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October 29, 2020

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 July 1, 2020 to September 30, 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 July 1, 2020 to September 30, 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, October 29, 2020



State of Hawaii

Hawaii Green Infrastructure Authority

GREEN ENERGY MARKET SECURITIZATION PROGRAM

QUARTERLY REPORT:

July 1, 2020 – September 30, 2020

REPORT TO THE
STATE OF HAWAII
PUBLIC UTILITIES COMMISSION
Pursuant to

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

October 2020

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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, the Authority continued to approve, commit and deploy capital under its various loan programs. As of September 30, 2020, \$84.4 million of the GEMS loan funds have been committed, leaving almost \$44.0 million available to lend. Of these remaining amounts, approximately \$4.5 million is available under the State Revolving Loan Fund and \$39.4 million are available for all other eligible segments.

Under the State Revolving Fund, payments of principal aggregating \$67,600 were applied to the outstanding loan balance and became available to re-lend to other state agencies and a \$4.0 million loan was approved for the Department of Education. Please refer to Status of Programs, sections 2.2 and 2.3 for additional information.

Additional GEMS Program highlights, as of September 30, 2020, are as follows:

Excess Operational Revenues over Expenditures – YTD FY21 ¹⁰	\$179,361
Jobs Created / Retained Since Inception	1,095
State of Hawaii Tax Revenues Generated Since Inception	\$13,317,224
Total Estimated kWh Production / Reduction Over Lifetime Since Inception	807,485,440
Total Petroleum Displaced Over Lifetime (Estimated Barrels)	495,784
Total Greenhouse Gas Avoided Over Lifetime (Estimated Metric Tons CO ₂)	242,863
% Underserved Residential Households Served	78.0%

For the three-month period ending September 30, 2020, the Authority posted modest Excess Operational Revenues over Operational Expenditures aggregating \$179,000 prior to the repayment of interest and principal collected to the Commission, aggregating almost \$480,000. Please refer to the Financial Summary in Section 4 for details on the financial results for the current quarter.

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.

2. Summary of Program Activities

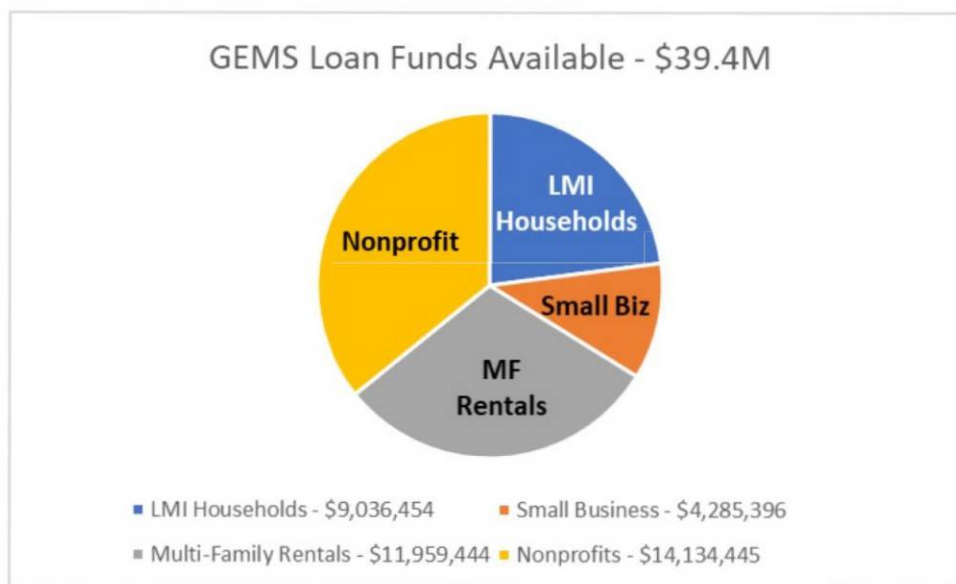
The following is a summary of the activities that have occurred between July 1, 2020 and September 30, 2020.

2.1 Administration

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

- **Board Meeting.** The Authority held a board meeting on July 24, 2020, during which it elected Scott Glenn as Vice Chair and Dennis Wong as Secretary; and approved HGIA's Quarterly Report for the period ended June 30, 2020.
- **Quarterly Report.** The Quarterly Report covering the period of April 1, 2020 to June 30, 2020 was filed with the Commission on July 31, 2020 in Docket No. 2014-0135.
- **Repayment Instructions.** On September 4, 2020, the Commission filed a Repayment Instructions letter in Docket No. 2014-0135 instructing HGIA on which transaction codes to use to transfer GEMS loan repayments to the PUC.

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 September 30, 2020:



2.2 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 9/30/20):

HGIA Originated (Effective 11/9/17)	Applications Received	In Process¹²	Committed¹³	Funded
# of loans	154	0	2	55
\$ value of loans	n/a	n/a	\$50,930	\$1,918,224

A direct application, previously reported as an on-bill application, was re-categorized during the quarter.

2.2.3 Residential PV - Consumer Leases

At a glance (as of 9/30/20):

Consumer Leases (Effective 5/1/17)	Applications Received	In Process¹⁴	Committed¹⁵	Funded¹⁶
# of leases	128	0	0	64
\$ value of loans	n/a	n/a	\$0.00	\$1,811,357

Subsequent to her initial application, a direct lease qualified under the on-bill program.

2.2.4 Residential PV - On-Bill

At a glance (as of 9/30/20):

Residential PV OBR (Effective 6/1/18)	Applications Received	In Process¹⁷	Committed¹⁸	Funded¹⁹
# of OBO	581	26	37	100
\$ value of OBO	n/a	n/a	\$1,029,496	\$2,681,310

¹² This category includes loan that being processed and/or pending additional information.

¹³ Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

¹⁴ This category includes requests being processed and/or pending additional information.

¹⁵ 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.

¹⁶ May include loans that are partially funded. The remaining amount(s) to be funded are in the "Committed" category.

¹⁷ This category includes loans that are being processed and/or pending additional information.

¹⁸ Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

¹⁹ 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

2.2.5 Residential PV – On-Bill Lease Fund

At a glance (as of 9/30/20):

OBR Leases (Effective 6/1/18)	Applications Received	In Process²⁰	Committed²¹	Funded²²
# of OBO	47	0	12	21
\$ value of loans	n/a	n/a	\$226,085	\$711,839
			3,858,602 ²³	

Due to market demand, HGIA is developing a Solar Lease product within the Commission’s already approved guidelines.

2.2.6 Residential EE – On-Bill

At a glance (as of 9/30/20):

Residential EE OBR (Effective 6/1/18)	Applications Received	In Process²⁴	Committed²⁵	Funded
# of OBO	144	3	3	13
\$ value of OBO	n/a	n/a	\$17,155	\$84,751

Pre-COVID, approximately 42%²⁶ of Hawaii’s households were classified as Asset Limited Income Constrained, Employed (“ALICE”). Due to the financial hardships disproportionately negatively impacting LMI households, a recent report estimates that an additional 35,000 households (approximately 105,000 individuals)²⁷ will be classified as ALICE by the end of this year.

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 September 30, 2020:

Loan Balance	Current	%	31 – 60 Days*	%	61 – 90 Days*	%	91+ Days	%
\$7,376,011	\$7,199,438	97.6%	\$56,277	0.8%	\$0.00	0.0%	\$120,296	1.6%
No.: 265	261	98.4%	2	0.8%	0	0.0%	2	0.8%

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

²⁰ This category includes requests being processed and/or pending additional information.

²¹ 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.

²² May include loans that are partially funded. The remaining amount(s) to be funded are in the “Committed” category.

²³ GEMS funds committed to borrowers in the process of originating consumer PV+ Storage leases.

²⁴ This category includes loan that being processed and/or pending additional information.

²⁵ Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

²⁶ <https://www.unitedforalice.org/hawaii>

²⁷ “Aloha United Way Gives Dire Report on Hawaii Poverty Line Amid Coronavirus Pandemic,” Pacific Business News, June 18, 2020.

Hawaiian Electric has extended its moratorium on disconnections through December 31, 2020, 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 9/30/20):

Commercial PV (Effective 11/2016)	Applications Received	In Process³⁰	Committed³¹	Funded³²
# of loans	39	5	8	25
\$ value of loans	n/a	n/a	\$2,181,112	\$16,201,117

Commercial activity is slowly starting to increase. During the quarter, the Authority approved a direct loan and expired unused commitments for nonprofit installations. A few commitments previously expired due to the shut-down, are now being re-evaluated as the projects are now ready to move forward.

2.3.2 Commercial PV – On-Bill

At a glance (as of 9/30/20):

Commercial PV OBR (Effective 6/1/18)	Applications Received	In Process³³	Committed³⁴	Funded³⁵
# of OBO	25	9	2	6
\$ value of OBO	n/a	n/a	\$612,508	\$2,686,755

2.3.3 Commercial EE – On-Bill

At a glance (as of 9/30/20):

Commercial EE OBR (Effective 6/1/18)	Applications Received	In Process³⁶	Committed³⁷	Funded
# of OBO	3	1	0	0
\$ value of OBO	n/a	n/a	\$0.00	\$0.00

³⁰ The Authority is currently awaiting additional information from the applicant and/or underwriting the loan requested.

³¹ These loans have been approved and are currently in the documentation process and/or the projects are currently under development.

³² May include loans that are partially funded. The remaining amount(s) to be funded are in the “Committed” category.

³³ This category includes loans that are 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 While not included in the Commercial EE – OBR counts so not to double count the applications, one solar PV project also included solar thermal.

³⁶ This category includes loan that being processed and/or pending additional information.

³⁷ Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

2.3.4 Commercial EE – Direct

At a glance (as of 9/30/20):

Commercial EE (Effective 4/2/18)	Applications Received	In Process	Committed ³⁸	Funded ³⁹⁴⁰
# of loans	2	1	0	0
\$ value of loans	n/a	n/a	\$0.00	\$0.00

Delinquent Status as of September 30, 2020 for the entire commercial loan portfolio:

Loan Balance	Current	%	31 – 60 Days	%	61 – 90 Days	%	91+ Days	%
\$20,911,815	\$20,911,815	100.0%	\$0.00	0.0%	\$0.00	0.0%	\$0.00	0.0%
No.: 44 ⁴¹	44	100.0%	0	0.0%	0	0.0%	0	0.0%

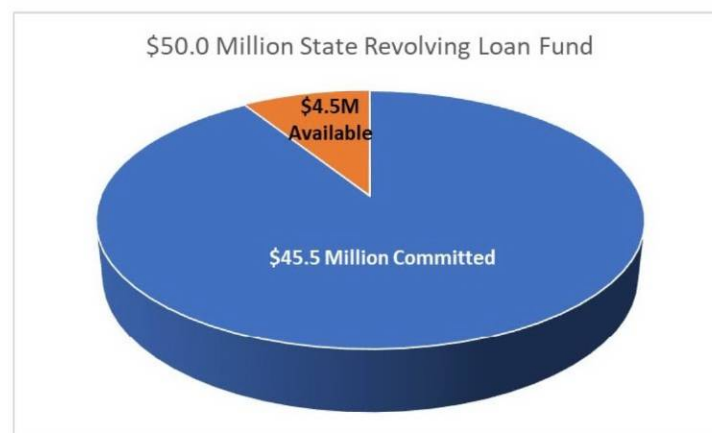
As of September 30, 2020, all commercial loans were being paid as agreed.

2.3.5 State Energy Efficiency Revolving Line of Credit

At a glance (as of 9/30/20) from program inception:

	Applications Received	In Process	Committed ⁴²	Funded ⁴³
# of loans	4	1	3	2
\$ value of loans	n/a	n/a	\$10,723,853	\$39,276,276

A third loan for the Department of Education was approved during the quarter to replace 2,000 inefficient air conditioning units in 1,000 classrooms. Another Agency continues its due diligence on an HVAC replacement project preliminarily estimated at \$2.7 million.



³⁸ Loan funds will be advanced based on achievement of milestone progress payment criteria by Contractors.

³⁹ Partially funded loan. The remaining amount(s) to be funded are in the "Committed" category.

⁴⁰ While not accounted for under Commercial EE - Direct so not to double count the applications, two solar PV projects also included solar thermal installations.

⁴¹ 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.

⁴² Loan funds will be advanced based on achievement of milestone progress payment criteria by Contractors.

⁴³ Partially funded loan. The remaining amount(s) to be funded are in the "Committed" category.

Delinquent Status as of September 30, 2020:

Loan Balance	Current	%	31 – 60 Days	%	61 – 90 Days	%	91+ Days	%
\$34,577,912	\$34,577,912	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 September 30, 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.

The Authority is currently working with another ESCO on a commercial energy efficiency project for a state agency.

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, 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).

	7/1-9/30/20	FY21 To Date	Since 6/1/18
GEM\$ Marketing and Program Outreach Events and Activities*	5	5	75
Prospective Contractor Contacts	20	20	300
Prospective Residential Loan Contacts	467	467	5770
Prospective Consumer Lease Contacts	18	18	916
Prospective Commercial Loan Contacts	83	83	1223
Existing Contractor Calls and Support	21	21	152
Existing Residential Participant/Borrower Servicing	60	60	500
Existing Commercial Participant/Borrower Servicing	195	195	1151
Contractor Complaint Resolution	0	0	1
Participant/Customer Complaint Resolution	4	4	10
Other-Deferral contacts	20	20	926

During the quarter, the Authority issued a press release warning the public of a suspected mortgage scam naming HGIA as mortgagee. On July 18, 2020, Blue Planet Foundation published its "Waypoints" report outlining 50 actionable initiatives to foster economic growth and accelerate Hawaii's transition to 100% clean energy, in which it suggested that Hawaii further invest loan capital for HGIA's programs to fill underserved gaps.

As Hawaii's on-bill program continues to gain national attention, during the quarter, the Authority held meetings with Washington D.C. NAACP staffers to discuss leveraging GEM\$ to provide energy equity to NAACP's constituents in Hawaii, as well as with the City of San Diego to discuss how they may replicate Hawaii's on-bill financing program.

2.7 Additional Activities

The following are activities that have occurred since the end of the quarter September 30, 2020 and will be reported as activities in the next Quarterly Report:

- **On-Bill in Colorado.** On October 19, 2020, the Authority met with officials from a Colorado utility to discuss how they may replicate Hawaii's GEM\$ on-bill financing program in their community.
- **Solar Energy Conference.** On October 22, 2020, the Authority was a panel presenter on "Powering the Solar LMI Market with On-Bill Financing" during Solar Power International's North American Smart Energy Week Virtual Education Conference.

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

Clean Energy Production of Projects Financed	7/1-9/30/20	FY21 To Date	Since Program Inception
Installed Capacity (Actual kW)	206	206	10,292
Total Yr 1 Production (Estimated kWh)	294,088	294,088	15,649,412
Total Project Production over Lifetime of Installed PV (Projected kWh, including 0.05% degradation)	5,610,577	5,610,577	272,717,396

Electricity Reductions from Energy Efficiency Projects Financed

Total Yr 1 kWh Reduction (Energy Efficiency)	1,414	1,414	35,607,501
Total kWh Reduction Over Lifetime of Installed EE	26,976	26,976	534,768,044

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

Total Petroleum Displaced/Saved over Lifetime (Estimated barrels)	3,462	3,462	495,784
Petroleum Displaced based on Yr 1 Clean Energy Generation (Estimated barrels)	181	181	9,612
Petroleum Displaced Over Lifetime of Installed PV (Estimated barrels)	3,446	3,446	167,229
Cumulative Annual Petroleum Saved from Yr 1 Efficiency Projects	0.9	1	21,869
Petroleum Saved of Lifetime of Efficiency Projects	16.6	17	328,441

(1) Reference unit: eplugler.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)	1,696	1,696	242,863
Greenhouse Gas Avoided from Clean Energy Yr 1 Production (Est. metric tons CO ₂)	88	88	4,710
Greenhouse Gas Avoided Over Lifetime of Installed PV (Projected metric tons CO ₂)	1,688	1,688	81,937
Greenhouse Gas Avoided from Yr 1 Energy Efficiency	0	0	10,715
Greenhouse Gas Avoided over lifetime of Energy Efficiency Project	8	8	160,926

(2) Reference eia.gov for conversion metric.

3.2 Economic Development Impact

GEMS Revenues (Cash Basis)	\$	430,940	\$	430,940	FY21 To Date	Since Program Inception
GEMS Administrative & Program Costs (Cash Basis) (1)	\$	251,579	\$	251,579		\$ 5,800,060
GEMS Loans Funded	\$	3,097,644	\$	3,097,644		\$ 70,613,120
Indirect Economic Impact - Jobs Created/Retained (2)		8		8		1,095
State of Hawaii Tax Revenues Generated (3)	\$	104,540	\$	104,540		\$ 13,317,224

(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	7/1-9/30/20	FY21 To Date	Since Program Inception
Solar Photovoltaic	26	26	686
Energy Storage (1)	4	4	129
Lighting Upgrades (2)	0	0	965,000
HVAC Upgrades*	0	0	324
Mechanical Upgrades	0	0	0
Controls and Monitoring Devices	26	26	1,480
Energy/Water Nexus (3)	1	1	208
Total No. of Projects	57	57	967,827

(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	7/1-9/30/20	FY21 To Date	Since Program Inception
Total Number of PV Loans, Direct	1	1	195
Total Number of PV Leases, Direct	0	0	64
Total Number of GEM\$ OBOs for PV (Loans)	25	25	100
Owner Occupied OBOs	24	24	99
Renter OBOs	1	1	1
Total Number of GEM\$ OBOs for PV (Leases)	0	0	21
Total Number of GEM\$ OBOs for EE (SWH)	1	1	13
Owner Occupied OBOs	1	1	13
Renter OBOs	0	0	0
Total Number of GEM\$ OBOs	26	26	134
Number PV Loans/Leases/OBOs Serving Underserved Market (1)	22	22	295
Number EE Loans/Leases/OBOs Serving Underserved Market (1)	1	1	11
% Loans/Leases Serving Underserved Market	85%	85%	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	3	3	154
No. of Residential PV Applications in Process	0	N/A	N/A
No. of Residential PV Applications Declined	3	3	58
No. of Residential PV Applications Withdrawn/Expired	0	0	39
No. of Residential PV Applications Loan Docs Accepted	1	N/A	N/A

Status of Applications (Leases - all Leases):	7/1-9/30/20	FY21 To Date	Since Program Inception
No. of Residential PV Applications Received	0	0	175
No. of Residential PV Applications in Process	0	N/A	N/A
No. of Residential PV Applications Declined	0	0	3
No. of Residential PV Applications Withdrawn/Expired	0	0	81
No. of Residential PV Applications Notice to Proceed	1	N/A	N/A

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

No. of Residential GEM\$ Applications Received	60	60	725
No. of Residential GEM\$ Applications in Process	29	N/A	N/A
No. of Residential GEM\$ Applications Declined	21	20	197
No. of Residential GEM\$ Applications Withdrawn/Expired	12	12	332
No. of Residential GEM\$ Applications OBO Accepted	22	N/A	N/A

Geographic Location of Financing Products

Oahu	24	24	325
Maui	2	2	41
Molokai	0	0	2
Lanai	0	0	0
Hawaii	1	1	25

Profile of Customers Financed:

Number of Customers by Customer FICO Credit Score (2)

700 and above	1	1	148
675-699	0	0	49
650-674	1	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	1	1	24
\$50,000-\$74,999	4	4	46
\$75,000-\$99,999	8	8	88
\$100,000 and above	14	14	230

Number of Customers by Area Median Income (1)

<30% AMI (Extremely Low Income)	1	1	6
30% to <50% AMI (Very Low Income)	0	0	35
50% to <80% AMI (Low Income)	10	10	86
80% to <140% AMI (Moderate Income)	12	12	178
>140% AMI	4	4	88

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

Commercial Loan Program	7/1-9/30/20	FY21 To Date	Since Program Inception
Total Number of GEMS PV Loans	0	0	26
Total Number of GEMS EE Loans	0	0	2
Total Number of GEMS OBOs, PV	0	0	6
Owner-User	0	0	2
Commercial Tenant	0	0	0
Total Number of GEMS OBOs, EE	0	0	0
Owner-User	0	0	0
Commercial Tenant	0	0	0
Number of Nonprofits Participating in GEMS	0	0	17
Number of Small Businesses Participating in GEMS	0	0	8
Number of Rental Units Supported by GEMS	0	0	1074
Geographic Location of Loans (1)			
Oahu	0	0	20
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	0	0	2
\$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	0	0	0
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 (\$)	7/1-9/30/20	FY21 To Date	Since Program Inception
from Energy Production and Reduction	\$ 2,433,870	\$ 2,433,870	\$291,481,637
from Energy Production (Consumer)	\$ 2,424,533	\$ 2,424,533	\$ 46,572,211
from Energy Production (Commercial)	\$ -	\$ -	\$ 84,207,217
from Energy Efficiency (Consumer)	\$ 9,337	\$ 9,337	\$ 253,981
from Energy Efficiency (Commercial)	\$ -	\$ -	\$160,448,409

Average, Estimated, Gross* Electricity Cost Savings (\$)	7/1-9/30/20	FY21 To Date	Since Program Inception
from Energy Production (Consumer)	\$ 93,251	\$ 93,251	\$ 112,234
from Energy Production (Commercial)	\$ -	\$ -	\$ 2,476,683
from Energy Efficiency (Consumer)	\$ 9,337	\$ 9,337	\$ 19,537
from Energy Efficiency (Commercial)	\$ -	\$ -	\$ 53,482,803

* 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)	\$ 1,446,533	\$ 1,446,533	\$ 24,585,356
from Energy Production (Commercial)	\$ -	\$ -	\$ 46,300,753
from Energy Efficiency (Consumer)	\$ 3,409	\$ 3,409	\$ 125,300
from Energy Efficiency (Commercial)*	\$ -	\$ -	\$113,683,871

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

from Energy Production (Consumer)	\$ 55,636	\$ 55,636	\$ 69,394
from Energy Production (Commercial)	\$ -	\$ -	\$ 1,370,432
from Energy Efficiency (Consumer)	\$ 3,409	\$ 3,409	\$ 9,639
from Energy Efficiency (Commercial)	\$ -	\$ -	\$ 37,894,624

**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) (\$)	\$ 3.97	\$ 3.97	\$ 3.94
Average System Cost per Watt for Underserved Consumers (PV)	\$ 3.99	\$ 3.99	\$ 4.01
Average System Size for All Consumers (PV) (kW)	7.9	7.9	8.9
Average System Size for Underserved Consumers (PV) (kW)	8.0	8.0	9.0
Project Cost per kWh for All Consumers -- Energy Efficiency (\$)*	\$ 0.24	\$ 0.24	\$ 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 (\$)*	\$ 0.24	\$ 0.24	\$ 0.17
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 September 30, 2020

ASSETS

Current Assets

Cash in Bank Total	\$ 8,610,411
Cash in Treasury	677,501
Total Cash	\$ 9,287,912
Investments*	75,024,170
Total Cash and Investments	\$ 84,312,082
Prepaid Expenses	4,792
Other Receivables	22,270
Total Current Assets	\$ 84,339,144

Noncurrent Assets

GEMS Loans Receivable	\$ 63,122,678
Loan Portal Development	106,319
Allowance for Loan Losses	(151,925)
Other Noncurrent Assets	(1,500)
Total Noncurrent Assets	\$ 63,075,572

Total Assets

\$ 147,414,716

LIABILITIES AND EQUITY

Current Liabilities

Accounts Payable - PUC	\$ 479,683
Accrued Expenses	0
Other Current Liabilities	49,229
Total Current Liabilities	\$ 528,912

Total Noncurrent Liabilities

\$ 0

Total Liabilities

\$ 528,912

Fund Balance, Beginning 6/30/20 (From last quarterly report)

\$ 147,346,248

Adjustment to record FYE 6/30/20 accrued interest	55,383
Adjustment for correction of FYE 6/30/20 interest income	(15)
Adjustment for correction of FYE 6/30/20 servicing fee income	12
Adjustment for correction of FYE 6/30/20 PUC repayments	6,187
Net Income (loss) for the Quarter 7/1/20-9/30/20	(522,011)

Fund Balance, Ending

\$ 146,885,804

Fund Balance, Beginning 7/1/20 Unaudited

\$ 147,407,815

Net Income (loss) fiscal year-to-date	(522,011)
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Fund Balance, Ending

\$ 146,885,804

TOTAL LIABILITIES AND FUND BALANCE

\$ 147,414,716

Other Receivables of \$22,270 are funds that have been recorded, but not yet transferred between accounts.

Although the Authority, to date, has not suffered any losses, Allowance for Loan Losses is being accounted for in accordance with GAAP. Other Noncurrent Assets are unfunded amounts reserved for future maintenance costs.

Accounts Payable – PUC significantly decreased as the Authority transferred some \$4.0 million in loan repayments to the Commission on September 30, 2020, per PUC Repayment Instructions dated September 4, 2020 filed in docket no. 2014-0135.

On October 26, 2017, the Commission ordered HGIA to transfer any and all GEMS Program loan repayments annually. Per said Order #34930, HGIA wired \$646,729.03 to the Commission on August 9, 2018. However, subsequent transfers were stalled due to an accounting related issue.

The Authority's preferred method to record this transfer of state funds within the state's accounting system (FAMIS) is to record it using transaction code 804 ("To record JV Expenditure Charges Transferring Cash Out to Another Fund which Records the Cash Transfer in as a Revenue") with the PUC receiving the funds utilizing the corresponding transaction code 805 ("To Record JV Revenue Credits Transferring Cash in from Another Fund which Records the Cash Transfer out as an Expenditure"). However, the use of these transaction codes requires Appropriation Account Codes. For HGIA, the appropriation account code for FY21 is: "S 21 395 B," however, the PUC has not been able to obtain an appropriation code.

As such, per its Repayment Instructions, HGIA made this \$4.0 million transfer and will make all future transfers utilizing transaction code 846 ("To Record Journal Voucher Direct Expenditure") to record the expense, and transaction code 193 ("To Record Charges to Funds Not Required to be Deposited in State Treasury Previously Charged to Cash in State Treasury") to decrease HGIA's Special Fund balance by the same amount as an expense.

Other Current Liabilities of \$49,229 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 funds collected from borrowers for legal and recording purposes.

Hawaii Green Infrastructure Authority
Revenues and Expenditures
For the Quarter: July 1, 2020 to September 30, 2020

Revenues from Operations		
Investment Interest	\$	269,307
Interest Income on Loans		152,603
Other Income		9,030
Total Revenues from Operations	\$	430,940
Operational Expenditures		
Salaries and Benefits	\$	191,184
Office and Administrative Expenses		1,653
Bank Fees		32,708
Program Expenses		26,034
Total Operational Expenditures	\$	251,579
Revenues Over (Under) Expenditures	\$	179,361
Payments to PUC/PBF		
PUC Repayment - Principal	\$	271,697
PUC Repayment - Interest		207,986
Total PUC Repayment	\$	479,683
Bad Debt Expense	-\$	967
Unrealized Gains (Losses)		(222,656)
Net Change in Fund Balance	\$	(522,011)
Fund Balance		
Beginning of Period, Unaudited	\$	147,407,815
End of Period	\$	146,885,804

Other Income consists of fees collected from various program activities.

As indicated above, while the Authority has not yet suffered any loan losses, in accordance with GAAP, an allowance for loan loss has been established and the offsetting entry is Bad Debt Expense on the income statement.

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”⁵⁵ 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”.⁵⁶

The GEMS Program submitted its consumer protection policies in a Program Notification to the Commission on July 1, 2015.⁵⁷ 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.⁵⁸

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.”⁵⁹ 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.”⁶⁰

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.

⁵⁵ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

⁵⁶ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

⁵⁷ 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.

⁵⁸ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 60.

⁵⁹ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 95.

⁶⁰ 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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