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July 31, 2017

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 April 1, 2017 to June 30, 2017. This report fulfills the requirement for Quarterly Reports 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

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COMMISSION

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State of Hawaii

Hawaii Green Infrastructure Authority

GREEN ENERGY MARKET SECURITIZATION PROGRAM

QUARTERLY REPORT:

April 1, 2017 – June 30, 2017

REPORT TO THE
STATE OF HAWAII
PUBLIC UTILITIES COMMISSION
Pursuant to

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

July 2017

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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 and to help consumers 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 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

Loan volume and activity increased during the past quarter as the Authority continues to deploy capital under its Residential PV and Commercial PV Loan Products. With the passage of Act 057, 2017 Session Laws, a significant portion of GEMS funds (\$46.4 million) has been earmarked for the State Department of Education. As of June 30, 2017, \$68.4 million or 46.7% of GEMS funds have been committed¹⁰ and/or funded. Additionally, the Authority continued to work with its loan servicer and the HECO Companies on its on-bill repayment mechanism.

As we look around the broader national energy market, we remain encouraged that by operating under similar governance models as leading Green Banks such as the Connecticut Green Bank and the New York Green Bank, with a singular governance body and streamlined approval process, HGIA can play a vital role in expanding access to clean energy. Given the current dynamics in the Hawaii energy marketplace, we believe this role remains critically important.

2 Summary of Program Activities

The following is a summary of the activities that have occurred between April 1, 2017 and June 30, 2017.

2.1 Administration

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

- **Board Meeting.** The Authority held a board meeting on April 21, 2017, at which it approved HGIA's Quarterly Report for the period ended March 31, 2017.
- **Quarterly Report.** The Quarterly Report covering the period of January 1, 2017 to March 31, 2017 was filed with the Commission on April 28, 2017 in Docket No. 2014-0135.

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 See At a Glance status, Sections 2.2 Residential PV; 2.3 Commercial PV; and 2.4 Commercial Energy Efficiency for details.

- **Loan Committee Meetings.** The Authority held loan committee meetings on May 22, 2017, May 30, 2017 and June 26, 2017, at which it approved four requests aggregating almost \$51.4 million.
- **Board Meeting.** The Authority held a board meeting on June 29, 2017, at which it approved a \$46.4 million loan to the Department of Education.

2.2 Status of Programs: Residential PV

At a glance (as of 6/30/17) from program inception:

	Applications Received	In Process¹¹	Committed¹²	Funded
# of loans	328	22	1,222	69
\$ value of loans	n/a	n/a	\$10,283,615	\$2,269,422

Residential solar PV loan applications are holding steady, only slightly below the amount received during the same period last year, however, the long-term growth prospects of the program remain limited by the broader market environment without the ability to finance storage.

Delinquent Status as of June 30, 2017:

Loan Balance	Current	%	31 – 60 Days	%	61 – 90 Days	%	91+ Days	%
\$2,202,342	\$2,097,662	95.2%	\$58,533*	2.7%	\$46,147**	2.1%	\$0.00	0.0%
No.: 69	66	95.6%	2	2.9%	1	1.4%	\$0.00	0.0%

* HGIA's Loan Servicer is conducting payment follow-up with the borrowers.

** This loan is delinquent due to an input error by HGIA's Loan Originator's where automatic payment information was not provided to our Loan Servicer. HGIA staff is working with the Borrower and Loan Servicer to correct the situation.

2.3 Status of Programs: Commercial PV

At a glance (as of 6/30/17) from program inception:

	Applications Received	In Process¹³	Committed¹⁴	Funded¹⁵
# of loans	12	4	8	6
\$ value of loans	n/a	n/a	\$6,728,049	\$2,798,141

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 as well as \$9,600,000 committed to install some 1,200 solar hot water systems on Molokai, pending Commission approval of HGIA financing residential energy efficiency and HGIA's OBR product. Each individual loan will need to meet the Authority's on-bill product requirements.

¹³ The Authority is currently awaiting additional information from the applicant and/or underwriting the loan requested.

¹⁴ These loans have been approved and are currently in the documentation process and/or the projects are currently under development.

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

The market has been responding positively to GEMS financing. Since the launch of its new commercial loan products late last year, the Authority has seen a steady increase in inquiries, applications, and approvals. In addition to the above, the Authority is currently underwriting requests with total project costs aggregating almost \$40.0 million.

Delinquent Status as of June 30, 2017:

Loan Balance	Current	%	31 – 60 Days	%	61 – 90 Days	%	91+ Days	%
\$2,798,141	\$2,798,141	100.0%	\$0.00	0.0%	\$0.00	0.0%	\$0.00	0.0%
No.: 6	6	100.0%	0	0.0%	0	0.0%	0	0.0%

2.4 Status of Programs: Commercial Energy Efficiency

At a glance (as of 6/30/17) from program inception:

	Applications Received	In Process ¹⁶	Committed ¹⁷	Funded ¹⁸
# of loans	1	0	1	0
\$ value of loans	n/a	n/a	\$46,400,000	\$0.00

As noted above, the Authority approved the \$46.4 million loan to the Department of Education for energy efficiency measures on June 29, 2017. The loan is currently being documented.

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 business¹⁹ participants. Metrus continues to seek financing opportunities that meets GEMS program requirements.

Under HRS 269-96, relating to energy efficiency portfolio standards (“EEPS”), the Public Utilities Commission (“PUC”) is responsible for establishing EEPS that will maximize cost-effective energy-efficiency programs and technologies. The EEPS requires that by 2030 annual energy savings amount to 30% of annual electricity sales statewide. Currently, one of “tools” the PUC is leveraging towards meeting this goal is rebates for energy efficiency measures. HGIA’s understanding of the purpose of rebates is to serve as the “tipping point” which incents a consumer to purchase and install an energy

¹⁶ The Authority is currently awaiting additional information from the applicant and/or underwriting the loan requested.

¹⁷ These loans have been approved and are currently in the documentation process and/or the projects are currently under development.

¹⁸ May include loans that are partially funded. The remaining amount(s) to be funded are in the “Committed” category.

¹⁹ Small Businesses are defined by the U.S. Small Business Administration’s Size Standards.

efficiency measure. However, absent reasonable financing terms for the remaining purchase price, a rebate alone may not enable the ratepayer to implement the energy efficiency measure.

EnerNoc Utility Solutions Consulting Inc. prepared and presented the State of Hawaii Energy Efficiency Potential Study, Project #1448 (the “Study”) to the Commission on January 15, 2014. The Study categorized Hawaii’s 2012 energy consumption into five sectors: residential (32%), military (11%), water/wastewater (4%), street lighting (.5%) and commercial (52%). **According to the Study, the commercial sector (which includes Government) consumes over half of statewide electricity use, “[t]he majority of the statewide EE savings potential is found in the commercial sector.”**

This study provides the energy efficiency potential in Hawaii’s market for both the commercial and residential sectors. Additionally, through its work under HRS 269-96 and with Hawaii Energy, HGIA realizes that the PUC is aware of the cost benefits of energy efficiency measures (in terms of both the potential reduction in energy consumption and utility savings). Therefore, in an effort to collectively work towards achieving the state’s EEPS goals, while streamlining the approval process, on March 31, 2017, the Authority requested Commission approval for a Commercial Energy Efficiency Loan Product: Project Sponsor and Direct in its 2018 Annual Plan²⁰ as an additional program element.

2.5 Status of Programs: 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.

2.6 Status of Programs: Other Programs Under Development

On Bill Repayment

On-Bill Repayment (“OBR”) is a critical tool to enable green infrastructure financing for the underserved (i.e. renters and low to moderate-income households) to truly democratize clean energy. The Authority continues to work closely with HECO and its Loan Servicer on the scope and deliverables required to implement the program on the IT and loan servicing levels.

Through the work done in Docket Nos. 2011-0186²¹ and 2014-0129²² between August 2011 to May 2016, by Hawaii Energy and its working groups, the PUC has extensive information and data on the benefit of an on-bill repayment mechanism, the potential in Hawaii’s market for both the residential and schedule G ratepayers, and its related cost benefit. In an effort to streamline the approval process, on March 30, 2017, the Authority requested Commission approval for a Residential On-Bill Repayment Loan Product and a Commercial On-Bill Repayment Loan Product in its 2018 Annual Plan²³ as an additional program element. However, the Commission recently requested that the Authority submit a program

²⁰ See Hawaii Green Infrastructure Fiscal 2018 Annual Plan submitted in Docket No. 2014-0135 on March 30, 2017, Attachments D and E for details.

²¹ See Docket No. 2011-0186: Instituting a Proceeding to Investigate the Implementation of On-Bill Financing, from 8/15/2011 to 9/6/2013.

²² See Docket No. 2014-0129: Instituting a Proceeding to Establish and Implement an On-Bill Financing Program, from 6/3/2014 to 5/20/2016.

²³ See Hawaii Green Infrastructure Fiscal 2018 Annual Plan submitted in Docket No. 2014-0135 on March 30, 2017, Attachments B and C for details.

manual ("Manual") for its OBR program. The Authority plans to submit a Manual for its Green Energy Money Saver (GEM\$) On-Bill Program during the current quarter.

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 limited interconnection options currently offered by the utility. The Authority has been working with the CA's office in developing a response to address its concerns.

Government Agencies

While the Authority has tabled the re-submission of its suspended Program Notification No. 8 originally filed on July 25, 2016 to broaden the definition of Participant under the Commercial Energy Efficiency Program approved in Program Notification No. 5 to include all commercial entities until further notice, through its submission of Program Notification No. 11, it requested and was approved by the Commission to finance energy efficiency for the Department of Education, subject to a \$60.0 million cap. On June 22, 2017, Governor Ige signed Act 057 (2017) into law. The Authority approved a \$46.4 million loan on June 29, 2017, which is reflected in Section 2.4 above.

Residential Energy Efficiency

Especially for the already vulnerable low-income households, installing energy efficiency measures, such as ENERGY STAR® refrigerators or solar hot water heaters, are cost effective ways to lower energy costs. The suspension of the On-Bill Financing Program in Docket No. 2014-0129, within which Hawaii Energy was to provide financing for residential energy efficiency measures ("EEM"), has resulted in a continued gap for low-cost financing of EEM.

As previously mentioned above, the PUC is aware of the energy efficiency potential in Hawaii's market for the residential sectors, as well as its benefit (in terms of both the potential reduction in energy consumption and utility savings for energy efficiency measures). In an effort to collectively work towards achieving the state's EEPs goals, while streamlining the approval process, on March 30, 2017, the Authority requested Commission approval to finance Residential Energy Efficiency measures in its 2018 Annual Plan²⁴ as an additional program element.

²⁴ See Hawaii Green Infrastructure Fiscal 2018 Annual Plan submitted in Docket No. 2014-0135 on March 30, 2017, Attachment A for details.

2.7 Additional Activities

The following are some of the activities that have occurred since the end of the quarter (June 30, 2017) and will be reported as activities in the next Quarterly Report:

- Commercial Loan Approvals. On July 19, 2017, the Authority's Loan Committee approved four loans aggregating \$7.7 million to install solar PV for five nonprofits and a small business located on Oahu, Maui and the Big Island.
- Residential Loan Approvals. As of July 21, 2017, the Authority's Loan Originator has twenty-four (24) residential PV loans approved and committed aggregating \$749,647.
- Loans Funded. As of July 21, 2017, the Authority funded two (2) additional Residential PV Loans aggregating \$60,750.
- Motion for Modification. On July 21, 2017, the Authority filed a Motion for Modification of Decision and Order No. 32318 on the Application of the State of Hawaii Department of Business, Economic Development, and Tourism to eliminate its Program Notification and Program Modification provisions in order to provide greater program flexibility to facilitate GEMS financing, as well as to ensure long-term achievement and alignment in attaining the State's EEPS and RPS goals.

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: 4/1 - 6/30/17	FY 2017 To Date	Since Program Inception
Clean Energy Production of Projects Financed			
Installed Capacity (Actual kW)	838.6	1,665.2	1,765.8
Total Yr 1 Production (Estimated kWh)	1,243,810	2,531,432	2,675,664
Total Project Production Over Lifetime of Installed PV (Projected kWh) (including 0.50% degradation)	24,052,634	48,617,754	51,269,398
Electricity Reductions from Energy Efficiency Projects Financed			
Cumulative Annual Electric Energy Saved (kWh)	0	0	0
Total Resource Benefit (kWh)	0	0	0
Petroleum Displaced by Clean Energy and Energy Efficiency Projects			
Total Petroleum Displaced/Saved Over Lifetime (Clean Energy and Energy Efficiency Projects (1)) (Estimated barrels)	14,772.5	29,859.8	31,488.4
Petroleum Displaced/Saved based on Yr 1 Clean Energy Generation (Estimated barrels)	763.9	1,554.7	1,643.3
Petroleum Displaced Over Lifetime of Installed PV (Projected barrels)	14,772.5	29,859.8	31,488.4
Cumulative Yr 1 Petroleum saved from Efficiency Projects	0	0	0
Petroleum Saved over Lifetime of Efficiency Projects	0	0	0

Greenhouse Gas Avoided

	This Quarter: 4/1 - 6/30/17	FY 2017 To Date	Since Program Inception
Total Greenhouse Gas Avoided (2) Over Lifetime (Clean Energy and Energy Efficiency Projects) (Est. metric tons CO ₂)	7,238.1	14,630.4	15,428.4
Greenhouse Gas Avoided from Clean Energy Yr 1 Production (Estimated metric tons CO ₂)	374.3	761.8	805.2
Greenhouse Gas Avoided Over Lifetime of Installed PV (Projected metric tons CO ₂)	7,238.1	14,630.4	15,428.4
Greenhouse Gas Avoided from Yr 1 Energy Efficiency	0	0	0
Greenhouse Gas Avoided over Lifetime of Energy Efficiency Project	0	0	0

(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: 4/1 - 6/30/17	FY 2017 To Date	Since Program Inception
GEMS Revenues	\$238,980	\$562,776	\$999,443
GEMS Administrative & Program Costs	\$583,351 (1)	\$1,005,727 (2)	\$2,774,291
GEMS Loans Funded	\$2,236,583	\$4,681,295	\$5,067,563

(1) Includes \$247,000 OBR related expenses.

(2) Consists of \$911,836 in Operating Expenses and \$93,891 in program expenses.

Projects Financed According to Technology Type/Category

Solar Photovoltaic Systems (1)	62	103	115
Energy Storage	0	0	0
Lighting Upgrades	0	0	0
HVAC Upgrades	0	0	0
Mechanical Upgrades	0	0	0
Controls and Monitoring Devices	74	115	127
Energy/Water Nexus	0	0	0
Total No. of Projects	22	63	75
Indirect Economic Impact – Jobs Created/Retained (2)	55.4	109.6	115.5

(1) Including advanced inverters and smart modules.

(2) Jobs created or retained, utilizing the SBA's metric of one job created or retained for every \$65,000 of total project cost.

3.3 Market Expansion Impact**Residential PV Loan Program**

	This Quarter: 4/1 - 6/30/17	FY 2017 To Date	Since Program Inception
Total No. of GEMS Loans	20	57	69
No. Loans Serving Underserved Market (1)	15	47	57
% Loans Serving Underserved Market	75.0%	82.5%	82.6%

(1) See AMI Distribution

Status of Applications:

No. of Residential PV Applications Received	23	138	328
No. of Residential PV Applications In Process	22	N/A	N/A
No. of Residential PV Applications Declined	5	48	126
No. Residential PV Applications Withdrawn	5	44	89
No. of Residential PV Applications Loan Docs Accepted	22	N/A	N/A

Geographic Location	This Quarter: 4/1 - 6/30/17	FY 2017 To Date	Since Program Inception
No. of Loans on Oahu	16	47	55
No. of Loans on Maui	0	5	9
No. of Loans on Molokai	0	0	0
No. of Loans on Lanai	0	0	0
No. of Loans on Hawaii	4	5	5

Profile of Customers

Number of Customers By Customer FICO Credit Score

700 and above	9	23	26
675-699	2	12	17
650-674	3	9	11
620-649	4	9	11
600-619	2	4	4

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

Under \$15,000	0	0	0
\$15,000-\$24,999	0	0	0
\$25,000-\$34,999	0	0	0
\$35,000-\$49,999	1	2	3
\$50,000-\$74,999	4	11	12
\$75,000-\$99,999	3	13	19
\$100,000 and Above	12	30	34

Number of Customers by Area Median Income (1)

<30% AMI (Extremely Low Income)	0	0	0
30% to <50% AMI (Very Low Income)	3	5	6
50% to <80% AMI (Low Income)	4	12	14
80% to <140% AMI (Moderate Income)	8	30	36
> 140% AMI	5	10	13

(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 PV Loan Program

	This Quarter: 4/1 - 6/30/17	FY 2017 To Date	Since Program Inception
Total Number of GEMS Loans	2	6	6
No. of Nonprofits Participating in GEMS	1	3	3

Status of Applications:

No. of Commercial PV Applications Received	3	12	12
No. of Commercial PV Applications Approved	3	8	8
No. of Commercial PV Applications Declined	0	0	0
No. of Commercial PV Applications Withdrawn	0	0	0
No. of Commercial PV Applications Under Review	4	N/A	N/A
No. of Commercial EE Applications Received	1	1	1
No. of Commercial EE Applications Approved	1	1	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	0	0

Geographic Location	This Quarter: 4/1 - 6/30/17	FY 2017 To Date	Since Program Inception
No. of Loans on Oahu	1	5	5
No. of Loans on Maui	0	0	0
No. of Loans on Molokai	0	0	0
No. of Loans on Lanai	0	0	0
No. of Loans on Hawaii	1	1	1
No. Small Businesses Participating in GEMS	0	0	0

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	0
\$500,000-\$999,999	0	0	0
\$1,000,000-\$4,999,999	0	0	0
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	0
>1,000 Employees	0	0	0
Number of Rental Units Supported by GEMS	236	505	505
Number of Consumer Leases	0	0	0

Income Distribution of Consumer Leases (self-reported)

Under \$15,000	0	0	0
\$15,000-\$24,999	0	0	0
\$25,000-\$34,999	0	0	0
\$35,000-\$49,999	0	0	0
\$50,000-\$74,999	0	0	0
\$75,000-\$99,999	0	0	0
\$100,000 and Above	0	0	0

Area Median Income (1) Distribution of Consumer Leases

<30% AMI (Extremely Low Income)	0	0	0
30% to <50% AMI (Very Low Income)	0	0	0
50% to <80% AMI (Low Income)	0	0	0
80% to <140% AMI (Moderate Income)	0	0	0
> 140% AMI	0	0	0

(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.

3.4 Cost Savings Impact

	This Quarter: 4/1 - 6/30/17	FY 2017 To Date	Since Program Inception
Aggregate Estimated Gross (1) Electricity Cost Savings from Energy Production (life of system) (\$)	\$7,759,547	\$15,350,972	\$16,783,221
Aggregate Estimated Gross Electricity Cost Savings From Energy Production (life of system) (\$) (Consumer)	\$2,147,815	\$7,222,770	\$8,655,019
Aggregate Estimated Gross Electricity Cost Savings From Energy Production (life of system) (\$) (Commercial)	\$5,611,732	\$8,128,202	\$8,128,202
<u>Average</u> Estimated Gross Electricity Cost Savings From Energy Production (life of system) (\$) (Consumer)	\$107,391	\$126,715	\$125,435
<u>Average</u> Estimated Gross Electricity Cost Savings From Energy Production (life of system) (\$) (Commercial)	\$2,805,866	\$1,354,700	\$1,354,700
Aggregate Estimated Net (2) Electricity Cost Savings From Energy Production (life of system) (\$) (Consumer)	\$1,495,153	\$4,292,343	\$4,999,878
Aggregate Estimated Net Electricity Cost Savings From Energy Production (life of system) (\$) (Commercial)	\$5,611,732	\$8,128,202	\$8,128,202
<u>Average</u> Estimated Net Electricity Cost Savings From Energy Production (life of system) (\$) (Consumer)	\$74,758	\$75,304	\$72,462
<u>Average</u> Estimated Net Electricity Cost Savings From Energy Production (life of system) (\$) (Commercial)	\$2,805,866	\$1,354,700	\$1,354,700
<u>Average</u> Estimated Electricity Cost Savings from Energy Efficiency (\$)	0	0	0
<u>Average</u> System Cost per Watt for All Consumers (PV) (\$)	\$3.91	\$3.98	\$3.96
<u>Average</u> System Cost per Watt for Underserved Consumers (PV) (\$)	\$3.90	\$3.96	\$3.88
<u>Average</u> System Size for All Consumers (PV) (kW)	8.0	8.5	8.5
<u>Average</u> System Size for Underserved Consumers (PV) (kW)	7.9	8.5	8.6
Project Cost per Watt for All Consumers – Energy Efficiency (\$)	0	0	0
<u>Average</u> Project Size for All Consumers – Energy Efficiency (kW)	0	0	0
Project Cost per Watt for Underserved Consumers – Energy Efficiency (\$)	0	0	0
<u>Average</u> 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.

4 Financial Summary of Hawaii Green Infrastructure Authority

State of Hawaii
Hawaii Green Infrastructure Authority
Financial Summary
FY 2017

BALANCE SHEET

AS OF JUNE 30, 2017

Current Assets	
Cash in Bank	\$ 136,666,861
Cash in Treasury	<u>2,514,148</u>
Total Current Assets	\$ 139,181,009
Non Current Assets	
GEMS Loans Receivable	<u>\$ 5,000,484</u>
Total Assets	<u><u>\$ 144,181,493</u></u>
Liabilities	<u>\$ -</u>
Fund Balance	
Fund Balance - State Treasury	\$ 2,514,148
Fund Balance - GEMS Program	<u>141,667,345</u>
Total Fund Balance	<u>\$ 144,181,493</u>
Total Liabilities & Fund Balance	<u><u>\$ 144,181,493</u></u>

STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES

PERIOD OF JULY 1, 2016 TO JUNE 30, 2017

Revenues	
Investment Interest	\$ 471,932
Interest Income from Loans	86,262
Other Income	<u>4,582</u>
Total Revenues	\$ 562,776
Expenditures	
Operating Expenses	\$ 911,836
Program Expenses	<u>93,891</u>
Total Expenditures	<u>\$ 1,005,727</u>
Over (Under) Expenditures	\$ (442,951)
Net Change in Fund Balance	\$ (442,951)
Fund Balance, Beginning of Period	<u>\$ 144,624,444</u>
Fund Balance, Ending of Period	<u><u>\$ 144,181,493</u></u>

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”²⁵ 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”.²⁶

The GEMS Program submitted its consumer protection policies in a Program Notification to the Commission on July 1, 2015.²⁷

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.²⁸ 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.”²⁹ 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.”³⁰ 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. It will update the Commission on utility system cost information should discussions resume.

²⁵ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

²⁶ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

²⁷ 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.

²⁸ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 60.

²⁹ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 95.

³⁰ See “Division of Consumer Advocacy’s Statement of Position,” filed in Docket No. 2014-0135 on August 7, 2014, at p. 14.

SERVICE LIST

Two copies of the foregoing: GEMS Program Quarterly Report in Docket No. 2014-0135, together with this Certificate of Service have been served to the following and at the following addresses:

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