

DAVID Y. IGE
GOVERNOR

GWEN S. YAMAMOTO LAU
EXECUTIVE DIRECTOR

HAWAII GREEN INFRASTRUCTURE AUTHORITY

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

Telephone: (808) 587-3868

March 27, 2019

The Honorable Chair and Members of the
Hawaii Public Utilities Commission
465 South King Street, First Floor
Kekuanaoa Building
Honolulu, Hawaii 96813

FILED
2019 MAR 27 P. 2:42
PUBLIC UTILITIES
COMMISSION

Dear Commissioners:

Subject: Docket No. 2014-0135 – GEMS Annual Plan

The Hawaii Green Infrastructure Authority respectfully submits this Green Energy Market Securitization Program Annual Plan for the Fiscal Year 2020: July 1, 2019 to June 30, 2020. This report fulfills the requirement for the Annual Plan as specified in Decision and Order No. 32318, filed on September 30, 2014 in Docket No. 2014-0135.

As always, should you have any questions or if I can be of assistance to you, please do not hesitate to contact me.

Sincerely,

Gwen S. Yamamoto Lau
Executive Director

Attachment

cc: Service List



State of Hawaii

Department of Business, Economic Development & Tourism

Hawaii Green Infrastructure Authority



ANNUAL PLAN

Fiscal Year 2020: JULY 1, 2019 – JUNE 30, 2020

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 2019

Table of Contents

1	Executive Summary	0
2	Introduction and Background.....	2
2.1	Introduction and Procedural History	2
2.2	Annual Plan Requirements	3
3	Summary of Activities	4
3.1	Quarterly Report Summary.....	4
3.2	Additional Activities	9
3.3	Historical Milestones and Timeline	9
3.4	Program Metrics	10
4	Budgets and Administrative Cost Controls	10
4.1	Proposed Administrative Budget for FY 2020	10
4.2	Administrative Cost Controls	11
5	Operational and Financing Plan for FY 2020.....	12
5.1	Residential Loan Portfolio.....	12
5.2	Commercial Loan Portfolio	12
5.3	Energy Efficiency Revolving Loan Fund for State Agencies.....	12
5.4	Other	12
5.5	GEMS Operations Timeline	13
5.6	Projected Fund Deployment Timeline.....	13
6.	Conclusion.....	14

“One thing Hawaii was singled out for in the report was being one of six states that have a “green bank.” These are programs geared to expand clean energy using public financing that attracts private capital.” “Hawaii’s green bank is GEMS, the Green Energy Money Saver or Green Energy Market Securitization program...”

Hawaii Ranked 16th in Energy Policy, PBN, October 7, 2018

1 Executive Summary

The Power of Leverage. With only **\$41.8 million remaining to lend**, “The Power of Leverage” will be the theme for FY2020. HGIA’s goal will be to leverage GEMS funds with other capital sources to exponentially increase program impact.

Progress. Over the past year the Authority has continued to approve, commit and deploy capital under its existing loan products. As of February 28, 2019, approximately \$86.5 million of GEMS funds has been committed, leaving only \$41.8 million available to lend.

Other areas of focus in FY2019 included obtaining approval for and implementing the Green Energy Money Saver On-Bill Program, as well as establishing the State Revolving Loan Fund for Energy Efficiency Retrofits.

“While Hawai‘i is joining 35 states in offering an on-bill financing option, Hawai‘i’s GEM\$ program can be a great model for on-bill nationwide with its innovative, inclusive design elements, coupled with the fact that it is administered by Hawaii’s Green Bank.”

Miguel Yanez, Environmental & Energy Study Institute,
Washington D.C., March 2019

Opportunities. Financing opportunities for the upcoming year include PV + Storage, Community Based Solar, and grid stabilization loan products. It also includes a focus on financing clean energy improvements for multi-family projects and solar hot water heaters to reduce energy consumption.

The Authority will be actively seeking opportunities to attract outside capital to be blended and leveraged with GEMS funds to stretch the amount we have available to lend. Additionally, should House Bill 855 be signed into law, the Authority will also start seeking additional funding sources and loan capital to continue its lending programs and further diversify HGIA’s loan products.

Increased Demand for Green Capital. With the scheduled wind-down of the Federal solar tax credits (also known as the Investment Tax Credit or ITC), Green Banks across the nation are realizing that flexible, below market financing will play an even more critical role in the capital stack for projects to be installed in 2020 and beyond.



Who We Are

The Hawaii Green Infrastructure Authority (“HGIA” or “Authority”) was created by the Legislature to make clean energy investments accessible and affordable to Hawaii’s consumers, with a portion of its funds to benefit underserved communities, low and moderate-income households, renters, and non-profits. HGIA, through the GEMS program, was capitalized through an innovative market-driven financing mechanism to improve access to green infrastructure to advance the State’s Energy Efficiency Portfolio Standards (“EEPS”) as well as its goal of achieving 100% Renewable Portfolio Standard (“RPS”) in the electricity sector by 2045.

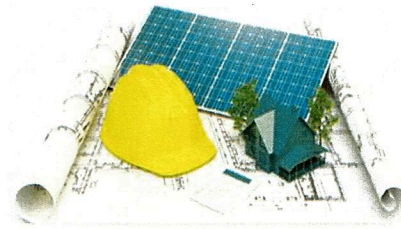
For Fiscal Year (“FY”) 2020, the Authority plans to obligate \$25.0 million in funds through its existing and possibly new loan products and programs. With an administrative budget of \$1.0 million, equivalent to only 4% of the projected deployment amount, the Authority continues its prudent stewardship of the GEMS fund.

GEMS Impacts at a Glance, as of December 31, 2018

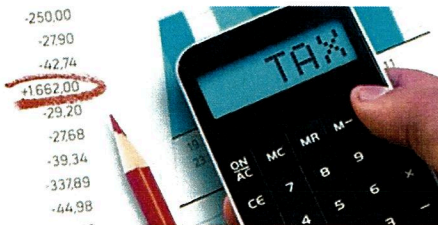
**Excess Revenues Over
Expenses: \$1.7 million***



Jobs Created or Retained: 904.5



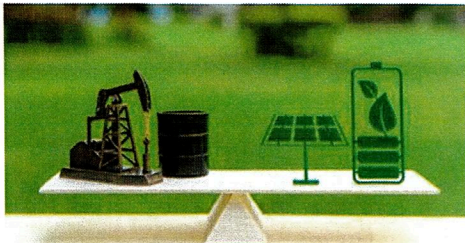
**Hawaii Tax Revenues
Generated: \$11.2 million**



**Estimated kWh
Production/Reduction Over
Lifetime: 745,676,011**



**Estimated Barrels of Petroleum
Displaced Over Lifetime: 457,976**



**Estimated Metric Tons (CO2)
Greenhouse Gas Avoided Over
Lifetime: 224,906**



* For 6-month period ended December 31, 2018. Excludes principal and interest repayments owed to the PUC.

2 Introduction and Background

The GEMS Program leverages public and 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. Act 211 Session Laws of Hawaii 2013 ("Act 211"), created the framework for establishing the GEMS Program, including its oversight, governance, and reporting processes. The Program is governed by the Hawaii Public Utilities Commission in Docket No. 2014-0135 and the five-member Hawaii Green Infrastructure Authority, consisting of 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.

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 Fiscal 2020 Annual Plan, which covers the period from July 1, 2019 to June 30, 2020 ("Annual Plan").

2.1 Introduction and Procedural History

The Commission issued and filed Decision and Order No. 32318 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 to establish and implement 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 RPS and EEPS Standards;

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.

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.

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:
 - 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

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.

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.

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. Additional program elements shall be requested via the existing Program Notification and/or Program Modification process.

3 Summary of Activities

3.1 Quarterly Report Summary

Since the filing of its last Annual Plan for Fiscal Year 2019 in March 2018, the Authority has submitted four Quarterly Reports to the Commission:

1. Quarterly Report: January 1, 2018 to March 31, 2018;
2. Quarterly Report: April 1, 2018 to June 30, 2018;
3. Quarterly Report: July 1, 2018 to September 30, 2018; and
4. Quarterly Report: October 1, 2018 to December 31, 2018

During the reporting period, the GEMS Program continued funding loans and expanding its product mix. The following is a summary of the activities reported in the Quarterly Reports and filed with the Commission during the 2018 calendar year.

3.1.1 Summary of Administration Activities

The following administrative activities were reported in the Quarterly Reports. Additional activities that occurred after December 31, 2018 are reported in Section 3.2 and will be included in the next GEMS Quarterly Report for the quarter ending March 31, 2019.

- **Board Meetings.** The Authority held the following board meetings during the reporting period:
 - January 26, 2018, at which it approved HGIA's Quarterly Report for the period ended December 31, 2017.
 - March 23, 2018, at which it approved HGIA's 2019 Annual Plan.
 - April 20, 2018, at which it approved HGIA's Quarterly Report for the period ended March 31, 2018.
 - July 30, 2018, at which it elected officers for the new fiscal year and approved HGIA's Quarterly Report for the period ended June 30, 2018.
 - October 30, 2018, at which it approved HGIA's Quarterly Report for the period ended September 30, 2018.
 - December 14, 2018, at which it approved HGIA's 2018 Report to the Governor and Legislature and accepted HGIA's 2018 Audit report for the fiscal year ended June 30, 2018.

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).

3.1.2 Summary of Program Development and Implementation

The following program development and implementation activities were reported in the Quarterly Reports. Additional actions that occurred after December 31, 2018 are reported in Section 3.2 and will be included in the next GEMS Quarterly Report for the quarter ending March 31, 2019.

- **Metrics Reporting** – Quarterly reporting metrics were expanded to include additional information collected under the Green Energy Money Saver On-Bill Program beginning September 30, 2018.
- **Docket Filings & Activity** – Activity in Docket No. 2014-0135 during the reporting period included the following:
 - Order No. 35185. On January 5, 2018, the Commission filed Order 35185 in Docket No. 2014-0135, Providing Guidance Regarding the On-Bill Repayment Mechanism.
 - Utility Connection Agreement. On January 22, 2018, the Authority filed a Utility Connection Agreement in Docket No. 2014-0135 for the Kahauiki Village project with the project agreeing to be grid-connected (when the utility meter is available) for as long as the GEMS loan is outstanding.
 - Quarterly Report. On January 30, 2018, HGIA's Quarterly Report for the period of October 1, 2017 to December 31, 2017 was filed in Docket No. 2014-0135.
 - Joint Filing. On February 28, 2018, the Authority and the Hawaiian Electric Companies submitted a Joint Filing for Approval of the Green Energy Money Saver (GEM\$) On-Bill Program in Docket No. 2014-0135.
 - Program Notification No. 12. Program Notification No. 12 requesting approval to finance commercial energy efficiency was filed on March 9, 2018 in Docket No. 2014-0135.
 - Joint Response to PUC. A Joint Response to the Commission's Informational Requests ("IRs") on the Approval of the GEM\$ program was filed on March 12, 2018 in Docket No. 2014-0135.
 - Joint Response to the Consumer Advocate. A Joint Response to the Consumer Advocate's IRs on the Approval of the GEM\$ program was filed on March 16, 2018 in Docket No. 2014-0135.
 - Response to the Consumer Advocate. The Authority filed its response to the Consumer Advocate's comments in regard to Program Notification No. 12 on March 27, 2018 in Docket No. 2014-0135.
 - Annual Plan. The Authority filed its Annual Plan for the Fiscal Year 2019 on March 29, 2018 in Docket No. 2014-0135.
 - Order No. 35375. On April 2, 2018, the Commission filed Order No. 35375 conditionally approving Program Notification No. 12, in Docket No. 2014-0135.

- K-Village Interconnection Update. As directed by the Commission, on April 2, 2018, the Authority filed a Progress Report on the status of utility's meter being available for the K-Village project to be grid-tied, in Docket No. 2014-0135.
- Joint Response to the Consumer Advocate. A Joint Response to the Consumer Advocate's comments on the Approval of the GEM\$ program was filed on April 13, 2018 in Docket No. 2014-0135.
- Order No. 35415. On April 20, 2018, the Commission filed Order No. 35415 conditionally approving the establishment and implementation of an On-Bill repayment mechanism, in Docket No. 2014-0135.
- Quarterly Report. On April 25, 2018, HGIA's Quarterly Report for the period of January 1, 2018 to March 31, 2018 was filed in Docket No. 2014-0135.
- Motion for Clarification. On May 2, 2018, the Authority and the Hawaiian Electric Companies filed a Joint Motion for Clarification of Order No. 35415 in Docket No. 2014-0135.
- K-Village Interconnection Update. As directed by the Commission, on May 9, 2018, the Authority filed another Progress Report on the status of utility's meter being available for the K-Village project to be grid-tied, in Docket No. 2014-0135.
- Order No. 35438. On May 9, 2018, the Commission filed Order No. 35438 granting the Joint Filer's motion to clarify Order No. 35415 in Docket No. 2014-0135.
- Program Notification No. 13. Program Notification No. 13 requesting approval, in alignment with H.B. No. 1508, HD2, SD2, CD1, to create a sub-fund within the green infrastructure special fund and convert \$50.0 million of GEMS funds into a revolving line of credit for any State Agency or Department to finance cost-effective commercial energy efficiency, was filed on May 9, 2018 in Docket No. 2014-0135.
- Order No. 35492. On May 30, 2018, the Commission issued Order 35492 conditionally approving Program Notification No. 13 in Docket No. 2014-0135.
- K-Village Interconnection Update. As directed by the Commission, on June 12, 2018, the Authority filed another Progress Report on the status of utility's meter being available for the K-Village project to be grid-tied, in Docket No. 2014-0135.
- Motion. On June 12, 2018, the Authority filed a motion to clarify Order No. 35492 in Docket No. 2014-0135.
- Information Request. On June 19, 2018, the Commission requested information on the GEMS 2019 Annual Plan; GEMS Quarterly Report for the period ended March 31, 2018; and the Independent Auditor's Report in Docket No. 2014-0135.
- K-Village Interconnection Update. On June 21, 2018, the Authority filed a Notice informing the Commission that the utility was able to install an electric meter and the K-Village project is now grid-tied, in Docket No. 2014-0135

- Order No. 35561. On June 29, 2018, the Commission filed Order No. 35561 granting the Authority's motion for clarification of Order No. 35492 in Docket No. 2014-0135.
 - Response to the Commission. On June 29, 2018, the Authority filed its response to the Commission's information requests in Docket No. 2014-0135.
 - Quarterly Report. On July 31, 2018, HGIA's Quarterly Report for the period of April 1, 2018 to June 30, 2018 was filed in Docket No. 2014-0135.
 - Joint Filing. On August 20, 2018, the Authority and the Hawaiian Electric Companies submitted a Joint Filing for Final Approval of The Green Energy Money Saver On-Bill Program in Docket No. 2014-0135.
 - Joint Response. On September 28, 2018, the Authority and the Hawaiian Electric Companies submitted its response to the Commission's information requests in Docket No. 2014-0135.
 - Quarterly Report. On October 31, 2018, HGIA's Quarterly Report for the period of July 1, 2018 to September 30, 2018 was filed in Docket No. 2014-0135.
 - Order No. 35918. On December 6, 2018, the Commission issued Order No. 35918 Approving the Establishment and Implementation of an On-Bill Repayment Mechanism and Associated Tariff in Docket No. 2014-0135.
- **Residential Loan Portfolio** – Residential loans under all available product types continued to be deployed. The following are updates during the reporting period:
 - Termination of the WECC Contract. In an effort to further control costs while providing more flexibility, improved customer service and increased marketing efforts with GEMS' Approved Installers, the Authority terminated its contract with the Wisconsin Energy Conservation Corporation ("WECC"), its residential loan originator effective December 31, 2017. All loan origination, underwriting and funding of residential loans are being done by HGIA staff.

During the quarter ended December 31, 2018, the Authority purchased its final loan originated and funded by WECC concluding HGIA's contractual obligations with this third-party contractor.

 - Contractor Outreach and Training. In its original "2014 Business Model," the Authority outsourced its contractor outreach and training to third-party contractors in California. However, to be more responsive to local market needs, the Authority's internal staff are now responsible for contractor outreach and training.
 - Residential On-Bill Origination. In June 2018, the Authority began accepting applications for its Green Energy Money Saver On-Bill program for both solar PV and solar hot water installations.
 - Collections. Due to challenges experienced by HGIA's outside collection agencies, the Authority terminated its collection contracts with third-party vendors in October 2018, bringing all of the collection duties and responsibilities in-house. The Authority has been

successful in significantly decreasing its seriously delinquent loans from six at 10/31/18 to one at 12/31/18.

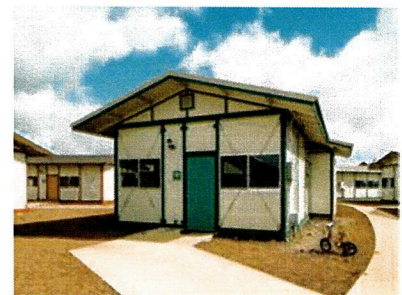
- **Commercial Loan Portfolio** - The market continues to respond positively to the Program's commercial loan products. An important distinction between the Residential and Commercial loan portfolios is the commercial product leverages private investments (via conventional bank financing and/or borrower's equity). As of December 31, 2018, approximately \$19.4 million (or 48.7%) in GEMS funds facilitated almost \$40.0 million in total solar projects for nonprofits, small businesses and multi-family rental projects. The following are updates during the reporting period:

- **Kahauiki Village.** Kahauiki Village ("Village") is the innovative public-private partnership development aiming to provide housing, coupled with employment opportunities within walking distance of the Village and on-site childcare, for previously homeless families with children. Together with private capital, HGIA provided financing for the microgrid infrastructure enabling the first 30 families to move into the Village on January 12, 2018. Unbeknownst to most, the installation of the utility's meter was not able to be completed until mid-June 2018 when the Village was finally connected to Hawaiian Electric Company's electric grid. Thanks to the microgrid, which could not be financed without the support of GEMS, the families were able to occupy their new homes as scheduled.

- **Commercial On-Bill Origination.** In June 2018, the Authority began accepting applications for its Green Energy Money Saver On-Bill program for both solar PV and commercial energy efficiency installations. Hawaii's first Green Energy Money Saver On-Bill application was approved for a non-profit at the end of June 2018. Leveraging this non-traditional repayment mechanism enabled the Authority and its conventional co-lender to underwrite the project's financing in a manner that still met the needs of prudent lenders, while resulting in significant bill savings of approximately 49% for the off taker.

"I think without the GEMS program, I don't know that it would have been as easy for the bank to say yes. So we're very grateful to the state that they have that program..."

Garrett Marrero, Maui Brewing,
January 10, 2019



- State Energy Efficiency Revolving Line of Credit. On July 5, 2018, the Governor signed Act 121 (SHL 2018) into law to create a sub-fund within the Authority's green infrastructure special fund and convert \$50.0 million of GEMS funds into a revolving line of credit for any state agency or department to finance cost-effective commercial energy efficiency measures, subject to fund availability, on an ongoing basis.

The \$45.9 million loan made to the Department of Education is included under this facility.



3.2 Additional Activities

The following activities represent a summary of some of the activities that have occurred since the last Quarterly Report and which have therefore not yet been reported to the Commission. These items will appear in the Authority's next quarterly report due to the Commission on April 30, 2019, covering the activities from January 1, 2019 through March 31, 2019.

- Board Meeting. The Authority held a board meeting on January 28, 2019, at which it approved HGIA's quarterly report for the period ended December 31, 2018.
- Quarterly Report. On January 30, 2019, the Authority filed its Quarterly Report for the period ended December 31, 2018 in Docket No. 2014-0135.
- Loan Approvals. Since the last quarterly filing, the Authority's approved loans in excess of \$11.0 million to install solar PV systems and energy efficiency retrofits.
- Loans Funded. Since December 31, 2018, the Authority funded loans aggregating \$1.6 million.

3.3 Historical Milestones and Timeline

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

Period	Milestones
FY 2014	<ul style="list-style-type: none"> • Loan Program and Bond Financing Order Applications submitted to the PUC
FY 2015	<ul style="list-style-type: none"> • PUC approval of Loan Program and Bond Financing Orders • Hawaii Green Infrastructure Authority constituted • GEMS Bonds 2014 Series A of \$150,000,000 issued • Nonprofit, Small Business and Residential loan products launched
FY 2016	<ul style="list-style-type: none"> • Nonprofit and Small Business products shuttered due to loss of equity partner.
FY 2017	<ul style="list-style-type: none"> • New commercial PV loan products for Nonprofits, Small Businesses and Multi-Family Rental Projects launched. • Residential PV loan product enhanced and Consumer Lease Product launched
FY 2018	<ul style="list-style-type: none"> • Commercial Energy Efficiency Loan extended to the Department of Education • Program Notification No. 12 for direct loan products for commercial energy efficiency filed for Commission approval on March 9, 2018.
FY19	<ul style="list-style-type: none"> • State Energy Efficiency Revolving Loan Fund established.

	<ul style="list-style-type: none"> • All origination, underwriting, funding and collection responsibilities brought in-house. • Green Energy Money Saver On-Bill Program approved by the Commission.
--	--

3.4 Program Metrics

HGIA's Program Metrics are regularly reported in detail in its Quarterly Reports. Please refer to the Authority's Quarterly Reports filed in Docket No. 2014-0135 for details.

4 Budgets and Administrative Cost Controls

During FY 2020, the Authority intends to obligate approximately \$25.0 million in GEMS capital and expend approximately \$1.0 million on administrative costs (see Section 4.1 for details).

While in theory, the Authority is self-sustaining with revenues exceeding administrative costs, due to Order No. 34930 Changing the Priority of Uses of GEMS Program Loan Repayments, loan repayments received are now required to be applied first toward the replenishment of the reduced Public Benefits Fee collections before the payment of GEMS Program administrative costs.

4.1 Proposed Administrative Budget for FY 2020

HAWAII GREEN INFRASTRUCTURE AUTHORITY	
ADMINISTRATIVE STAFF	
Salaries	\$ 488,854
Fringe Benefits	<u>285,334</u>
Subtotal	\$ 774,188
OPERATING EXPENSES	
Office Expenses & Equipment	\$ 5,000
Travel Transportation & Subsistence	6,000
Training & Other Support	15,000
Other Administrative Expenses	<u>5,812</u>
Subtotal	\$ 31,812
PROGRAM MARKETING, OUTREACH & SUPPORT	
Program Administration	\$ 165,000
Legal Services	20,000
Audit Services	60,000
Contractor & Stakeholder Outreach, Marketing and Business Development	<u>27,500</u>
Subtotal	\$ 272,500
TOTAL BUDGET	<u>\$ 1,078,500</u>

4.2 Administrative Cost Controls

Administrative costs are paid out of the Green Infrastructure Special Fund and are subject to the appropriation and allotment processes and approval procedures of the Hawaii Revised Statutes, Chapter 37, Part II. This requirement ensures legislative approval for ongoing expenses from the fund, in addition to approval by HGIA's Board and the Department of Budget and Finance.

When the Authority was constituted in November 2014 with a staff of five (5), its original business model envisioned this very small staff to be primarily responsible for managing third-party vendors and consultants with all major functions of the Authority, such as marketing; contractor outreach, education and training; loan origination, loan underwriting, loan funding and loan servicing to be outsourced. \$100.0 million of the anticipated loan origination was delegated to Pacific Rim Bank and Clean Power Finance in San Francisco to finance commercial/non-profit PV projects and \$50.0 million of the anticipated loan origination was delegated to WECC/EFS in Wisconsin to finance residential PV installations.

However, with the shuttering of its commercial/non-profit PV loan product in December 2015 (nine-months after its launch without financing a single project), coupled with the slow growth of the residential loan program, primarily due to all of HGIA's 3rd party contractors being located outside of the Hawaii market, it became apparent that the Authority needed to evolve.

A significant change in its business model was a deliberate decision to terminate all out-sourced functions, except for loan servicing, bringing all of these duties and responsibilities in-house for increased focus, time-sensitivity and improved results. This shift has enabled HGIA to significantly increase its loan activity with the responsibilities of business development, contractor outreach and loan origination, underwriting, and funding being done locally by HGIA staff.

However, this significant increase in workload, which was previously done by third-party vendors, are now being borne by staff. HGIA team members at minimum, work at least 125% of the normal work-week, with one employee consistently working seven days/week, logging in hours aggregating almost 200% of the normal work-week. While the Authority is extremely mindful of being prudent stewards of the GEMS funds, this is an unsustainable situation with a high risk of employee burn-out, which would result in a major set-back to the Program.

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.¹⁵ The administrative expense restriction placed on the Tourism Special Fund is 5% of money in the special fund.¹⁶ However, in the GEMS Program, there is an upfront pool of capital rather than annual program funds. Therefore, the traditional cost control guidelines are not applicable. Based on benchmarks from other green banks, 6-8% of initial capitalization is a reasonable expectation for administrative costs to deploy capital. The New York Green Bank has an explicit cap at 8% of initial capitalization, and we aspire to outperform this benchmark. The Authority's administrative costs equates to 4% of the projected capital to be obligated during the upcoming period.

¹⁵ HRS §269-122 (a).

¹⁶ HRS §201B-11 (c).

5 Operational and Financing Plans for FY 2020

With currently \$5.3 million available to lend to State Agencies, leaving only \$36.5 million available to finance all other requests, leveraging GEMS capital is becoming more urgent.

FY 2020 will have four primary areas of focus: (1) obtaining approval to finance battery storage; (2) increasing financing for solar hot water heaters to lower energy consumption; (3) increasing financing for multi-family rental projects to provide access to clean energy to more families; and (4) leveraging outside capital while seeking additional funding sources.

5.1 Residential Loan Portfolio

Existing Residential Loan Products

Until the Authority is able to finance battery storage, it will continue to seek opportunities to leverage outside capital to jointly provide financing of PV + Storage under its Residential Loan portfolio.

During the year, the Authority will also focus on grassroots, community outreach to Native communities to provide clean energy financing with a focus on solar hot water heaters to lower energy consumption.

5.2 Commercial Loan Portfolio

Existing Commercial Loan Products

With the Federal solar tax credits beginning to decline on January 1, 2020, there has been a spike in financing requests with the Authority already approving some \$11.0 million in requests during the first two months of the 2019 calendar year.

In addition to the requests already submitted, an area of focus during this fiscal year will be seeking opportunities to finance multi-family rental projects to impact a wider reach of households more efficiently.

5.3 Energy Efficiency Revolving Loan Fund for State Agencies

The Authority is aware of a number of state agencies currently conducting due diligence in financing energy efficient retrofits. Currently this fund has \$5.3 million available to lend.

5.4 Other

5.4.1 Financing Battery Storage for both the Residential and Commercial Portfolios.

The Authority will be seeking Commission approval to finance battery storage. This technology is quickly becoming more affordable, making it an increasingly compelling solution for ratepayers in today's energy market.

5.4.2 Grid Stabilization and Optimization

The Authority is currently conducting due diligence on the viability of financing a technology that will assist the utility in stabilizing its grid. If deemed viable, the Authority will seek Commission approval.

5.4.3 Community Solar

Since January 2019, the Authority has received two inquiries to finance Community Based Renewable projects. The Authority is currently conducting due diligence on the viability of financing CBRE projects. If deemed viable, the Authority will seek Commission approval.

5.4.4 Additional Loan Capital

As mentioned previously, with the GEMS loan capital quickly being obligated, the Authority will be actively seeking opportunities to attract outside capital to leverage with the remaining GEMS funds.

5.4.5 Solar Hot Water Financing for New Developments

The Authority may explore the viability, using the GEM\$ on-bill repayment mechanism, to reverse the course of action of new developments that have already received approval for a solar hot water heater variance (HB 1464).

5.5 GEMS Operations Timeline

Quarter	Target Milestones
Prior to FY 2020	<ul style="list-style-type: none">• Officially implement the GEM\$ on-bill mechanism with the Hawaiian Electric Companies.• Pitch a collaborative partnership financing arrangement with the Office of Hawaiian Affairs and Department of Hawaiian Homelands to finance solar hot water and/or solar PV for native Hawaiian communities.• Explore opportunities to finance grid stabilization technologies. If deemed viable, submit Program Modification to request PUC approval to finance.• Submit a revised Program Notification No. 7 to request PUC approval to finance storage.
FY 2020 Q1 & Q2: JUL - DEC 2019	<ul style="list-style-type: none">• Prospect additional solar hot water contractors to become Approved GEMS Contractors.• Launch PV + Storage loan products.• Launch outreach to Native Hawaiian Communities with a focus on solar hot water heater installations.• Prospect and outreach on financing opportunities for multi-family rental projects.
FY 2020 Q3 & Q4: JAN-JUN 2020	<ul style="list-style-type: none">• Explore opportunities to finance community solar projects.• Explore opportunities to finance solar hot water heaters on new projects.• Prospect outside sources of capital.

5.6 Projected Fund Deployment Timeline

While the Authority anticipates obligating some \$25.0 million in GEMS funds during FY 2020 for consumers, renters, nonprofits, small businesses and state agencies to finance both energy efficiency and renewable energy projects, there is always a construction/installation time lag between when the

loans are approved and the funds are committed or obligated, and when the funds are actually expended.

6 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 reporting period has been another year of major milestones for the GEMS Program and the Authority.

Further, the Authority is eager to leverage its on-bill repayment mechanism to democratize clean energy by expanding access and affordability of renewable energy and energy efficiency projects for renters, low and moderate-income homeowners, and nonprofits, as was the original intent of the legislation.

Attracting additional loan capital will become even more critical as the year progresses and new projects are approved for financing, which will further deplete the capital currently available. The GEMS financing programs are uniquely positioned to continue to have significant, positive impact as we advance towards 2045.

The ambitious goals of the GEMS program cannot be achieved without with the support and collaboration of the Commission, the Consumer Advocate, the electric utility and industry partners, for which the Authority is deeply grateful.

“Who’s doing the best job? Perhaps the best example of a state securitization program is the Hawaii Green Energy Market Securitization (GEMS) program which makes low-cost capital available to a broad range of participants including renters and lower credit score borrowers.”

Center for New Energy Economy, February 18, 2019

SERVICE LIST

The original and eight (8) copies of the GEMS Program FY2020 Annual Plan have been filed in Docket No. 2014-0135, together with this Certificate of Service, in addition to the following, at the following addresses:

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

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

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

And by electronic transmission to

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

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

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

Dated: Honolulu, Hawaii, March 27, 2019.