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October 31, 2023

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, 2023 to September 30, 2023. 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, 2023 to September 30, 2023 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: October 31, 2023
Honolulu, Hawaii



**State of Hawaii
Hawaii Green Infrastructure Authority**

GREEN ENERGY MARKET SECURITIZATION PROGRAM

QUARTERLY REPORT:

July 1, 2023 – September 30, 2023

REPORT TO THE
STATE OF HAWAII
PUBLIC UTILITIES COMMISSION
Pursuant to
Decision and Order No. 32318 filed in Docket No. 2014-0135

October 2023

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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;

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.

- (2) Summaries of all metrics approved pursuant to [the] Program Order, and as developed and approved through the metrics and data collection development process;
- (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, 2023, \$105.9 million of the GEMS loan funds have been committed, leaving approximately \$22.4 million available to lend. Of these remaining amounts, some \$12.9 million are available under the State Revolving Loan Fund and \$9.4 million are available for all other eligible segments.

Additional GEMS Program highlights, as of September 30, 2023, are as follows:

Excess Operational Revenues over Expenditures – YTD FY24 ¹⁰	\$957,610
Jobs Created / Retained Since Inception	1,394
State of Hawaii Tax Revenues Generated Since Inception	\$16,869,842
Economic Multiplier Impact	\$286,571,923
Total Estimated kWh Production / Reduction Over Lifetime Since Inception	963,677,440
Total Petroleum Displaced Over Lifetime (Estimated Barrels)	591,713
Total Greenhouse Gas Avoided Over Lifetime (Estimated Metric Tons CO2)	289,866
% Underserved Residential Households Served	85%

For the period ending September 30, 2023, the Authority posted Excess Operational Revenues over Operational Expenditures aggregating almost \$1.0 million prior to the repayment of interest and principal collected for the Commission, aggregating over \$957,000. 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, 2023 and September 30, 2023.

2.1 Administration

The following timeline of activities pertain to the administration of HGIA's programs:

- **Board Meeting.** The Authority held a board meeting on July 31, 2023, during which it elected Dennis Wong as Vice Chair and Mark Glick as Secretary. It also approved HGIA's Quarterly Report for the period ended June 30, 2023.
- **Quarterly Report.** The Quarterly Report covering the period of April 1, 2023 to June 30, 2023 was filed with the Commission on August 1, 2023 in Docket No. 2014-0135.
- **Transfer funds to PUC.** On September 25, 2023, the Authority transferred \$3,716,042 to the PUC's account at Bank of Hawaii.
- **Act 164 (SLH 2023).** Although the Governor signed Act 164 (HB300 HD1, SD1, CD1) into law on June 30, 2023, providing \$50.0 million in general funds for HGIA to provide solar PV + storage loans to ALICE households, and HGIA began accepting applications on July 1, 2023, to date, said funds have not yet been released.

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 09/30/23):

HGIA Originated (Effective 11/9/17)	Applications Received	In Process¹¹	Committed¹²	Funded
# of loans	155	0	0	58
\$ value of loans	n/a	n/a	\$0	\$1,995,477

No direct loan applications were received during the quarter.

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 09/30/23):

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	\$1,823,464

Per Order No. 34368, the amount remaining under the cap slightly exceeds \$1.1 million.

No direct consumer lease applications were received during the quarter.

2.2.4 Residential PV - On-Bill

At a glance (as of 09/30/23):

Residential PV OBR (Effective 6/1/18)	Applications Received	In Process¹⁶	Committed¹⁷	Funded¹⁸
# of OBO	1,242	223	121	286
\$ value of OBO	n/a	n/a	\$4,187,207	\$7,805,799

During the quarter seventy-six (76) new on-bill applications were received, a 46% increase from the previous quarter as Contractors learned of the \$50.0 million in PV+Storage funds approved by the Legislature. There are currently three hundred forty-four (344) applications in process.

2.2.5 Residential PV – On-Bill Lease Fund

At a glance (as of 09/30/23):

OBR Leases (Effective 6/1/18)	Applications Received	In Process¹⁹	Committed²⁰	Funded²¹
# of OBO	235	113	17	59
\$ value of loans	n/a	n/a	\$687,114	\$1,654,109
			\$8,906,122 ²²	

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. An additional lease fund of \$6.0 million was approved during the quarter committing \$3.0 million of GEMS funds.

During the quarter thirty-four (34) on-bill consumer lease applications were received. There are one hundred-thirty (130) applications in process. Additionally, an investor cancelled a \$1.0 million commitment.

2.2.6 Residential EE – On-Bill

At a glance (as of 09/30/23):

Residential EE OBR (Effective 6/1/18)	Applications Received	In Process²³	Committed²⁴	Funded
# of OBO	175	10	3	18
\$ value of OBO	n/a	n/a	\$24,673	\$114,551

Three new on-bill energy efficiency applications were received during the quarter. Ten applications are in process.

Delinquent Status for the entire Residential Loan Portfolio as of September 30, 2023:

Loan Balance	Current	%	31 – 60 Days*	%	61 – 90 Days*	%	91+ Days	%
\$10,123,589	\$8,531,206	84.3%	\$807,210	8.0%	\$392,474	3.9%	\$392,699	3.9%
No.: 397	339	85.4%	29	7.3%	14	3.5%	15	3.8%

As of September 30, 2023, one residential direct billed loan was delinquent. The Residential Loan Portfolio Program Officer has reached out to the borrower to discuss a loan modification.

For the remaining fifty-seven past due loans, fifty made payments in either September or October and two in August. There are two loans aggregating \$60,000 with last payments received in June. Three loans may be having programming issues. The Residential Loan Portfolio Program Officer will follow up with the utility.

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.

2.3 Status of Programs: Commercial Portfolio

2.3.1 Commercial PV – Direct

At a glance (as of 09/30/23):

Commercial PV (Effective 11/2016)	Applications Received²⁵	In Process²⁶	Committed²⁷	Funded²⁸
# of loans	48	0	4	40
\$ value of loans	n/a	n/a	\$2,222,137	\$18,581,332

No commercial direct applications were received during the quarter. A loan that was previously classified as direct was moved to on-bill.

2.3.2 Commercial PV – On-Bill

At a glance (as of 09/30/23):

Commercial PV OBR (Effective 6/1/18)	Applications Received²⁹	In Process³⁰	Committed³¹	Funded³²
# of OBO	62	5	9	18
\$ value of OBO	n/a	n/a	\$1,543,669	\$6,931,642

Three applications were received during the quarter and the Authority approved two loans for nonprofits aggregating over \$650,000.

2.3.3 Commercial EE – On-Bill

At a glance (as of 09/30/23):

Commercial EE OBR (Effective 6/1/18)	Applications Received	In Process³³	Committed³⁴	Funded
# of OBO	6	0	1	1
\$ value of OBO	n/a	n/a	\$15,826	\$39,174

No new commercial energy efficiency applications were received during the quarter.

²⁵ Includes applications for direct consumer leases, however funding and other metrics for said leases are reported under the Residential portfolio.

²⁶ The Authority is currently awaiting additional information from the applicant and/or underwriting the loan requested.

²⁷ These loans have been approved and are currently in the documentation process and/or the projects are currently under development.

²⁸ May include loans that are partially funded. The remaining amount(s) to be funded are in the “Committed” category.

²⁹ Includes applications for on-bill consumer leases, however funding and other metrics for said leases are reported under the Residential portfolio

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.

2.3.4 Commercial EE – Direct

At a glance (as of 09/30/23):

Commercial EE (Effective 4/2/18)	Applications Received	In Process	Committed³⁵	Funded³⁶³⁷
# of loans	2	0	0	0
\$ value of loans	n/a	n/a	\$0.00	\$0.00

Delinquent Status as of September 30, 2023 for the entire commercial loan portfolio:

Loan Balance	Current	%	31 – 60 Days	%	61 – 90 Days	%	91+ Days	%
\$22,351,315	\$22,351,315	100.0%	\$0.00	0.0%	\$0.00	0.0%	\$0.00	0.0%
No.: 60 ³⁸	60	100.0%	0	0.0%	0	0.0%	0	0.0%

As of September 30, 2023, all commercial loans were being paid as agreed.

2.3.5 State Revolving Loan Fund

Per Commission Order No. 38001 issued on October 5, 2021, the Authority provides the following additional information regarding the State Revolving Loan Fund:

State Revolving Loan Fund as of September 30, 2023

# Loans	\$ Value Loans	Principal Repaid	Funds Available
4	\$49,012,102	\$(13,075,524)	\$12,956,979

Some \$12.9 million under the State Revolving Loan fund is available to lend.

Energy Efficiency

	Applications Received	In Process	Committed³⁹	Funded⁴⁰
# of loans	4	0	2	4
\$ value of loans	n/a	n/a	\$3,294,341	\$45,717,760

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.

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.

PPA Purchase Options

	Applications Received	In Process	Committed ⁴¹	Funded ⁴²
# of loans	0	0	0	0
\$ value of loans	n/a	n/a	\$0.00	\$0.00

Electric Vehicle Charging Stations

	Applications Received	In Process	Committed ⁴³	Funded ⁴⁴
# of loans	0	0	0	0
\$ value of loans	n/a	n/a	\$0.00	\$0.00

# EV Charging Stations	# Ports	Manufacturer	Level (2 or 3)	Location

Electric Vehicles

	Applications Received	In Process	Committed ⁴⁵	Funded ⁴⁶
# of loans	0	0	0	0
\$ value of loans	n/a	n/a	\$0.00	\$0.00

# EVs	Manufacturer	Type (Battery EV; hybrid, etc.)

Delinquent Status as of September 30, 2023 for the State Revolving Loan Fund:

Loan Balance	Current	%	31 – 60 Days	%	61 – 90 Days	%	91+ Days	%
\$33,748,680	\$33,748,680	100.0%	\$0.00	0.0%	\$0.00	0.0%	\$0.00	0.0%
No.: 4	4	100.0%	0	0.0%	0	0.0%	0	0.0%

As of September 30, 2023, all state loans were being paid as agreed.

2.4 Status of Programs: Miscellaneous

The following is a recap of the federally funded State Small Business Credit Initiative's HI-CAP Programs:

⁴¹ Loan funds will be advanced based on achievement of milestone progress payment criteria by Contractors.

⁴² Partially funded loan. The remaining amount(s) to be funded are in the "Committed" category.

⁴³ Loan funds will be advanced based on achievement of milestone progress payment criteria by Contractors.

⁴⁴ Partially funded loan. The remaining amount(s) to be funded are in the "Committed" category.

⁴⁵ Loan funds will be advanced based on achievement of milestone progress payment criteria by Contractors.

⁴⁶ Partially funded loan. The remaining amount(s) to be funded are in the "Committed" category.

Loans Extended	SSBCI Support	Other Credit Provided	Program Income
\$13,221,000	\$2,721,200	2,800,000	\$249,642

2.5 Status of Programs: Other Programs Under Development

C-PACER Financing Program

With shovel ready projects seeking to utilize this innovative financing mechanism, the Authority has been meeting with Council members in all Counties to inform them of the potential of this new financing program authorized by Act 183, SLH 2022. Each County must approve an Ordinance and execute a Memorandum of Agreement with the Authority to launch the program.

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).

Marketing and Customer Service Activities	7/1/23 to 9/30/23	FY24 To Date	Since 6/1/18
Marketing and Program Outreach Events and Activities	14	14	167
Prospective Contractor Contacts	1	1	293
Prospective Residential Loan Contacts	266	266	7141
Prospective Consumer Lease Contacts	119	119	1518
Prospective Commercial Loan Contacts	0	0	1164
Existing Contractor Calls and Support	605	605	3993
Existing Residential Participant/Borrower Servicing	397	79	1044
Existing Commercial Participant/Borrower Servicing	77	77	1596
Contractor Complaint Resolution	0	0	1
Participant/Customer Complaint Resolution	0	0	6
Other-Deferral contacts	9	9	918

During the quarter, HGIA was featured in five articles or publications including the following: Press Release issued by the Climate Coalition on Mitigation grant awarded by the EPA on July 6, 2023; "The Budget is Signed" article in Hawaii Reporter on July 10, 2023; "Three Questions with Evan Weber" in the Pacific Business News on August 3, 2023; on KITV new on HGIA receiving \$50.0 million in the state budget on August 30, 2023, as well as in EIN Newsdesk.

HGIA participated also participated as a panelist in six presentations for the White House AANHPI Summit, Business Resource Seminar, HECO LMI Advisory Council on each island as well as for the Russian Outbound project.

The Authority participated as an Exhibitor at two events on August 22, 2023 at a Women in Business Pauhana and on September 16, 2023 at DBEDT's Small Business Fair at LCC.

2.7 Additional Activities

The following are activities that have occurred since the end of the quarter October 1, 2023 and will be reported as activities in the next Quarterly Report:

- **Bill 56** – On October 4, 2023, the Ordinance authorizing C-PACER for the City and County of Honolulu passed first reading.
- **IRA's Greenhouse Gas Reduction Fund – Solar for All Program** – On October 10, 2023, HGIA submitted an application for \$100.0 million under the Solar for All Program. The EPA is expected to announce awards in March 2024.
- **Grid Resilience & Innovation Partnership (GRIP) Grant** – On October 18, 2023, the DOE announced GRIP Grant awardees. Unfortunately, the HSEO/HGIA/Enphase application was not selected, however, an updated application may be submitted in the future under the next round.

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	7/1/23 to 9/30/23	FY24 To Date	Since Program Inception
Installed Capacity (Actual kW)	209	209	14,492
Total Yr 1 Production (Estimated kWh)	301,569	301,569	21,987,204
Total Project Production over Lifetime of Installed PV (Projected kWh, including 0.05% degradation)	5,753,297	5,753,297	396,042,129

Electricity Reductions from Energy Efficiency Projects Financed

Total Yr 1 kWh Reduction (Energy Efficiency)	0	0	38,725,853
Total kWh Reduction Over Lifetime of Installed EE	0	0	567,635,311

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

Total Petroleum Displaced/Saved over Lifetime (Estimated barrels)	3,534	3,534	591,713
Petroleum Displaced based on Yr 1 Clean Energy Generation (Estimated barrels)	185	185	13,504
Petroleum Displaced Over Lifetime of Installed PV (Estimated barrels)	3,534	3,534	242,974
Cumulative Annual Petroleum Saved from Yr 1 Efficiency Projects	0	0	23,784
Petroleum Saved of Lifetime of Efficiency Projects	0	0	348,628

(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 CO2)	1,731	1,731	289,866
Greenhouse Gas Avoided from Clean Energy Yr 1 Production (Est. metric tons CO2)	91	91	6,619
Greenhouse Gas Avoided Over Lifetime of Installed PV (Projected metric tons CO2)	1,731	1,731	119,049
Greenhouse Gas Avoided from Yr 1 Energy Efficiency	0	0	11,654
Greenhouse Gas Avoided over lifetime of Energy Efficiency Project	0	0	170,817

(2) Reference eia.gov for conversion metrics

3.2 Economic Development Impact

	7/1/23 to 9/30/23	FY24 To Date	Since Program Inception
GEMS Revenues (Cash Basis)	\$ 1,206,261	\$ 1,206,261	\$ 29,910,978
GEMS Administrative & Program Costs (Cash Basis) (3)	\$ 248,651	\$ 248,651	\$ 8,455,194
GEMS Loans Funded	\$ 1,558,948	\$ 1,558,948	\$ 90,423,409
Indirect Economic Impact - Jobs Created/Retained (4)	\$ 9	\$ 9	\$ 1,394
State of Hawaii Tax Revenues Generated (5)	\$ 109,148	\$ 109,148	\$ 16,869,842
Economic Multiplier Impact (6)	\$ 2,122,314	\$ 2,122,314	\$ 286,571,923

(3) Does not include principal and interest repaid 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 in 2020; \$92,044/job in 2021; and \$98,818/job in 2022.

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

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

3.3 Market Expansion Impact

Projects Financed According to Technology Type/Category	7/1/23 to 9/30/23	FY24 To Date	Since Program Inception
Solar Photovoltaic (7)	23	23	940
Energy Storage	9	9	196
Lighting Upgrades (8)	0	0	965,037
HVAC Upgrades (8)	0	0	2,325
Mechanical Upgrades	0	0	1
Controls and Monitoring Devices	23	23	1,757
Energy/Water Nexus (9)	0	0	214
Total No. of Projects	55	55	970,470

(7) Including advanced inverters and smart modules

(8) State Energy Efficiency Projects

(9) Includes solar water heating

Residential Loan Program	7/1/23 to 9/30/23	FY24 To Date	Since Program Inception
Total Number of PV Loans, Direct	0	0	198
Total Number of PV Leases, Direct	0	0	64
Total Number of GEM\$ OBOs for PV (Loans)	18	18	287
Owner Occupied OBOs	18	18	286
Renter OBOs	0	0	1
Total Number of GEM\$ OBOs for PV (Leases)	5	5	62
Total Number of GEM\$ OBOs for EE (SWH)	0	0	18
Owner Occupied OBOs	0	0	18
Renter OBOs	0	0	0
Total Number of GEM\$ OBOs	23	23	367
Number PV Loans/Leases/OBOs Serving Underserved Market (10)	23	23	523
Number EE Loans/Leases/OBOs Serving Underserved Market (10)	0	0	16
% Loans/Leases Serving Underserved Market	100%	100%	86%

(10) 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 Loan Docs Accepted - NTP	0	N/A	N/A

Status of Applications (Direct):

No. of Residential PV Applications Received	0	0	155
No. of Residential PV Applications in Process	0	N/A	N/A
No. of Residential PV Applications Declined	0	0	58
No. of Residential PV Applications Withdrawn/Expired	0	0	37
No. of Residential PV Loan Docs Accepted - NTP	0	N/A	N/A

Status of Applications (Leases - all Leases):

No. of Residential PV Applications Received	34	34	363
No. of Residential PV Applications in Process	113	N/A	N/A
No. of Residential PV Applications Declined	0	0	9
No. of Residential PV Applications Withdrawn/Expired	4	4	108
No. of Residential PV - Notice to Proceed	21	N/A	N/A

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

No. of Residential GEM\$ Applications Received	76	76	1414
No. of Residential GEM\$ Applications in Process	233	N/A	N/A

No. of Residential GEM\$ Applications Declined	0	0	252
No. of Residential GEM\$ Applications Withdrawn/Expired	7	7	471
No. of Residential GEM\$ OBO Accepted - NTP	77	N/A	N/A

Geographic Location of Financing Products

Oahu	22	22	540
Maui	0	0	53
Molokai	0	0	2
Lanai	0	0	0
Hawaii	1	1	34

Profile of Customers Financed:

Number of Customers by Customer FICO Credit Score (11)

700 and above	0	0	149
675-699	0	0	50
650-674	0	0	32
620-649	0	0	18
600-619	0	0	9
Below 600	0	0	2

(11) Excludes on-bill applicants

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

Under \$15,000	0	0	1
\$15,000-\$24,999	0	0	5
\$25,000-\$34,999	0	0	7
\$35,000-\$49,999	0	0	44
\$50,000-\$74,999	9	9	85
\$75,000-\$99,999	2	2	134
\$100,000 and above	12	12	353

Number of Customers by Area Median Income (12)

<30% AMI (Extremely Low Income)	0	0	17
30% to <50% AMI (Very Low Income)	0	0	62
50% to <80% AMI (Low Income)	13	13	171
80% to <140% AMI (Moderate Income)	10	10	288
>140% AMI	0	0	91

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

	7/1/23 to 9/30/23	FY24 To Date	Since Program Inception
Commercial Loan Program			
Total Number of GEMS Direct PV Loans	0	0	29
Total Number of GEMS Direct EE Loans	0	0	4
Total Number of GEM\$ OBOs, PV	0	0	18
Owner-User	0	0	18
Commercial Tenant	0	0	0

Total Number of GEM\$ OBOs, EE	0	0	1
Owner-User	0	0	1
Commercial Tenant	0	0	0
Number of Nonprofits Participating in GEMS	0	0	26
Number of Small Businesses Participating in GEMS	0	0	10
Number of Rental Units Supported by GEMS	0	0	1320

Geographic Location of Loans (13)

Oahu	0	0	34
Maui	0	0	9
Molokai	0	0	1
Lanai	0	0	0
Hawaii	0	0	8

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

Number of Small Businesses by Gross Receipts (14)

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	1

Number of Small Businesses by Average Number of Employees (14)

10 Employees or less	0	0	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

(14) 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 (15) Electricity Cost Savings (\$)	7/1/23 to 9/30/23	FY24 To Date	Since Program Inception
from Energy Production and Reduction	\$ 2,890,987	\$ 2,890,987	\$ 353,471,901
from Energy Production (Consumer)	\$ 2,890,987	\$ 2,890,987	\$ 76,626,879
from Energy Production (Commercial)	\$ -	\$ -	\$ 105,608,287
from Energy Efficiency (Consumer)	\$ -	\$ -	\$ 384,332
from Energy Efficiency (Commercial)	\$ -	\$ -	\$ 170,852,403

Average, Estimated, Gross (15) Electricity Cost Savings (\$)

from Energy Production (Consumer)	\$ 125,695	\$ 125,695	\$ 140,086
from Energy Production (Commercial)	#DIV/0!	#DIV/0!	\$ 2,246,985
from Energy Efficiency (Consumer)	#DIV/0!	#DIV/0!	\$ 21,352
from Energy Efficiency (Commercial)	#DIV/0!	#DIV/0!	\$ 34,170,481

(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)	\$ 1,111,849	\$ 1,111,849	\$ 46,006,490
from Energy Production (Commercial)	\$ -	\$ -	\$ 54,238,909
from Energy Efficiency (Consumer)	\$ -	\$ -	\$ 220,048
from Energy Efficiency (Commercial)*	\$ -	\$ -	\$ 115,633,685

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

from Energy Production (Consumer)	\$ 48,341	\$ 48,341	\$ 84,107
from Energy Production (Commercial)	#DIV/0!	#DIV/0!	\$ 1,154,019
from Energy Efficiency (Consumer)	#DIV/0!	#DIV/0!	\$ 12,225
from Energy Efficiency (Commercial)	#DIV/0!	#DIV/0!	\$ 23,126,737

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

Average System Cost per Watt for All Consumers (PV) (\$)	\$ 3.58	\$ 3.58	\$ 3.59
Average System Cost per Watt for Underserved Consumers (PV)	\$ 3.58	\$ 3.58	\$ 3.59
Average System Size for All Consumers (PV) (kW)	9.1	9.1	9.6
Average System Size for Underserved Consumers (PV) (kW)	9.1	9.1	9.6
Project Cost per kWh for All Consumers -- Energy Efficiency (\$) (17)	\$ -	\$ -	\$ 0.17
Average Project Size for All Consumers -- Energy Efficiency (kW)	n/a	n/a	n/a
Project Cost per kWh for Underserved Consumers -- Energy Efficiency (\$) (17)	\$ -	\$ -	\$ 0.17
Average Project Size for Underserved Consumers -- Energy Efficiency (kW)	n/a	n/a	n/a

(17) 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, 2023

ASSETS

Current Assets

Cash in Bank Total	\$ 44,723,448
Certificate of Deposits	2,425,578
Cash in Treasury	903,928
Total Cash	\$ 48,052,954
Investments	33,096,864

Total Cash and Investments	\$ 81,149,818
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Prepaid Expenses	-
Other Receivables	118,728

Total Current Assets	\$ 81,268,546
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Noncurrent Assets

GEMS Loans Receivable	68,293,421
Allowance for Loan Losses	(148,903)
GEMS Loans Receivable - Treasury	-
Other Noncurrent Assets	(1,500)

Total Noncurrent Assets	\$ 68,143,018
--------------------------------	----------------------

Total Assets	\$ 149,411,564
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LIABILITIES AND EQUITY

Liabilities

Current Liabilities

Accounts Payable	\$ -
Accounts Payable - PUC	911,147
Accrued Expenses	-
Other Current Liabilities	216,333

Total Current Liabilities	\$ 1,127,480
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Total Noncurrent Liabilities	-
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Total Liabilities	\$ 1,127,480
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Fund Balance, Beginning 6/30/23 (From last quarterly report)	\$ 148,075,770
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Net Income (loss) for the Quarter 7/1/23-9/30/23	208,314
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Fund Balance, Ending	\$ 148,284,084
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Fund Balance, Beginning 7/1/23 Unaudited	\$ 148,075,770
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Net Income (loss) fiscal year-to-date	208,314
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Fund Balance, Ending	\$ 148,284,084
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TOTAL LIABILITIES AND FUND BALANCE	\$ 149,411,564
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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: July 1, 2023 to September 30, 2023

Revenues from Operations		
Investment Interest	\$	773,634
Interest Income on Loans		408,499
Other Income		13,925
HI-CAP Fees		10,203
Total Revenues from Operations	\$	1,206,261
Operational Expenditures		
Salaries and Benefits	\$	164,271
Office and Administrative Expenses		2,837
Bank Fees		13,900
Program Expenses		67,643
Total Operational Expenditures	\$	248,651
Revenues Over (Under) Expenditures	\$	957,610
Payments to PUC/PBF		
PUC Repayment - Principal	\$	489,412
PUC Repayment - Interest		408,378
Total PUC Repayment	\$	897,790
Bad Debt Expense	\$	1,472
Unrealized Gains (Losses)	\$	149,966
Net Change in Fund Balance		208,314
Fund Balance		
Beginning of Period, Unaudited	\$	148,075,770
End of Period	\$	148,284,084

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.

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”⁴⁷ 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”.⁴⁸

The GEMS Program submitted its consumer protection policies in a Program Notification to the Commission on July 1, 2015.⁴⁹ 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.⁵⁰

Order No. 39377 did not approve GEMS funds to be used for Community Based Solar Projects. The Commission invited the Authority to submit a Program Modification for further consideration.

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.”⁵¹ 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.”⁵²

⁴⁷ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

⁴⁸ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

⁴⁹ 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.

⁵⁰ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 60.

⁵¹ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 95.

⁵² See “Division of Consumer Advocacy’s Statement of Position,” filed in Docket No. 2014-0135 on August 7, 2014, at p. 14.

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.

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PUBLIC UTILITIES

COMMISSION

F-296788

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