DAVID Y. IGE
GOVERNOR

GWEN S. YAMAMOTO LAU
EXECUTIVE DIRECTOR

HAWAII GREEN INFRASTRUCTURE AUTHORITY

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-3868

January 30, 2019

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PUBLIC UTILITIES COMMISSION

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 of October 1, 2018 to December 31, 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:

October 1, 2018 – December 31, 2018

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

January 2019

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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. 32318[1] (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 Advocate[6] 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;

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[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.

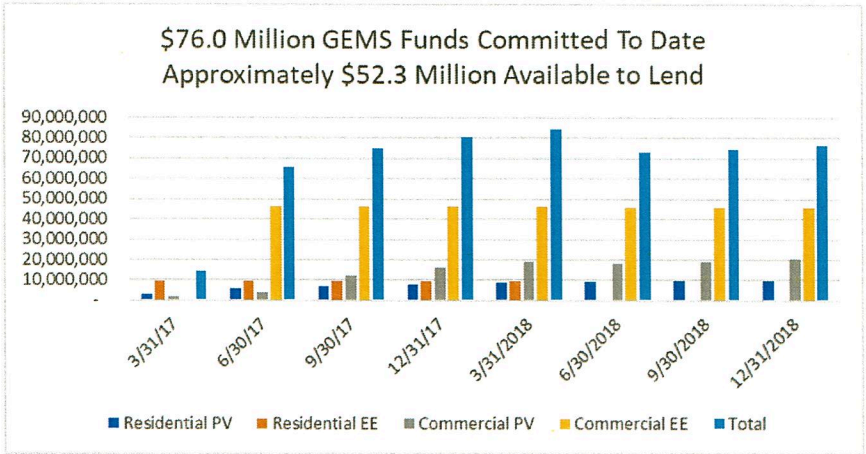
[7] See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 93.

(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 December 31, 2018, approximately $76.0 million in GEMS funds have been committed, leaving approximately $52.3 million available to lend. Please refer to Status of Programs, sections 2.2, 2.3 and 2.7 for additional information.



Additional GEMS Program highlights, as of December 31, 2018, are as follows:

Excess Revenues over Expenses – YTD FY2019[10]	$1,683,593
Jobs Created / Retained	904.5
State of Hawaii Tax Revenues Generated	$11,161,009
Total Estimated kWh Production / Reduction Over Lifetime	745,676,011
Total Petroleum Displaced Over Lifetime (Estimated Barrels)	457,976
Total Greenhouse Gas Avoided Over Lifetime (Estimated Metric Tons CO2)	224,906
% Underserved Households Served[11]	78.0%

[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 Revenue over Expenses 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.
[11] Underserved defined as low and moderate-income households. Minimum target for Underserved = 51%.

For the six-month period ending December 31, 2018, the Authority posted Excess Revenues over Expenditures aggregating over $1.6 million. During the quarter, the Authority transferred its accounts from a trust bank on the mainland, where bond proceeds were initially deposited, to a local commercial bank with more sophisticated cash management services. This has resulted in a significant increase in dividend revenues from previous months. Please refer to the Financial Summary in Section 4 for more details.

With the approval of the Green Energy Money $aver On-Bill Program (GEM$), coupled with a renewed sense of urgency within the industry due to the pending decrease of Federal solar tax credits beginning January 1, 2020, the near-term future market outlook looks positive.

2 Summary of Program Activities

The following is a summary of the activities that have occurred between October 1, 2018 and December 31, 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 October 30, 2018, at which it approved HGIA's Quarterly Report for the period ended September 30, 2018.
- **Quarterly Report**. The Quarterly Report covering the period of October 1, 2018 to September 30, 2018 was filed with the Commission on October 31, 2018 in Docket No. 2014-0135.
- **Order No. 35918.** The Commission filed Order No. 35918 Approving the Establishment and Implementation of an On-Bill Repayment Mechanism and Associated Tariff on December 6, 2018 in Docket No. 2014-0135.
- **Board Meeting**. The Authority held a board meeting on December 14, 2018, at which it approved HGIA's 2018 Report to the Governor and Legislature and accepted HGIA's Financial Audit for the fiscal year ended June 30, 2018.
- **2018 Report to the Governor and Legislature**. On December 18, 2018, HGIA's Report was distributed to the Governor, Legislature and other required recipients.

2.2 Status of Programs: Residential Portfolio

2.2.1 Residential PV – WECC Originated

At a glance (as of 12/31/18) from program inception:

Residential PV - WECC Originated	Apps Rcvd This Qtr	In Process as of 12/31*	Committed as of 12/31**	Funded This Qtr	Declined/ Withdrawn This Qtr	Apps Rcvd Total	Funded Total	Declined/ Withdrawn Total
# of loans	0	0	0	1	1	427	140	287
$ value of loans	n/a	n/a	n/a	$75,068.00	n/a	n/a	$4,836,268	n/a

* Includes loans that are being processed and/or pending additional information

**Includes loans that have been approved with executed documents and systems are in the process of being installed

During the quarter, the Authority purchased its final loan originated and funded by WECC concluding HGIA's contract obligations with this third-party contractor.

2.2.2 Residential PV – Direct

At a glance (as of 12/31/18) from November 9, 2017:

Residential PV - Direct	Apps Rcvd This Qtr	In Process as of 12/31*	Committed as of 12/31**	Funded This Qtr	Declined/ Withdrawn This Qtr	Apps Rcvd Total	Funded Total	Declined/ Withdrawn Total
# of loans	25	8	21	15	17	129	31	69
$ value of loans	n/a	n/a	$710,266.03	$508,234.04	n/a	n/a	$1,076,330	n/a

* Includes loans that are being processed and/or pending additional information

**Includes loans that have been approved with executed documents and systems are in the process of being installed

2.2.3 Residential PV - Consumer Leases

At a glance (as of 12/31/18) from program inception on 5/1/17:

Residential PV - Consumer Leases	Apps Rcvd This Qtr	In Process as of 12/31*	Committed as of 12/31**	Funded This Qtr	Declined/ Withdrawn This Qtr	Apps Rcvd Total	Funded Total	Declined/ Withdrawn Total
# of leases	0	11	16	15	0	84	57	0
$ value of leases	n/a	n/a	$1,271,091.80	$252,477.10	n/a	n/a	$1,728,908	n/a

* Includes leases that are being processed and/or pending additional information
**Includes leases that have been approved with executed documents and systems are in the process of being installed. GEMS funds are committed to four borrowers who are in the process of sourcing consumer PV leases.

2.2.4 Residential PV - On-Bill

At a glance (as of 12/31/18) since program inception on 6/1/18:

Residential PV - OBR	Apps Rcvd This Qtr	In Process as of 12/31*	Committed as of 12/31**	Funded This Qtr	Declined/ Withdrawn This Qtr	Apps Rcvd Total	Funded Total	Declined/ Withdrawn Total
# of loans	20	10	4	2	14	67	2	51
$ value of loans	n/a	n/a	$109,017.62	$57,830.00	n/a	n/a	$57,830.00	n/a

* Includes loans that are being processed and/or pending additional information

**Includes loans that have been approved with executed documents and systems are in the process of being installed

2.2.5 Residential EE – Direct

At a glance (as of 12/31/18) since program inception on 6/1/18:

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

2.2.6 Residential EE – On-Bill

At a glance (as of 12/31/18) since program inception on 6/1/18:

Residential EE - OBR	Apps Rcvd This Qtr	In Process as of 12/31*	Committed as of 12/31**	Funded This Qtr	Declined/ Withdrawn This Qtr	Apps Rcvd Total	Funded Total	Declined/ Withdrawn Total
# of loans	3	2	2	1	1	10	1	5
$ value of loans	n/a	n/a	$16,064.00	$6,250.00	n/a	n/a	$6,250.00	n/a

* Includes loans that are being processed and/or pending additional information

**Includes loans that have been approved with executed documents and systems are in the process of being installed

During the quarter, the Authority continued with its in-house loan origination and processing for all of its residential loan products.

Delinquent Status for the entire Residential Loan Portfolio as of December 31, 2018:

	Current	% Current	31-60 Days	% 31-60 Days	61-90 Days	% 61-90 Days	91+ Days	% 91+ Days	Total
Value	$5,100,841.6	98.7%	$31,969.80	0.6%	$0.00	0.0%	$37,259.52	0.7%	$5,170,070.96
#	159	98.8%	1	0.6%	0	0.0%	1	0.6%	161

As reported in the 2.7 Additional Activities section of last quarter's report, in an effort to implement more timely and impactful collection procedures, on 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 all collection duties and responsibilities in-house.

As of December 31, 2018, the Authority is pleased to report that delinquencies have significantly decreased from the previous quarter. The property for the last remaining seriously delinquent loan is currently in escrow. The escrow officer has indicated that she expects the sale to close on January 31, 2019, at which time, our loan will be paid in full.

2.3 Status of Programs: Commercial Portfolio

2.3.1 Commercial PV – Direct

At a glance (as of 12/31/18) from program inception:

Commercial PV - Direct	Apps Rcvd This Qtr	In Process as of 12/31*	Committed as of 12/31**	Funded This Qtr	Declined/ Withdrawn This Qtr	Apps Rcvd Total	Funded Total	Declined/ Withdrawn Total
# of loans	0	0	10	5	0	31	20	2
$ value of loans	n/a	n/a	$5,858,458.23	$930,945.77	n/a	n/a	$13,284,360	n/a

* Includes loans that are being processed and/or pending additional information

** Loans have been approved and are currently in the documentation process and/or the projects are currently under development. Loan can be split between committed and funded once approved

2.3.2 Commercial PV – On-Bill

At a glance (as of 12/31/18) since program inception on 6/1/18:

Commercial PV - OBR	Apps Rcvd This Qtr	In Process as of 12/31*	Committed as of 12/31**	Funded This Qtr	Declined/ Withdrawn This Qtr	Apps Rcvd Total	Funded Total	Declined/ Withdrawn Total
# of loans	4	4	2	1	0	8	2	1
$ value of loans	n/a	n/a	$812,638.88	$195,416.67	n/a	n/a	$389,861.12	n/a

* Includes loans that are being processed and/or pending additional information

** Loans have been approved and are currently in the documentation process and/or the projects are currently under development. Loan can be split between committed and funded once approved

2.3.3 Commercial EE – On-Bill

At a glance (as of 12/31/18) since program inception on 6/1/18:

Commercial EE OBR	Applications Received	In Process[12]	Committed[13]	Funded
# of OBO	1	1	0	0
$ value of OBO	n/a	n/a	$0.00	$0.00

As of December 31, 2018, almost $40.0 million in total solar projects for nonprofits, small businesses and multi-family rental projects were leveraged with $19.5 million in GEMS funds.

Delinquent Status as of December 31, 2018:

	Current	% Current	31-60 Days	% 31-60 Days	61-90 Days	% 61-90 Days	91+ Days	% 91+ Days	Total
Value	$15,011,773.14	99.5%	$70,200.00	0.5%	0	0%	0	0%	$15,081,973.14
#	28	96.6%	1	3.4%	0	0%	0	0%	29

2.3.4 Commercial EE – Direct

At a glance (as of 12/31/18) from program inception:

	Applications Received	In Process	Committed[14]	Funded[15]
# of loans	0	0	0	0
$ value of loans	n/a	n/a	$0.00	$0.00

2.3.5. State Energy Efficiency Revolving Line of Credit

At a glance (as of 12/31/18) from program inception:

State EE Revolving Line of Credit	Apps Rcvd This Qtr	In Process as of 12/31	Committed as of 12/31*	Funded This Qtr	Declined/ Withdrawn This Qtr	Apps Rcvd Total	Funded Total	Declined/ Withdrawn Total
# of loans	0	0	1	1	0	1	1	0
$ value of loans	n/a	n/a	$35,108,136	$3,379,318	n/a	n/a	$10,775,464	n/a

* Loan funds are advanced based on achievement of milestone progress payment criteria by Contractors

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

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

On December 3, 2018, the Department of Education ("DOE") made its first principal repayment of $1.147 million for its GEMS loan, leaving approximately $5.3 million available to lend to other state agencies or departments.

As of December 31, 2018, $10.8 million has been funded on behalf of the DOE for commercial energy efficiency work completed.

Delinquent Status as of December 31, 2018:

	Current	% Current	31-60 Days	% 31-60 Days	61-90 Days	% 61-90 Days	91+ Days	% 91+ Days	Total
Value	$9,628,374.05	100%	0	0%	0	0%	0	0%	$ 9,628,374.05
#	1	100%	0	0%	0	0%	0	0%	1

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 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 business[16] participants.

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").

[16] Small Businesses are defined by the U.S. Small Business Administration's Size Standards.

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 prior to the end of this fiscal year.

2.6 Marketing and Customer Service Activities

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

	10/1-12/31/18	FY 19 to Date	Since Program Inception
GEM$ Marketing and Program	35	75	120
Contractor Calls and Support	490	1000	1205
Potential Customer Calls and Support	70	180	180
Existing Customer Calls and Support	210	450	515
Complaint Calls and Support**	1	2	3
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.

** All complaints were resolved by the Authority implementing additional procedures to ensure enhanced levels of communication to both applicants and contractors

Through the generosity of a private foundation, the Authority received a grant to fund a 12-month public relations and outreach program to promote GEM$. The goals of the outreach, which began in December 2018, are to publicize program benefits and opportunities to GEM$ target audiences, secure speaking opportunities for HGIA program representatives, and increase awareness and participation in the GEM$ program.

2.7 Additional Activities

The following are some of the activities that have occurred since the end of the quarter (December 31, 2018) and will be reported as activities in the next Quarterly Report:

- **Authority Members.** On January 12, 2019, Governor Ige appointed Roderick Becker as Director of the Department of Budget and Finance. By statute, Mr. Becker is a member of the Authority. On January 16, 2019, the Governor appointed Mike McCartney as Director of DBEDT. By statute, Mr. McCartney is the Chair of the Authority.

- **Loans Funded**. As of January 22, 2019, the Authority funded a commercial progress payment of $190,268 and DOE progress payments aggregating $538,371.

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	10/1-12/31/18	FY19 To Date	Since Program Inception
Installed Capacity (Actual kW)	848	1,582	6,782
Total Yr 1 Production (Estimated kWh)	1,192,879	2,282,484	11,321,954
Total Project Production over Lifetime of Installed PV (Projected kWh, including 0.05% degradation)	22,669,037	43,456,413	215,910,556
Electricity Reductions from Energy Efficiency Projects Financed			
Total Yr 1 kWh Reduction (Energy Efficiency)*	2,630	2,630	35,316,982
Total kWh Reduction Over Lifetime of Installed EE*	50,175	50,175	529,765,455
Petroleum Displaced by Clean Energy and Energy Efficiency Projects (1)			
Total Petroleum Displaced/Saved over Lifetime (Estimated barrels)	13,954	26,721	457,976
Petroleum Displaced/Saved based on Yr 1 Clean Energy Generation/Savings (Estimated barrels)	734	1,403	6,955
Petroleum Displaced Over Lifetime of Installed PV (Estimated barrels)	13,923	26,690	132,607
Cumulative Annual Petroleum Saved from Yr 1 Efficiency Projects*	2	2	21,691
Petroleum Saved of Lifetime of Efficiency Projects	31	31	325,369
Greenhouse Gas Avoided			
Total Greenhouse Gas Avoided (2) Over Lifetime (Clean Energy and Energy Efficiency Projects) (Est. metric tons CO_2)	7,349	13,604	224,906
Greenhouse Gas Avoided from Clean Energy Yr 1 Production (Est. metric tons CO_2)	359	687	3,407
Greenhouse Gas Avoided Over Lifetime of Installed PV (Projected metric tons CO_2)	7,334	13,589	65,486
Greenhouse Gas Avoided from Yr 1 Energy Efficiency*	1	1	10,628
Greenhouse Gas Avoided over lifetime of Energy Efficiency Project*	15	15	159,421

(1) Reference unitjuggler.com for conversion metric

(2) Reference eia.gov for conversion metrics

3.2 Economic Development Impact	10/1-12/31/18	FY19 To Date	Since Program Inception
GEMS Revenues (Cash Basis)		$741,953.00	$3,948,514.00
GEMS Administrative & Program Costs (Cash Basis)		$193,445.00	$3,688,670.00
GEMS Loans Funded	$2,595,920.28	$5,229,267.28	$29,093,174.28
Indirect Economic Impact - Jobs Created/Retained (1)	41.1	73.4	904.5
State of Hawaii Tax Revenues Generated	$507,659.08	$906,487.08	$11,161,009.08

(1) Jobs created or retained was previously calculated utilizing the SPA's metric of $65,000/job. However, as a state program, HGIA utilizes the State's metric of $97,922/job as of 2018.

Projects Financed According to Technology Type/Category

Solar Photovoltaic	34	68	561
Energy Storage	0	0	0
Lighting Upgrades (2)*	0	0	965,000
HVAC Upgrades*	0	0	324
Mechanical Upgrades	0	0	0
Controls and Monitoring Devices	34	67	544
Energy/Water Nexus (3)	1	1	1
Total No. of Projects	35	68	262

(1) Including advanced inverters and smart modules

(2) DOE Project: Interior and Exterior LEDs

(3) Includes solar water heating

3.3 Market Expansion Impact

Residential Loan Program	10/1-12/31/18	FY19 To Date	Since Program Inception
Total Number of PV Loans	15	26	171
Total Number of PV Leases	15	36	67
Total Number of GEM$ OBOs for PV	2	2	2
Owner Occupied OBOs	2	2	2
Renter OBOs	0	0	0
Total Number of GEM$ OBOs for EE (SWH)	1	1	1
Owner Occupied OBOs	1	1	1
Renter OBOs	0	0	0
Total Number of GEM$ OBOs	3	3	3
Number Loans/Leases/OBOs Serving Underserved Market (1)	18	44	186
% Loans/Leases Serving Underserved Market	56%	69%	78%

(1) See AMI Distribution

Geographic Location of Financing Products

Oahu	31	63	222
Maui	2	2	11
Molokai	0	0	0
Lanai	0	0	0
Hawaii	0	0	8

Profile of Customers Financed:

Number of Customers by Customer FICO Credit Score (2)

700 and above	22	42	132
675-699	3	11	47
650-674	1	4	27
620-649	0	0	18
600-619	2	3	12

(2) Excludes on-bill applicants and 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	3
$35,000-$49,999	0	0	17
$50,000-$74,999	3	6	30
$75,000-$99,000	4	10	52
$100,000 and above	26	49	138

Number of Customers by Area Median Income (1)

<30% AMI (Extremely Low Income)	0	0	1
30% to <50% AMI (Very Low Income)	1	4	26
50% to <80% AMI (Low Income)	5	13	54
80% to <140% AMI (Moderate Income)	12	27	105
>140% AMI	15	21	55

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

Commercial Loan Program	**10/1-12/31/18**	**FY19 To Date**	**Since Program Inception**
Total Number of GEMS PV Loans	1	1	19
Total Number of GEMS EE Loans	0	0	1
Total Number of GEM$ OBOs	1	2	2
Owner-User	1	2	2
Commercial Tenant	0	0	0
Number of Nonprofits Participating in GEMS	1	2	12
Number of Small Businesses Participating in GEMS	1	1	5
Number of Rental Units Supported by GEMS	0	0	748

Geographic Location of Loans (1)

Oahu	1	2	14
Maui	0	0	4
Molokai	0	0	0
Lanai	0	0	0
Hawaii	1	1	4

(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	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 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	1	1	2
>1,000 Employees	0	0	0

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

3.4 Cost Savings Impact

	10/1-12/31/18	FY19 To Date	Since Program Inception
Aggregate, Estimated, Gross* Electricity Cost Savings ($)			
from Energy Production and Reduction	$ 9,316,393.34	$ 18,308,216.34	$ 256,409,378.34
from Energy Production (Consumer)	$ 4,369,996.32	$ 9,019,118.32	$ 30,243,799.32
from Energy Production (Commercial)	$ 4,930,879.00	$ 9,273,580.00	$ 67,235,471.00
from Energy Efficiency (Consumer)	$ 15,518.02	$ 15,518.02	$ 15,518.02
from Energy Efficiency (Commercial)	$ -	$ -	$ 158,914,590.00
Average, Estimated, Gross* Electricity Cost Savings ($)			
from Energy Production (Consumer)	$ 136,562.39	$ 281,847.39	$ 126,015.83
from Energy Production (Commercial)	$ 2,465,439.50	$ 6,808,140.50	$ 3,201,689.10
from Energy Efficiency (Consumer)	$ 15,518.02	$ 15,518.02	$ 15,518.02
from Energy Efficiency (Commercial)	$ -	$ -	$ 659,397.00

* 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)	$ 2,469,137.40	$ 6,212,266.40	$ 19,242,726.40
from Energy Production (Commercial)	$ 2,755,272.00	$ 5,848,086.00	$ 28,902,389.00
from Energy Efficiency (Consumer)	$ 4,900.00	$ 4,900.00	$ 4,900.00
from Energy Efficiency (Commercial)*	$ -	$ -	$ 112,514,590.00
Average, Estimated, Net** Electricity Cost Savings ($)			
from Energy Production (Consumer)	$ 77,160.54	$ 194,133.54	$ 80,178.03
from Energy Production (Commercial)	$ 1,377,636.00	$ 4,470,450.00	$ 1,376,304.24
from Energy Efficiency (Consumer)	$ 4,900.00	$ 4,900.00	$ 4,900.00
from Energy Efficiency (Commercial)	$ -	$ -	$ 466,866.00

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

	10/1-12/31/18	FY19 To Date	Since Program Inception
Average System Cost per Watt for All Consumers (PV) ($)	$ 4.13	$ 8.32	$ 4.07
Average System Cost per Watt for Underserved Consumers (PV)	$ 4.12	$ 8.36	$ 4.11
Average System Size for All Consumers (PV) (kW)	26.5	36.5	11.0
Average System Size for Underserved Consumers (PV) (kW)	9.1	18.8	8.9
Project Cost per Watt for All Consumers -- Energy Efficiency ($)	n/a		
Average Project Size for All Consumers -- Energy Efficiency (kW)	n/a		
Project Cost per Watt for Underserved Consumers -- Energy Efficiency ($)	n/a		
Average Project Size for Underserved Consumers -- Energy Efficiency (kW)	n/a		

4 Financial Summary of Hawaii Green Infrastructure Authority

State of Hawaii		
Hawaii Green Infrastructure Authority		
Six Month Period Ended December 31, 2018		
BALANCE SHEET		
Assets		
Current Assets		
Cash in Bank	$	115,337,304
Cash in Treasury		1,971,961
Total Cash	$	117,309,265
Interest Receivable	$	869
Other Receivable		22
Total Current Assets	$	117,310,156
Noncurrent Assets		
GEMS Loans Receivable	$	29,880,418
Total Assets	**$**	**147,190,574**
Liabilities		
Deposits, Impounds & Unapplied	$	256
Other Liabilities		56,335
Total Liabilities	$	56,591
Fund Balance		
Fund Balance - State Treasury	$	1,970,724
Fund Balance - GEMS Program		145,163,259
Total Fund Balance	$	147,133,983
Total Liabilities & Fund Balance	**$**	**147,190,574**
STATEMENT OF REVENUES, EXPENDITURES & CHANGES IN FUND BALANCES		
Revenues		
Investment Dividend	$	1,666,483
Interest From Loans		436,444
Other Income		31,457
Total Revenues	$	2,134,383
Expenditures		
Salaries & Benefits	$	310,868
Office & Administrative Expenses		4,457
Program Expenses		135,465
Total Expenses	$	450,790
Excess Revenues Over Expenditures	$	1,683,593

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]omission with its quarterly reporting and Program Notifications"[17] 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]omission, 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".[18]

The GEMS Program submitted its consumer protection policies in a Program Notification to the Commission on July 1, 2015.[19]

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.[20] 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."[21] 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."[22]

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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[17] See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.
[18] See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.
[19] 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.
[20] See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 60.
[21] See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 95.
[22] 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:

State of Hawaii (8)
Public Utilities Commission
465 S. King Street
Honolulu, Hawaii 96813

Dean Nishina (2)
Executive Director
Department of Commerce and Consumer Affairs
Division of Consumer Advocacy
PO Box 541
Honolulu, Hawaii 96809

Kevin M. Katsura (2)
Manager-Regulatory Non-Rate Proceedings
Hawaiian Electric Company, Inc.
Hawaii Electric Light Company, Inc.
Maui Electric Company, Ltd.
P.O. Box 2750
Honolulu, Hawaii 96840-0001

And by electronic transmission to

Rick Reed
Director
Hawaii Solar Energy Association
P.O. Box 37070
Honolulu, HI 96837
rreed@solarsupply.com

Henry Q. Curtis
Vice President for Consumer Issues
Life of the Land
P.O. Box 37158
Honolulu, HI 96837-0158
henry.lifeoftheland@gmail.com

Melissa Miyashiro
Chief of Staff
Blue Planet Foundation
55 Merchant Street, 17th Floor
Honolulu, Hawaii 96813
melissa@blueplanetfoundation.org

Dated: Honolulu, Hawaii, January 30, 2019.