

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

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In the Matter of the Application of)
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THE STATE OF HAWAII)
DEPARTMENT OF BUSINESS,)
ECONOMIC DEVELOPMENT,)
AND TOURISM)
)
For an Order Approving the Green)
Infrastructure Loan Program.)
)

PUBLIC UTILITIES
COMMISSION

Docket No. 2014-0135

**PROGRAM NOTIFICATION No. 10 FOR
THE GREEN INFRASTRUCTURE LOAN PROGRAM,
ATTACHMENT A
AND
CERTIFICATE OF SERVICE**

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**PROGRAM NOTIFICATION No. 10 FOR
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TO THE HONORABLE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII:

The Hawaii Green Infrastructure Authority (“HGIA” or “Authority”) of the State of Hawaii¹
submits this Program Notification through its Deputy Attorney General.

I. Background

Decision and Order No. 32318, filed on September 30, 2014 in Docket No. 2014-0135 (the
“Program Order”) 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”) for the use of funds deposited in the Green Infrastructure
Special Fund to establish and institute the Green Infrastructure Loan Program (“GEMS
Program”), subject to the modifications described within the Program Order.² Within the

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.

Application, a governance process was proposed for the GEMS Program that used mechanisms for updates or modifications to approved GEMS Program guidelines. In this process, Program Notifications are used to provide additional details on GEMS Program components including *project, program, financing, or other arrangements (clean energy technology, parties intended to benefit, loan program or other arrangements, and credit sources and funding); minimum lending, credit or investing criteria; and repayment mechanisms and processes.*³ The Application stated that DBEDT or the Authority⁴ will use Program Notifications to report and certify information on implementation of key GEMS Program components that are within the scope of the Program Order parameters and exhibits issued by the Public Utilities Commission (“Commission”).⁵

The Program Order approved the Program Notification process with a modification requiring that the Authority file any GEMS Program Notification with the Commission no less than fifteen (15) business days prior to implementation instead of the proposed ten (10) days stated in the Application.⁶

The Division of Consumer Advocacy (“Consumer Advocate” or “CA”) recommended that DBEDT submit market assessments and cost-benefit analyses for the financing of technologies related to solar PV that will mitigate grid saturation prior to DBEDT’s submission of a Program

³ Paraphrased from HRS §269-170 and 269-171, as referenced in “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. 15. Emphasis added.

⁴ Prior to the Authority’s establishment, DBEDT is authorized to exercise the Authority’s powers and is required to effectuate the Authority’s responsibilities (see HRS §196-63). Accordingly, references to the “Authority” and “HGIA” in this Program Notification include DBEDT acting on behalf of the Authority, as explained in footnote 1 above.

⁵ See “Application of Department of Business, Economic Development, and Tourism; Verification; Exhibits; and Certificate of Service,” filed in Docket No. 2014-0135 on June 6, 2014 at p. 15.

⁶ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 84.

Notification,⁷ and the Commission then directed DBEDT “to provide the information identified by the Consumer Advocate concerning market assessments and cost-benefit analyses for approved **non-Solar PV** clean energy technology with any Program Notification that is submitted to finance those technologies.”⁸ Although this Notification applies to a PV only financing product and therefore does not require a market analysis and cost benefit analysis, the product will benefit the consumer, as the existing GEMS consumer protection mechanisms will apply.

II. Program Notification

The purpose of this Program Notification (“Notification”) is to provide the Commission with additional information regarding the GEMS Commercial PV Loan Product: Project Sponsor, which is consistent with the Fiscal Year 2017 Annual Plan submitted to the Commission⁹ and Exhibit 9 of the Application as included in the Annual Plan.¹⁰ This Notification expands the Eligible Participants allowed under the GEMS Commercial PV Loan Product: Project Sponsor, submitted to the Commission on August 26, 2016.¹¹

HGIA is seeking approval to expand the Eligible Participants under the Project Sponsor structure to also include consumer leases or power purchase agreements (PPA), which are pooled together in a single investment, referred to as “Securitized Consumer Leases or Power Purchase Agreements (PPA)” for purposes of this Notification. Consumer Power Purchase Agreements

⁷ See “Division of Consumer Advocacy’s Statement of Position,” filed in Docket No. 2014-0135 on August 7, 2014, at p. 13.

⁸ See “Decision and Order No. 32318,” filed in Docket No. 2014-0135 on September 30, 2014, at p. 85.

⁹ See “Annual Plan Fiscal Year 2017: July 1, 2016-June 30, 2017,” filed in Docket No. 2014-0135 on March 31, 2016, herein referred to as “Annual Plan,” at p. 16.

¹⁰ See Annual Plan at Attachment 1.

¹¹ See “Program Notification No. 9,” filed in Docket No. 2014-0135 on August 26, 2016.

and leases are attractive to consumers because they are accompanied by lifetime service warranties and can provide greater monthly savings; however, these products are typically available only to customers with high FICO scores. Replacing the stringent standards under existing lease programs with GEMS underwriting guidelines will allow the Project Sponsor to offer leases/PPA's to more underserved customers while extending the consumer protection mechanisms associated with the GEMS products.

Under the Securitized Consumer Leases/PPAs, the PV systems are installed on residential rooftops. Because Securitized Consumer Leases/PPAs are an aggregation of individual leases/PPAs to a third party, financing must be done under the Authority's commercial loan product (instead of its consumer loan product).

The Commission allows the Authority flexibility in allocating funds between customer types,¹² and does not oppose the Authority operating with flexibility in the finalization of details as long as sufficient oversight and reporting is established.¹³ The GEMS Commercial PV Loan Product: Project Sponsor will be subject to the same reporting metrics as previously approved.

1. Consumer Protection and Targeting the Underserved

Consistent with Program Notification No. 2,¹⁴ this loan product requires the ratepayer to receive specific minimum savings from the proposed installations. Under the Commercial PV Loan Product: Project Sponsor, the savings requirement is met when the power purchased from the proposed PV system including the cost of financing (or in the case of a Securitized Consumer Lease, monthly lease payment), combined with the remaining utility bill, results in a minimum

¹² 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 6" as referenced by "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 8.

¹³ See "Decision and Order No. 32318," filed in Docket No. 2014-0135 on September 30, 2014, at p. 76.

¹⁴ See "Program Notification No. 2 for The Green Infrastructure Loan Program" filed in Docket No. 2014-0135 on April 2, 2015, at p.13.

required savings when compared to the original utility bill. All Securitized Consumer Leases/PPAs will be evaluated individually for this cost savings requirement. Any proposed projects that do not comply with the cost savings requirements will not be financed.

This existing minimum savings requirement threshold provides GEMS customers a benefit not offered by other market lenders, as these conventional lenders do not monitor or require costs savings to the consumer. Through the minimum savings requirement, HGIA ensures that GEMS financed lease options are cost effective and price competitive. GEMS lending specifications also assist the underserved in obtaining financing for PV. As of November 2016, 17 out of 20 or 85% of GEMS funded loans were made to low or moderate income households.

2. GEMS Consumer Savings Under Securitized Consumer Lease/PPA

The following is a representative example of a consumer's bill savings within a Securitized Consumer Lease/PPA investment that could be financed under the Commercial Loan Product: Project Sponsor structure.

The example provided below assumes that the Project Sponsor installs a system that produces approximately 1,039 kWh/month for a Participant that uses approximately 1,200 kWh/month via a Net Energy Metering Interconnection Agreement with HECO. This consumer lease waives the upfront payment¹⁵ and has a flat \$0.15 cost per kWh over its 20-year term. Based on the current energy consumption and HECO's Rate Schedule R effective October 1, 2016, the Participant's monthly cost for electricity consumed would total \$295.17/month (exclusive of other standard fees). With the installation of the PV system, the Participant's energy consumption from HECO decreases to 161 kWh/Month, with a corresponding cost of

¹⁵ Some consumer lease agreements require an upfront payment, ranging from \$3,000 to \$5,000 (or more) from the homeowner, which is in addition to the monthly lease payments.

\$38.31/month. Adding the cost of the lease or PPA payment of \$156.42 per month, the combined utility + Lease/PPA payment would be \$194.73/month representing a \$100.44 or 34.03% bill savings. See matrix below:

Consumer Participant	No PV (Schedule R) 1,200 kWh/Month Usage	With PV (Schedule R) 161 kWh/Month HECO; 1,039 kWh/Month Lease/PPA
Cost of Electricity Consumed	\$ 295.17	\$ 38.31
Lease/PPA: \$156.42/Month	0.00	156.42
Total Cost	\$ 295.17	\$ 194.73
% Bill Savings	0.00%	34.03%

Utilizing this simple scenario, the Participant’s savings over the life of a typical twenty-year Lease/PPA is estimated to be in excess of \$24,000. While the projected bill savings percentages may be lower for systems under Consumer Grid Supply or Consumer Self Supply tariffs, HGIA is committed to ensuring that all systems meet the minimum bill savings threshold established for the GEMS Residential Loan Program.

There are a variety of ways to calculate bill savings, and the aforementioned is a simple example of how bill savings might be calculated. A more complex calculation would take into account PV System degradation¹⁶ (typically estimated at 0.5% annually) and an estimated change in HECO’s utility cost, with a historical 10-year annual average increase of 5.72%.¹⁷ It is, however, reasonable to assume that by incorporating these additional metrics in the calculation, both scenarios would still reflect the required bill savings. As noted by the Consumer Advocate,¹⁸ a financial arrangement or investment may be projected to result in

¹⁶ Unless the Consumer Lease/PPA Agreement has a production guarantee.

¹⁷ While HECO’s “Cost of Final Delivered Energy (Avg. Cents per kWh)” for “G” Small Power Use Business, “J” Medium Power Use Business and “P” & “DS” Large Power Use Business decreased in 2015, its historical average over the 10-year period from 2006 to 2015 of metrics provided indicate a 5.72% annual increase. Download historical data from <https://www.hawaiianelectric.com/about-us/key-performance-metrics/rates-and-revenues>.

¹⁸ See letter from the Consumer Advocate filed in Docket No. 2014-0135 on September 6, 2016, at p. 6.

overall, long-term cost savings, and HGIA (and/or the Project Sponsor) shall make borrowers/participants aware of possible reduced savings or even increases in payments before longer run savings are realized. HGIA will ensure that all borrowers are advised as to the inherent risk associated with any projected bill savings based on forecasted electricity rates.

Negotiation of terms for the deployment of funds will follow industry guidelines, as well as those established in Attachment A to ensure that the bond proceeds securitized through ratepayer fees are expended efficiently and prudently. The consumer protections established under the GEMS Residential Loan Program will apply to the Securitized Consumer Lease/PPA. Changes from the original Attachment A (Commercial PV Loan Product: Project Sponsor¹⁹) as compared to the Attachment A (Commercial PV Loan Product: Project Sponsor) provided in this Notification are summarized below:

- ✓ Objective: Expanded to include Securitized Consumer Leases/PPAs.
- ✓ Capital Structure: For Securitized Consumer Lease/PPAs, the investor's equity will be the source of leverage.
- ✓ Eligible Solar Installers: For Securitized Consumer Lease/PPAs, a GEMS Approved Installer must be used.
- ✓ Eligible Participant: Expanded to include Consumers under a Securitized Lease/PPA financing arrangement.
- ✓ Installed Cost: For Securitized Consumer Lease/PPAs, the maximum installed cost shall follow the GEMS Residential Loan Program guidelines.

¹⁹ See "Program Notification No. 9," filed in Docket No. 2014-0135 on August 26, 2016.

III. Subsequent Authority Action

Unless informed otherwise by the Commission, upon completion of the fifteen (15) business-day-term of Program Notification, HGIA may implement the deployment of capital to finance PV installations as described under Attachment A of this notification. Any subsequent changes to the details described herein will be proposed through the GEMS Annual Plan.

Submitted this 28th day of November, 2016, in Honolulu, Hawaii.



Gregg J. Kinkley
Deputy Attorney General for the Authority



GEMS Financing Program

ATTACHMENT A: GEMS COMMERCIAL LOAN PRODUCT: PROJECT SPONSOR

Objective	To expand access and affordability of renewable energy systems to small businesses, non-profit entities, and Securitized Consumer Leases/PPAs.
PRODUCT DESCRIPTION	
Eligible Technology	Solar PV systems, advanced inverters, smart modules, monitoring devices, other technologies that support solar PV interconnection, and physical infrastructure to support solar PV installations.
Allowable Uses	<p>Financing is available for up to 100% of the cost of the energy improvements.</p> <p>Other financeable cost may include: financing cost; required electrical upgrades to conform to building permits; electrical permits; fees related to HECO approval; and other hard cost and structural improvements.</p>
Capital Structure	<p>Leverages public-private capital. In addition to HGIA financing, capital sources must include bank debt and may include Project Sponsor equity.</p> <p>For Securitized Consumer Lease/PPAs, the Investor's equity will be the leverage source.</p>
Term	Up to twenty (20) years.
Eligible Solar Installers	<p>GEMS will conduct due diligence on a case by case basis.</p> <p>For Securitized Consumer Lease/PPAs, a GEMS Approved Installer must be used.</p>
Collateral/Security	Required UCC-1 financing lien and security agreement over equipment.
Interest Rate	Not to exceed 9.999%, tiered based on debt service coverage ratio.
Loan Amount	Minimum loan amount of \$50,000 as established by GEMS. Exceptions may be granted.
Eligible Borrowers	Project Sponsors to include corporations, organizations, or individuals.
Eligible Participant	Nonprofit organizations, small businesses in the State of Hawaii, served by Hawaii Electric Company or its affiliates. Small businesses are defined by the standards set by the U.S. Small Business Administration (www.sba.gov/loans-grants/see-what-sba-offers/sba-loan-programs), and consumers under a Securitized Consumer Lease/PPA financing arrangement.
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.

Bill Savings Bill savings required. Savings dependent on system specification, loan qualification, on-bill, and other factors.

Solar PV Equipment Solar PV equipment requirement must meet minimum standards as defined by the GEMS Program

Installed Cost If borrower does not meet Accredited Investor criteria, GEMS program installed cost restrictions will apply.

For Securitized Consumer Lease/PPAs, the maximum installed cost shall follow the GEMS Residential Loan Program guidelines.

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 available and projects are eligible.

Direct Bill Payment Loan repayments will be directed to the GEMS loan servicer. ACH repayment may be offered.

CERTIFICATE OF SERVICE

I hereby certify that I have this date, in addition to filing an original and three copies with the Commission, served one (1) or two (2) copies of the foregoing GEMS Program Notification, together with this Certificate of Service, by making personal service (P) or service by electronic mail (M), to the following and at the following addresses:

State of Hawaii (P)(3)
Public Utilities Commission
Department of Budget and Finance
465 S. King Street, #103
Honolulu, Hawaii 96813

Dean Nishina (P)(2)
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Dated: Honolulu, Hawaii, November 28, 2016.

HAWAII GREEN INFRASTRUCTURE
AUTHORITY



Gregg J. Kinkley
Deputy Attorney General