BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

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

DOCKET NO. 2014-0135

ORDER NO. 34421

APPROVING PROGRAM NOTIFICATION NO. 11

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Application of THE STATE OF HAWAII DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT, AND TOURISM For an Order Approving the Green Infrastructure Loan Program	))))))))))	Docket No. 2014-0135 Order No. 34421

APPROVING PROGRAM NOTIFICATION NO. 11

By this Order, the commission approves Program Notification No. 11, filed by the Hawaii Green Infrastructure Authority ("HGIA") on January 31, 2017, provided that HGIA shall not deploy more than $60,000,000 thereunder.[1]

I.

Background

A.

PN11

On January 31, 2017, HGIA filed PN11 to deploy capital to the State of Hawaii, Department of Education ("DOE") for

[1]"Program Notification No. 11 for the Green Infrastructure Loan Program; Attachment A; and Certificate of Service," filed on January 31, 2017 ("PN11").

energy efficiency ("EE") infrastructure as part of the DOE's Ka Hei Energy Sustainability Program ("Ka Hei Program").[2] According to HGIA, the Ka Hei Program "has developed shovel-ready EE initiatives including energy efficient LED lighting and other energy conservation measures, such as the optimization and control of existing equipment and facilities (i.e., refrigeration and ventilation systems, etc.).[3] HGIA asserted that the use of GEMS funds in the Ka Hei Program is "consistent with the core tenets of the GEMS Program [because] the use of GEMS funds for commercial EE will help to remove financing market barriers in the current commercial EE financing market, broaden access to EE and reduce energy consumption and related costs."[4]

HGIA is seeking approval to finance EE equipment to be purchased and installed by the Ka Hei Program through commercial EE contractors. The financing "will be a form of unleveraged debt with financing terms similar to that described in

---

[2]The Ka Hei Program was launched in 2014 with the goals of achieving an estimated $24,000,000 in operating expense savings and reducing energy consumption by 25 percent over five years, throughout all 256 public schools in the State. See http://www.hawaiipublicschools.org/ConnectWithUs/Organization/SchoolFacilities/Pages/Ka-Hei.aspx.

[3]PN11 at 4.

[4]PN11 at 4-5.

[Hawaii Revised Statutes ("HRS")] § 36-41."[5] HRS § 36-41 provides, in pertinent part, as follows:

> (1) The term of any energy performance contract shall not exceed twenty years. (HRS § 36-41(c)(4)).
>
> (2) The contract shall contain the following annual allocation dependency clause:
>
> The continuation of this contract is contingent upon the appropriation of funds to fulfill the requirements of the contract by the applicable funding authority. If that authority fails to appropriate sufficient funds to provide for the continuation of the contract, the contract shall terminate on the last day of the fiscal year for which allocations were made. (HRS § 36-41(c)(5)).
>
> (3) The contract shall provide that the total payment shall not exceed total savings. (HRS § 36-41(c)(7)).

HGIA also stated that the terms of the financing shall be consistent with PN11, Attachment A, which provides a high level term sheet. The following are key terms of the proposed financing:[6]

---

[5]PN11 at 6.

[6]See PN11, Attachment A (Exhibit 13 appears to reference Exhibit 13 attached to the Program Application filed on June 6, 2014, as amended on July 15, 2015, and February 23, 2016, as part of Program Notification Nos. 5 and 6, respectively).

Eligible Technology	Lighting (LED), Controls and Monitoring Devices, Mechanical Upgrades, and other Commercial Energy Efficiency
Term	Up to 20 years
Savings	As required by Exhibit 13
Interest Rate	3.50%, fixed[7]

HGIA also provided a Market Assessment and Cost/Benefit Analysis, as required under the Program Order.[8]

As explained by HGIA, Market Assessments "typically provide an organization with data to adequately assess the potential size of a [new] market to determine feasibility in investing time and resources to capture a portion of the market being assessed."[9] For the purposes of PN11, HGIA "is agnostic to specific manufacturers or brands of energy conservation measures ('ECM') and instead attempts to analyze the market for ECM financing."[10]

HGIA asserted that the market opportunity for ECM financing of Commercial EE for the DOE has been identified at almost

[7]See HGIA's Response to the First Set Information Requests ("IRs") from the commission Regarding PN11, filed February 15, 2017 ("Response to PUC-HGIA-IR-__"), at Response to PUC-HGIA-IR-1(a).

[8]See Decision and Order No. 32318 ("Program Order"), filed September 30, 2014, at 85.

[9]PN11 at 6.

[10]PN11 at 7.

$60,000,000 in EE retrofits.[11] Initially, HGIA would like to make $46.4 million in financing available to the DOE with the "flexibility to finance the remaining $13.6 million at a later date if other impactful projects and financing opportunities are not available."[12] According to HGIA, retrofits that target "a 25% reduction of electricity consumed by the DOE could result in estimated gross savings of over $9 million per year."[13]

HGIA asserted that GEMS financing is superior to the alternative financing mechanisms available to the DOE, namely, (1) direct loan financing, (2) Energy Service Company Contracts, and (3) bond financing, "all of which entail higher financing fees/costs, would likely be more expensive, less flexible and do not align with the current immediate needs of the DOE."[14] HGIA acknowledges, however, that it lacks "access to detailed data about the specific terms of the rapidly evolving financing products that are available for commercial EE . . . ."[15]

---

[11]See PN11 at 7.

[12]Response to PUC-HGIA-IR-1(c).

[13]PN11 at 7.

[14]PN11 at 8.

[15]PN11 at 8.

To demonstrate its cost/benefit analysis, HGIA provided the following representative example of an ECM for a $19,140,000 project.

	Bank	ESCO	Bond	GEMS
Loan/Contract Term	7-year	15-year	15-year	20-year
Begin Implementation	3Q2017	4Q2017/1Q2018	1Q2018	1Q2017
Estimated kWh reduction	14,387,000	14,387,000	14,387,000	14,387,000
Estimated $ Net Year 1 Savings	$673,897	$1,822,592	$1,991,071	$2,428,711
Estimated % Net Savings	7.17%	19.39%	21.18%	25.83%

This representative example shows that GEMS financing provides greater savings and a more timely implementation schedule when compared to the alternative financing mechanisms available to DOE.

B.

Consumer Advocate's Letter

On February 9, 2017, the Division of Consumer Advocacy, Department of Commerce and Consumer Affairs ("Consumer Advocate") filed a letter with the commission recommending that PN11 be allowed to go into effect, and making a few recommendations to clarify how PN11 is generally consistent with the intent of the GEMS Program.[16] Specifically, the Consumer Advocate recommended the following:

[16]See Letter from Consumer Advocate to commission, filed February 9, 2017 ("CA Letter").

1. It be made clear that, absent adequate future budget appropriations, the termination of the contract should not necessarily result in ratepayers being held responsible for the remaining balance of the unpaid loan.[17]

2. The commission should place a cap on GEMS funds deployments made under PN11.[18]

3. GEMS fund deployments under PN11 should be prioritized to provide EE retrofits in Title I schools.[19]

In support of its position, the Consumer Advocate stated that "while not directly serving an underserved customer or customer group, [GEMS fund deployments under PN11] could indirectly benefit underserved customers."[20] Specifically, the Consumer Advocate acknowledged the State's efforts to provide heat abatement for

---

[17]See CA Letter at 4.

[18]See CA Letter at 5.

[19]See CA Letter at 5. HGIA states that according to the U.S. Department of Education:

> Title I is the nation's oldest and largest program providing assistance for students at risk of failure and living at or near poverty. The basic principles of Title I state that schools with large concentrations of low-income students will receive supplemental funds to assist in meeting students' educational goals. Low-income students are determined by the number of students enrolled in the free and reduced lunch program. For an entire school to qualify for Title I funds, at least 40% of students must enroll in the free and reduced lunch program. PN11 at 13, n.41.

[20]CA Letter at 4.

schools, including Title I schools, and asserted that PN11 "would allow [Title I] schools to install cost effective EE measures that would help . . . reduce their electricity consumption, which would result in savings."[21]

C.

HGIA's Response Letter

On February 15, 2017, HGIA filed a letter with the commission and responded to the Consumer Advocate's recommendations as follows:

1. HGIA acknowledges that its loan approval "will indicate that the DOE's payment obligation is subject to annual approval and appropriation of the DOE's operating budget by the Hawaii State Legislature."[22] However, HGIA is relying on HRS § 36-41, which provides as follows:

> Agencies that perform energy efficiency retrofitting may continue to receive budget appropriations for energy expenditures at an amount that shall not fall below the pre-retrofitting energy budget but shall rise in proportion to any increase in the agency's overall budget for the duration of the performance contract or project payment term.

---

[21]CA Letter at 4.

[22]Letter from G. Kinkley to commission on behalf of HGIA, filed February 15, 2017 ("HGIA Letter"), at 1.

HGIA further explained that the loan to DOE will be repaid out of the savings realized from the EE retrofits, and that DOE will ensure that appropriations made from DOE's approved utility budget will first go to repay the GEMS loan before releasing any net saving benefits to other DOE programs or projects.[23]

2. HGIA stated that its intention is to finance "the high-impact replacement of all interior, exterior and stadium lights with energy efficient LED for the 242 schools on the island of Oahu, Maui, Lanai, Molokai, and Hawaii."[24] However, while it is not intending on financing the entire $60,000,000 in possible EE retrofits, HGIA "prefers not to have a commission-imposed cap, in order to maintain its flexibility to finance additional EE projects for the DOE in the future in a timely and market sensitive manner."[25]

3. HGIA stated that while it is in agreement with the Consumer Advocate that Title I schools should be prioritized to receive GEMS funds under PN11, and has already made such a request to the DOE, HGIA is opposed to imposing a condition that would require the prioritization of Title I schools to receive GEMS funding. In support of this position, HGIA stated that

---

[23]See HGIA Letter at 1.

[24]HGIA Letter at 2.

[25]HGIA Letter at 2.

"a significant number of public schools (63.2%) qualify as Title I schools and over half (52%) of all public school students qualify for Title I benefits, even if they are not attending a Title I qualified school."[26] Moreover, such a condition could have unintended adverse project cost consequences due to the distinct geographic locations of the schools. As explained by HGIA, contractors can often use a geographically systematic manner to execute projects to better manage labor costs and resources.[27]

II.

Discussion

According to the Program Order, the commission uses the following criteria, in part, to review GEMS Program matters:

1. Whether the GEMS Program proposal is cost-effective;

2. Whether the GEMS Program proposal supports the goal of providing greater green infrastructure access for underserved customers;

3. Whether the GEMS Program proposal is likely to make positive contributions to the overall GEMS Program portfolio of loans and investments; and

4. Whether the GEMS Program proposal positively impacts the achievement of Hawaii's Renewable Portfolio Standards and Energy Efficiency Portfolio Standard requirements, including the

[26]HGIA Letter at 2.

[27]HGIA Letter at 2.

support of stakeholder coordination in achieving the State's clean energy goals.[28]

A.

Cost-effectiveness

The determination of cost-effectiveness requires a comparative analysis of relative costs, outcomes, and alternative courses of action. Given the nascent stage of GEMS Program fund deployments, such an analysis is difficult. However, the cost/benefit analysis provided by HGIA demonstrates that GEMS financing is a more cost-effective and timely means of financing DOE EE projects when compared to available alternative financing mechanisms.[29] Assuming that DOE is willing to move forward with retrofitting schools, it appears that the use of GEMS funds is a cost-effective way of financing that effort.

B.

Green Infrastructure Access for Underserved Customers

HGIA stated that it "does not intend to add government agencies, generally, to the critical underserved groups as identified in the Application through [PN11] . . . ."[30] However,

---

[28]See Decision and Order No. 32318, filed September 30, 2014 ("Program Order"), at 37.

[29]See PN11 at 10.

[30]PN11 at 12.

HGIA asserted that indirect benefits from GEMS funds deployed under PN11 will benefit the underserved. Specifically, of the DOE's 242 public schools on the islands of Oahu, Maui, Molokai, Lanai, and Hawaii, 153 schools, or approximately 63.2%, qualify as federal Title I schools.[31] Moreover, according to DOE, 52% of all public school students qualify for Title I benefits.[32] To help ensure that GEMS fund deployments under PN11 reach these populations, HGIA has requested that DOE prioritize Title I schools to receive EE retrofits "to the extent that the DOE is able to accommodate our request without increasing total project costs."[33]

The commission is in strong support of HGIA's request to prioritize Title I schools, and finds that the authorization of PN11, while not directly benefitting the underserved, will allow Title I schools to reduce their electricity consumption, which will result in financial savings. Moreover, the energy savings will reduce the kW load and facilitate the installation of air conditioners or other heat abatement technologies to create a better learning environment for the students. While not within the commission's jurisdiction, the commission expresses its strong desire and support that the DOE invest those financial savings

---

[31]See PN11 at 13.

[32]See PN11 at 13.

[33]HGIA Letter at 2.

realized under PN11 to improving the learning environment for the children through heat abatement measures or other educational investments.

C.

GEMS Program Portfolio

As noted above, the GEMS Program is in the beginning phase of deploying funds. Accordingly, at this time, any loan would positively contribute to the overall GEMS Program portfolio of loans and investments.

D.

Hawaii's Energy Efficiency Portfolio Standards

The commission finds that loans issued under PN11 will positively impact the achievement of Hawaii's Energy Efficiency Portfolio Standards ("EEPS"). State agencies, including the DOE, constitute a significant component of energy consumption in the State. According to a report by the Department of Business, Economic Development, and Tourism entitled Lead by Example - State of Hawaii Agencies' Energy Initiatives [Fiscal Year] [("FY")] 2013-2014, the DOE is the second largest consumer of electricity, consuming over 135 million kWh per year from FY2005 through FY2014 at an average cost of $38 million per year.[34] According to HGIA, "[t]he anticipated reduction in energy consumption for [PN11] represents approximately 10% of the State's EEPS target of reducing energy consumption by 4,300 GWh through 2030."[35]

E.

Other Considerations

In regards to the Consumer Advocate's recommendation that it be made clear that, absent adequate future budget appropriations, the termination of the loan contract between HGIA and the DOE should not necessarily result in ratepayers being held responsible for the remaining balance of the unpaid loan, the commission finds that the statutory provisions of HRS § 36-41, and the fiduciary responsibilities of HGIA and the DOE as State agencies, are adequate to protect ratepayers from being held responsible for any unpaid balance.

[34]See PN11 at 7; see also Lead by Example - State of Hawaii Agencies' Energy Initiatives FY 2013-2014, January 2015, at 21, available at, http://files.hawaii.gov/dbedt/annuals/2014/2014-seo-lbe.pdf.

[35]PN11 at 11 (internal citation omitted).

F.

Conclusion

For the foregoing reasons, the commission finds that PN11 should be approved, provided that HGIA shall not deploy more than $60,000,000 thereunder.

III.

Order

THE COMMISSION ORDERS:

PN11 is approved, subject to a cap of $60,000,000 on deployments made thereunder.

DONE at Honolulu, Hawaii FEB 2 2 2017.

PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

By Randy Iwase
Randall Y. Iwase, Chair

By Lorraine H. Akiba
Lorraine H. Akiba, Commissioner

APPROVED AS TO FORM:

By Thomas C Gorak
Thomas C. Gorak, Commissioner

Shannon Mears
Commission Counsel

2014-0135.ljk

<u>CERTIFICATE OF SERVICE</u>

The foregoing Order was served on the date of filing by mail, postage prepaid, and properly addressed to the following parties:

DEAN NISHINA
EXECUTIVE DIRECTOR
DIVISION OF CONSUMER ADVOCACY
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
P.O. Box 541
Honolulu, HI 96809

DOUGLAS S. CHIN
ATTORNEY GENERAL OF HAWAII
DEBORAH DAY EMERSON
GREGG J. KINKLEY
DEPUTY ATTORNEYS GENERAL
DEPARTMENT OF THE ATTORNEY GENERAL
STATE OF HAWAII
425 Queen Street
Honolulu, HI 96813

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, HI 96840-0001

RICK REED
EXECUTIVE DIRECTOR
HAWAII SOLAR ENERGY ASSOCIATION
P.O. Box 37070
Honolulu, HI 96837

WARREN S. BOLLMEIER II
PRESIDENT
HAWAII RENEWABLE ENERGY ALLIANCE
46-040 Konane Place, #3816
Kaneohe, HI 96744

HENRY Q. CURTIS
VICE PRESIDENT FOR CONSUMER ISSUES
LIFE OF THE LAND
P.O. Box 37158
Honolulu, HI 96837-0158

DOUGLAS A. CODIGA, ESQ.
SCHLACK ITO
A LIMITED LIABILITY LAW COMPANY
Topa Financial Center
745 Fort Street, Suite 1500
Honolulu, HI 96813

Counsel for Blue Planet Foundation