capital for consumer PV with battery. On August 2, 2016, the Consumer Advocate filed comments requesting the Authority to provide further information regarding (1) modifications made to the existing Consumer PV program and their impact on the types of customers likely to receive GEMS Program financing; (2) the “public benefit” associated with the proposed Consumer PV with Battery program and who is likely to benefit; and (3) how the proposed Consumer PV product will expand access to financing for customers, particularly those who are underserved. On August 12, 2016, the Commission suspended Program Notification No. 7 pending the Authority’s response to comments from the Consumer Advocate (“CA”).

The Authority believes that its ability to finance storage is critical, especially given the remaining interconnection options offered by the Hawaiian Electric Companies requiring energy storage. In alignment with its Annual Plan, the Authority will be submitting a Program Notification to request Commission approval to finance PV + Storage.

2.6 Marketing and Customer Service Activities

The following table estimates the activities of the Authority’s staff in marketing and customer service for the past quarter (since June 1, 2018).

	10/1- 12/31/20	FY21 To Date	Since 6/1/18
GEM\$ Marketing and Program Outreach Events and Activities	7	12	82
Prospective Contractor Contacts	10	30	310
Prospective Residential Loan Contacts	555	1022	6325
Prospective Consumer Lease Contacts	18	36	934
Prospective Commercial Loan Contacts	207	290	1430
Existing Contractor Calls and Support	21	42	173
Existing Residential Participant/Borrower Servicing	60	120	560
Existing Commercial Participant/Borrower Servicing	192	387	1343
Contractor Complaint Resolution	0	0	1
Participant/Customer Complaint Resolution	0	4	10
Other-Deferral contacts	0	20	926

During the quarter, the Authority was mentioned in three national articles, “A Resilient Future for Coastal Communities, Federal Policy Recommendations from Solutions to Practice,” published in October 2020 by the Environmental and Energy Study Institute; “State of Green Banks 2020” published by the Rocky Mountain Institute; and “Rise Up Midwest: Our Call to Action for a Midwest Clean Energy Transition,” published in December 2020.

Additionally, the Authority participated in four virtual energy related conferences/webinars, “Powering the Solar LMI Market with On-Bill Financing” on 10/22/20 during Solar Power International’s North

America Smart Energy Week Virtual Education Micro-Conference; SunCast Media and Solar Coaster's Weekly Wrap Up Interview on 10/24/20; "Climate Finance for Climate Justice: Green Banks at Work for Vulnerable Communities" on 11/19/20 for the Coalition for Green Capital; and on the "Environmental Justice Panel" on 12/8/20 during the Second Annual U.S. Green Bank Summit.

2.7 Additional Activities

The following are activities that have occurred since the end of the quarter December 31, 2020 and will be reported as activities in the next Quarterly Report:

- **Committee on Pandemic & Disaster Preparedness.** On January 6, 2021, the Authority participated in an information briefing presenting the impacts and lessons learned on the Hawaii Restaurant Card, a CARES Act funded program administered by HGIA.
- **HSEO – HEPF Legislative Energy Briefing.** On January 15, 2021, the Authority participated in the briefing sharing challenges and possible solutions related to clean energy financing.
- **California Public Utilities Commission Clean Energy Financing Workshop.** The Authority is scheduled to participate in a panel discussion on financing mechanisms with promise to scale and address underserved markets on January 29, 2021.

3 Program Metrics

In accordance with the Program Order, the following Program Metrics are being provided for the current quarter, fiscal year-to-date and since program inception. For metrics related to program activities, please see Section 2 of this report.

3.1 Energy and Environment Impact

	10/1-12/31/20	FY21 To Date	Since Program Inception
Clean Energy Production of Projects Financed			
Installed Capacity (Actual kW)	309	515	10,602
Total Yr 1 Production (Estimated kWh)	479,450	773,538	16,128,862
Total Project Production over Lifetime of Installed PV (Projected kWh, including 0.05% degradation)	9,146,902	14,757,479	281,864,299
Electricity Reductions from Energy Efficiency Projects Financed			
Total Yr 1 kWh Reduction (Energy Efficiency)	3,003,370	3,004,784	38,610,871
Total kWh Reduction Over Lifetime of Installed EE	34,387,486	34,414,462	569,155,530
Petroleum Displaced by Clean Energy and Energy Efficiency Projects (1)			
Total Petroleum Displaced/Saved over Lifetime (Estimated barrels)	26,738	30,200	522,521
Petroleum Displaced based on Yr 1 Clean Energy Generation (Estimated barrels)	294	475	9,907
Petroleum Displaced Over Lifetime of Installed PV (Estimated barrels)	5,618	9,064	172,847
Cumulative Annual Petroleum Saved from Yr 1 Efficiency Projects	1844.6	1,845	23,714
Petroleum Saved of Lifetime of Efficiency Projects	21119.9	21,137	349,561

(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)	13,101	14,797	255,964
Greenhouse Gas Avoided from Clean Energy Yr 1 Production (Est. metric tons CO ₂)	144	233	4,854
Greenhouse Gas Avoided Over Lifetime of Installed PV (Projected metric tons CO ₂)	2,753	4,441	84,690
Greenhouse Gas Avoided from Yr 1 Energy Efficiency*	904	904	11,619
Greenhouse Gas Avoided over lifetime of Energy Efficiency Project*	10,348	10,356	171,274

(2) Reference eia.gov for conversion metric.

3.2 Economic Development Impact

	10/1-12/31/20	FY21 To Date	Since Program Inception
GEMS Revenues (Cash Basis)	\$ 505,784	\$ 936,724	\$ 12,364,812
GEMS Administrative & Program Costs (Cash Basis) (1)	\$ 273,825	\$ 525,404	\$ 6,073,885
GEMS Loans Funded	\$ 1,099,265	\$ 4,196,908	\$ 71,712,384
Indirect Economic Impact - Jobs Created/Retained (2)	80	88	1,175
State of Hawaii Tax Revenues Generated (3)	\$ 1,065,582	\$ 1,170,123	\$ 14,382,806

(1) Does not include principal and interest repaid to the PUC.

(2) 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 and \$105,185.44/job in 2020.

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

3.3 Market Expansion Impact

Projects Financed According to Technology Type/Category	10/1-12/31/20	FY21 To Date	Since Program Inception
Solar Photovoltaic	9	35	695
Energy Storage (1)	0	4	129
Lighting Upgrades (2)	1	1	965,001
HVAC Upgrades	2001	2001	2325
Mechanical Upgrades	1	1	1
Controls and Monitoring Devices	11	37	1,491
Energy/Water Nexus (3)	1	2	209
Total No. of Projects	2024	2081	969,851

(1) HGIA has financed PV+Storage projects for both the residential and commercial portfolio, however, the Energy Storage Systems are not being financed with GEMS funds.

(2) DOE Project: Interior and exterior LEDs.

(3) Includes solar water heating.

Residential Loan Program	10/1-12/31/20	FY21 To Date	Since Program Inception
Total Number of PV Loans, Direct	0	1	195
Total Number of PV Leases, Direct	0	0	64
Total Number of GEM\$ OBOs for PV (Loans)	5	30	105
Owner Occupied OBOs	5	29	104
Renter OBOs	0	1	1
Total Number of GEM\$ OBOs for PV (Leases)	0	0	21
Total Number of GEM\$ OBOs for EE (SWH)	1	2	14
Owner Occupied OBOs	1	2	14
Renter OBOs	0	0	0
Total Number of GEM\$ OBOs	6	32	140
Number PV Loans/Leases/OBOs Serving Underserved Market (1)	5	27	300
Number EE Loans/Leases/OBOs Serving Underserved Market (1)	1	2	12
% Loans/Leases Serving Underserved Market	100%	88%	78%

(1) See AMI Distribution

Status of Applications (WECC):

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

Status of Applications (Direct):

No. of Residential PV Applications Received	1	4	154
No. of Residential PV Applications in Process	1	N/A	N/A
No. of Residential PV Applications Declined	0	3	58
No. of Residential PV Applications Withdrawn/Expired	0	2	39
No. of Residential PV Applications Loan Docs Accepted	0	N/A	N/A

Status of Applications (Leases - all Leases):

	10/1-12/31/20	FY21 To Date	Since Program Inception
No. of Residential PV Applications Received	1	1	176
No. of Residential PV Applications in Process	0	N/A	N/A
No. of Residential PV Applications Declined	1	1	4
No. of Residential PV Applications Withdrawn/Expired	0	0	81
No. of Residential PV Applications Notice to Proceed	0	N/A	N/A

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

No. of Residential GEM\$ Applications Received	53	113	779
No. of Residential GEM\$ Applications in Process	24	N/A	N/A
No. of Residential GEM\$ Applications Declined	10	31	208
No. of Residential GEM\$ Applications Withdrawn/Expired	27	39	359
No. of Residential GEM\$ Applications OBO Accepted	23	N/A	N/A

Geographic Location of Financing Products

Oahu	5	29	330
Maui	0	2	41
Molokai	0	0	2
Lanai	0	0	0
Hawaii	1	2	26

Profile of Customers Financed:

Number of Customers by Customer FICO Credit Score (2)

700 and above	0	1	148
675-699	0	0	49
650-674	0	1	31
620-649	0	0	18
600-619	0	0	9
Below 600	0	0	2

(2) Excludes on-bill applicants and 3 leases prepaid in full

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

Under \$15,000	0	0	0
\$15,000-\$24,999	0	0	1
\$25,000-\$34,999	0	0	4
\$35,000-\$49,999	2	3	26
\$50,000-\$74,999	0	4	46
\$75,000-\$99,999	1	9	89
\$100,000 and above	3	17	233

Number of Customers by Area Median Income (1)

<30% AMI (Extremely Low Income)	0	1	6
30% to <50% AMI (Very Low Income)	1	1	36
50% to <80% AMI (Low Income)	2	12	88
80% to <140% AMI (Moderate Income)	3	15	181
>140% AMI	0	4	88

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

Commercial Loan Program	10/1-12/31/20	FY21 To Date	Since Program Inception
Total Number of GEMS PV Loans	2	2	28
Total Number of GEMS EE Loans	2	2	4
Total Number of GEM\$ OBOs, PV	1	1	7
Owner-User	1	1	3
Commercial Tenant	0	0	0
Total Number of GEM\$ OBOs, EE	0	0	0
Owner-User	0	0	0
Commercial Tenant	0	0	0
Number of Nonprofits Participating in GEMS	1	1	18
Number of Small Businesses Participating in GEMS	2	2	10
Number of Rental Units Supported by GEMS	0	0	1074

Geographic Location of Loans (1)

Oahu	4	4	24
Maui	0	0	5
Molokai	0	0	1
Lanai	0	0	0
Hawaii	0	0	6

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

Number of Small Businesses by Gross Receipts*

Up to \$9,999	0	0	0
\$10,000-\$24,999	0	0	0
\$25,000-\$99,999	0	0	0
\$100,000-\$499,999	0	0	1
\$500,000-\$999,999	1	1	3
\$1,000,000-\$4,999,999	0	0	2
Above \$5,000,000	0	0	0

Number of Small Businesses by Average Number of Employees*

10 Employees or less	1	1	1
11-50 Employees	0	0	0
51-100 Employees	0	0	0
101-250 Employees	0	0	0
251-500 Employees	0	0	0
501-1,000 Employees	0	0	2
>1,000 Employees	0	0	0

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

3.4 Cost Savings Impact

Aggregate, Estimated, Gross* Electricity Cost Savings (\$)	10/1-12/31/20	FY21 To Date	Since Program Inception
from Energy Production and Reduction	\$ 12,939,815	\$ 15,373,686	\$304,421,452
from Energy Production (Consumer)	\$ 615,868	\$ 3,040,401	\$ 47,188,079
from Energy Production (Commercial)	\$ 2,143,263	\$ 2,143,263	\$ 86,350,480
from Energy Efficiency (Consumer)	\$ 9,164	\$ 18,501	\$ 263,144
from Energy Efficiency (Commercial)	\$ 10,171,521	\$ 10,171,521	\$170,619,930

Average, Estimated, Gross* Electricity Cost Savings (\$)

from Energy Production (Consumer)	\$ 123,174	\$ 98,077	\$ 112,374
from Energy Production (Commercial)	\$ 535,816	\$ 535,816	\$ 2,272,381
from Energy Efficiency (Consumer)	\$ 9,164	\$ 9,250	\$ 18,796
from Energy Efficiency (Commercial)	\$ 5,083	\$ 5,086	\$ 85,182

* Gross savings calculation for the life of the system assumes a historical utility rate increase of 5.72% annually

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

from Energy Production (Consumer)	\$ 375,925	\$ 1,822,459	\$ 24,961,281
from Energy Production (Commercial)	\$ 1,044,911	\$ 1,044,911	\$ 47,345,664
from Energy Efficiency (Consumer)	\$ 3,502	\$ 6,911	\$ 128,802
from Energy Efficiency (Commercial)*	\$ 1,860,596	\$ 1,860,596	\$115,544,467

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

from Energy Production (Consumer)	\$ 75,185	\$ 58,789	\$ 69,468
from Energy Production (Commercial)	\$ 261,228	\$ 261,228	\$ 1,253,674
from Energy Efficiency (Consumer)	\$ 3,502	\$ 3,456	\$ 9,200
from Energy Efficiency (Commercial)	\$ 930	\$ 930	\$ 57,686

**Net savings calculations include tax credits, assume historical utility rate increase of 5.72% annually and are net of loan payments required

Average System Cost per Watt for All Consumers (PV) (\$)	\$ 3.85	\$ 3.95	\$ 3.94
Average System Cost per Watt for Underserved Consumers (PV)	\$ 3.85	\$ 3.97	\$ 4.01
Average System Size for All Consumers (PV) (kW)	10.0	8.2	9.0
Average System Size for Underserved Consumers (PV) (kW)	10.0	8.4	9.0
Project Cost per kWh for All Consumers -- Energy Efficiency (\$)*	\$ 0.26	\$ 0.25	\$ 0.18
Average Project Size for All Consumers -- Energy Efficiency (kW)	n/a	n/a	n/a
Project Cost per kWh for Underserved Consumers -- Energy Efficiency (\$)*	\$ 0.26	\$ 0.25	\$ 0.18
Average Project Size for Underserved Consumers -- Energy Efficiency (kW)	n/a	n/a	n/a

* Calculated for all projects regardless of island

4 Financial Summary of Hawaii Green Infrastructure Authority

Hawaii Green Infrastructure Authority

Balance Sheet

As of December 31, 2020

ASSETS

Current Assets

Cash in Bank Total	\$ 9,501,992
Cash in Treasury	550,662
Total Cash	\$ 10,052,654
Investments	75,038,173
Total Cash and Investments	\$ 85,090,827
Prepaid Expenses	2,580
Other Receivables	59,749
Total Current Assets	\$ 85,153,156

Noncurrent Assets

GEMS Loans Receivable	\$ 62,409,842
Loan Portal Development	171,705
Allowance for Loan Losses	(150,192)
Other Noncurrent Assets	(1,500)
Total Noncurrent Assets	\$ 62,429,856

Total Assets	\$ 147,583,012
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LIABILITIES AND EQUITY

Current Liabilities

Accounts Payable	\$ -
Accounts Payable - PUC	1,674,722
Accrued Expenses	-
Other Current Liabilities	68,790

Total Current Liabilities	\$ 1,743,512
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Total Noncurrent Liabilities	\$ -
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Total Liabilities	\$ 1,743,512
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Fund Balance, Beginning 9/30/20 (From last quarterly report)	\$ 146,885,804
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Net Income (loss) for the Quarter 10/1/20-12/31/20	(1,046,304)
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Fund Balance, Ending	\$ 145,839,500
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Fund Balance, Beginning 7/1/20 Audited	\$ 147,280,366
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Adjustment to record Interfund receivable	(4,045)
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Adjustment for accrued compensated absences	69,093
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Net Income (loss) fiscal year-to-date	(1,505,914)
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Fund Balance, Ending	\$ 145,839,500
-----------------------------	-----------------------

TOTAL LIABILITIES AND FUND BALANCE	\$ 147,583,012
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Loan Portal Development represents that capitalized costs incurred for the Authority's automated loan application portal.

Other Receivables are funds that have been recorded, but not yet transferred between accounts.

Other Noncurrent Assets are unfunded amounts borrowers have opted to reserve for future solar hot water maintenance costs.

Accounts Payable – PUC represents principal and interest repaid on loans.

Other Current Liabilities include funds for outside capital sources, unapplied cash (cash that is received by our Loan Servicer, but not yet applied to a loan payment), and contract obligations for specific purposes.

Hawaii Green Infrastructure Authority
Revenues and Expenditures
For the Quarter: October 1, 2020 to December 31, 2020

Revenues from Operations		
Investment Interest	\$	128,610
Interest Income on Loans		369,993
Other Income		7,181
Total Revenues from Operations	\$	505,784
Operational Expenditures		
Salaries and Benefits	\$	122,259
Office and Administrative Expenses		1,361
Bank Fees		29,250
Program Expenses		120,955
Total Operational Expenditures	\$	273,825
Revenues Over (Under) Expenditures	\$	231,959
Payments to PUC/PBF		
PUC Repayment - Principal	\$	825,045
PUC Repayment - Interest		369,993
Total PUC Repayment	\$	1,195,038
Bad Debt Expense	\$	(1,729)
Unrealized Gains (Losses)	\$	(84,954)
Net Change in Fund Balance	\$	(1,046,304)
Fund Balance		
Beginning of Period, Unaudited	\$	146,885,804
End of Period	\$	145,839,500

Other Income consists of fees collected from various program activities.

Unrealized Gains(Losses) are point in time “gains” or “losses” based on the market value of the investment portfolio.

Bad debt expense is for future uncollectable accounts.

Hawaii Green Infrastructure Authority
Revenues and Expenditures
For the six-month period: July 1, 2020 to December 31, 2020

Revenues from Operations		
Investment Interest	\$	397,917
Interest Income on Loans		522,596
Other Income		16,211
Total Revenues from Operations	\$	936,723
Operational Expenditures		
Salaries and Benefits	\$	251,041
Office and Administrative Expenses		3,015
Bank Fees		61,958
Program Expenses		146,989
Total Operational Expenditures	\$	463,002
Revenues Over (Under) Expenditures	\$	473,721
Payments to PUC/PBF		
PUC Repayment - Principal	\$	1,096,743
PUC Repayment - Interest		577,979
Total PUC Repayment	\$	1,674,722
Bad Debt Expense	\$	(2,697)
Unrealized Gains (Losses)	\$	(307,610)
Net Change in Fund Balance	\$	(1,505,914)
Fund Balance		
Beginning of Period, Audited	\$	147,280,366
Adjustment to record Interfund receivable		(4,045)
Adjustment for accrued compensated absences		69,093
End of Period	\$	145,839,500

5. Additional Reporting Requirements

5.1 Consumer Protection Policies

The Program Order directed the Authority to “provide full details of the GEMS Program consumer protection policies it develops to the [C]ommission with its quarterly reporting and Program Notifications”⁴¹ and to “report the details of any failure on the part of any Deployment Partner to comply with these consumer protection policies to the [C]ommission, including the number of complaints and the steps taken to address such complaints, as part of the GEMS Program’s quarterly reporting and Annual Plan submission process”.⁴²

The GEMS Program submitted its consumer protection policies in a Program Notification to the Commission on July 1, 2015.⁴³ No complaints have been received to date regarding GEMS Deployment Partners.

5.2 Utility-Scale Project Financing

The Program Order instructed the Authority to summarize and report information about utility-scale project financing during periods where utility-scale project financing is initiated and the project is operated.⁴⁴

The Authority has not initiated any utility-scale projects during the quarter, however, due to the interest in leveraging the GEM\$ on-bill repayment mechanism to enable more LMI and hard to reach ratepayers to participate in Community Solar, the Authority is designing a GEM\$ for CBRE Program, which will be submitted to the Commission for approval.

5.3 Utility System Cost Information Update

The Program Order directed the Authority to “work with the HECO companies and the Consumer Advocate to determine the appropriate GEMS Program-related utility system cost information for reporting purposes, and to provide an update on the finalization of these utility system costs and impacts reporting requirements as part of DBEDT’s first Quarterly Report filing.”⁴⁵ Though “utility system cost” was not defined in the Program Order, the Consumer Advocate refers to these costs as costs “incurred as result of [distributed generation] PV or other clean energy projects financed by the GEMS [P]rogram.”⁴⁶

Subsequent to the issuance of the Program Order, the Authority, HECO and the Consumer Advocate met to identify ways to integrate data that is currently available with data that will be obtained through monitoring and other means to quantify and analyze potential utility system costs due to distributed generation. The Authority did not allocate any resources for this initiative over the last quarter. HGIA will update the Commission on utility system cost information should discussions resume.

⁴¹ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

⁴² See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

⁴³ See “Program Notification No. 4 for the Green Infrastructure Loan Program” filed in Docket No. 2014-0135 on July 1, 2015 at pp 4-5.

⁴⁴ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 60.

⁴⁵ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 95.

⁴⁶ See “Division of Consumer Advocacy’s Statement of Position,” filed in Docket No. 2014-0135 on August 7, 2014, at p. 14.

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