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October 30, 2015

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 July 1, 2015 - September 30, 2015. 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,

Tara M. Young
Executive Director

Attachment

c: Service List

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COMMISSION

SERVICE LIST

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

State of Hawaii
Public Utilities Commission
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Dated: Honolulu, Hawaii, October 30, 2015.



State of Hawaii

Department of Business, Economic Development & Tourism

Hawaii Green Infrastructure Authority

GREEN ENERGY MARKET SECURITIZATION PROGRAM

QUARTERLY REPORT:

July 1, 2015 – September 30, 2015

REPORT TO THE
STATE OF HAWAII
PUBLIC UTILITIES COMMISSION

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

October 2015

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1 Introduction and Context

The Green Infrastructure Loan Program (a.k.a. the “Green Energy Market Securitization Program”, “GEMS Program”, “Program”) employs a high-impact strategy 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”) by the Hawaii Green Infrastructure Authority (“Authority”, “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 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 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.

- (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;
- (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 indicated in the expected GEMS Program timeline that the Quarterly Report for quarter four of PY 2014-2015 would be submitted to the Commission in July 2015.¹⁰ 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/>.

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 "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.

2 Summary of Program Activities

The following is a summary of the activities that have occurred between July 1, 2015 and September 30, 2015.

2.1 Administration

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

- The Annual Plan for Fiscal Year 2016 went into effect on July 1, 2015.¹¹
- On July 30, 2015, Quarterly Report: April 1, 2015 – June 30, 2015 was filed in Docket No. 2014-0135.
- The HGIA met on August 5, 2015 to, among other items, discuss and decide upon the approval of bylaws. All four members of the Authority present (one Authority member position remains vacant) supported the approval of bylaws as amended in the meeting discussion.
- The Authority continued its search for a permanent Executive Director in Executive Sessions held on August 5, 2015, August 27, 2015 and September 9, 2015. Please see Section 2.4 for an update on the search for a permanent Executive Director.
- HGIA ratified a contract dated September 21, 2015 with N&K CPAs Inc., an independent certified public accounting firm selected through the Competitive Sealed Proposal method of procurement as prescribed by HRS Section 103-D. The contract services include an annual audit of the GEMS Program and the GEMS Bond Fund. The contract term is one year, with the option to extend for up to two additional years of services.

2.2 Program Development and Implementation

- Five installer introductory training webinars on the GEMS Consumer Loan Product were conducted during the period.
- On July 1, 2015, a Program Notification that addresses additional Program Order requirements regarding consumer protection policies, fund deployment and billing was filed in Docket No. 2014-0135. The fifteen-day review period for the Program Notification ended on July 23, 2015.
- On July 15, 2015, a Program Notification that allows the GEMS Program to finance commercial energy efficiency products was filed in Docket No. 2014-0135. The fifteen-day review period for the Program Notification ended on August 5, 2015. The Consumer Advocate filed comments on July 29, 2015.¹²

¹¹ The Annual Plan was filed on March 31, 2015 in Docket No. 2014-0135.

¹² The Consumer Advocate's comments stated that it "does not object to the use of [GEMS Program] financing for Commercial energy efficiency ("EE") projects, provided, however, that the Commission adopt certain recommendations regarding the reporting of Commercial EE project data, the calculation of expected bill savings, and the coordination of EE efforts between HGIA, Hawaii Energy, and the Public Benefits Fund Administrator ("PBFA")." See "Letter" filed by the State of Hawaii Division of Consumer Advocacy in Docket No. 2014-0135 on July 29, 2015, at p. 1.

- On August 14, 2015, the Authority submitted revised metrics to the Commission based on CA filings in Docket No. 2014-0135 on April 24, 2015 and May 15, 2015. Additional metrics modifications based on a CA filing on July 29, 2015 are reflected in this Quarterly Report.
- Collaboration with the HECO Companies on utility system cost analysis strategies. See Section 5.3.

2.3 Program Performance

The following is a high-level summary of program performance information from July 1, 2015 to September 30, 2015, with more detailed quantitative information found in Section 3, Program Metrics. As part of the GEMS Program application process, the Authority:

- Approved nine companies to be installers for the GEMS Consumer Loan Product. These nine companies have a combined salesforce of 106 representatives. Eleven companies are pending approval, one company was denied and one company withdrew its application. Five product introduction and training sessions were held with 115 registrants from the nine approved companies and from two companies pending approval.
- Received 106 consumer loan applications of which 47 were pre-approved, 18 pending, one loan document out for signing, five withdrawn and 35 denied.
- Received 12 Applications, of which five have been pre-qualified, three have been denied and four are pending review, for the GEMS Nonprofit and Small Business Loan Products. Of all loans that have been pre-qualified, signed Letter of Intent with five customers.
- Is currently working on evaluating over 2.3MW of PV project leads for pre-qualified Nonprofit loans.

The GEMS Program has not released any capital to fund eligible technologies in the first quarter of Fiscal Year 2016.

2.4 Additional Activities

The following are some of the activities that have occurred since the end of the quarter (September 30, 2015) and will be reported as activities in the next Quarterly Report.

- The Authority appointed a new Executive Director, Ms. Tara Young, on October 1, 2015. The new Executive Director's start date was on October 16, 2015.
- On October 13, 2015, the Commission approved two new rooftop PV programs to replace the Net Energy Metering program for customers of the Hawaiian Electric Companies. The GEMS Program, under the GEMS Consumer, Nonprofit and Small Business Loan Products, will continue to finance eligible PV system installations with either NEM approval or Interconnection approval by the utility.

3 Program Metrics

While the Authority anticipated deploying funds in the first quarter of Fiscal Year 2016¹³, the GEMS Program has not released any capital to fund eligible technologies since program launch. Metrics will be reported in the applicable reporting period upon fund deployment.¹⁴

3.1 Energy and Environment Impact

	This Quarter	Program Year-To-Date	Since Program Launch
Clean Energy Production of Projects Financed			
Installed Capacity (Actual kW)			
Total Project Production to Date (Estimated kWh)			
Total Project Production Over Lifetime of Installed PV (Projected kWh)			
Electricity Reductions from Energy Efficiency Projects Financed			
Cumulative Annual Electric Energy Saved (kWh)			
Total Resource Benefit (kWh)			
Petroleum Displaced by Clean Energy and Energy Efficiency Projects			
Total Petroleum Displaced/Saved to Date (Estimated barrels)			
Petroleum Displaced to Date by Clean Energy Generation			
Petroleum Displaced Over Lifetime of Installed PV (Projected barrels)			
Cumulative Annual Petroleum Saved (from efficiency)			
Petroleum Saved from Total Resource Benefit of Efficiency Projects			
Greenhouse Gas Avoided			
Greenhouse Gas Avoided to Date (Estimated metric tons CO ₂)			
Greenhouse Gas Avoided from Clean Energy Production			
Greenhouse Gas Avoided Over Lifetime of Installed PV (Projected metric tons CO ₂)			
Greenhouse Gas Avoided from Energy Efficiency			
Greenhouse Gas Avoided over Lifetime of Energy Efficiency Project			

¹³ See "Department of Business, Economic Development, and Tourism Hawaii Green Infrastructure Authority Annual Plan Fiscal Year 2016: July 1, 2015-June 30, 2016"; filed in Docket No. 2014-0135 on March 31, 2015, p. 11.

¹⁴ On December 9, 2014, the Authority submitted its program metrics final draft with the Commission. On August 14, 2015, the Authority submitted revised GEMS Program Metrics to the Commission. The following metrics are in accordance with the December 9, 2014 metrics and, as updated with the August 14, 2015 metrics.

3.2 Economic Development Impact

Charts and graphs depicting:

- Total Capital Deployed
- Total GEMS vs. Third-Party Capital Deployed
- Total Capital Deployed By Market Segment
- Total Capital Deployed By Technology Type (including division by systems with advanced inverters, smart modules, and monitoring devices)
- Allocation of GEMS Funds By Market Segment
- Allocation of GEMS Funds by Technology Type

	This Quarter	Program Year-To-Date	Since Program Launch
GEMS Administrative Costs	\$111,909.27	\$111,909.27	\$762,148.56*

* The administrative costs recorded for the Program Year-To-Date reflect payment for administrative costs incurred during the establishment of the GEMS Program since the passing of Act 211.

	This Quarter	Program Year-To-Date	Since Program Launch
Projects Financed According to Technology Type/Category			
Solar Photovoltaic Systems			
- Systems with Advanced Inverters			
- Systems with Smart Modules			
- Systems with Monitoring Devices			
Energy Storage			
LED Upgrades			
Commercial Efficiency			
- Projects that include HVAC upgrades			
- Projects that include lighting upgrades			
- Projects that include controls and monitoring devices			
- Projects that include mechanical upgrades			
Energy/Water Nexus			
Other Projects			
Total Number of Projects			

	This Quarter	Program Year-To-Date	Since Program Launch
Indirect Economic Impact of Capital Deployed (\$)			
Indirect Economic Impact of Cost Savings To Date (Estimated \$)			
Indirect Economic Impact of Cost Savings over Project life (Projected \$)			

3.3 Market Expansion Impact

	This Quarter	Program Year-To-Date	Since Program Launch
Total Number of GEMS Loans			
Total Number of Loans Serving Underserved Market			
Number of Loans on Oahu			
<i>Number of Loans on Maui</i>			
Number of Loans on Molokai			
Number of Loans on Lanai			
Number of Loans on Hawaii			

Profile of Customers	This Quarter	Program Year-To-Date	Since Program Launch
Number of Customers By Customer FICO Credit Score			
700 and above			
675-699			
650-674			
620-649			
600-619			
Number of Customers By Income Distribution (self-reported by customers)			
Under \$15,000			
\$15,000-\$24,999			
\$25,000-\$34,999			
\$35,000-\$49,999			
\$50,000-\$74,999			
\$75,000-\$99,999			
\$100,000 and Above			
Number of Nonprofits Participating in GEMS			
Number of Nonprofits by Total Assets or Gross Receipts			
Up to \$9,999			
\$10,000-\$24,999			
\$25,000-\$99,999			
\$100,000-\$499,999			
\$500,000-\$999,999			
\$1,000,000-\$4,999,999			
Above \$5,000,000			
Number of Nonprofits by Average Number of Employees (past 12 months from Application)			
≤10 Employees			
11-50 Employees			
51-100 Employees			
101-250 Employees			
251-500 Employees			
501-1,000 Employees			
>1,000 Employees			
Number of Rental Units Supported by GEMS			
Profile of Nonprofits by Type (may also be provided)			

	This Quarter	Program Year-To-Date	Since Program Launch
Total Number of Completed Applications Received	117	117	149
Number of Nonprofit PV Applications Received	11	11	43
Number of Nonprofit PV Applications Approved			
Number of Nonprofit PV Applications Declined	2	2	2
Number of Nonprofit PV Applications Withdrawn			
Number of Nonprofit PV Applications Under Review	9	9	41
Number of Commercial PV Applications Received	1	1	1
Number of Commercial PV Applications Approved			
Number of Commercial PV Applications Declined	1	1	1
Number of Commercial PV Applications Withdrawn			
Number of Commercial PV Applications Under Review			
Number of Residential PV Applications Received	106	106	106
Number of Residential PV Applications Approved			
Number of Residential PV Applications Declined	35	35	35
Number of Residential PV Applications Withdrawn	5	5	5
Number of Residential PV Applications Under Review	66	66	66
Number of Commercial EE Applications Received			
Number of Commercial EE Applications Approved			
Number of Commercial EE Applications Declined			
Number of Commercial EE Applications Withdrawn			
Number of Commercial EE Applications Under Review			

3.4 Cost Savings

Charts, graphs or tables depicting:

- Average Estimated Electricity Cost Savings from Energy Production (\$)
- Average Estimated Electricity Cost Savings from Energy Efficiency (\$)
- Percent Savings of Original Utility Costs from Energy Production (%)
- Percent Savings of Original Utility Costs from Energy Efficiency (%)
- System Cost per Watt for All Consumers – Energy Production (\$)
- Average System Size for All Consumers – Energy Production (kW)
- System Cost per Watt for Underserved Consumers – Energy Production (\$)
- Average System Size for Underserved Consumers – Energy Production (kW)
- Project Cost per Watt for All Consumers – Energy Efficiency (\$)
- Average Project Size for All Consumers – Energy Efficiency (kW)
- Project Cost per Watt for Underserved Consumers – Energy Efficiency (\$)
- Average Project Size for Underserved Consumers – Energy Efficiency (kW)

4 Financial Summary of Hawaii Green Infrastructure Authority

State of Hawaii
Hawaii Green Infrastructure Authority
Financial Summary
FY 2016

**STATEMENT OF NET POSITION
AS OF SEPTEMBER 30, 2015**

Current Assets	
Cash in Bank	\$ 143,246,648.89
Cash in Treasury	2,644,624.45
Non Current Assets	
Total Assets	<u>\$ 145,891,273.34</u>
Liabilities	
Total Liabilities	<u>\$ -</u>
Fund Balance	
Fund Balance - State Treasury	2,644,624.45
Fund Balance - GEMS Program	<u>143,246,648.89</u>
Total Fund Balance	<u>\$ 145,891,273.34</u>
Total Liabilities & Fund Balance	<u>\$ 145,891,273.34</u>

**STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES
PERIOD OF JULY 1, 2015 TO SEPTEMBER 30, 2015**

Revenues	
Investment Interest	\$ 6,437.26
Other Income	-
Expenditures	<u>(111,909.27)</u>
Excess/(Deficiency) of Revenues Over(Under) Expenditures	\$ (105,472.01)
Other Financing Sources & Uses	
Total Other Sources	<u>\$ -</u>
Net Change in Fund Balance	\$ (105,472.01)
Fund Balance, Beginning of Period	<u>145,996,745.35</u>
Fund Balance, Ending of Period	<u>\$ 145,891,273.34</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”¹⁵ 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”.¹⁶

The GEMS Program submitted its consumer protection policies in a Program Notification to the Commission on July 1, 2015, as mentioned in Section 2.2.¹⁷

There have been no Deployment Partner complaints for the 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.¹⁸ The Authority has not been focusing any efforts on initiating utility-scale projects in this 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.”¹⁹ 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.”²⁰ Since the Program Order was issued, the Authority has been meeting with the HECO Companies 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. At the time of the first Quarterly Report, in January 2015, the Authority had

¹⁵ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

¹⁶ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

¹⁷ 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.

¹⁸ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 60.

¹⁹ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 95.

²⁰ See “Division of Consumer Advocacy’s Statement of Position,” filed in Docket No. 2014-0135 on August 7, 2014, at p. 14.

not finalized any utility system costs and continues to discuss this issue with the utilities. The Authority will continue to update the Commission on utility system cost information as this discussion continues.