



## HAWAII GREEN INFRASTRUCTURE AUTHORITY

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GOVERNOR

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CHAIR

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October 31, 2016

Mr. Randall Y. Iwase, Chair  
and Members of the Hawaii Public Utilities Commission  
465 South King Street, First Floor  
Kekuanaoa Building  
Honolulu, Hawaii 96813

Dear Chair Iwase and Commissioners:

Subject: Docket No. 2014-0135 – GEMS Program Quarterly Report

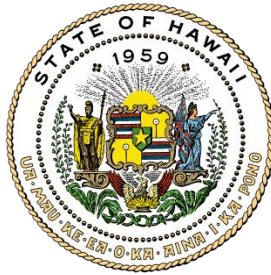
The Hawaii Green Infrastructure Authority respectfully submits this Green Energy Market Securitization Program Quarterly Report for the period of July 1, 2016 – September 30, 2016. This report fulfills the requirement for Quarterly Reports as specified in Decision and Order No. 32318, filed on September 30, 2014, in Docket No. 2014-0135.

Sincerely,

Luis P. Salaveria  
Chairman  
Hawaii Green Infrastructure Authority

Attachment

c: Service List



**State of Hawaii**

**Department of Business, Economic Development, and Tourism**

**Hawaii Green Infrastructure Authority**

**GREEN ENERGY MARKET SECURITIZATION PROGRAM**

**QUARTERLY REPORT:**

**July 1, 2016 – September 30, 2016**

REPORT TO THE  
STATE OF HAWAII  
PUBLIC UTILITIES COMMISSION

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

**October 2016**

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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. 32318<sup>1</sup> (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,”<sup>2</sup> (“Application”) by the Hawaii Green Infrastructure Authority (“Authority” or “HGIA”).<sup>3</sup> 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.<sup>4</sup> 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.<sup>5</sup> 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<sup>6</sup> that included requirements concerning the financing of utility-scale projects, when applicable.<sup>7</sup>

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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<sup>1</sup> Filed on September 30, 2014 in Docket No. 2014-0135

<sup>2</sup> Filed on June 6, 2014 in Docket No. 2014-0135

<sup>3</sup> 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.

<sup>4</sup> See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 1.

<sup>5</sup> 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.

<sup>6</sup> “Consumer Advocate” refers to the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs of the State of Hawaii.

<sup>7</sup> 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.<sup>8</sup>

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.<sup>9</sup> While the Authority indicated in the expected GEMS Program timeline that the first Quarterly Report would be submitted to the Commission in July 2015,<sup>10</sup> the Authority was able to accelerate this deliverable and 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

The Authority's focus during the past quarter has been to enhance the Residential PV Loan Program to address the needs of the market and to design a new Commercial PV Loan Program to replace the nonprofit PV loan program shuttered late last year.

As we look around the broader national energy market, we remain encouraged that the "Green Banks" operating under similar models to HGIA can play a vital role in expanding access to renewable 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 July 1, 2016 and September 30, 2016.

### 2.1 Administration

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

- Quarterly Report. The Quarterly Report covering the period of April 1, 2016 to June 30, 2016 was filed with the Commission on July 29, 2016 in Docket No. 2014-0135.
- Board Meeting. The Authority held a board meeting on July 6, 2016, at which it approved the use of the appropriation ceiling budgeted for GEMS in BED 120 for loan issuances in FY2016 and

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<sup>8</sup> See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 97.

<sup>9</sup> 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.

<sup>10</sup> 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, Exhibit 1.

FY2017. Officers were elected for the new fiscal year, as follows: Jeff Mikulina, Vice Chair and Mark Glick, Secretary. The Authority also established a Loan Committee and appointed Kalbert Young as Chair. Wesley Machida; Ryan Hamadon, Vice President & Commercial Loan Officer with First Foundation Bank; Gabe Lee, Executive Vice President of Commercial Markets with American Savings Bank; and Heather Piper, President of the Hawaii Community Reinvestment Corporation were also appointed as members of the Loan Committee.

- Program Notification No. 7. On July 22, 2016, the Authority filed Program Notification No. 7 with the Commission regarding deployment of capital for energy storage systems. On August 12, 2016, the Commission suspended Program Notification No. 7 pending the Authority’s response to comments from the Consumer Advocate.
- Program Notification No. 8. On July 25, 2016, the Authority filed Program Notification No. 8 with the Commission to broaden the definition of Participant under the Commercial Energy Efficiency Program approved in Program Notification No. 5 to include all commercial entities. On August 25, 2016, the Commission suspended Program Notification No. 8 pending the Authority’s response to comments from the Consumer Advocate.
- Program Notification No. 9. On August 26, 2016, the Authority filed Program Notification No. 9 with the Commission to redesign and re-structure the nonprofit and small business loan programs, both of which were shuttered on December 31, 2015 with the loss of the equity partner. Program Notification No. 9 was approved by the Commission on September 19, 2016.
- Resignation. The Authority’s Executive Director resigned effective September 15, 2016.
- Board Meeting. The Authority held a board meeting on September 27, 2016 where it approved changes to its Residential Loan Program and approved the rate and terms of its new Commercial PV Loan Product: Project Sponsor and Direct. Following an Executive Session, Board Chair Salaveria reported that the board will be conducting a direct search for an Executive Director.

## 2.2 Status of Programs: Residential PV

At a glance (as of 9/30/16) from program inception:

	<b>Applications Received</b>	<b>Conditionally Approved<sup>11</sup></b>	<b>Loan Docs Accepted<sup>12</sup></b>	<b>Funded</b>
# of loans	226	26	19	17
\$ value of loans	n/a	\$1,221,352.02	\$699,116.01	\$577,947.28

We currently have 14 GEMS Approved Installers in the Residential PV program. Based on feedback from our partners, the following changes were made during the quarter to improve the marketability of the program:

<sup>11</sup> The Authority’s Loan Originator has verified customer eligibility based on completed application (online or hard copy), credit score, ownership, and property type. Underwriting is pending receipt of additional required information.

<sup>12</sup> The Authority’s Loan Originator has received and accepted executed Loan Documents. There are no conditions pending. The contractor may begin work.

- Interest Rate. The interest rate was decreased to a flat 5.99% APR for all consumer loans. Previously, the rates ranged from 6.5% to 9.875%, based on the borrower’s FICO score. The lower interest rate has been retroactively applied to all existing GEMS loans.
- Price per Watt Cap. The Price per Watt Cap was increased from \$4.00/watt to \$4.50/watt.

Additional changes that occurred during the quarter included the termination of sub-contracts under Renew Financial (f.k.a. Renewable Funding, LLC). Renew Financial (“Renew”) was the Authority’s Contractor engaged to design, implement and operate the GEMS Program. With Renew’s decision not to extend its contract with the Authority, all related sub-contracts also terminated as of September 30, 2016, as follows:

- Electric & Gas Industries Association (EGIA). EGIA was responsible for contractor training, vetting contractor applications, and dispute resolution. Going forward, staff will manage the approval and onboarding process of new GEMS Approved Installers.
- kWh Analytics (kWh). kWh assisted EGIA in vetting interested installers by analyzing performance data on previously installed systems. It also analyzed and verified system monitoring data on new installations prior to loan funding. An analysis of all previously installed systems (prior to GEMS funding and with GEMS funding) revealed that the systems were performing as promised. In reviewing industry standards, this level of analysis and verification appeared redundant, which resulted in unnecessary delays and were not required by other lenders. As such, with contract termination, this practice was discontinued.

During the upcoming quarter, the Authority will continue to make program enhancements, as follows:

- Trust Properties. The Authority’s Loan Originator is completing its due diligence and establishing procedures to enable loans to be made to borrowers with properties held in trust. Approximately fifty percent (50%) of the declined loans to date are due to the Trust exclusion. A January 2017 launch date is anticipated.
- Progress Payments. The Authority’s Loan Originator is also developing a process to enable progress payments to be made to GEMS Approved Installers. Under the existing loan program, GEMS Approved Installers are paid in full after project installation is complete and we receive confirmation of interconnection with the utility. Progress payments will allow GEMS to be more competitive and aligned with industry standards.

While we expect these actions to favorably affect the pipeline and loan funding rates, the long-term growth prospects of the program remain limited by the broader market environment.

### 2.3 Status of Programs: Commercial PV

At a glance (as of 9/30/16) from program inception:

	<b>Applications Received</b>	<b>In Process<sup>13</sup></b>	<b>Committed<sup>14</sup></b>	<b>Funded</b>
# of loans	2	2	0	0
\$ value of loans	\$861,500.00	\$861,500.00	\$0.00	\$0.00

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

<sup>14</sup> The Authority has approved the loan and is currently in the documentation process and/or awaiting satisfaction of pre-closing requirements.

Program Notification No. 9 enabled the Authority to launch two new commercial PV loan products on September 27, 2016, Commercial PV Loan Product: Project Sponsor and Commercial PV Loan Product: Direct. The design of these loan structures included three objectives: (1) to collaborate and partner with commercial banks and other financial institutions; (2) to be more flexible and competitive; and (3) to fill a market gap with an unconventional financing tool.

The result is a co-lending structure with a capital stack of private and public debt. This long-term financing tool is designed to complement conventional bank/credit union financing and provide low-cost, cash flow friendly capital to encourage clean energy adoption via the installation of solar photovoltaic systems.

The two products are essentially identical. The key difference is the Project Sponsor product is for loans made to investors who purchase and own PV systems for nonprofits and businesses that do not have a tax appetite and cannot leverage the solar energy tax credits. The energy produced by the PV is sold to the off taker via a long-term power purchase agreement. The Direct product is for loans made to small businesses and for-profit apartment building owners to install and own its PV system.

#### **2.4 Status of Programs: Commercial Energy Efficiency**

Metrus Energy, 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 because there is considerable engineering work required on the part of the borrower and the transactions tend to be large. The first funding from the pipeline may not materialize until early 2017.

#### **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.

#### **2.6 Status of Programs: Other Programs Under Development**

##### *On Bill Repayment (OBR)*

The Authority strongly believes that OBR can be a critical tool to enable green infrastructure financing for the underserved (i.e. renters and low and moderate-income households) and has been actively working with HECO and its Loan Servicer on the scope and deliverables to implement the program on the IT and loan servicing level. Simultaneously, the Authority is convening a small working group to finalize the OBR Program Manual for submission to the Commission. Pending Commission approval (on the program level) and successful testing (on the IT level), the Authority is anticipating a 2017 launch.

##### *PV plus Storage Financing*

As indicated in Section 2.1, 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 that the Authority 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.

The Authority believes that its ability to finance storage is critical, especially given the limited interconnection options currently offered by the utility. Staff is developing a response to address the Consumer Advocate’s concerns and will be submitting a revised Program Notification No. 7 in the near future.

### Government Agencies

As indicated in Section 2.1, the Authority filed Program Notification No. 8 with the Commission 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. On August 4, 2016, the Consumer Advocate filed comments requesting that the Authority provide a quantitative analysis to support a determination related to the market assessment and cost/benefit of the request. On August 25, 2016, the Commission suspended Program Notification No. 8 pending the Authority’s response to comments from the Consumer Advocate. Program Notification No. 8 will be tabled until further notice.

### **2.7 Additional Activities**

The following are some of the activities that have occurred since the end of the quarter (September 30, 2016) and will be reported as activities in the next Quarterly Report:

- Loan Funded. On October 3, 2016, a Residential PV Loan for \$29,171.00 was purchased from the Authority’s Loan Originator.
- Position Posted. The Executive Director’s position was posted on the State of Hawaii Department of Human Resources Development’s website from October 12, 2016 to October 18, 2016.
- Loan Approvals. On October 19, 2016, the Authority’s Loan Committee approved two Commercial PV Loan Product: Project Sponsor requests for \$535,900 and \$325,600. The Authority anticipates loan closing to occur within the next few weeks.

## **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

<b>Clean Energy Production of Projects Financed</b>	This Quarter: 7/1 – 9/30/16	FY2017 To-Date	Since Program Inception
Installed Capacity (Actual kW)	48.01	48.01	148.67
Total Annual Production (Estimated kWh)	75,187	75,187	219,419
Total Project Production Over Lifetime of Installed PV (Projected kWh) (including 0.50% degradation)	1,434,410	1,434,410	4,186,055

#### **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 (Clean Energy and Energy Efficiency Projects <sup>15</sup> ) (Estimated barrels)	46.2	46.2	134.8
Petroleum Displaced/Saved based on Annual Clean Energy Generation (Estimated barrels)	46.2	46.2	134.8
Petroleum Displaced Over Lifetime of Installed PV (Projected barrels)	881.0	881.0	2,571.0
Cumulative Annual Petroleum Saved (from efficiency)	0	0	0
Petroleum Saved from Total Resource Benefit of Efficiency Projects	0	0	0

#### **Greenhouse Gas Avoided**

Total Greenhouse Gas Avoided <sup>16</sup> (Clean Energy and Energy Efficiency Projects) (Est. metric tons CO <sub>2</sub> )	22.6	22.6	66.0
Greenhouse Gas Avoided from Clean Energy Annual Production (Estimated metric tons CO <sub>2</sub> )	22.6	22.6	66.0
Greenhouse Gas Avoided Over Lifetime of Installed PV (Projected metric tons CO <sub>2</sub> )	431.7	431.7	1,259.3
Greenhouse Gas Avoided from Energy Efficiency	0	0	0
Greenhouse Gas Avoided over Lifetime of Energy Efficiency Project	0	0	0

### 3.2 Economic Development Impact

<b>GEMS Capital</b> (Cash Basis)	This Quarter: 7/1 – 9/30/16	FY2017 To-Date	Since Program Inception
GEMS Revenues	\$ 73,630.41	\$ 73,630.41	\$ 510,297.61
GEMS Administrative & Program Costs* <sup>17</sup>	\$199,285.12	\$199,285.12	\$1,967,849.29
GEMS Loans	\$191,678.57	\$191,678.57	\$ 577,947.28
Total GEMS Administrative Costs and Loans	\$390,963.69	\$390,963.69	\$2,545,796.57

<sup>15</sup> Reference unitjuggler.com for conversion metric.

<sup>16</sup> Reference eia.gov for conversion metrics.

<sup>17</sup> GEMS Loans were erroneously included in Administrative and Program Costs causing expenses to be overstated. The financials were corrected as of September 30, 2016, recording the loans as a Receivable on the Balance Sheet (rather than an expense on the Statement of Revenues and Expenditures).

	This Quarter: 7/1 – 9/30/16	FY2017 To-Date	Since Program Inception
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**Projects Financed According to Technology Type/Category**

Solar Photovoltaic Systems, including advanced inverters and smart modules	5	5	17
Energy Storage	0	0	0
Lighting Upgrades	0	0	0
HVAC Upgrades	0	0	0
Mechanical Upgrades	0	0	0
Controls and Monitoring Devices	5	5	5
Energy/Water Nexus	0	0	0
Total Number of Projects	5	5	17
Indirect Economic Impact of Capital Deployed (jobs created/retained) <sup>18</sup>	2.9	2.9	8.9

**3.3 Market Expansion Impact**

<b>Residential PV Loan Program</b>	This Quarter: 7/1 – 9/30/16	FY2017 To-Date	Since Program Inception
Total Number of GEMS Loans	5	5	17
Total Number of Loans Serving Underserved Market <sup>19</sup>	5	5	15

**Status of Applications:**

Number of Residential PV Applications Received	36	36	226
Number of Residential PV Applications Conditionally Approved	17	17	26
Number of Residential PV Applications Declined	13	13	91
Number of Residential PV Applications Withdrawn	2	2	73
Number of Residential PV Applications Loan Docs Accepted	4	4	19

**Geographic Location**

Number of Loans on Oahu	4	4	12
Number of Loans on Maui	1	1	5
Number of Loans on Molokai	0	0	0
Number of Loans on Lanai	0	0	0
Number of Loans on Hawaii	0	0	0

**Profile of Customers**

**Number of Customers By Customer FICO Credit Score**

700 and above	0	0	3
675-699	3	3	8
650-674	0	0	2
620-649	1	1	3
600-619	1	1	1

<sup>18</sup> Utilizing the SBA's metric of one job created or retained for every \$65,000 in loans extended.

<sup>19</sup> See AMI distribution.

<b>Residential PV Loan Program</b>	This Quarter: 7/1 – 9/30/16	FY2017 To-Date	Since Program Inception
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**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	0	0	1
\$50,000-\$74,999	1	1	2
\$75,000-\$99,999	2	2	8
\$100,000 and Above	2	2	6

**Number of Customers by Area Median Income<sup>20</sup>**

<30% AMI	0	0	0
30% to <50% AMI	0	0	2
50% to <80% AMI	0	0	1
80% to <140% AMI	5	5	12
> 140% AMI	0	0	2

<b>Commercial PV Loan Program</b>	This Quarter: 7/1 – 9/30/16	FY2017 To-Date	Since Program Inception
Total Number of GEMS Loans	0	0	0
Number of Nonprofits Participating in GEMS	0	0	0

**Status of Applications:**

Number of Commercial PV Applications Received	2	2	2
Number of Commercial PV Applications Approved	0	0	0
Number of Commercial PV Applications Declined	0	0	0
Number of Commercial PV Applications Withdrawn	0	0	0
Number of Commercial PV Applications Under Review	2	2	2
Number of Commercial EE Applications Received	0	0	0
Number of Commercial EE Applications Approved	0	0	0
Number of Commercial EE Applications Declined	0	0	0
Number of Commercial EE Applications Withdrawn	0	0	0
Number of Commercial EE Applications Under Review	0	0	0

**Geographic Location**

Number of Loans on Oahu	0	0	0
Number of Loans on Maui	0	0	0
Number of Loans on Molokai	0	0	0
Number of Loans on Lanai	0	0	0
Number of Loans on Hawaii	0	0	0

<sup>20</sup> Area Median Income as provided by the U.S. Department of Housing and 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.

<b>Commercial PV Loan Program</b>	This Quarter: 7/1 – 9/30/16	FY2017 To-Date	Since Program Inception
<b>Number of Small Businesses Participating in GEMS</b>	0	0	0
<b>Number of Small Businesses by Gross Receipts</b>			
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
<b>Number of Small Businesses by Average Number of Employees</b>			
≤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
<b>Number of Rental Units Supported by GEMS</b>	0	0	0

### 3.4 Cost Savings Impact

	This Quarter: 7/1 – 9/30/16	FY2017 To-Date	Since Program Inception
Aggregate Estimated Electricity Cost Savings From Energy Production (life of system) (\$)	\$124,229.95	124,229.95	\$312,540.77
Average Estimated Electricity Cost Savings From Energy Production (life of system) (\$)	\$24,845.99	\$24,845.99	\$18,384.75
Average Estimated Electricity Cost Savings from Energy Efficiency (\$)	0	0	0
Average System Cost per Watt for All Consumers (PV) (\$)	\$4.07	\$4.07	\$3.93
Average System Cost per Watt for Underserved Consumers (PV) (\$)	\$4.07	\$4.07	\$3.94
Average System Size for All Consumers (PV) (kW)	9.6	9.6	8.7
Average System Size for Underserved Consumers (PV) (kW)	9.6	9.6	9.2
Project Cost per Watt for All Consumers – Energy Efficiency (\$)	0	0	0
Average Project Size for All Consumers – Energy Efficiency (kW)	0	0	0
Project Cost per Watt for Underserved Consumers – Energy Efficiency (\$)	0	0	0
Average Project Size for Underserved Consumers – Energy Efficiency (kW)	0	0	0

## 4 Financial Summary of Hawaii Green Infrastructure Authority

State of Hawaii  
Hawaii Green Infrastructure Authority  
Financial Summary  
FY 2017

### STATEMENT OF NET POSITION AS OF SEPTEMBER 30, 2016

Current Assets	
Cash in Bank	\$ 142,689,292.24
Cash in Treasury	<u>1,654,400.15</u>
Total Current Assets	\$144,343,692.39
Non-Current Assets	
GEMS Loans Receivable	\$ 577,947.28
<b>Total Assets</b>	<b>\$ 144,921,639.67</b>
Liabilities	
Total Liabilities <sup>21</sup>	\$ 0.00
Fund Balance	
Fund Balance – State Treasury	\$ 1,654,400.15
Fund Balance – GEMS Program	143,267,239.52
Total Fund Balance	\$ 144,921,639.67
<b>Total Liabilities &amp; Fund Balance</b>	<b>\$ 144,921,639.67</b>

### STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES PERIOD OF JULY 1, 2016 TO SEPTEMBER 30, 2016

Revenues	
Investment Interest	\$ 73,630.41
Other Income	<u>0.00</u>
Total Revenues	\$ 73,630.41
Expenditures	
Total Expenditures	\$ (199,285.12)
Over (Under) Expenditures	\$ (125,654.71)
Other Financing Sources & Uses	<u>\$ 0.00</u>
Total Other Sources	\$ 0.00
Net Change in Fund Balance	\$ (125,654.71)
Fund Balance, Beginning of Period <sup>22</sup>	\$ 145,047,294.38
Fund Balance, Ending of Period	\$ 144,921,639.67

<sup>21</sup> The Authority's Loan Originator has received executed loan documents on PV installations in progress that will be financed via GEMS. Commitments approved and outstanding as of 9/30/16 aggregate \$699,116.01.

<sup>22</sup> A prior period adjustment was applied to the Fund Balance, Beginning of Period, aggregating \$386,268.71, to reclassify GEMS Loans Receivables that was originally recognized as Program Expense.

## 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”<sup>23</sup> 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”.<sup>24</sup>

The GEMS Program submitted its consumer protection policies in a Program Notification to the Commission on July 1, 2015.<sup>25</sup>

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.<sup>26</sup> 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.”<sup>27</sup> 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.”<sup>28</sup> 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. However, the Authority did not allocate any resources for this initiative over the last quarter. The Authority will update the Commission on utility system cost information as discussions resume.

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<sup>23</sup> See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

<sup>24</sup> See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

<sup>25</sup> 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.

<sup>26</sup> See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 60.

<sup>27</sup> See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 95.

<sup>28</sup> 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 on the following and at the following addresses by U.S. Mail:

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Dated: Honolulu, Hawaii, October 31, 2016.