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October 31, 2018

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

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PUBLIC UTILITIES
COMMISSION

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 of July 1, 2018 to September 30, 2018. 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



State of Hawaii

Hawaii Green Infrastructure Authority

GREEN ENERGY MARKET SECURITIZATION PROGRAM

QUARTERLY REPORT:

July 1, 2018 – September 30, 2018

REPORT TO THE
STATE OF HAWAII
PUBLIC UTILITIES COMMISSION
Pursuant to

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

October 2018

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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 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.

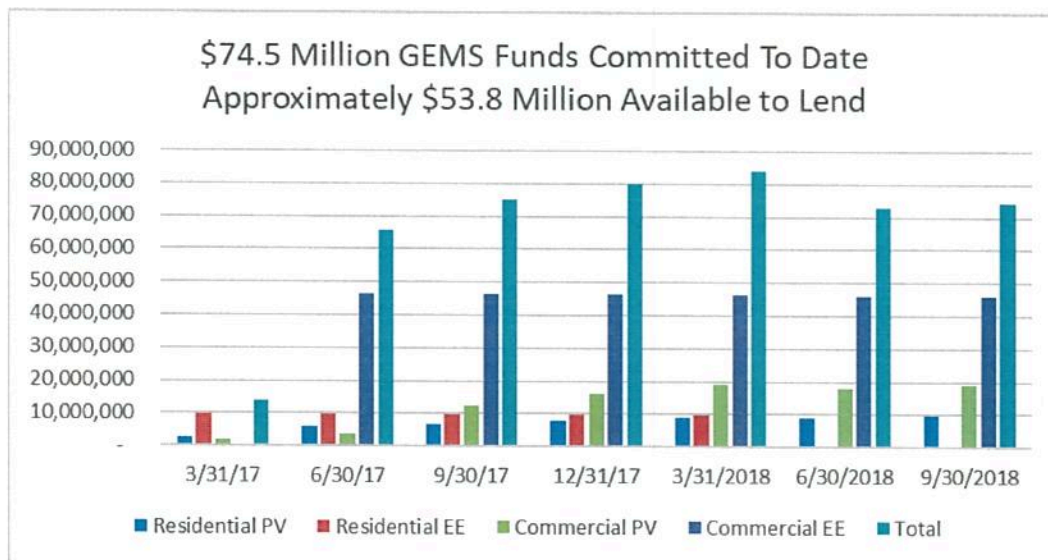
⁷ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 93.

- (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, 2018, approximately \$74.5 million in GEMS funds have been committed, leaving approximately \$53.8 million available to lend. Please refer to Status of Programs, sections 2.2, 2.3 and 2.6 for additional information.



For the three-month period ending September 30, 2018, the Authority posted Excess Revenues over Expenditures aggregating over \$548,000. Please refer to the Financial Summary in Section 4 for more details. Additionally, per Order 34930 Amending Decision and Order No. 32318 By Changing the Priority

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.

Uses of GEMS Program Loan Repayments, on August 9, 2018, the Authority wired \$646,729.03 to the Commission as a credit to the Public Benefits Fund.

With the approval of the Green Energy Money Saver On-Bill Program (GEM\$), and other clean energy programs on the horizon, such as Community-Based Renewable Energy, the future market outlook looks positive.

2 Summary of Program Activities

The following is a summary of the activities that have occurred between July 1, 2018 and September 30, 2018.

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 30, 2018, at which it approved HGIA’s Quarterly Report for the period ended June 30, 2018.
- **Quarterly Report.** The Quarterly Report covering the period of April 1, 2018 to June 30, 2018 was filed with the Commission on July 31, 2018 in Docket No. 2014-0135.
- **Joint Filing.** The Authority and the Hawaiian Electric Companies submitted a Joint Filing for Final Approval of The Green Energy Money Saver On-Bill Program with the Commission on August 20, 2018 in Docket No. 2014-0135.
- **Information Request.** A request for information was filed by the Commission on September 18, 2018 in Docket No. 2014-0135.
- **Joint Response.** The Authority and the Hawaiian Electric Companies submitted its response to the Commission’s information requests on September 28, 2018 in Docket No. 2014-035.

2.2 Status of Programs: Residential Portfolio

2.2.1 Residential PV – WECC Originated

At a glance (as of 9/30/18) from program inception:

WECC Originated	Applications Received	In Process ¹⁰	Committed ¹¹	Funded
# of loans	427	0	2	139
\$ value of loans	n/a	n/a	\$128,006	\$4,761,200

During the quarter, the Authority purchased two loans for systems completed and funded by WECC. There remain only 2 systems in the process of being installed for purchase. The Authority expects these loans to be funded before the end of this calendar year.

¹⁰ This category includes loan that being processed and/or pending additional information.

¹¹ Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

2.2.2 Residential PV – Direct

At a glance (as of 9/30/18) from November 9, 2017:

HGIA Originated (Effective 11/9/17)	Applications Received	In Process ¹²	Committed ¹³	Funded
# of loans	103	19	26	17
\$ value of loans	n/a	n/a	\$804,333	\$568,096

2.2.3 Residential PV - Consumer Leases

At a glance (as of 9/30/18) from program inception:

Consumer Leases (PN #10)	Applications Received	In Process ¹⁴	Committed ¹⁵	Funded ¹⁶
# of loans	81	11	47	52
\$ value of loans	n/a	n/a	\$689,158	\$1,223,954
			\$1,086,888 ¹⁷	

2.2.4 Residential PV - On-Bill

At a glance (as of 9/30/18) since program inception on 6/1/18:

Residential PV OBR	Applications Received	In Process ¹⁸	Committed ¹⁹	Funded
# of OBO	43	16	0	0
\$ value of OBO	n/a	n/a	\$0.00	\$0.00

2.2.5 Residential EE – Direct

At a glance (as of 9/30/18) since program inception on 6/1/18:

Residential EE	Applications Received	In Process ²⁰	Committed ²¹	Funded
# of loans	0	0	0	0
\$ value of loans	n/a	n/a	\$0.00	\$0.00

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 GEMS funds committed to four borrowers who are in the process of sourcing consumer PV leases.

¹⁸ This category includes loans that are being processed and/or pending additional information.

¹⁹ Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

²⁰ This category includes loans that are being processed and/or pending additional information.

²¹ Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

2.2.6 Residential EE – On-Bill

At a glance (as of 9/30/18) since program inception on 6/1/18:

Residential EE OBR	Applications Received	In Process ²²	Committed ²³	Funded
# of OBO	8	2	3	0
\$ value of OBO	n/a	n/a	\$22,314	\$0.00

With the responsibility of business development, contractor outreach and loan origination being done locally by HGIA staff, coupled with the launch of the Green Energy Money Saver On-Bill Program, loan origination volume has significantly increased from an average of approximately 30 to 40 applications per quarter, to almost 90 applications during 1Q2019.

Delinquent Status for the entire Residential Loan Portfolio as of September 30, 2018:

Loan Balance	Current	%	31 – 60 Days*	%	61 – 90 Days*	%	91+ Days	%
\$4,737,941	\$4,498,092	94.9%	0	0.0%	\$50,997	1.1%	\$188,852	4.0%
No.: 147	140	95.2%	0	0.0%	1	0.7%	6	4.1%

* HGIA's Loan Servicer provides collection services up to 60 days past due. The Authority has outsourced to a local collection agency for loans 61+ days past due.

With a program objective of providing access to financing to the low-income and/or low-credit score demographics, loan delinquencies are to be expected. Of the six loans past due more than 91 days, all six borrowers are considered low and moderate-income households. Five of the borrowers have credit scores less than 700 and the one borrower with a credit score in excess of 700, has a household income of <40% area median income (considered very low income).

The Authority is working on remedying these delinquent accounts.

2.3 Status of Programs: Commercial Portfolio

2.3.1 Commercial PV – Direct

At a glance (as of 9/30/18) from program inception:

Commercial PV	Applications Received	In Process ²⁴	Committed ²⁵	Funded ²⁶
# of loans	31	3	12	18
\$ value of loans	n/a	n/a	\$5,909,404	\$12,353,414

²² This category includes loan that being processed and/or pending additional information.

²³ Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

²⁴ The Authority is currently awaiting additional information from the applicant and/or underwriting the loan requested.

²⁵ These loans have been approved and are currently in the documentation process and/or the projects are currently under development.

²⁶ 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 9/30/18) since program inception on 6/1/18:

Commercial PV OBR	Applications Received	In Process ²⁷	Committed ²⁸	Funded
# of OBO	3	2	1	1
\$ value of OBO	n/a	n/a	\$505,556	\$194,444

2.3.3 Commercial EE – On-Bill

At a glance (as of 9/30/18) since program inception on 6/1/18:

Commercial EE OBR	Applications Received	In Process ²⁹	Committed ³⁰	Funded
# of OBO	1	1	0	0
\$ value of OBO	n/a	n/a	\$0.00	\$0.00

As of September 30, 2018, over \$38.9 million in total projects for nonprofits, small businesses and multi-family rental projects were leveraged with \$18.9 million in GEMS funds.

Delinquent Status as of September 30, 2018:

Loan Balance	Current	%	31 – 60 Days	%	61 – 90 Days	%	91+ Days	%
\$13,711,984	\$13,711,984	100.0%	\$0.00	0.0%	\$0.00	0.0%	\$0.00	0.0%
No.: 25	25	100.0%	0	0.0%	0	0.0%	0	0.0%

2.3.4 Commercial EE – Direct

At a glance (as of 9/30/18) from program inception:

	Applications Received	In Process	Committed ³¹	Funded ³²
# of loans	0	0	01	01
\$ value of loans	n/a	n/a	\$0.00	\$0.00

With the creation of the State Energy Efficiency Revolving Loan Fund, the balances under the commercial energy efficiency loan to the Department of Education have been moved to this new category.

²⁷ This category includes loans that are being processed and/or pending additional information.

²⁸ Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

²⁹ This category includes loan that being processed and/or pending additional information.

³⁰ Includes loans that have been approved with executed Loan Documents and solar systems in the process of being installed.

³¹ Loan funds will be advanced based on achievement of milestone progress payment criteria by Contractors.

³² Partially funded loan. The remaining amount(s) to be funded are in the "Committed" category.

2.3.5. State Energy Efficiency Revolving Line of Credit

At a glance (as of 9/30/18) from program inception:

	Applications Received	In Process	Committed ³³	Funded ³⁴
# of loans	1	0	1	1
\$ value of loans	n/a	n/a	\$38,487,454	\$7,396,146

The Governor signed Act 121 (SLH 2018) into law on July 5, 2018 to create a sub-fund within the Authority’s green infrastructure special fund and convert \$50.0 million of GEMS funds into a revolving line of credit for any state agency or department to finance cost-effective commercial energy efficiency measures, subject to fund availability, on an on-going basis.

The \$45,883,600 loan made to the Department of Education (“DOE”), is included under the \$50.0 million facility, leaving approximately \$4.1 million available to lend to other state agencies or departments.

As of September 30, 2018, \$7.4 million have been funded on behalf of the DOE for commercial energy efficiency work completed.

Delinquent Status as of September 30, 2018:

Loan Balance	Current	%	31 – 60 Days	%	61 – 90 Days	%	91+ Days	%
\$7,396,146	\$7,396,146	100.0%	\$0.00	0.0%	\$0.00	0.0%	\$0.00	0.0%
No.: 1	1	100.0%	0	0.0%	0	0.0%	0	0.0%

2.4 Status of Programs: Miscellaneous

Metrus Energy. Metrus Energy (“Metrus”), the Authority’s approved capital partner for the Commercial Energy Efficiency Product, began marketing in July 2016. The sales cycle for these loans can be lengthy due to the considerable engineering work required on the part of the borrower and the size of the transaction(s). Additionally, while Metrus has been actively prospecting projects for GEMS financing, identifying eligible projects has been difficult due to a disconnect between Metrus’ \$1.0 million minimum project size requirement and GEMS financing restrictions that only authorizes the funds to be used for nonprofit or small business³⁵ participants. Metrus continues to seek financing opportunities that meet GEMS program requirements.

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,

³³ Loan funds will be advanced based on achievement of milestone progress payment criteria by Contractors.

³⁴ Partially funded loan. The remaining amount(s) to be funded are in the “Committed” category.

³⁵ Small Businesses are defined by the U.S. Small Business Administration’s Size Standards.

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 Additional Activities

The following are some of the activities that have occurred since the end of the quarter (September 30, 2018) and will be reported as activities in the next Quarterly Report:

- **Collections.** In an effort to implement more timely and impactful collection procedures, effective October 9, 2018, the Authority terminated both the early collection services provided by its Loan Servicer, as well as the services of a local collection agency, bringing these duties and responsibilities in-house.

As of October 25, 2018, the Authority has negotiated payment plans with three of the six seriously delinquent borrowers.

- **Loans Funded.** As of October 23, 2018, the Authority funded seven additional Residential PV Loans aggregating \$267,057 and a Commercial progress payment of \$73,727 and DOE progress payments aggregating \$1,681,744.

3. Program Metrics

As required by the Program Order, the following Program Metrics are being provided for the current quarter, fiscal year-to-date and since program inception.

3.1 Energy and Environment Impact

	This Quarter: 7/1-9/30/18	FY 2019 To Date	Since Program Inception
Clean Energy Production of Projects Financed			
Installed Capacity (Actual kW)	733.6	733.6	5,934.1
Total Yr 1 Production (Estimated kWh)	1,089,604.8	1,089,604.8	10,129,075.0
Total Project Production Over Lifetime of Installed PV (Projected kWh) (including 0.50% degradation)	20,787,375.9	20,787,375.9	193,241,519.3
Electricity Reductions from Energy Efficiency Projects Financed			
Total Yr 1 kWh Reduction (Energy Efficiency)*	-	-	35,314,352
Total kWh Reduction Over Lifetime of Installed EE*	-	-	529,715,280
Petroleum Displaced by Clean Energy and Energy Efficiency Projects			
Total Petroleum Displaced/Saved Over Lifetime (Clean Energy and Energy Efficiency Projects (1)) (Estimated barrels)	12,767.1	12,767.1	444,022.1
Petroleum Displaced/Saved based on Yr 1 Clean Energy Generation (Estimated barrels)	669.2	669.2	6,221.0
Petroleum Displaced Over Lifetime of Installed PV (Projected barrels)	12,767.1	12,767.1	118,684.1
Cumulative Annual Petroleum saved from Yr 1 Efficiency Projects*	-	-	21,689.2
Petroleum Saved over Lifetime of Efficiency Projects*	-	-	325,338.0
Greenhouse Gas Avoided			
Total Greenhouse Gas Avoided (2) Over Lifetime (Clean Energy and Energy Efficiency Projects) (Est. metric tons CO ₂)	6,255.5	6,255.5	217,557.5
Greenhouse Gas Avoided from Clean Energy Yr 1 Production (Estimated metric tons CO ₂)	327.9	327.9	3,048.1
Greenhouse Gas Avoided Over Lifetime of Installed PV (Projected metric tons CO ₂)	6,255.5	6,255.5	58,151.7
Greenhouse Gas Avoided from Yr 1 Energy Efficiency*	-	-	10,627.1
Greenhouse Gas Avoided over Lifetime of Energy Efficiency Project*	-	-	159,405.9

(1) Reference unitjuggler.com for conversion metric.

(2) Reference eia.gov for conversion metrics.

3.2 Economic Development Impact

GEMS Capital (Cash Basis)	This Quarter: 7/1-9/30/18	FY 2019 To Date	Since Program Inception
GEMS Revenues	\$ 741,953	\$ 741,953	\$ 3,948,514
GEMS Administrative & Program Costs	\$ 193,445	\$ 193,445	\$ 3,688,670
GEMS Loans Funded	\$ 2,633,347	\$ 2,633,347	\$ 26,497,254
Indirect Economic Impact - Jobs Created/Retained (1)*	32.3	32.3	863.4
State of Hawaii Tax Revenues Generated*	\$ 398,828	\$ 398,828	\$ 10,653,350

(1) Jobs created or retained was previously calculated utilizing the SBA's metric of \$65,000/job. However, as a state program, we will be utilizing the State's metric of \$97,922/job for 2018.

Projects Financed According to Technology Type/Category

Solar Photovoltaic Systems (1)	34	34	527
Energy Storage	0	0	0
Lighting Upgrades (2)*	-	-	965,000
HVAC Upgrades*	0	0	324
Mechanical Upgrades	0	0	0
Controls and Monitoring Devices	33	33	510.00
Energy/Water Nexus	0	0	0
Total No. of Projects	33	33	227

(1) Including advanced inverters and smart modules.

(2) DOE Project: Interior and Exterior LEDs

3.3 Market Expansion Impact

Residential PV Loan Program	This Quarter: 7/1-9/30/18	FY 2019 To Date	Since Program Inception
Total No. of GEMS Loans	11	11	156
Total No. of GEMS Leases	21	21	52
Total No. of GEM\$ OBOs	0	0	0
Owner Occupied OBOs	0	0	0
Renter OBOs	0	0	0
No. Loans/Leases Serving Underserved Market (1)	26	26	168
% Loans/Leases Serving Underserved Market	81.3%	81.3%	80.8%
<small>(1) See AMI Distribution</small>			
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. Residential PV Applications Withdrawn	-	0	126
No. of Residential PV Applications Loan Docs Accepted	2	N/A	N/A
Status of Applications (Direct):			
No. of Residential PV Applications Received	35	35	103
No. of Residential PV Applications In Process	19	N/A	N/A
No. of Residential PV Applications Declined	7	7	27
No. Residential PV Applications Withdrawn	9	9	14
No. of Residential PV Applications Loan Docs Accepted	26	N/A	N/A
Status of Applications (Leases):			
No. of Residential PV Applications Received	16	16	81
No. of Residential PV Applications In Process	11	N/A	N/A
No. of Residential PV Applications Declined	0	0	0
No. Residential PV Applications Withdrawn	0	0	2
No. of Residential PV Applications: Notice to Proceed	26	N/A	N/A
Status of Applications (GEM\$ OBR):			
No. of Residential GEM\$ Applications Received	38	38	53
No. of Residential GEM\$ Applications in Process	19	N/A	N/A
No. of Residential GEM\$ Applications Declined	18	18	24
No. of Residential GEM\$ Applications Withdrawn	6	6	7
No. of Residential GEM\$ Applications OBO Docs Accepted	3	N/A	N/A
Geographic Location			
No. of Loans on Oahu	32	32	191
No. of Loans on Maui	0	0	9
No. of Loans on Molokai	0	0	0
No. of Loans on Lanai	0	0	0
No. of Loans on Hawaii	0	0	8
Profile of Customers			
Number of Customers By Customer FICO Credit Score			
700 and above	20	20	110
675-699	8	8	44
650-674	3	3	26
620-649	0	0	18
600-619	1	1	10

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	3
\$35,000-\$49,999	0	0	17
\$50,000-\$74,999	3	3	27
\$75,000-\$99,999	6	6	48
\$100,000 and Above	23	23	112

Number of Customers by Area Median Income (1)			
<30% AMI (Extremely Low Income)	0	0	1
30% to <50% AMI (Very Low Income)	3	3	25
50% to <80% AMI (Low Income)	8	8	49
80% to <140% AMI (Moderate Income)	15	15	93
> 140% AMI	6	6	40

(1) Area Median Income as provided by the U.S. Department of Housing & Urban Development (HUD). <30% AMI - Extremely Low Income; 30% to <50% AMI = Very Low Income; 50% to <80% AMI = Low Income; 80% to <140% AMI = Moderate Income.

Commercial Loan Program	This Quarter: 7/1-9/30/18	FY 2019 To Date	Since Program Inception
Total Number of GEMS PV Loans	-	-	18
Total Number of GEMS EE Loans	-	-	1
Total Number of GEM\$ OBOs			
Owner-User	1	1	1
Commercial Tenant			
No. of Nonprofits Participating in GEMS	1	1	11
Status of Applications:			
No. of Commercial PV Applications Received	2	2	31
No. of Commercial PV Applications Approved	2	2	26
No. of Commercial PV Applications Declined	0	0	0
No. of Commercial PV Applications Withdrawn	0	0	2
No. of Commercial PV Applications Under Review	3	N/A	N/A
No. of Commercial EE Applications Received	0	0	1
No. of Commercial EE Applications Approved	0	0	1
No. of Commercial EE Applications Declined	0	0	0
No. of Commercial EE Applications Withdrawn	0	0	0
No. of Commercial EE Applications Under Review	0	N/A	N/A
No. of GEM\$ Commercial Applications Received	3	3	4
No. of GEM\$ Commercial Applications Approved	0	0	1
No. of GEM\$ Commercial Applications Denied	0	0	0
No. of GEM\$ Commercial Applications Withdrawn	0	0	0
No. of GEM\$ Commercial Applications Under Review	3	N/A	N/A
Geographic Location (1)			
No. of Loans on Oahu	1	1	13
No. of Loans on Maui	0	0	4
No. of Loans on Molokai	0	0	0
No. of Loans on Lanai	0	0	0
No. of Loans on Hawaii	0	0	3

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

No. Small Businesses Participating in GEMS	0	0	4
No. 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	1
\$1,000,000-\$4,999,999	0	0	1
Above \$5,000,000	0	0	0

Number of Small Businesses by Average Number of Employees*			
≤10 Employees	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	1
>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.

Number of Rental Units Supported by GEMS	-	-	748
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Marketing & Customer Service Activities			
GEM\$ Marketing & Program Outreach**	40	40	85
Contractor Calls and Support	510	510	715
Potential Customer Calls and Support	60	60	110
Existing Customer Calls and Support	240	240	305
Complaint Calls and Support***	1	1	2
Other Calls and Support	0	0	0

** Marketing and Program Outreach may include, but not be limited to program updates, prospecting new contractors, GEM\$ education, nonprofit outreach, training, customer engagement, etc.

***Both complaints were resolved with the Authority implementing additional procedures to ensure enhanced levels of communication to both applicants and contractors.

3.4 Cost Savings Impact			
	This Quarter: 7/1-9/30/18	FY 2019 To Date	Since Program Inception
Aggregate Estimated Gross (1) Electricity Cost Savings from Energy Production and Reduction (life of system) (\$)	\$ 8,991,823	\$ 8,991,823	\$ 247,092,985
Aggregate Estimated Gross Electricity Cost Savings From Energy Production (life of system) (\$) (Consumer)	\$ 4,649,122	\$ 4,649,122	\$ 25,873,803
Aggregate Estimated Gross Electricity Cost Savings From Energy Production (life of system) (\$) (Commercial)	\$ 4,342,701	\$ 4,342,701	\$ 62,304,592
Aggregate Estimated Gross Electricity Cost Savings from Energy Efficiency (life of system)\$(Commercial)*	\$ -		\$ 158,914,590
<i>Average</i> Estimated Gross Electricity Cost Savings From Energy Production (life of system) (\$) (Consumer)	\$ 145,285	\$ 145,285	\$ 124,393
<i>Average</i> Estimated Gross Electricity Cost Savings From Energy Production (life of system) (\$) (Commercial)	\$ 4,342,701	\$ 4,342,701	\$ 3,279,189
<i>Average</i> Estimated Gross Electricity Cost Savings from Energy Efficiency (life of system)\$(Commercial)*	\$ -		\$ 659,397
Aggregate Estimated Net (2) Electricity Cost Savings From Energy Production (life of system) (\$) (Consumer)	\$ 3,743,129	\$ 3,743,129	\$ 16,773,589
Aggregate Estimated Net Electricity Cost Savings From Energy Production (life of system) (\$) (Commercial)	\$ 3,092,814	\$ 3,092,814	\$ 26,147,117

Aggregate Estimated Net Electricity Cost Savings From Energy Efficiency (life of system) (\$) (Commercial)*	\$ -		\$ 112,514,590
<i>Average</i> Estimated Net Electricity Cost Savings From Energy Production (life of system) (\$) (Consumer)	\$ 116,973	\$ 116,973	\$ 80,642
<i>Average</i> Estimated Net Electricity Cost Savings From Energy Production (life of system) (\$) (Commercial)	\$ 3,092,814	\$ 3,092,814	\$ 1,376,164
<i>Average</i> Estimated Net Electricity Cost Savings from Energy Efficiency (\$) (Commercial)*	\$ -	\$ -	\$ 466,866
<i>Average</i> System Cost per Watt for All Consumers (PV) (\$)	\$ 4.19	\$ 4.19	\$ 4.06
<i>Average</i> System Cost per Watt for Underserved Consumers (PV) (\$)	\$ 4.24	\$ 4.24	\$ 4.11
<i>Average</i> System Size for All Consumers (PV) (kW)	10.0	10.0	8.9
<i>Average</i> System Size for Underserved Consumers (PV) (kW)	9.7	9.7	8.9
Project Cost per Watt for All Consumers – Energy Efficiency (\$)	0	0	0
<i>Average</i> Project Size for All Consumers – Energy Efficiency (kW)	0	0	0
Project Cost per Watt for Underserved Consumers – Energy Efficiency (\$)	0	0	0
<i>Average</i> Project Size for Underserved Consumers – Energy Efficiency (kW)	0	0	0

(1) Savings calculation assumes a historical utility rate increase of 5.72% annually.

(2) Savings calculations includes tax credits, assumes a historical utility rate increase of 5.72% annually and is net of loan payments required.

* Energy Efficiency metrics based on DOE's completed project plan. Hawaii Energy reports shall include GEMS/GEM\$ energy efficiency metrics.

4. Financial Summary of Hawaii Green Infrastructure Authority

State of Hawaii		
Hawaii Green Infrastructure Authority		
Three Month Period Ended September 30, 2018		
BALANCE SHEET		
Assets		
Current Assets		
Cash in Bank	\$	118,026,429
Cash in Treasury	\$	2,050,877
Total Cash	\$	120,077,307
Interest Receivable	\$	217
Other Receivable		-
Total Current Assets	\$	120,077,524
Noncurrent Assets		
GEMS Loans Receivable	\$	25,846,936
GEMS Loans Receivable - Treasury		(866)
Total Loans Receivable	\$	25,846,071
Total Assets	\$	145,923,595
Liabilities		
Deposits/Impounds	\$	120
Unapplied Cash		137
Prepaid Fees		168
Total Liabilities	\$	424
Fund Balance		
Fund Balance - State Treasury	\$	2,049,844
Fund Balance - GEMS Program	\$	143,873,326
Total Fund Balance	\$	145,923,170
Total Liabilities & Fund Balance	\$	145,923,595
STATEMENT OF REVENUES, EXPENDITURES & CHANGES IN FUND BALANCES		
Revenues		
Investment Dividend	\$	523,102
Interest From Loans	\$	206,327
Other Income	\$	12,525
Total Revenues	\$	741,953
Expenditures		
Salaries & Benefits	\$	190,589
Office & Administrative Expenses	\$	873
Program Expenses	\$	1,983
Total Expenses	\$	193,445
Excess Revenues Over Expenditures	\$	548,508

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”³⁶ 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”.³⁷

The GEMS Program submitted its consumer protection policies in a Program Notification to the Commission on July 1, 2015.³⁸

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.³⁹ The Authority has not initiated any utility-scale projects during the quarter and there are no utility-scale projects that have been financed or are currently being discussed.

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.”⁴⁰ 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.”⁴¹

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.

³⁶ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

³⁷ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

³⁸ 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.

³⁹ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 60.

⁴⁰ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 95.

⁴¹ See “Division of Consumer Advocacy’s Statement of Position,” filed in Docket No. 2014-0135 on August 7, 2014, at p. 14.

SERVICE LIST

The original and eight (8) copies of the GEMS Program Quarterly Report have 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 31, 2018.