

DAVID Y. IGE
GOVERNOR

CYD M. MIYASHIRO
INTERIM 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) 587-3888

March 31, 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 Annual Plan

The Hawaii Green Infrastructure Authority respectfully submits its first GEMS Annual Plan for Fiscal Year 2016: July 1, 2015 - June 30, 2016. This report fulfills the requirements for the Annual Plan in accordance with Hawaii Revised Statutes §196-64(b) and Decision and Order No. 32318, filed on September 30, 2014, in Docket No. 2014-0135.

Sincerely,

Cyd M. Miyashiro
Interim 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 Annual Plan, together with this Certificate of Service have been served to the following and at the following addresses:

State of Hawaii
Public Utilities Commission
465 S. King Street, #103
Honolulu, Hawaii 96813

Jeffrey T. Ono
Executive Director
Department of Commerce and Consumer
Affairs
Division of Consumer Advocacy
PO Box 541
Honolulu, Hawaii 96809

Daniel G. Brown
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

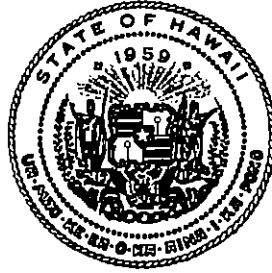
Warren S. Bollmeier II
President
Hawaii Renewable Energy Association
46-040 Konane Place, #3816
Kaneohe, HI 96744
wsb@lava.net

Douglas A. Codiga, Esq.
Schlack Ito
Topa Financial Center
745 Fort Street, Suite 1500
Honolulu, Hawaii 96813
dcodiga@schlackito.com

Leslie Cole-Brooks
Executive Director
Hawaii Solar Energy Association
P.O. Box 37070
Honolulu, HI 96837
Leslie.cole-brooks@hsea.org

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

Dated: Honolulu, Hawaii, March 31, 2015.



State of Hawaii

Department of Business, Economic Development & Tourism

Hawaii Green Infrastructure Authority

ANNUAL PLAN

Fiscal Year 2016: JULY 1, 2015 – JUNE 30, 2016

REPORT TO THE
STATE OF HAWAII
PUBLIC UTILITIES COMMISSION
Pursuant to:

Hawaii Revised Statutes §196-64(b)
and
Decision and Order No. 32318 filed in Docket No. 2014-0135

MARCH 2015

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1 Executive Summary

The Green Infrastructure Loan Program (also known as the “Green Energy Market Securitization Program” or “GEMS Program”) employs a high-impact, market-based strategy to deploy clean energy infrastructure financing 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; and Decision and Order No. 32318 by the Hawaii Public Utilities Commission (“Commission” or “PUC”), which approved the use of funds in the Green Infrastructure Special Fund to establish and institute the GEMS Program.

Since the issuance of the Commission’s order, the Department of Business, Economic Development and Tourism (“DBEDT”) has constituted the Hawaii Green Infrastructure Authority (“HGIA” or “Authority”) and issued the bonds to capitalize the Green Infrastructure Special Fund, which funds the GEMS Program. The Authority has also finalized program metrics, developed photovoltaic (“PV”) products that are currently or soon-to-be launched in the market, and has been working towards integration with the Commission’s on-bill program to allow for on-bill repayment for the GEMS Program.

For Fiscal Year (“FY”) 2016, the Authority plans to deploy about \$80M in funds through commercial (nonprofit and small business) PV products, consumer PV products, and other projects that address PV for renters or deploy capital for other approved eligible technologies. The administration budget for FY 2016 is approximately \$1M. The Authority will focus its efforts on continuing to implement the GEMS Program by designing additional GEMS Products for approved eligible technologies, completing its development of policies for administration of the program, and complying with Commission and statutory reporting and filing requirements while evaluating program performance to identify ways in which the program should be improved.

2 Introduction and Background

The GEMS Program employs a high-impact, market-based strategy to deploy clean energy infrastructure financing that will contribute towards Hawaii's pursuit of its statutory 70% clean energy goals by 2030 and help consumers lower their energy costs. The GEMS Program is the result of Act 211, which created the framework for establishing the GEMS Program, including its oversight, governance, and reporting processes; and Commission Decision and Order No. 32318, which approved the use of funds in the Green Infrastructure Special Fund to establish and institute the GEMS Program.

As a part of Act 211, the Authority was established to fulfill specific duties, responsibilities and requirements.¹ As part of its statutory requirements, "the [A]uthority shall submit to the [Commission] an annual plan for review and approval no later than ninety days prior to the start of each fiscal year. The annual plan submitted by the [A]uthority shall include the [A]uthority's projected operational budget for the succeeding fiscal year."² The Authority therefore submits this Annual Plan Fiscal Year 2016, which covers the period from July 1, 2015 to June 30, 2016 ("Annual Plan").

2.1 Introduction and Procedural History

The Commission issued Decision and Order No. 32318, filed on September 30, 2014 in Docket No. 2014-0135 (the "Program Order") that approved the "Application of the Department of Business, Economic Development, and Tourism for an Order Approving the Green Infrastructure Loan Program," filed by the Authority ("Application") on June 6, 2014.³ The Program Order approved the use of funds deposited in the Green Infrastructure Special Fund⁴

¹ Hawaii Revised Statutes ("HRS") §196-63 to §196-64.

² HRS §196-64(b).

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 Concurrently with the proceedings in Docket No. 2014-0135, the Commission also examined the financing structure for the issuance of the GEMS bonds in Docket No. 2014-0134 and issued Decision and Order No. 32281, the "Financing Order", that approved the Green Infrastructure Fee that was securitized for the issuance of \$150,000,000 in Green Energy Market Securitization Series 2014-A Bonds on November 13, 2014. The GEMS bond sale proceeds were deposited into the Green Infrastructure Special Fund.

to establish and institute the GEMS Program, subject to the modifications described within the order.⁵

As stated in the Application and paraphrased from the Preamble of Act 211, the key objectives of the GEMS Program are to:

1. Address financing market barriers to increase the installation of clean energy projects and infrastructure to meet the State's clean energy goals, including the Renewable Portfolio Standards and Energy Efficiency Portfolio Standards;
2. Democratize clean energy by expanding access and affordability of renewable energy and energy efficiency projects for identified underserved markets, while expanding the market generally;
3. Enable more ratepayers to reduce their energy use and energy costs by helping them finance clean energy improvements;
4. Partner with and support existing market entities in the clean energy and financing sector to ensure the GEMS Program can bridge market gaps and facilitate a sustainable and efficient private sector market; and
5. Balance the aforementioned goals and objectives with repayment risk to achieve an appropriate rate of return and build a sustainable financing program.

2.2 Annual Plan Requirements

The Application submitted by the Authority further defined the Annual Plan as containing "information on the budget, operations, and financial plans for the coming fiscal year."⁶ The Program Order then placed requirements on the contents of the Annual Plan in addition to the statutory plan requirements in HRS §196-64(b) and the description in the Application. Specifically, the Program Order states the importance of administrative cost controls, concluding that it is part of the goal to use capital as efficiently as possible and directs the Authority to submit these as a part of its initial Annual Plan.⁷ The Program Order also requires that the Authority include:

1. Summaries of all Quarterly Report information provided over the Annual Plan reporting period.⁸ The Quarterly Reports also contain information required for the Annual Plan, such as:

⁵ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 1 and restated on p. 33.

⁶ See "Application of the Department of Business, Economic Development, and Tourism for an Order Approving the Green Infrastructure Loan Program," filed in Docket No. 2014-0135 on June 6, 2014, at p. 17.

⁷ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 39.

⁸ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 95.

- a. Information on the use of GEMS funds for utility-scale projects and specifics that need to be reported in the event that GEMS funds are used for utility-scale projects.⁹
 - b. A report of 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”.¹⁰
 - c. Information on utility system costs resulting from GEMS Program-funded projects.¹¹
2. “[D]etailed consideration and discussion of how the green infrastructure [HGIA] proposes to finance will be successfully integrated into the grid, and how such infrastructure will continue to support the ongoing transformation of the State’s electric systems over time.”¹²
 3. Summarized “[final] details of both the direct billing and On-bill Mechanism to be used in the GEMS Program”.¹³

The Annual Plan is also a means by which the Commission may approve additional GEMS Program elements.¹⁴ In this Annual Plan, the Authority is not seeking approval for any additional GEMS Program elements.

⁹ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 59-60.

¹⁰ Consumer protection policies must be developed by the Authority. See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 65-66.

¹¹ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 97.

¹² See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 50.

¹³ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 71.

¹⁴ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 92, though “program elements” are not defined, the Program Order refers to “program elements” on p. 42).

3 Summary of Activities

3.1 Quarterly Report Summary

The Authority has submitted one Quarterly Report to the Commission, "Quarterly Report: October 1, 2014-December 31, 2014" ("Quarterly Report"). This report is included in this Annual Plan as Attachment 1. During the reporting period, the GEMS Program had not begun any financing activities, and therefore had not released any capital to fund eligible technologies. Reporting focused mainly on summary activities during the reporting period. The following is a summary of the activities reported in the Quarterly Reports filed with the Commission thus far during Fiscal Year 2015.

3.1.1 Summary of Administration Activities

The following activities were reported in the Quarterly Report. Additional activities that occurred after December 31, 2014 are reported in Section 3.2 and will be reported in the next GEMS Quarterly Report for the quarter ending March 31, 2015.

- Bond Issuance – Though the proceedings to approve the bond issuance was a part of a separate PUC proceeding (Docket No. 2014-0134), the November 13, 2014 bond issuance of the Green Energy Market Securitization Series 2014-A Bonds provides the capital for the GEMS Program.
- Launch of Hawaii Green Infrastructure Authority and Board – The Authority was duly constituted on October 23, 2014 and 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. Jeffrey Mikulina and Wesley Machida were appointed by Governor Abercrombie to fill the two positions effective October 23, 2014. Since Governor Ige recently appointed Wesley Machida as the Director of Finance, one appointed position is currently vacant and awaiting appointment from Hawaii State Boards and Commissions. There were two Authority board meetings held on October 23, 2014 and November 28, 2014.

3.1.2 Summary of Program Development and Implementation

The following program development and implementation activities were reported in the Quarterly Report. Additional actions that occurred after December 31, 2014 are reported in Section 3.2 and will be reported in the next GEMS Quarterly Report for the quarter ending March 31, 2015.

- **Metrics Development** – Pursuant to the directives within the Program Order,¹⁵ the HGIA submitted Proposed GEMS Program Metrics to the PUC on October 21, 2014. The final GEMS Program Metrics were submitted to the Commission on December 9, 2014 with supporting documentation. The Authority has also continually discussed methods for the accumulation and communication of applicable metrics data for the GEMS Program with the HECO Companies¹⁶ and potential Deployment Partners.¹⁷
- **Program Notification Filing** – The first Program Notification provided the Commission with more information on a nonprofit loan product and a consumer loan product that allow for the financing of PV systems as approved in the Program Order. In addition to the product information, this first Program Notification addressed the grid integration consideration and discussion requirements specified in the Program Order.¹⁸ This Program Notification was filed on December 31, 2014. The fifteen-day review period for the Program Notification ended on January 23, 2015. No objections or comments to the first Program Notification were filed.
- **Development of the GEMS consumer loan product and GEMS nonprofit loan product** – The Authority has been focused on securing partners for both the origination and servicing of the consumer and nonprofit loan products. In addition to developing the necessary lending channels for the products, the Authority has been focused on the creation of a prepaid PPA facility, development of an installer approval process, and ensuring reporting requirements are met.
- **Additional Product Development Work** – The Authority, in conjunction with the State Energy Office, has continued to seek out ratepayers who are unable to gain access to the PV market and work with Deployment Partners to develop products to meet their needs. The Authority and State Energy Office are also actively exploring the development of products for approved eligible technologies other than PV systems, specifically focusing on interconnection-related technologies and energy efficiency.
- **Utility System Cost Information Update** – The Authority has been collaborating with the HECO Companies to develop a utility system cost analysis strategy that includes defining metrics for utility system costs and eventually collecting data on these metrics. See Section 6.4 for more information.

¹⁵ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 90.

¹⁶ The HECO Companies are Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Ltd.

¹⁷ “Deployment Partners” are private sector entities that will use GEMS Program capital to directly or indirectly support financing products serving ratepayers.

¹⁸ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 50.

3.2 Additional Activities

The following activities represent a summary of some of the activities that have occurred since the Quarterly Report and which have therefore not yet been reported to the Commission. They will appear in the Authority's next quarterly report due to the Commission on April 30, 2015, covering the activities from January 1, 2015 through March 31, 2015.

- The Authority held a board meeting on February 26, 2015, at which the board ratified the temporary assignment of Cyd Miyashiro to the Interim Executive Director position and approved the Interim Executive Director to enter into four agreements with Deployment Partners to allow for the launch of commercial (nonprofit and small business) and consumer products.
- The Nonprofit PV Product officially opened to accept applications on March 27, 2015. Loan funds will not be disbursed until subsequent completion of the solar PV projects. See Section 4.1 for Projected Fund Deployment Schedule.
- HGIA's operating budget for FY 2016 was submitted as part of DBEDT's budget requests for the Legislature's approval.¹⁹ It requested approximately \$1,000,000 in appropriations for estimated administrative costs in FY 2016.

The following is a timeline of the major GEMS events that have occurred since Act 211 was signed into law:

FY Quarter	Milestones
FY 2014 Q4: APR - JUN 2014	<ul style="list-style-type: none"> • Financing Order Application submitted • Program Order Application submitted
FY 2015 Q1: JUL - SEP 2014	<ul style="list-style-type: none"> • PUC approval of Financing Order • PUC approval of Program Order
FY 2015 Q2: OCT - DEC 2014	<ul style="list-style-type: none"> • Hawaii Green Infrastructure Authority constituted • Green Energy Market Securitization Bonds 2014 Series A of \$150,000,000 issued • GEMS Program metrics submitted to the PUC • Program Notifications for nonprofit PV product and consumer PV product filed
FY 2015 Q3: JAN - MAR 2015	<ul style="list-style-type: none"> • Motion to Waive or Amend Qualified Source of Capital Requirements (to use PUC's on-bill mechanism) filed • Board approval to enter into agreements with Deployment Partners • Nonprofit product launched • Quarterly Report (October-December 2014)

¹⁹ The Authority already received appropriations from the Legislature in FY 2015 for all funds to be deployed as loan capital in the GEMS Program.

4 Budgets and Administrative Cost Controls

During FY 2016, the Authority intends to deploy approximately \$80 million in capital (see Section 4.1) and expend approximately \$1 million on administration costs (see Section 4.2). The Authority is anticipating complete deployment of funds by the end of FY 2017 and anticipates that future administrative costs beyond FY 2017 will be paid through interest income from loan repayments, which enables the program to be self-sustaining.

4.1 Projected Fund Deployment Timeline and Portfolio Allocations

The GEMS Program is focused on solar PV loans for consumers, renters, and nonprofits. However, the Authority acknowledges grid saturation limitations in the Solar PV market. Therefore, the Authority has made initial estimates regarding the allocation of the GEMS Program portfolio towards commercial PV loans (with products for nonprofits and small businesses), consumer PV loans, and other projects.²⁰ Quarterly assessments of loan volume including both applications and fundings will be performed as part of the quarterly reporting process. Should loan volume in the PV market not meet projections, the Authority may reallocate funds between loan products and/or other projects.

²⁰ Other projects may include PV loans that benefit renters or financial products that finance other approved eligible technologies.

PROJECTED FUND DEPLOYMENT ALLOCATION AND TIMELINE

	Commerical Loans	Consumer Loans	Other Projects	Total
Apr-15	\$ -	\$ -	\$ -	\$ -
May-15	-	-	-	-
Jun-15	-	-	-	-
Jul-15	-	-	-	-
Aug-15	-	-	-	-
Sep-15	-	3,125,000.00	-	-
Oct-15	4,333,333.33	3,125,000.00	-	-
Nov-15	4,333,333.33	3,125,000.00	-	-
Dec-15	4,333,333.33	3,125,000.00	8,000,000.00	33,500,000.00
Jan-16	4,333,333.33	3,125,000.00	-	-
Feb-16	4,333,333.33	3,125,000.00	-	-
Mar-16	4,333,333.33	3,125,000.00	-	22,375,000.00
Apr-16	4,333,333.33	3,125,000.00	-	-
May-16	4,333,333.33	3,125,000.00	-	-
Jun-16	4,333,333.33	3,125,000.00	-	22,375,000.00
Jul-16	4,333,333.33	3,125,000.00	-	-
Aug-16	4,333,333.33	3,125,000.00	-	-
Sep-16	4,333,333.33	3,125,000.00	-	22,375,000.00
Oct-16	4,333,333.33	3,125,000.00	-	-
Nov-16	4,333,333.33	3,125,000.00	-	-
Dec-16	4,333,333.33	3,125,000.00	20,000,000.00	42,375,000.00
Total	\$ 65,000,000.00	\$ 50,000,000.00	\$ 28,000,000.00	\$ 143,000,000.00

Notes:

- (1) Commerical Loan Assumptions: Includes both loans for nonprofits and small commerical. Projected time from application to closing is 6 months and program start date of 04/01/2015.
- (2) Consumer Loan Assumptions: Projected time from application to closing is 3 months and program start date of 06/01/2015.
- (3) Other Projects Assumptions: Monies are anticipated to be used for PV loans to benefit renters and for loans to fund other approved eligible technologies.

4.2 Proposed Administrative Budget for FY 2016

HAWAII GREEN INFRASTRUCTURE AUTHORITY ANNUAL ADMINISTRATION BUDGET

	FY 16
ADMINISTRATIVE STAFF	
Salaries	\$ 447,000
Fringe Benefits	<u>189,930</u>
Subtotal	<u>\$ 636,930</u>
OPERATING EXPENSES	
Equipment and Supplies	\$ 11,800
Travel Transportation & Subsistence	17,300
Out-Service Training, Support	6,000
Transcription Services and Legal Notices	<u>5,500</u>
Subtotal	<u>\$ 40,600</u>
PROGRAM SUPPORT	
Program Admin	\$ 50,000
Legal Services	130,000
Fund Management	112,000
Audit Services	<u>100,000</u>
Subtotal	<u>\$ 392,000</u>
TOTAL BUDGET	<u>\$ 1,069,530</u>

Notes:

- (1) Funds for Program Support were encumbered from the FY15 budget and are therefore not in the FY16 budget submitted for approval from the legislature.
- (2) Total Budget is the Σ Admin Staff, Op Ex, Program Support

4.3 Administrative Cost Controls

The HGIA Board must approve the actions and expenses of the HGIA, including approvals to enter into contracts with Deployment Partners. Additionally, the HGIA funds that can be used for administrative costs are in the Green Infrastructure Special Fund, which is subject to the appropriation and allotment processes and approval procedures of the Hawaii Revised Statutes, Chapter 37, Part II, which describes the means through which funds must be appropriated and used. This requirement means there must also be legislative appropriation for ongoing

expenses from the fund, in addition to approval by the HGIA Board, DBEDT and the Department of Budget and Finance for expenditures.

The GEMS Program is meant to use existing market service providers and channels as Deployment Partners to expand access to the market. The use of existing market service providers as Deployment Partners reduces administrative costs because those partners will already have the *experience and infrastructure in place, such as IT, marketing, etc.* Since there is no need for the Authority to duplicate services that will be provided by its Deployment Partners as part of their business, it is also operating without as much administrative burden, thereby reducing administrative costs.

The Authority is also committed to operating efficiently. The State has set a precedent of restricting administrative expenses to a percentage of a fund. The statutory restriction for administrative costs for the Public Benefits Fee Administrator is 10% of the collected public benefits fees in any fiscal year.²¹ The administrative expense restriction placed on the Tourism Special Fund is 5% of money in the special fund.²² However, in the GEMS Program, there is an upfront pool of capital and continual money flow rather than annual program funds. Therefore, the traditional cost control guidelines are not applicable to the GEMS program during the deployment period (the first two years). In the absence of comparison points, the Authority is restricting administrative costs to 5% of the total capital during the deployment period. After the initial deployment period, cost controls will be based on the percentage of income from loan repayments. Currently, to support the \$143M for deployment, the HGIA has an administrative budget of approximately \$1M for FY 2016.

²¹ HRS §269-122 (a).

²² HRS §201B-11 (c).

5 Operations and Financial Plans for FY 2016

5.1 Program Operations Plan for FY 2016

The GEMS Program has various distinct aspects that make up its operations since products are in various stages of development. The following is a summary of the activities planned for FY 2016.

Ongoing Operations – The Authority is pursuing the use and deployment of funds through its Nonprofit PV Product, for which all Deployment Partners are in place, and is currently accepting applications. As product implementation is completed and products are approved and contracted during FY 2016, additional products will likely be added to this section. As funds are deployed, required quarterly reports will inform the Commission of the nature of the fund deployments.

Implementation – The Authority is currently focusing on implementation of its Consumer Loan PV Product, which requires additional contracting with Deployment Partners to provide services to functionalize the product for the market. In order to deploy funds for PV systems to consumers, the Authority must complete Program Notifications for PV-Related Technologies (the approved eligible technologies submitted with the Application that are considered advanced versions of basic PV system components)²³ and additional Program Notification(s) to fulfill requirements in the Program Order such as consumer protection policies,²⁴ processes for initial deployment of funds,²⁵ and direct bill and on-bill details²⁶ as applicable. The Authority anticipates that integration into the Commission's on-bill mechanism will be completed before FY 2016. In the event that integration is not complete, the Authority will pursue integration with the on-bill mechanism as quickly as possible.

The Authority is also completing the final steps to implement the Small Business PV Product, including finalizing guidelines and providing a Program Notification to the Commission. The Program Order allowed the Authority flexibility in allocating funds between customer types to deploy capital in a way that ensures long-term viability of the GEMS Program.²⁷ Serving small businesses allows for the diversification of GEMS fund deployment while still reaching out to a market that lacks access to certain financing products that require an investment-grade rating.

²³ See "Division of Consumer Advocacy's Statement of Position," filed in Docket No. 2014-0135 on August 7, 2014, at p. 13 for request. See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 85 for Commission requirement.

²⁴ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 65-66.

²⁵ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 100.

²⁶ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 71.

²⁷ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 55.

More information about the Small Business PV Product will be provided with its Program Notification when filed with the Commission.

Product Development – The Authority intends to continue to develop financing products and work with Deployment Partners to deploy capital into the market and track approved metrics. The Authority is investigating the development of products that deploy capital for the approved *eligible clean energy technologies listed in Attachment 2, which amends Exhibit 9: Eligible Clean Energy Technologies*, and is a list of the eligible technologies approved in the Program Order in addition to what was submitted in the Program Application. The Authority will submit Program Notifications pursuant to the Program Order for any additional eligible technologies when market analysis has been completed, and product details are finalized. Currently, the Authority is focusing on the development of a commercial energy efficiency product and is pursuing the development of financing products that include battery storage integrated with photovoltaic systems and PV products for the rental market.

Administration and Operating Controls – In addition to the contracting necessary for the implementation of additional loan products to deploy GEMS capital, the Authority is pursuing contracting to fulfill administrative services, including a Financial Auditor, as required by HRS § 196-67. During this implementation phase of the GEMS Program, the Authority must seek approvals from its executive board for contracts, necessary program approvals, and to search for the permanent Executive Director. Once the GEMS Program completes the implementation of products for PV, there will be regular board meetings to report program updates and additional development progress.

The GEMS Program will continue to develop and evaluate internal operating guidelines for appropriateness and effectiveness for the GEMS Program. These guidelines are to address administrative cost control, protect GEMS consumers, and evaluate and communicate the performance of the GEMS Program and administration.

Projects and Partnerships – The Authority is also working with the HECO Companies to determine equipment and data necessary to define and measure the utility systems costs of additional PV deployment in Hawaii (see Section 6.4). Ultimately these data can help to determine if there are economical ways to increase interconnection through the incorporation of advanced technologies that are part of distributed energy resource strategies.

The Authority is also establishing an open solicitation process for project proposals from potential project developers. Any such projects that are determined by the Authority and the Authority's Board to be an effective use of GEMS funds in accordance with the key objectives of the GEMS Program (Section 2.1) will be submitted to the Commission via the Program Modification or Notification process as appropriate.

GEMS Operations Timeline:

Quarter	Target Milestones
Prior to FY 2016	<ul style="list-style-type: none"> • Submission of Program Notification for PV-Related Technologies • Submission of Program Notification to address additional Program Order requirements • Launch Small Business PV Product • Launch Consumer PV Product • Submission of Program Notification for Commercial Energy Efficiency Product • Submission of Quarterly Report (January – March 2015)
FY 2016 Q1: JUL - SEP 2015	<ul style="list-style-type: none"> • Open solicitation process begins • Evaluation of Solar PV in the Rental Market • Evaluation of Battery Storage Market • Determination of utility system costs reporting requirements • Completion Hawaii Green Infrastructure Authority and Board set up • Completion of GEMS Program policies • Submission of Quarterly Report (April – June 2015)
FY 2016 Q2: OCT - DEC 2015	<ul style="list-style-type: none"> • Submission of Quarterly Report (July – September 2015) • Submission of Annual Report to the Legislature • Completion of Annual Audit
FY 2016 Q3: JAN - MAR 2016	<ul style="list-style-type: none"> • Submission of Quarterly Report (October – December 2015) • Submission of Annual Plan FY 2017
FY 2016 Q4: APR - JUN 2016	<ul style="list-style-type: none"> • Submission of Quarterly Report (January – March 2016)

5.2 Description of Financial Plan for FY 2016

In FY 2016 the Authority intends to deploy about \$80M in capital through approved financing products with contracted Deployment Partners.²⁸

The Authority intends to deploy funds through the approved financing products filed with the Commission in its first Program Notification, the Nonprofit Loan Product and the Consumer Loan Product;²⁹ and any additional loan products pending approval, including a small business product, and products for other approved clean energy technologies in Attachment 2 that are anticipated to be filed in FY 2016.

²⁸ Please see Section 4.1 for more information about the fund deployment timeline and product allocations.

²⁹ See Attachment 3 and Attachment 4 for product descriptions filed with the Commission.

6 External Factors Affecting the GEMS Program and Additional Information

6.1 Finalized Details of Direct Bill and On-Bill Mechanism

In its Application, the Authority requested approval to utilize both direct billing and on-bill repayment, specifically, to use the on-bill mechanism being developed by the Commission in Docket No. 2014-0129. The Commission stated its "strong support" of GEMS Program use of the on-bill mechanism and approved the use of the mechanism for the GEMS Program once the details of the mechanism are finalized.³⁰ The Commission instructed DBEDT/the Authority to continue to work closely with parties in Docket No. 2014-0129 and to file a request to waive or amend any qualifications required to become a Qualified Source of Capital³¹ with the Commission in Docket No. 2014-0129.³²

The Authority filed its motion to waive or amend qualifications on January 26, 2015.³³ The HECO Companies and the Division of Consumer Advocacy ("CA") submitted responses to the Authority's motion. The CA protested the motion, requesting that the motion be suspended for further review of the appropriateness of the requests, specifically wanting to know if there were increased costs to the HECO Companies and Hawaii Energy Bill Saver Program administrators, and why different Qualified Source of Capital Fees were being proposed.³⁴ The Authority submitted a memorandum explaining that the intention of the Authority is to work within the parameters of the Hawaii Energy Bill Saver Program as proposed and therefore not intending to cause other entities to incur additional costs.³⁵ The Authority is currently awaiting a Commission decision on its motion and/or the CA's protest.

The use of the on-bill mechanism is critical to the pricing of the GEMS Consumer PV Product as the mechanism offers an additional security of electricity service disconnection for non-

³⁰ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 68.

³¹ Qualified Sources of Capital are capital sources that are approved for use of the on-bill mechanism being developed in Docket No. 2014-0129.

³² See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 70-71.

³³ See "The Department of Business, Economic Development, and Tourism's Motion to Waive and/or Amend Qualifications to Qualified Source of Capital Requirements as Specified in the Hawaii Energy Bill Saver Program: Program Manual" filed in Docket No. 2014-0129 on January 26, 2015.

³⁴ See "Division of Consumer Advocacy's Protest of the Department of Business, Economic Development, and Tourism's Motion to Waive and/or Amend Qualifications to Qualified Source of Capital Requirements as Specified in the Hawaii Energy Bill Saver Program: Program Manual" filed in Docket No. 2014-0129 on February 2, 2014.

³⁵ See "Memorandum of the Department of Business, Economic Development, and Tourism, in Response to the Division of Consumer Advocacy's Protest of the Department's Motion to Waive and/or Amend Qualifications to Qualified Source of Capital Requirements as Specified in the Hawaii Energy Bill Saver Program: Program Manual" filed in Docket No. 2014-0129 on February 27, 2015.

payment. This credit enhancement is viewed as essential for the GEMS programs and crucial for accommodating the underserved markets. In anticipation of receiving a response to its motion, the Authority is working with a consumer loan servicer that is able to provide both on-bill and direct bill loan servicing. The servicer has extensive experience with other on-bill programs and appears to have both the expertise and infrastructure to accommodate the Commission's Hawaii Energy Bill Saver Program on-bill mechanism. This servicing contractor is working with the Bill Saver Program's Finance Program Administrator to finalize details for utilizing the on-bill mechanism. This information will be filed as Program Notifications as instructed by the Commission, which stated in the Order "Finalized details of both the direct billing and [o]n-bill [m]echanism to be used in the GEMS Program are to be submitted to the Commission in [Docket No. 2014-0135] as Program Notifications".³⁶

6.2 Infrastructure Integration into the Grid

In regards to the issue of PV interconnection, which may greatly impact the deployment of GEMS funds, the HECO Companies and the Commission agreed on February 27, 2015 that the HECO Companies would not take unilateral action to deny or delay residential interconnection of PV. In cases where the HECO Companies deem that a residential interconnection application impacts circuit or system level security or reliability, the HECO Companies must fully document their reasons for denying the application and provide advance notification to the Commission of the denial prior to the issuance of the denial.³⁷ This agreement has a positive impact on PV interconnection and will allow the GEMS Program and its Deployment Partners to serve more consumers.

HGIA also plans to make GEMS financing products available to fund grid-connected, non-export or smart-export PV systems that meet interconnection requirements for circuits that are saturated. This effort includes collaboration with the utilities to potentially test non-export and smart export residential and commercial systems that address the correct sizing of clean energy and storage systems to make such systems cost-effective for participants, while also saving energy and minimizing grid impact. Details of such financing will be shared through the Program Notification process as defined in the DBEDT Application and modified in the Program Order. Since these systems will include energy storage components, the Authority will include a financial market assessment and cost benefit analysis with any Program Notification.

HGIA plans on continuing to work with applicable energy industry stakeholders, the utility, solar developers, solar installers, technology providers and other Deployment Partners to more

³⁶ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 71.

³⁷ See "Letter Agreement" filed via "Transmittal Memorandum" by the Commission in Docket No. 2014-0192 on March 9, 2015.

effectively create products that broaden the underserved market's access to PV under approved interconnection guidelines while judiciously expending the Green Infrastructure Special Fund proceeds.

6.3 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"³⁸ 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" in its Quarterly Reports.³⁹

The GEMS Program is currently developing the full details of the GEMS Program consumer protection policies and reporting requirements for both installer and capital Deployment Partners. In the next Quarterly Report, the Authority will provide the Commission the details and report on an ongoing basis the number of complaints and the steps taken to address such complaints.

6.4 Utility System Cost Information Update

The Program Order directed the Authority to "work with the HECO companies and the Consumer Advocate to determine the appropriate GEMS Program-related utility system cost information for reporting purposes, and to provide an update on the finalization of these utility system costs and impacts reporting requirements as part of DBEDT's first Quarterly Report filing."⁴⁰ Though "utility system cost" was not defined in the Program Order, the Consumer Advocate refers to these costs as costs "incurred as result of [distributed generation] PV or other clean energy projects financed by the GEMS [P]rogram."⁴¹ Since the Program Order was issued, the Authority has been actively 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. The Authority will continue to update the Commission on utility system cost information as this discussion continues.

³⁸ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

³⁹ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

⁴⁰ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 95. "Consumer Advocate" refers to the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs of the State of Hawaii.

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

7 Conclusion

The GEMS Program represents one way the State is innovating to transform access to clean energy technologies and achieve our ambitious clean energy goals. The 2015 fiscal year has been a year of major milestones for the GEMS Program and the Authority, including the establishment of the Authority and Board, capitalization and launch of the GEMS Program, and compliance with associated administrative and regulatory requirements. The Authority has accomplished this while being prudent with the use of GEMS funds, and is mindful of keeping administrative costs reasonable and in check.

In FY 2016, the Authority looks to continue its rapid development and implementation of the GEMS Program to serve Hawaii's energy financing needs. The Authority will focus its continuing efforts to implement the GEMS Program by designing additional GEMS Products for approved eligible technologies, completing its development of policies for administration of the program, and complying with Commission and statutory reporting and filing requirements, while also evaluating program performance to identify ways in which the program should be improved.

The past accomplishments and future activities of the GEMS program and the Authority cannot be achieved without working closely with the Commission, the Consumer Advocate, the electric utilities and potential energy and finance industry partners, and thanks them for all of their hard work, support and constructive feedback.

8 Attachments

Attachment 1 – Quarterly Report: October 1, 2014-December 31, 2014

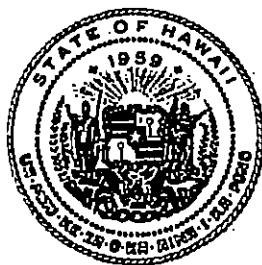
Attachment 2 – Amended Exhibit 9: Eligible Clean Energy Technologies

Attachment 3 – Nonprofit Loan Product

Attachment 4 – Consumer Loan Product

Attachment 1 – Quarterly Report: October 1, 2014-December 31, 2014

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State of Hawaii

Department of Business, Economic Development & Tourism

Hawaii Green Infrastructure Authority

QUARTERLY REPORT:

OCTOBER 1, 2014 – DECEMBER 31, 2014

**REPORT TO THE
STATE OF HAWAII
PUBLIC UTILITIES COMMISSION
Pursuant to**

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

JANUARY 2014

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1 Introduction and Context

The Green Infrastructure Loan Program (a.k.a. the “Green Energy Market Securitization Program” or “GEMS Program”) employs a high-impact strategy to deploy clean energy infrastructure that will contribute towards Hawaii’s pursuit of its statutory 70% clean energy goals by 2030 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.

1.1 Procedural History and Reporting Requirements

The State of Hawaii Public Utilities Commission (“Commission” or “PUC”) issued Decision and Order No. 32318, filed on September 30, 2014 in Docket No. 2014-0135 (the “Program Order”) that approved the “Application of the Department of Business, Economic Development, and Tourism for an Order Approving the Green Infrastructure Loan Program,” filed on June 6, 2014 (“Application”) by the Hawaii Green Infrastructure Authority (“Applicant”, “Authority”, “HGIA”)¹ for 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.² 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.³

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 Advocate⁴ that included requirements concerning the financing of utility-scale projects, when applicable.⁵

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) All information proposed in [the] Application or as otherwise indicated by DBEDT in the course of this proceeding;
- (2) Summaries of all metrics approved pursuant to [the] Program Order, and as developed and approved through the metrics and data collection development process. . . ;

¹ 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.

² See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 1.

³ 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.

⁴ “Consumer Advocate” refers to the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs of the State of Hawaii.

⁵ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 93.

- (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.⁶

In the Application, the Authority proposed Quarterly Reports include a snapshot of program activities, a financial summary, and address adjustments planned or made to the GEMS Program to accommodate market changes,⁷ and indicated in the expected GEMS Program timeline that the first Quarterly Report would be submitted to the Commission in January 2015.⁸ 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/>.

2 Summary of Program Activities

2.1 Administration

- **Bond Issuance** – Though the proceedings to approve the bond issuance was a part of a separate PUC proceeding (Docket No. 2014-0134), the November 13, 2014 bond issuance of the Green Energy Market Securitization Series 2014-A Bonds provides the capital for the GEMS Program. This issuance by DBEDT has received national and international recognition through the following awards:
 - 2014 Council of Development Finance Agencies, Excellence in Energy Finance Award
 - 2014 International Financing Review, North America Structured Finance Issue Award
 - 2014 International Financing Review Americas, US Structured Finance Issue Award
- **Establishment of Hawaii Green Infrastructure Authority and Board** – The Authority 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. Jeffrey Mikulina and Wesley Machida were appointed by Governor Abercrombie to fill the two positions effective October 23, 2014. Since Governor Ige recently appointed Wesley Machida as the Director of Finance, one appointed position is currently vacant. There were two Authority board meetings held on October 23, 2014 and November 28, 2014 to constitute the Authority, select an Interim Executive Director, and begin search for the permanent Executive Director. With the exception of the Energy Program Administrator, the four other members of the Authority must receive confirmation from the Senate to be permanent members of the Authority.

⁶ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 97.

⁷ 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.

⁸ 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.

2.2 Program Development and Implementation

- **Metrics Development** – Pursuant to the directives within the Program Order,⁹ the HGIA submitted Proposed GEMS Program Metrics to the PUC on October 21, 2014. The Commission reviewed and approved HGIA to proceed with the next step – to collaborate and collect additional comments from stakeholders and intervenors in Docket No. 2014-0135 as part of the data collection process. From November 10 through 21, 2014, DBEDT met with various parties to gather comments and finalize the GEMS Program metrics. The final GEMS Program Metrics were submitted to the Commission on December 9, 2014 with supporting documentation. The Authority has also continually discussed methods for the accumulation and communication of applicable metrics data for the GEMS Program with the HECO Companies¹⁰ and potential Deployment Partners.
- **Program Notification Filing** – The first Program Notification provided the Commission with more information on a nonprofit loan product and a consumer loan product that allow for the financing of PV systems as approved in the Program Order. In addition to the product information, this first Program Notification addressed the grid integration consideration and discussion requirements specified in the Program Order.¹¹ This Program Notification was filed on December 31, 2014. The fifteen-day review period for the Program Notification ended on January 23, 2015. No objections or comments to the first Program Notification were filed.
- **Development of the GEMS consumer loan product and GEMS nonprofit loan product** – The Authority has been focused on securing partners for both the origination and servicing of the consumer and nonprofit loan products. In addition to developing the necessary lending channels for the products, the Authority has been focused on the creation of a prepaid PPA facility, development of an installer approval process, and ensuring reporting requirements are met.
- **Additional Product Development Work** – The Authority, in conjunction with the State Energy Office, has continued to seek out participants who are unable to gain access to the PV market and work with Deployment Partners to develop products to meet their needs. The Authority and State Energy Office are also actively exploring the development of products for approved eligible technologies other than PV systems, specifically focusing on interconnection-related technologies and energy efficiency.
- **Collaboration with the HECO Companies on utility system cost analysis strategies.** See Section 5.3.

2.3 Program Performance

The GEMS Program has not begun any financing activities and therefore has not released any capital to fund eligible technologies. In future Quarterly Report filings, high-level and/or qualitative performance

⁹ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 90.

¹⁰ The HECO Companies are Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Ltd.

¹¹ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 50.

information will be summarized here, with more detailed, quantitative information found in Section 3, Program Metrics.

3 Program Metrics

The Authority anticipates deploying funds in the first quarter of 2015 and therefore metrics will be reported in the applicable reporting period. On December 9, 2014, the Authority submitted its program metrics final draft with the Commission. The following metrics are in accordance with this filing and are provided here as an example for future reports.

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)			
Petroleum Displaced by Clean Energy Projects			
Petroleum Displaced to Date (Estimated barrels)			
Petroleum Displaced Over Lifetime of Installed PV (Projected barrels)			
Greenhouse Gas Avoided			
Greenhouse Gas Avoided to Date (Estimated metric tons CO ₂)			
Greenhouse Gas Avoided Over Lifetime of Installed PV (Projected metric tons CO ₂)			

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,
- 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	\$80,826.16		

	This Quarter	Program Year-To-Date	Since Program Launch
Projects Financed According to Technology Type/Category			
Solar Photovoltaic Systems			
Energy Storage			
LED Upgrades			
Commercial Efficiency			
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			
Number of Loans on Maui			
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			
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 and Above			
Number of Nonprofits Participating in GEMS			
Number of Rental Units Supported by GEMS			
Profile of Nonprofits by Type (may also be provided)			

3.4 Cost Savings

Charts, graphs or tables depicting:

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

3.5 Additional Metrics

Additional metrics will be determined and included as new technologies and products are added to the GEMS Program and approved by the Commission.

4 Financial Summary of Hawaii Green Infrastructure Authority

State of Hawaii
Hawaii Green Infrastructure Authority
Financial Summary
12/31/2014

NET POSITION

Current Assets	
Cash in Bank	\$ 143,250,000.00
Cash in Treasury	3,260,101.79
Non-current Assets	-
Total Assets	<u>\$ 146,510,101.79</u>
Liabilities	\$ -
Total Liabilities	-
Fund Balance	
Funds Balance-State Treasury	\$ 3,260,101.79
Funds Balance-GEMS Program	143,250,000.00
Total Liabilities & Fund Balance	<u>\$ 146,510,101.79</u>

CHANGES IN FUND BALANCE

Revenue	
Investment Interest	\$ 2.99
Miscellaneous Income	250,000.00
Expenditures	<u>(80,862.16)</u>
Excess/(Deficit)	\$ 169,140.83
Other Financing Sources & Uses	
Bond Proceeds	\$ 146,340,960.96
Net Change in Fund Balance	<u>\$ 146,510,101.79</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”¹² 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”.¹³

The GEMS Program is currently developing the full details of the GEMS Program consumer protection policies and reporting requirements for both installer and capital Deployment Partners. In the next Quarterly Report, the Authority will provide the Commission the details and report on an ongoing basis the number of complaints and the steps taken to address such complaints.

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.¹⁴ 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.”¹⁵ 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.”¹⁶ Since the Program Order was issued, the Authority has been actively 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. The Authority will continue to update the Commission on utility system cost information as this discussion continues.

¹² See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

¹³ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 66.

¹⁴ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 60.

¹⁵ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 95.

¹⁶ See “Division of Consumer Advocacy’s Statement of Position,” filed in Docket No. 2014-0135 on August 7, 2014, at p. 14.

EXHIBIT 9: ELIGIBLE CLEAN ENERGY TECHNOLOGIES

List of eligible clean energy technologies.

Eligible Technologies

- Solar Photovoltaic Systems including PV-Related Technologies
 - Advanced Inverters
 - Smart Modules
 - Monitoring Devices
 - Other Technologies that Support Solar Photovoltaic System Interconnection
 - Physical Infrastructure to Support Solar Photovoltaic Installations
- Energy Storage
- Utility Grid Modernization Technologies¹
- Utility Renewable Integration Technologies¹
- Commercial Energy Efficiency¹
- Technologies that Incorporate a Water-Energy Nexus, Including Sewage and Waste Water Treatment²
- Heating, Ventilating, and Air Conditioning (“HVAC”)²
- LED Systems²

¹ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 46 and approved at p. 48.

² See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 48.



GEMS Financing Program

ATTACHMENT 3: NONPROFIT LOAN PRODUCT

Objective To expand access and affordability of renewables for nonprofit entities that do not have cash available or cannot access financing for a solar photovoltaic (PV) system.

PRODUCT DESCRIPTION

Eligible Technology	Solar PV systems, energy storage, advanced inverters, smart modules, monitoring devices, other technologies that support solar PV system interconnection, and physical infrastructure to support solar PV installations.
Allowable Uses	Financing is available for up to 100% of solar PV system costs, including financing of pre-paid leases or pre-paid power purchase agreements. Other financeable cost may include: financing cost; required electrical upgrades to conform to building permits; electrical permits; fees related to Net Energy Metering approval; and other hard cost and structural improvements.
Term	Twenty (20) year fixed rate, fully amortizing.
Down Payment	Not required.
Collateral/Security	Required UCC financing lien and security agreement over: (1) assets of the business; and (2) furniture, fixture, and equipment (FFE) when applicable.
Eligible Solar Installers	The GEMS Program, and/or its designee will maintain a list of eligible solar installers. The borrower must use one of the installers on the approved list.
Interest Rate	Not to exceed 9.999%, tiered based on debt service coverage ratio. All debt service coverage ratios will be considered.
Loan Amount	Minimum loan amount of \$150,000 as established by GEMS. Exceptions may be granted.
Eligible Borrowers	Nonprofit organizations in the State of Hawaii served by Hawaiian Electric Company or its affiliates (collectively referred to as HECO or the Utility Company).
Eligible Properties	Fee Simple or leasehold properties. Leasehold restrictions may apply.
Credit Criteria	The following credit assessments may apply: financial statement and cash flow assessment, debt service coverage ratio and utility bill assessment.
Utility Bill Savings	Utility bill savings required. Savings dependent on system specification, loan qualification, use of storage, on-bill, and other factors.
Solar PV Equipment	Solar PV equipment requirements must meet minimum standards as defined by the GEMS Program and/or its designee.
Installed Cost	Maximum installed cost restrictions as determined by GEMS.
System Sizing	System sizing not-to-exceed 100% of past usage, though exceptions may be allowed after review.

REPAYMENT MECHANISMS

On-Bill Repayment	On-bill repayment may be offered if projects are eligible for PUC's on-bill program and borrowers are in rate schedules approved for participation.
Direct Bill Payment	Loan repayments will be directed to the GEMS loan servicer. ACH repayment may be offered.



GEMS Financing Program

ATTACHMENT 4: CONSUMER LOAN PRODUCT

Objective To expand access and affordability of renewable for consumers that does not have the cash or cannot get financing for a solar photovoltaic (PV) system.

PRODUCT DESCRIPTION

Eligible Technology	Solar PV systems, energy storage, advanced inverters, smart modules, monitoring devices, other technologies that support solar PV system interconnection, and physical infrastructure to support solar PV installations.
Allowable Uses	Financing is available up to 100% of the cost of the Solar PV system, including financing of purchases, pre-paid leases or pre-paid power purchase agreements. Other financeable cost may include: financing cost; required electrical upgrades to conform to building permits; electrical permits; fees related to Net Energy Metering approval; other hard costs and structural improvements.
Term	Twenty (20) year fixed rate, fully amortizing.
Down Payment	Not required.
Collateral/Security	UCC on property not required. May require UCC financing lien and security agreement over furniture, fixture, and equipment (FFE) when applicable.
Eligible Solar Installers	The GEMS Program, and/or its designee will maintain a list of eligible solar installers. The borrower must use one of the installers on the approved list.
Interest Rate	Not to exceed 9.999%, tiered based on credit score.
Loan Amount	Loan amount restrictions, when applicable.
Eligible Borrowers	Residential property owners in the State of Hawaii served by Hawaiian Electric Company or its affiliates (collectively referred to as HECD or the Utility Company).
Eligible Properties	Fee Simple or leasehold properties. Leasehold restrictions may apply.
Credit Criteria	The following credit assessments may apply: consumer credit score(s) assessment; credit report assessment; utility bill assessment; and/or employment assessment.
Utility Bill Savings	Utility bill savings required. Savings dependent on system specification, loan qualification, storage, on-bill, and other factors.
Solar PV Equipment	Solar PV equipment requirements must meet minimum standards as defined by the GEMS Program and/or its designee.
Installed Cost	Maximum installed cost restrictions as determined by GEMS.
System Sizing	System sizing restrictions may apply, based on past usage.

REPAYMENT MECHANISMS

On-Bill Repayment	On-bill repayment may be offered, if available.
Direct Bill Payment	Loan repayments will be directed to the GEMS loan servicer. ACH repayment may be offered.