Appendix 1

Decision and Order No. 30974 in Docket No. 2011-0186

Filed on February 01, 2013

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BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

---- In the Matter of ----)
)
PUBLIC UTILITIES COMMISSION) DOCKET NO. 2011-0186
)
Instituting a Proceeding to)
Investigate the Implementation of)
On-Bill Financing.)
)

DECISION AND ORDER NO. 30974

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PUBLIC UTILITIES
COMMISSION

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

---- In the Matter of ---- PUBLIC UTILITIES COMMISSION Instituting a Proceeding to Investigate the Implementation of On-Bill Financing.	Docket No. 2011-0186 Decision and Order No. 30974

DECISION AND ORDER

By this Decision and Order, the commission: (1) determines that an on-bill financing program for all electric utility customers in the State of Hawaii ("State") can be viable, contingent upon the details of the on-bill financing program design; (2) specifies parameters of program components necessary for a viable on-bill financing program; (3) directs Kauai Island Utility Cooperative ("KIUC") to complete their investigation of on-bill financing[1] and requires KIUC's participation in the informal ongoing processes of on-bill program development lead by the commission; (4) establishes an on-bill financing working group to continue discussions and development of an on-bill financing program including the development of a tariff for such a program; and (5) determines that the establishment of the on-bill financing program in the State will take the place of the proposed Simply Solar Pilot Program as established in

[1]See KIUC's Comments regarding draft on-bill financing study filed on December 11, 2012 ("KIUC's Comments") at 3.

Transmittal 11-06 and thus denies the Simply Solar Tariff Application by Hawaiian Electric Company, Inc. ("HECO"), Hawaii Electric Light Company, Inc. ("HELCO"), Maui Electric Company, Limited ("MECO") (collectively, the "HECO Companies").

I.

Background

On July 8, 2011, the Governor of the State of Hawaii signed into law House Bill 1520, HD2, CD1 as Act 204 Session Laws of Hawaii 2011 ("Act 204"). Act 204 created a new section of Hawaii Revised Statutes ("HRS"), §269-125, that directs the commission to investigate an on-bill financing program for residential electric utility customers and authorizes the commission to implement the program by decision and order or by rules if the on-bill financing program is found to be viable.

The intent of on-bill financing is to allow electric utility company customers to finance purchases of renewable energy systems or energy efficient devices, with a focus of making renewable energy and energy efficiency more accessible to the rental market and other underserved markets, by providing for billing and payment of such a system or device through an assessment on the electric utility customer's monthly bill.

Act 204 states that, in investigating the on-bill financing program, the commission may consider the following:

> (1) The costs and benefits associated with the establishment and administration of the program;

(2) The availability of the program to effectively provide lifecycle cost savings to participating electric utility company customers;

(3) The ability of the program to make renewable energy and energy efficiency more accessible to the rental market and other underserved markets;

(4) Methods to structure the program to ensure that any public benefits fee funds are spent cost-effectively and in compliance with applicable statues;

(5) The use of non-ratepayer funds or private capital to provide financing for renewable energy systems or energy efficient devices acquired through the program;

(6) Reasonable penalties, which may include fines and disconnection of utility services for nonpayment of on-bill financing costs;

(7) The ability of an electric utility company to recover costs incurred due to the program; and

(8) Other issues the public utilities commission deems appropriate.

On August 15, 2011, the commission opened an investigation to examine the implementation of an on-bill financing program for residential electric utility customers in the service territories of HECO, MECO, HELCO, and KIUC in response to Act 204 Session Laws of Hawaii 2011. The order named the following parties: HECO, HELCO, MECO, KIUC, Blue Planet Foundation ("Blue Planet"), Hawaii Energy, and the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs ("Consumer Advocate").

Hawaii Renewable Energy Alliance ("HREA"), Hawaii Solar Energy Association ("HSEA"), the Department of Business, Economic Development, and Tourism ("DBEDT"), Sierra Club, SolarCity and Ulupono Initiative LLC ("Ulupono") filed Motions to Intervene.

On September 20, 2011, the commission issued orders granting the motions to intervene filed by HSEA, HREA, Sierra Club, DBEDT and SolarCity; and denying Ulupono's motion to intervene.

On October 13, 2011, the HECO Companies, KIUC, Blue Planet, Hawaii Energy, the Consumer Advocate, HREA, HSEA, DBEDT, Sierra Club, and SolarCity (collectively the "Parties") agreed upon a Stipulated Procedural Order, which the commission approved. The Stipulated Procedural Order stated that:

> The primary objective of this proceeding is to determine (A) whether on-bill financing is viable and should be established by the commission; and (B) if so, what parameters, components, restrictions and requirements should be established as part of the design of an on-bill financing program to ensure that the program is and will remain viable and in the public interest.
>
> In order to assist the commission in its determination of the above, the following issues shall be considered as part of this docket:
>
> (1) What are the costs and benefits associated with the establishment and administration of the program?
>
> (2) Will the program effectively provide lifecycle cost savings to participating electric utility company customers?
>
> (3) What is the ability of the program to make renewable energy and energy efficiency more accessible to the rental market and other

underserved markets (e.g. commercial customers or customers below a certain income level)?

(4) How can an on-bill financing program be structured to ensure that any public benefits fee funds are spent cost-effectively and in compliance with applicable statutes?

(5) How can the program access and/or leverage non-ratepayer funds or private capital to provide financing for renewable energy systems or energy efficient devices acquired through the program?

(6) What requirements should be imposed to ensure repayment and recovery of on-bill financing costs, and what rights and obligations should be established for nonpayment? This should consider the legality and feasibility of fines, penalties, and disconnecting utility services for nonpayment?

(7) What methods should be established or utilized to allow an electric utility company and any other entity(ies) responsible for implementing or administering an on-bill financing program to recover costs incurred due to the program?

(8) What entities should be allowed to provide financing under an on-bill financing program?

(9) What parameters, components, restrictions and requirements should be established as part of the design of an on-bill financing program? This shall include a consideration of, among other things, the process for evaluating the program, making modifications to the program, and reporting requirements.

(10) What entity(ies) should be responsible for the implementation and/or administration of an on-bill financing program?

(11) What are alternative options to on-bill financing that would meet the intent of Act 204 to increase access to renewable energy systems and energy efficiency measures?[2]

[2]Order Approving Stipulated Procedural Order, Exhibit A, at 4-5.

On December 30, 2011, the HECO Companies filed Transmittal No. 11-06, requesting approval to establish a residential customer tariff and related pilot program and recovery of pilot program costs, seeking to establish a Simply Solar Pilot Program and other related matters ("Simply Solar Tariff"). The HECO Companies filed their transmittal pursuant to HRS §§269-12(c) and 269-16(b) and Hawaii Administrative Rules ("HAR") §§6-61-111, 6-61-74, and 6-61-75, and requested an effective date of February 1, 2012. On January 31, 2012, the commission suspended Transmittal No. 11-06 and consolidated the review of the Simply Solar Tariff with this docket, by Order No. 30149.

The consolidation of the Simply Solar Tariff review with this docket resulted in the review of additional related issues, prompting the commission to allow for interested persons to file motions to intervene or participate in the consolidated proceeding.[3] HONEYWELL INTERNATIONAL INC ("Honeywell") filed a Motion to Participate without Intervention on February 21, 2012. On March 9, 2012, the commission granted Honeywell's motion.[4]

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[3]See Order No. 30149, filed on January 31, 2011, in Docket No. 2011-0186, at 13.

[4]See Order No. 30255, filed on March 9, 2012, in Docket No. 2011-0186, at 6.

On March 16, 2012, the commission issued information requests to the HECO Companies regarding the Simply Solar Tariff, to which the HECO Companies responded on April 2, 2012.[5]

On April 16, 2012, the commission issued a revised procedural schedule for Docket No. 2011-0186.[6] The commission also issued a letter to the Parties and Participant providing Harcourt Brown & Carey's ("Consultant" or "HBC") review of the Simply Solar tariff: *Simply Solar Proposal Assessment* ("Simply Solar Assessment").[7] On May 7, 2012, DBEDT, Sierra Club, Blue Planet, HREA, HSEA, Hawaii Energy, and the HECO Companies filed comments on the Simply Solar Assessment ("SSA Comments").[8] The Consumer Advocate filed their

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[5]See letter from the commission to Dean Matsuura of HECO, dated March 16, 2012 and letter from Dean Matsuura of HECO to the commission, dated April 2, 2012.

[6]See Order No. 30330, Amending the Schedule of Proceedings, filed on April 16, 2012, in Docket No. 2011-0186.

[7]See letter from the commission to the Parties and Participant, dated April 16, 2012, transmitting the Simply Solar Assessment.

[8]See Department of Business, Economic Development, and Tourism's Brief on the Harcourt Brown & Carey Assessment of HECO Companies' Simply Solar Proposal and Certificate of Service ("DBEDT's SSA Comments"), filed on May 7, 2012; Sierra Club Comments on the Simply Solar Proposal Assessment by Harcourt Brown & Carey Dated April 16, 2012, and Certificate of Service ("Sierra Club's SSA Comments"), filed on May 7, 2012; Blue Planet Foundation's Brief on Commission's Consultant's Simply Solar Program Assessment Filed April 16, 2012 and Certificate of Service ("Blue Planet's SSA Comments"), filed on May 7, 2012; Hawaii Renewable Energy Alliance's Joinder to Blue Planet Foundations' Brief on the Commission's Consultant's Simply Solar Program Assessment filed on April 16, 2012 and Certificate of Service ("HREA's SSA Comments"), filed on May 7, 2012; Hawaii

SSA Comments on May 24, 2012, after the commission granted it an extension of time.[9]

On November 13, 2012, the commission provided the Parties and Participant with a draft of the HBC report *On-Bill Financing in Hawaii* ("Draft On-Bill Financing Report").[10]

The commission amended the schedule of proceeding for the instant docket by Order No. 30841, filed on November 23, 2012, recognizing that the record in this proceeding would benefit from additional opportunity for the Parties and Participant, if they so choose, to submit additional components for the commission's consideration and allowing the Parties and Participant to comment on the additional submissions. Specifically, Order No. 30841: (1) extended the due date to file

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Solar Energy Association's Comments on the Simply Solar Tariff Review by Harcourt Brown & Carey and Certificate of Service ("HSEA's SSA Comments"), filed on May 7, 2012; Hawaiian Electric Companies Comments on Harcourt Brown & Carey Review of the Simply Solar Tariff ("HECO Companies' SSA Comments"), filed on May 7, 2012; and Public Benefit Fee Administrator's Comments and Certificate of Service ("Hawaii Energy's SSA Comments"), filed on May 7, 2012.

KIUC, through its outside regulatory counsel, Morihara Lau and Fong LLP, informed the commission that it takes no position on HBC's Simply Solar Proposal Assessment, Dated April 16, 2012. See Letter from Kris Nakagawa to the commission, dated and filed on May 7, 2012.

[9]See letter from Jeffrey T. Ono to the commission, dated and filed on May 7, 2012 and Order No. 30381, filed on May 14, 2012, approving the Consumer Advocate's May 7, 2012 request for extension of time.

[10]See letter from the commission to the Parties and Participant, dated and filed on November 13, 2012.

comments on the Consultant's Draft On-Bill Financing Report as requested by the Blue Planet Foundation and supported by the parties;[11] (2) requested Parties/Participant to submit proposals for on-bill financing program components; (3) allowed the Parties/Participant to submit rebuttal comments to proposed program components and submitted comments; (4) amended the deadline for the submission of the Consultant's final on-bill financing study report; and (5) set a date for a technical meeting with the Parties and Participant.

On December 11, 2012, the Parties submitted comments and additional on-bill financing component proposals.[12]

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[11]On November 20, 2012, Blue Planet, on behalf of the Parties and Participant, requested an extension of time, from November 27, 2012 to December 11, 2012, to file comments to the consultant's draft study, filed on November 13, 2012. The commission granted the extension, by Order No. 30841, issued on November 23, 2012.

[12]See Hawaii Renewable Energy Alliance's Comments to the Harcourt Brown & Carey On-Bill Financing Study Draft Report and Potential On-Bill Program Components and Certificate of Service ("HREA's Comments"), filed on December 11, 2012; Blue Planet Foundation's Comments on Commission's Consultant's Draft On-Bill Financing Report Dated November 12, 2012 and Certificate of Service ("Blue Planet's Comments"), filed on December 11, 2012; Hawaii Solar Energy Association's Comments on On-Bill Financing in Hawaii Prepared by Harcourt Brown & Carey and Certificate of Service ("HSEA's Comments"), filed on December 11, 2012; Sierra Club's Comments on the On-Bill Financing in Hawaii Report by Harcourt Brown & Carey filed on November 13, 2012 and Certificate of Service ("Sierra Club's Comments"), filed on December 11, 2012; Kauai Island Utility Cooperative's Comments Regarding Draft On-Bill Financing Study and Certificate of Service ("KIUC's Comments"), filed on December 11, 2012; Division of Consumer Advocacy's Comments on Commission's Consultant's On-Bill Financing in Hawaii Report Filed on November 13, 2012 ("Consumer Advocate's Comments"), filed on December 11, 2012; Hawaiian Electric Companies' Comments on Harcourt Brown & Carey

On December 28, 2012, the Parties submitted rebuttal comments to other Parties' comments on proposed on-bill financing program components.[13]

On January 4, 2013, the commission provided the Parties and Participant with the final report *On-Bill Financing in Hawaii* prepared by HBC ("Final On-Bill Financing Report").[14]

On-Bill Financing in Hawaii Report ("HECO Companies' Comments"), filed on December 11, 2012; Public Benefit Fee Administrator's Comments on Draft On-Bill Financing Study Report ("Hawaii Energy's Comments"), filed on December 11, 2012; and The Department of Business, Economic Development and Tourism's Comments to the On-Bill Financing Study and Component Proposals and Certificate of Service ("DBEDT's Comments"), filed on December 11, 2012.

[13] See Hawaii Solar Energy Association's Rebuttal Comments to the On-Bill Financing Study Proposals and Comments to the On-Bill Financing Draft Study Prepared by Harcourt Brown & Carey and Certificate of Service ("HSEA's Rebuttal Comments"), filed on December 28, 2012; Hawaiian Electric Companies' Rebuttal Comments on Harcourt Brown & Carey On-Bill Financing in Hawaii Report ("HECO Companies' Rebuttal Comments"), filed on December 28, 2012; Hawaii Renewable Energy Alliance's Rebuttal Comments on Proposals and Comments to the Commission's Consultant's Draft On-Bill Financing Report Dated November 12, 2012 and Certificate of Service ("HREA's Rebuttal Comments"), filed on December 28, 2012; Blue Planet Foundation's Rebuttal Comments on Proposals and Comments to Commission's Consultant's Draft On-Bill Financing Report Dated November 12, 2012 and Certificate of Service ("Blue Planet's Rebuttal Comments"), filed on December 28, 2012; The Department of Business, Economic Development, and Tourism's Rebuttal Comments to the On-Bill Financing Study Proposals and Comments on Draft Study and Certificate of Service ("DBEDT's Rebuttal Comments"), filed on December 28, 2012; Division of Consumer Advocacy's Rebuttal Comments to On-Bill Financing Proposals and Comments Filed December 11, 2012 on Commission's Consultant's On-Bill Financing in Hawaii Report Filed November 13, 2012 ("Consumer Advocate's Rebuttal Comments"), filed on December 28, 2012; and Sierra Club's Rebuttal Comments to On-Bill Financing Proposals and Comments Filed on December 11, 2012 and Certificate of Service ("Sierra Club's Rebuttal Comments"), filed on December 28, 2012.

The commission held a technical meeting on January 9, 2013 to discuss the findings of the Consultant's Final On-Bill Financing Report and Parties'/Participant's proposals and/or comments to the study[15]. In addition, the Parties and Participant were given the option to file additional comments for the record after the technical meeting by January 16, 2013.[16] HREA, Sierra Club, Blue Planet, the Consumer Advocate, and HECO submitted comments on January 16 ("Voluntary Comments").[17]

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[14]See letter from the commission to the Parties and Participant, transmitting the Final On-Bill Financing Report, dated and filed on January 4, 2013.

[15]See Order No. 30841, filed on November 23, 2012, in Docket No. 2011-0186, at 3 - 4.

[16]See Letter from the commission to the Parties and Participant, dated and filed on January 10, 2013, informing them of the option to voluntarily provide comments to the commission based upon the comments made during the technical meeting held on January 9, 2013.

[17]See HREA's Voluntary Submissions after January 9, 2012 Technical Meeting ("HREA's Voluntary Comments"), filed on January15, 2013; Sierra Club's Follow-Up Comments Regarding January 9,2013 Technical Meeting Discussions ("Sierra Club's Voluntary Comments"), filed on January 16, 2013; Blue Planet Foundation's Supplemental Comments and Certificate of Service ("Blue Planet's Voluntary Comments"), filed on January 16, 2013; Division of Consumer Advocacy's Voluntary Submissions After January 9, 2013 Technical Meeting ("Consumer Advocate's Voluntary Comments"), filed on January 16, 2013; and Hawaiian Electric Companies' Submission of Comments Based on January 9, 2013 Technical Meeting ("HECO Companies' Voluntary Comments"), filed on January 16, 2013.

II.

Consultant Analysis and Parties' Positions

As noted in Section I., above, the commission received extensive guidance from its Consultant, the Parties, and the Participant relating to, among other things, the viability of an on-bill program in the State and the kinds of components that would be necessary to create a successful program. Summarized below are the Consultant's, Parties' and Participant's positions on the program components for inclusion by the commission in an on-bill financing program. Followed by comments regarding the Simply Solar Tariff and KIUC's participation in on-bill financing program.

A.

On-Bill Financing Program Components

1.

Program Participants

> Consultant recommendation: All residential households (owners and tenants) should be eligible to participate.[18]
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> In general, the Parties agree that all residential customers should be eligible; however, Blue Planet,[19] DBEDT,[20] HREA,[21] and Sierra Club[22] all

[18]See Final On-Bill Financing Report at 2 and 14.

[19]Blue Planet's Comments at 14.

[20]DBEDT's Comments at 5.

feel that commercial customers should be given consideration for participation. The HECO Companies feel that the program should be designed for the residential market, focusing on residents in single-family homes and town homes.[23] Moreover, the HECO Companies suggest limiting the program to "residential customers on Schedule R, Schedule TOU-R and Schedule TOU-EV, including renters on those rate schedules."[24] The Consumer Advocate states that all customers should be eligible to participate but also contends that "it is unlikely that there is a single on-bill financing program that fits all".[25] The Consumer Advocate also encourages an analysis of cost-effectiveness of on bill financing as compared to other existing or planned energy efficiency programs in Hawaii.[26]

2.

Eligible measures

Consultant recommendation: The financing program could support solar photovoltaic ("PV"), solar thermal water heating and all permanently installed energy improvements . . . referenced in the 2011 Technical Reference Manual[27,28]

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[21]HREA's Comments at 3.

[22]Sierra Club's Comments at 2 and 6.

[23]HECO Companies' Comments at 1.

[24]HECO Companies' Voluntary Comments, filed on January 16, 2013, at 1.

[25]Consumer Advocate's Comments at 6.

[26]Id. at 7 and 9.

[27]Hawaii Energy Efficiency Program Technical Reference Manual No. 2011 may be found at the following location: http://www.hawaiienergy.com/media/assets/PY11-HawaiiEnergyTRM-FINAL-20120814.pdf

[28]Final On-Bill Financing Report at 2 and 15.

The consultants recommend that the program encourage customers to invest in energy efficiency prior to investing in renewable energy, but that such improvements are not required for program participation. Requiring the energy efficiency improvements adds complexity and could be counterproductive to the State's overall goals of reducing dependence on imported fuels and encouraging renewable energy.[29]

HSEA agrees that permanently installed measures should be included, and although HSEA notes support for energy efficiency measures, it does not support the addition of appliances as they could potentially move with the customer.[30]

Some of the Parties would like to see, require, or strongly recommend evidence of efficiency measures and solar water heating upgrades before allowing on-bill financing of PV (HSEA,[31] HREA,[32] Consumer Advocate[33]). This would ensure correct PV system sizing. Hawaii Energy recommends that a "participant should be required to go through an energy audit and take some kind of energy conservation and efficiency awareness training. Another precondition would be to require installation of solar water heating (if feasible) before any financing of renewable energy generation such as PV or wind."[34]

The Sierra Club recommends that prescriptive conditions on customer participation should be avoided. However, the Sierra Club does agree with educating customers of the benefits and costs of

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[29] Id. at 15.

[30] HSEA's Rebuttal Comments at 4.

[31] HSEA's Comments at 4.

[32] HREA's Comments at 3.

[33] Consumer Advocate's Rebuttal Comments at 5.

[34] Hawaii Energy's Comments at 3.

various options while leaving the customers free to decide.[35]

On the other hand, HECO states that "[o]nly solar water heating and solar PV measures should be eligible, with solar PV only available to renters."[36] HECO also notes that "the cost of repair and maintenance to meet equipment warranty requirements for residential measures will likely be higher under an on-bill financing program compared to a traditional loan agreement." The HECO Companies further suggests that corporate owners may be held to a higher standard for maintenance documentation for warranty purposes, and "the capital provider will need to recover the cost of insuring the installed equipment against damage or damage to the premises (e.g., from leakage)—an additional cost that would not necessarily be incurred under a traditional loan arrangement."[37]

3.

Bill Neutrality

Consultant Recommendation: Eligible projects must achieve "bill neutrality" defined as the energy savings exceeding the project costs when financed over 12 years.[38]

The Consultant's discussion in its reports indicates that bill neutrality is an important feature in an on-bill program, especially when the program includes the ability to transfer payment obligations from one occupant to the next and when

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[35] Sierra Club's Comments at 9-10.

[36] HECO Companies' Voluntary Comments at 2.

[37] Id. at 3.

[38] Final On-Bill Financing Report at 2 and 16.

the penalty for failure to pay is disconnection.[39]

In response to party discussions that programs require the program participant's bill to include significant savings beyond bill neutrality, the consultants recognized that additional savings would increase the enticement for consumers to participate and provide a buffer to allow for deviations between actual and achieved savings. However, this additional requirement could reduce the number of eligible participants since fewer customers will be able to achieve the savings required to meet the bill neutrality component without increasing the financing term.[40]

HREA recommends that the program should be designed for 20-25% bill reduction.[41] HSEA agrees that bill neutrality is key to a successful program but is concerned about the 12-year funding cycle recommended by the Consultants.[42] The Consumer Advocate indicated that bill neutrality is important.[43]

4.

Program financing product (loan/tariff)

Consultant Recommendation: The program should be a service offered to customers as a tariff.[44] HREA agrees.[45] The Sierra Club also suggests that

[39] Id. at 9.

[40] Id. at 16.

[41] HREA's Comments at 4.

[42] HSEA's Comments at 2 and 3.

[43] Consumer Advocate's Comments at 10.

[44] Final On-Bill Financing Report at 2 and 17.

[45] HREA's Comments at 2.

a service-based[46] program should be flexible toward the underlying financing method and allows the transfer of the financial obligation with changes in the occupants.[47] While the Parties did not indicate a strong need for a tariff structure, they did express an inherent desire for transferability of the payments between successive owners/tenants, which requires a tariff structure that is tied to the electricity meter rather than the equipment.

The HECO Companies expressed concern that a "loan-based program may expose the program, utilities, and the commission to additional lending and banking regulations that could increase program complexity and costs."[48]

5.

Transferabililty

Consultant recommendation: The installation benefits and payments should be transferable to the successor owners/tenants.[49]

Blue Planet agrees with the Consultant's recommendation.[50] HREA also agrees that installation benefits and payments should be transferable, but notes that much more work is required to establish the details of transfer.[51] The Consumer Advocate asserts that bill neutrality is an important feature of the program that

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[46]Service-based and tariff-based are used interchangeably by Sierra Club. See Sierra Club's Rebuttal Comments, filed December 28, 2012, at 6.

[47]Sierra Club's Comments at 3, 6.

[48]HECO Companies' Voluntary Comments at 5.

[49]On-Bill Financing Report at 2 and 18.

[50]Blue Planet's Comments at 10.

[51]HREA's Comments at 5.

affects the transferability of the payment obligation to successive home occupants.[52]

6.

Collections procedures and shut off

Consultant Recommendation: The procedures for non-payment should follow the commission approved procedures for utility tariff non-payment, including shut-off.[53] The consultant also recommends a pari passu payment distribution[54] in the event of partial payment, as a benefit to financers.[55]

Blue Planet,[56] Sierra Club,[57] and HREA[58] agree with the consultant's recommendation. The HECO Companies recommend that utility charges are paid off fully prior to allocating any funds to on-bill financing charges.[59]

[52]Consumer Advocate's Comments at 10.

[53]Final On-Bill Financing Report at 2 and 18.

[54]Pari passu payment distribution means the total payment, regardless of the amount, will be distributed in the same weighted proportion as the proportion of the entire bill. For example, if 80% of the customer's bill is for the energy charge and 20% is for the energy project, the total payment will be distributed in that percentage.

[55]Final On-Bill Financing Report at 21 and 22.

[56]Blue Planet's Comments at 10.

[57]Sierra Club's Comments at 4, (noting that pari passu division is a basic element of on-bill repayment).

[58]HREA's Comments at 5.

[59]HECO Companies' Comments at 8.

7.

Program Administration and Marketing

Consultant recommendation: Hawaii Energy should be integral to program marketing and operations.[60] The program should be contractor-centric and participating contractors will be certified and managed to maintain a high level of installation quality.[61] The Consultant did not provide a specific recommendation for an advertising or marketing budget for the program, but did indicate "that a robust budget be allocated for marketing and the finance program."[62] The Consultant noted that when marketing budgets were reduced for programs in other states, the number of customers aware of the financing program quickly dropped. The Consultant recommends "a budget in the range of $3,000,000-$5,000,000, somewhat greater than a cost of $1,000 per participant in the initial years."[63]

DBEDT commented that the program should minimize the marketing and advertising costs by using state and local agencies, community organizations, property manager groups and other entities.[64] Hawaii Energy contends that it is the "natural and 'efficient' choice to administer the on-bill financing program."[65] HREA agrees with the Consultant recommendation that the program should be contractor-centric.[66] The Consumer Advocate

[60]Final On-Bill Financing Report at 2 and 19.

[61]Id. at 2.

[62]Final On-Bill Financing Report at 19.

[63]Id. at 20.

[64]DBEDT's Comments at 7.

[65]Hawaii Energy's Comments at 2.

[66]HREA's Comments at 5.

also believes lower cost marketing alternatives need to be considered.[67] The Sierra Club does not express any preconceived choice for the position of third-party administrator but does want the commission to consider retaining an administrator at an early stage, so the entity can engage in the program design phase as well as implementation of the program.[68]

8.

Finance Program Structure

Consultant Recommendation: (a) An appropriate capital source and service provider, selected through an RFP process, should support the program.

(b) The basis for funding the on-bill program should be the public benefit fund ("PBF") or a ratepayer/member fee, leveraged with third-party capital.[69]

Blue Planet "strongly supports the use of third-party capital to ensure a sufficiently large and robust on-bill financing program fund.[70] HREA suggests the PBF be used only if customer repayments are insufficient to generate sufficient funding.[71] The HECO Companies expressed concerns about the risk to ratepayers under the Consultant's and DBEDT's proposal of using ratepayer funds to secure low cost capital because ratepayers may have to take the risk of having to

[67]Consumer Advocate's Comments at 10.

[68]Sierra Club's Comments at 2.

[69]Final On-Bill Financing Report at 2 and 20.

[70]Blue Planet's Comments at 8.

[71]HREA's Comments at 5.

pay for the monthly payment delinquencies and obligation defaults by participants.[72]

DBEDT supports the Consultant's recommendation that the PBF should be leveraged and "supports the consideration of alternative structures to leverage the PBF with third party capital."[73] DBEDT also proposes that the on-bill program should be agnostic to the source of capital with a focus on obtaining the lowest cost pool of capital. Their proposed financing mechanism, though vague on details, "goes beyond what [the Consultant] proposes in its discussion of the sources of funds leveraging the PBF with private funds."[74]

DBEDT also suggests deployment of low cost capital in an on-bill program by utilizing an existing network of installers and vendors[75]

The Sierra Club agrees that the on-bill program should be agnostic to the source of capital.[76]

9.

Ownership

Consultant recommendation: a taxable entity should own the equipment.[77]

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[72]HECO Companies' Voluntary Comments at 3.

[73]DBEDT's Comments at 8.

[74]Id. at 10.

[75]Id. at 11-12.

[76]Sierra Club's Rebuttal Comments at 8.

[77]Final On-Bill Financing Report at 25.

DBEDT suggests selecting the entity that is best situated to serve this role but did not offer a specific recommendation.[78]

10.

Scalability

Consultant recommendation: The Consultant recommends that Hawaii "benefit from an approach that tackles each market separately and one at a time, addressing the issues [in] the residential market and subsequently taking on the commercial market."[79]

Hawaii Energy suggests that "on-bill financing should start out as a conservatively small proof-of-concept program focused on residential hard-to-reach conservation, efficiency and renewable energy improvements."[80]

DBEDT offered that a phased approach may be taken in an effort to effectively implement the program, as there may not be a "one-size fits all" on-bill program that effectively serves all markets and types of energy infrastructure installations. Focusing initial implementation where there are existing products, business models, and supply chains will enable the program to quickly prove its merits and scale.[81]

The Consumer Advocate notes in its Voluntary Comments "In the technical meeting, the issue of the scale and source of funding was discussed. It was asserted that there is potential for establishing a lower cost of capital if the scale of the program is set higher; thus, economies of scale may be achieved. The Consumer Advocate acknowledges this potential, but would also ask

[78]DBEDT's Comments at 8.

[79]Final On-Bill Financing Report at p 7-8.

[80]Hawaii Energy's Comments at 3.

[81]DBEDT's Rebuttal Comments at 5.

the Commission to also consider the potential risks that are being placed on the general ratepayers. Without a reasonable estimate of the market potential and uptake for any [on-bill financing], there is the possibility that a financing agreement will be executed, and without sufficient uptake, there will be inadequate revenue streams to cover the principal and interest repayment schedule for an improperly sized borrowing. As a result, the general ratepayers will then be required to bear those costs."[82]

B.

Simply Solar Program Proposal

The consultant recommended that the HECO Companies' Simply Solar Proposal be approved, with the following modifications:

1. Marketing: have the third-party administrator, or Hawaii Energy, implement and manage the marketing campaign.

2. Customer Information System: out-source origination, application intake, and servicing.

3. Disconnection: confirm that disconnection for non-payment of the Simply Solar Fee is consistent with all laws and utility regulations.

4. Rental property: request that the marketing campaign, the application process and the process for system transferability address rental properties as a unique market.

5. Source of funds: explore options to use 100% third-party debt financing of the capital costs and compensate the companies with a performance-based plan.

6. Simply Solar Fee Variability: evaluate the impact of fuel costs on the Simply Solar fee

[82]Consumer Advocate' Voluntary Comments at 2.

> annually, and consider program modifications at that time to limit negative program impacts due to changes in the cost of fuel.[83]

Most of the Parties generally agreed with the Simply Solar Assessment recommendations,[84] while stating that any implementation of that program should not interfere with or prejudice the ongoing on-bill financing investigation. DBEDT recommended that the Simply Solar Tariff implementation remain suspended "until the work in this docket has uncovered the best characteristics for an effective program that meets all the policy goals of Act 204."[85]

C.

KIUC's On-Bill Financing Program

KIUC stated in its comments on the Consultant's draft report:

> KIUC believes that as a not-for profit and member-owned electric cooperative (in which KIUC's customers and member-owners are essentially one and the same), KIUC, under the direction of its member-elected Board of Directors ("Board"), should have the right to determine whether the electric cooperative should implement an on-bill financing program, and if so, how to structure such program in a manner that is most beneficial to its members/customers. In that connection, KIUC notes that it has been

[83]Simply Solar Assessment at 23.

[84]See Blue Planet's SSA Comments at 2; Sierra Club's SSA Comments at 11; HSEA's SSA Comments at 6-7; Hawaii Energy's SSA Comments at 6; HREA's SSA Comments at 1; and Consumer Advocate's SSA Comments at 36.

[85]DBEDT's SSA Comments at 6.

> directed by its Board to investigate on-bill financing, as well as other alternatives that may allow for increased penetration of permanently installed energy improvements into the rental market. KIUC is currently undertaking this investigation, which it anticipates completing within the next six to nine months.[86]

The Consumer Advocate also believes that, "analysis should be conducted to analyze the Kauai market, especially to determine whether any synergies might be realized to reduce the costs for Kauai customers."[87] Blue Planet recommends that KIUC members be included in a Hawaii on-bill financing program.[88]

III.

Discussion

A.

Viability of an On-Bill Financing Program

Given the record developed by the Consultant, the Parties, and Participant, all of whom support some form of an on-bill financing program in the State, the commission finds that an on-bill financing program can be viable and should be established. However, the viability of an on-bill financing program depends on the details of the program's components and design. Since the record in the instant proceeding is insufficient to establish a detailed program design and tariff

[86]KIUC's Comments at 3.

[87]Consumer Advocate's Comments at 5.

[88]Blue Planet's Comments at 2 and 15.

for an on-bill program at this juncture, the commission will establish a working group to address those areas where additional investigation, discussion, and development of program design and component details are appropriate and necessary. The commission makes clear that its on-bill financing working group, established in Section III.D. of this Decision and Order, shall reference the commission's decisions on these components in developing the program design and components for implementation.

B.

Program Components for On-Bill Financing Program

Based upon the record in the instant docket, the commission determines that a viable on-bill financing program in the State will include the following components.

1.

Program Participants

The commission acknowledges that a non-discriminatory approach to participation that does not exclude customers in a specific rate class is in the best interest of the program. That said, however, one of the appealing aspects of on-bill financing is that it may make renewable energy and energy efficiency more accessible to the rental and other underserved markets. As the Consumer Advocate indicated, "most of the past and current programs have not been designed to encourage renters and low-income customers in adopting energy efficiency or renewable energy infrastructure, yet these very same customers have been required to subsidize programs that benefit other customers".[89]

With that sentiment in mind and to make renewable energy and energy efficiency more accessible to the rental market and underserved markets[90], the commission chooses to limit the eligible participants to those who are in residential and small business rate classes, in other words, customers on rate schedules R, TOU-R, TOU-EV and G. The administrative costs of a program should be concentrated on those who would not otherwise participate in any energy efficiency savings program or purchase a renewable energy generating device, and should focus on reaching those who cannot avail themselves of other, more traditional means of financing such devices.

2.

Eligible Measures

The commission agrees with the Consultant and HSEA, that all permanently installed measures that meet the requirements set forth for bill neutrality should be eligible measures for the State's on-bill financing program. Because the nature of an on-bill financing program that is tariff-based ties

[89]Consumer Advocate's Voluntary Comments at 2.

the payback of the equipment fees to the meter, only permanently installed measures that cannot be removed from the property can be assured to remain on the premises between successive occupants of a property. Without this feature, the program would require considerably more oversight by participants and administrators to ensure that those making the payments are indeed benefitting from the measures.

The overall picture of an efficient energy distribution system includes measures taken by consumers to reduce consumption before installing generation equipment. The commission concludes that it is appropriate to require participants that avail themselves of on-bill financing for the use of renewable energy generating devices to participate in available and forthcoming demand response programs and ancillary service programs as a requirement to their use of financed renewable energy generation. These requirements will help lower the overall costs of operating the utilities' systems and reduce the burden that intermittent renewable energy generation places on the stability of the grids.

The commission notes that a viable program would benefit from encouraging that appropriate efficiency measures are considered first. Therefore, the commission concludes that an energy audit should be required before a participant receives any financing. In order to not discourage participation in the

[90]Act 204 line 20-22

on-bill financing program the adoption of energy efficiency recommendations of the audit will be at the discretion of the program participant; however, the amount of approved financing will only be for the "right-sized" generation system given the adoption of all cost-effective measures recommended to the participant through their energy audit. The details of the definition of "right-sized" shall be analyzed in the on-bill financing working group, and a recommendation made to the commission about the appropriate methodologies for determining such system sizes and the level of savings required.

The commission also notes that if any moneys from the Public Benefits Fee are used for an on-bill financing program that supports renewable energy generating devices, there must first be a change in statute for the public benefits fee use, set forth in HRS §§269-121 and 269-124. Accordingly, the on-bill financing working group is requested to offer proposed legislative amendments as soon as possible to enable use of the public benefits fee to fund appropriate generation devices.

3.

Bill Neutrality

The commission finds that bill neutrality is essential to the viability of an on-bill financing program to provide realizable savings for the program participants. Though the commission will not determine the specific percentage of savings necessary for program design without further information, the viability of a program is contingent upon a perceived savings. Also, if the penalty for non-payment is disconnection, bill neutrality will help to ensure that participants can afford their payments.

The calculation of the bill neutrality shall be based on the reasonable life of the equipment with a not-to-exceed maximum of 12 years and the payment calculation based on the price of equipment and electricity at the time of program enrollment. The commission recognizes that electricity prices can fluctuate; however, in purchasing any energy efficiency or renewable energy generation device, the customer must make a determination of the cost effectiveness of their purchase and be willing to take some risk should energy prices decline.

The level of savings, when calculated according to the terms specified herein, must be beyond "bill neutral" in order to encourage on-bill program adoption; however, the commission would like the working group to analyze and propose to the commission the specific level of customer savings necessary for an on-bill financing program.

4.

Program Structure

The commission concludes that any on-bill financing program should be structured as a service and tariff-based program, rather than a loan-based program. Because a primary target market of the program is the rental market, on-bill financing payment obligations must remain with the meter and not with the enrolled customer. The tariff-based program will allow for the transferability necessary for customers in that market and others.

5.

Transferability

As mentioned above, the commission concludes that a viable on-bill financing program should have transferable installation benefits and payments. The commission notes the concerns of the Consumer Advocate, since bill neutrality is also an important feature of a viable program and transferability of the service inherently changes consumption and thus changes the level at which bill neutrality is achieved. The commission directs the on-bill financing working group to further consider the interplay between bill neutrality and transferability.

6.

Collections procedures and shut-off

The commission concludes that procedures for non-payment should follow commission-approved procedures for utility tariff non-payment including shut off. The commission also determines that pari passu distribution of partial payments is appropriate. The HECO Companies and KIUC have a recovery component included in their base rates for uncollectable accounts. Given that a successful on-bill financing program should produce a reduction in the participant's electric utility bill, any additional risk to the utility should be immaterial. The commission notes that the issue of increased uncollectible accounts can be taken up by the on-bill financing working group, if deemed material and appropriate.

7.

Program Administration and Marketing

The Commission determines that a program administrator that serves as a point of contact for customers is a necessary part of a viable on-bill program. For the various reasons offered by the Parties, including Hawaii Energy, the commission determines that the public benefits fee administrator (currently Hawaii Energy) is the commission's preferred option to act as the program administrator upon establishment of the on-bill financing program.

The commission's selection herein of Hawaii Energy as its preferred option for the program administrator is conditioned upon the negotiation by the commission and Hawaii Energy of an acceptable scope and budget for this task. The commission reserves the right to pursue competitive procurement for the program administrator if agreement cannot be reached on a contract with Hawaii Energy.

The program should be contractor-centric, with a system to certify and manage contractors, and the program administrator working closely with contractors to maintain a high level of installation quality. In addition, the program administrator should also be responsible for customer selection, and play a substantive role in initial program design. The program administrator should also work closely with a financing program administrator who will coordinate the funding for on-bill program financing.

The commission considers marketing an important part of the program, and encourages marketing to be targeted to those underserved markets that the program is meant to attract. Marketing efforts may be coordinated by the program administrator, but should primarily be done by the participating contractors, who stand to gain considerable business from an un-tapped market.

8.

Finance Program Structure

The commission agrees with the Consultant's recommendation that there should be a financing program administrator obtained through a competitive procurement process. Additionally, the commission recognizes that such request for procurement process should be broad enough to include KIUC's on-bill financing needs, as well.

The commission requires that to the extent possible the financing program administrator should have the flexibility of obtaining and distributing capital from various sources. The commission recognizes that the success of the on-bill financing program is predicated on the success of the financing program obtaining reasonably low-cost money and the details of the financing is a necessary part of obtaining the low-cost capital.

The commission directs the on-bill financing working group to offer recommendations on how such a request for proposals should be designed and conducted, and requests suggestions to assist in the development and design of the financing aspects of the program.

9.

Ownership

The commission recognizes that ownership of the equipment is tied to the financing program and the supplier of the capital. Thus, the issue of ownership will, by necessity, be unresolved until there are clear program details, particularly with the financing administrator and sources of capital. In the meantime, the commission instructs that program development recommendations offered by the working group should be structured to ensure that owners/tax entities are able in some way to pass through a substantial portion of the savings to customers and that tax incentives available for eligible measures are maximized.

10.

Scalability

The commission agrees with the reservations expressed by the Parties in starting an on-bill financing program that is too large for the market. The commission acknowledges that additional savings can be obtained from economies-of-scale, should the market in Hawaii support the rapid uptake of on-bill financing; however, the development of a new program may require a "proof-of-concept" stage in order to gain widespread acceptance. The commission requests the on-bill financing working group to focus on the development of a scalable program that starts with all of the program components mentioned herein and has the capability to expand to a larger market, should it be successful and cost-effective.

C.

KIUC participation

Notably, Act 204 did not exclude utility cooperatives from the determination of on-bill financing program viability or from participation in an on-bill financing program. The commission directs KIUC to pursue the establishment of its own on-bill financing program to include the program components and parameters laid out herein, and to file a report of their on-bill financing investigation by June 30, 2013. Upon the establishment of the on-bill financing program for the State, KIUC may choose to opt in. The commission requires KIUC to participate in the on-bill financing working group.

D.

On-Bill Financing Working Group

The best approach to encourage dialogue among stakeholders of on-bill financing program design is to establish a working group comprised of Parties and Participant from the instant docket, financial institutions, representatives of target on-bill financing customer groups, including landlords, tenants, and homeowners, and all other contributing entities identified by the working group. The on-bill financing working group's first task shall be to recommend to the commission other individuals and / or entities who are not Parties or a Participant to this proceeding and who will provide meaningful discussion as a member of the on-bill financing working group. Such recommended additions to the working group shall be provided to the commission by the on-bill financing working group on or before February 28, 2013.

The working group will identify and address potential issues in the creation and administration of an on-bill financing program, and make recommendations for detailed program design, operating procedures, program evaluation, measurement, and the integration into the Energy Efficiency Portfolio Standards ("EEPS") goals.

The commission expects the on-bill financing working group to collaborate on an informal basis, similar to the Technical Working Group for EEPS and the Technical Advisory Group currently in place for PBF Administrator-related functions. Recommendations and findings by this group will be incorporated into legislative reports, as appropriate, and may be implemented at the discretion of the commission. The working group will operate on a consensus basis, with dissenting points of view documented in the facilitator's reports to the commission. The commission intends to form the working group by April 1, 2013.

The commission tasks the working group with the following tasks:

(1) Offer recommendations for working group membership to include other necessary perspectives on or before February 28, 2013.

(2) Provide recommendations that continue to expand upon the tasks laid out for the commission in Act 204 including:

a. Detailing the costs associated with establishment and administration of the program;

b. Ensuring that if any public benefits fee funds are spent, they are used cost-effectively;

c. Establishing methods to allow the electric utility company or any other entities responsible for implementing the billing portion of the on-bill financing program to recover costs incurred due to the program; and

d. Further developing the parameters, components, restrictions and requirements of the program as they are established herein.

(3) Address the concerns brought up in the Consumer Advocate's comments on the draft report including:

a. Questioning how some level of investment by the landlord might facilitate shortening the payback period[91];

b. Considering the cost-effectiveness of the program[92]; and

c. Considering the transferability of the payments between successive tenants/owners and the interplay between bill neutrality and transferability.

(4) Address the discussion points as detailed in this Decision and Order that the commission believes need further attention including:

a. Suggestion for "right-sizing" of PV systems eligible for on-bill financing;

b. Recommendations for legislative amendments necessary to utilize the public benefits fee for generating devices;

c. Guidelines for the level of bill neutrality;

d. Recommendations on how the commission can deal with utility compensation for potential increase in uncollectable accounts;

e. Recommendations for design and process to conduct request for proposals for financing administrator;

f. Recommendations for development and design of the financing aspects of the program; and

g. Recommendations for initial program size and scalability in the event of program success.

(5) Further detail the defined program components in this order including parameters to

[91]Consumer Advocate's Comments at 12.

[92]Consumer Advocate's Comments at 7; Consumer Advocate's Rebuttal Comments at 7, 8.

effectuate the program components as described herein.

(6) Determine the interactions between program components in order to create a simple program from the viewpoint of potential on-bill customers and a well-run, effective, highly accountable program that benefits all ratepayers through decreased energy usage.

(7) Determine appropriate evaluation criteria and measurement and verification methods for the program.

(8) Assist with implementation, program evaluation, and if necessary, program expansion.

(9) Draft proposed language for a tariff to implement the on-bill financing program as proposed by the working group.

(10) Offer a suggested time line, including milestones, by which these tasks may be completed, recognizing that development of an on-bill financing program is a priority for the commission.

(11) Any other requests of the commission that pertain to the implementation and evaluation of an on-bill financing program for the State.

E.

Simply Solar Tariff Proposal

The commission thanks the HECO Companies for considering the needs of their customers and attempting to increase their customers' accessibility to money-saving solar water heating devices. However, the commission determines that the establishment of the Simply Solar Tariff is too narrow in scope and does not satisfy the commission's need for a statewide program that is beneficial to both the customers and the electrical system. In the commission's view, the Simply Solar Tariff program, which uses on-bill financing as a payback mechanism for the purchase of solar water heating systems, would benefit the participant at the expense of the non-participant. The Consumer Advocate similarly expressed concern "with the estimated overall costs for this program and the bill impact these costs will have on all customers, especially where costs not borne by the participating customers will then be recovered through a surcharge on all ratepayers."[93]

Having heard from the Consultant, Parties and Participant, the commission concludes there are a number of flaws with the Simply Solar Tariff proposal. First, while the commission believes that starting an on-bill financing program with a manageable group of participants and scaling it up appropriately to achieve efficiencies is logical, the Simply Solar Tariff proposed to help too few customers, to the detriment of other non-participants. Second, the kinds of devices available for program inclusion were too limited.[94] Third, the

[93]Consumer Advocate's SSA Comments at 7-8.

[94]Specifically, Act 204 often refers to on on-bill program that allows the financing of renewable energy or energy efficiency. Moreover, HRS § 269-125 specifically refers to an on-bill program "that would allow an electric utility customer to purchase or otherwise acquire a *renewable energy system* or energy

administrative costs were excessive and too burdensome given the projected savings to be achieved. Fourth, there likely are more low cost financing available to other, non-utility financiers that could be utilized for such a program, which can benefit ratepayers and participants. Finally, on-bill financing, if appropriate program components can be developed, has the potential for a uniform, statewide program. For all of these reasons, among others, the commission concludes that the Simply Solar Tariff is not in the public interest, rejects the Simply Solar Tariff in favor of developing a more comprehensive, statewide on-bill financing program, and denies the HECO Companies' request to establish a Simply Solar Pilot Program.

IV.

Orders

THE COMMISSION ORDERS:

1. An on-bill financing program is viable if it contains the program components included in Section III. B. of this Decision and Order. Such program components will be established after recommendations are made by the on-bill financing working group.

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efficient device" (emphasis added). The proposed Simply Solar Tariff only addresses one specific type of equipment: solar water heating systems and thus does not meet the requirements of the on-bill program the commission is tasked with potentially establishing.

2. The commission denies the HECO Companies' request to establish a Simply Solar Pilot Program and rejects their Simply Solar Tariff in favor of developing a statewide, comprehensive on-bill financing program.

3. KIUC shall pursue the establishment of its own on-bill financing program to comport with the program components and parameters established in this Decision and Order, and shall file a report of its on-bill financing investigation by June 30, 2013.

4. Upon the establishment of the on-bill financing program for the State, KIUC may choose to participate in such statewide program.

5. The Parties and Participant shall participate in an on-bill financing working group to develop the details of an on-bill financing program and make recommendations to the commission on the development of a program for the State consistent with this Decision and Order.

6. The on-bill financing working group shall provide the commission with recommended additions to the working group, consistent with this Decision and Order, by February 28, 2013.

7. This docket is closed, unless otherwise ordered by the commission.

DONE at Honolulu, Hawaii FEB - 1 2013.

PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

By Hermina Morita
Hermina Morita, Chair

By Michael E. Champley
Michael E. Champley, Commissioner

By Lorraine H. Akiba
Lorraine H. Akiba, Commissioner

APPROVED AS TO FORM:

Catherine P. Awakuni
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Commission Counsel

2011-0186.gb

HAWAII ENERGY ON-BILL FINANCING ISSUE PAPER

Topic: Measure Eligibility **POC: Mark Matheson**

The determination of what type of equipment (measure) is eligible for funding under the OBF program needs to be evaluated in accordance with the intent of the D&O and the cost-effectiveness of the measure under the OBF scenario.

Issue(s):

The initial challenge is evaluating the various energy efficiency and renewable generation technologies that exist in the market today and determining if they meet the basic requirement of being permanently attached.

After that a determination has to be made as to whether or not these measures can produce the necessary energy savings to make them cost effective for the OBF program. The cost-effectiveness has an impact on other related topics of bill neutrality and transferability to subsequent owners.

Hawaii Energy reviewed the Technical Reference Manual's list of residential and commercial measures and presented an initial recommendation to the Working Group. Residential measures were limited to Solar Water Heaters, Photovoltaic, Heat Pump Water Heaters and VRF Split System AC. The rationale was that these measures represented the largest components of a utility bill, had the best potential for cost effective energy savings, hence bill neutrality, and the other measures were not as cost effective for inclusion in an OBF Program. However, the measures excluded from the OBF program could be eligible for existing energy rebates or incentives. Another challenge with including all available residential measures is the complexity and cost of establishing a contractor management program to cover all of the variables of various trades and also trying to manage non-licensed trades.

A similar process was done for commercial measures and that list is quite long due to the diversity in the commercial business (see below).

Stakeholder Discussion(s):

Most stakeholders supported the idea of keeping the residential list of eligible measures short and simple and recognized that the proposed short list excluded items may not create the return on investment needed for the OBF program.

Others recognized the complexity of contractor management for the program and the difficulty of requiring current contractors to change their business models and take on additional types of work.

A minority supported the idea of bundling these proposed excluded measures in as a package with the Solar or PV measures whereby the package would achieve the required energy savings and bill neutrality.

Recommendation(s):

1. For the initial program phase, it is recommended that we limit the residential measures to the above mentioned four items and those on the list below for commercial projects.

2. Require contractors to provide information to the customer about the rebates and incentives currently available for energy efficiency measures that are not considered eligible for this phase of the OBF program.

3. Monitor customer and contractor feedback on the demand for these excluded measures.

4. If it is determined that additional measures should be added to the list, the program will adjust the processes accordingly to accommodate.

Resulting Program Policies and Procedures – Measure Eligibility

As part of the applicant intake process, Hawaii Energy will review the technical package submitted by the contractor. The package will be reviewed to ensure the proposed work includes only measures eligible for OBF and meets other program requirements.

Below is a list meeting the intent of the PUC's direction for residential and small business commercial energy efficiency measures that are considered cost effective and eligible for the On-Bill Financing program.

MEASURES ELIGIBLE FOR THE ON-BILL FINANCING PROGRAM

1. RESIDENTIAL MEASURES

- Solar Water Heater –
- Heat Pump Water Heaters –
- Photovoltaic –
- VRF Split System AC –

2. SMALL BUSINESS ENERGY EFFICIENCY MEASURES

The below list of eligible measures for commercial applications is intentionally broad due to the diversity of small business operations. In the commercial setting there is also the potential for a better return on investment due to scale and daily hours of operation.

a. HIGH EFFICIENCY LIGHTING

- Compact Fluorescent Lighting –
- T12 to T8 with Electronic Ballast –
- LED Refrigerated LED Case Lighting –
- LED Exit Signs –
- HID Pulse Start Metal Halide –
- Ceramic Metal Halide -
- Sensors –
- Daylight Harvesting –

b. HIGH EFFICIENCY HVAC

- High Efficiency Chiller –
- VFD – Chilled Water Pump –
- VFD Condenser Water Pump –
- VFD – Air Handling Unit (AHU) –
- Garage Demand Ventilation Control –
- Package Unit AC –
- Inverter Variable Refrigerant Flow (VRF) Split Air Conditioning Systems –

c. HIGH EFFICIENCY WATER HEATING

- Solar Water Heater –
- Heat Pump Water Heaters–

d. HIGH EFFICIENCY PUMPING

- Domestic Water Booster Packages –
- VFD Pool Pump Packages –

e. HIGH EFFICIENCY MOTORS

- CEE Listed Premium Efficiency Motors –
- Air Compressor and controls–
- Demand Control Kitchen and Garage Ventilation (DCKV) –
- Swimming pool/spa pump motors–

f. BUILDING ENVELOPE IMPROVEMENTS

- Cool Roof Technology–
- Insulation– OK for commercial
- Reflective Barriers–

g. ENERGY AWARENESS, MEASUREMENT AND CONTROL SYSTEMS

- Small Business Submetering –

h. CUSTOM BUSINESS ENERGY EFFICIENCY MEASURES

- Refrigeration – ECM Evaporator Fan Motors for Walk-in Coolers and Freezers–

MEASURES NOT ELIGIBLE FOR THE ON-BILL FINANCING PROGRAM

The measures below are Not Eligible for the On-Bill Financing Program, however might be eligible for incentives and rebates offered by Hawaii Energy. These items are recommended for exclusion from the OBF program because the measures may not be cost effective in a residential setting, create only minimal savings, or installation costs outweigh energy savings.

- Instantaneous Electric Water Heaters (residential) –
- Instantaneous Electric Water Heaters (commercial) –
- Residential Daylight Harvesting –
- HID Pulse Start Metal Halide (residential) –
- Compact Fluorescent Lamp (CFL) -
- Light Emitting Diode (LED)
- Induction(residential) –
- Induction (commercial) –
- Ductless Split AC –
- Ceiling Fans –
- Insulation (residential)–
- Windows –
- Awnings/shades –
- T8 to T8 Low Wattage –
- High efficiency steam generators –
- Refrigeration – Vending Misers –
- Low flow faucets and showerheads -
- Solar Attic Fans –
- Whole House Fans –
- Room Occupancy Sensors –
- Programmable thermostats –
- Window Tinting (residential) –
- Cool Roof Technology (residential) –
- Reflective Barriers (residential) –
- Swimming Pool and Spa Pump Motors (residential) –
- High efficiency hand dryers –

NEXT GENERATION- NOT UNDER CONSIDERATION FOR OBF CURRENTLY

- Small Wind Turbines – improving technologies may make these more feasible in the future
- Biomass –market, scale, limited to agricultural /water supplies
- Hydro –market, scale, limited to agricultural /water supplied
- Electric Vehicle Charging Stations – would need to provide business case
- Demand response (DR)
- Energy Storage

PUC-IR-HECO-HELCO-MECO-101

Concept:
In procuring a finance program administrator that potentially manages funds from private and public capital sources, some financial information is necessary to assess the confidence of program participants meeting payment deadlines. Because these payments will be assessed to participants on a utility bill and the Program aims to reduce the overall utility bill of participants, a certain level of confidence can be gained from understanding the historical payment performance of ratepayers. Because the Program also specifies a pari passu allocation of payments in the event of partial payment, distributing the partial payment between the electric service charges and the on-bill repayment charges, an understanding of the frequency of partial payment is also relevant to the performance of ratepayers' payment of the on-bill charges. The Program is currently restricted to rate classes R, TOU-R, TOU-EV, and G, so to the extent possible data that can be attributed to these specific rate-classes is necessary and valuable.

The following requests pertain to utility bill payment history for each of the following rate classes R, TOU-R, TOU-EV and G, as applicable. For each utility please provide:

1. Number of customers (and percentage of the rate class) whose payments were 30-, 60-, 90-day past-due for each rate class for five consecutive, recent years;
2. Partial payment information in both frequency and amount for five consecutive, recent years;
3. Customer risk classifications or categories used by the utility in each of the rate classes and any payment performance tied to these risk classifications; and
4. To the extent that such information can be disclosed, please elaborate on the delinquencies and default rates of solar saver program participants.

Hawaiian Electric Companies' Response:

1. Refer to Attachment 1 for the annual average monthly number of customers whose payments were 30- and 60-days past-due for Schedules R and G rate classes and the percentage of the rate class. In lieu of providing the five most recent consecutive years, the Companies[1] are providing years 2007 through 2011 to maintain and allow for consistency in data from one source rather than from two different Customer

[1]The "Hawaiian Electric Companies" or "Companies" are Hawaiian Electric Company, Inc. ("Hawaiian Electric"), Hawaii Electric Light Company, Inc. ("HELCO"), and Maui Electric Company, Limited (MECO").

Information Systems ("CIS"). Similar data is available from the new CIS for more recent time periods.

The former CIS generated delinquency reports in "30-Day" and "60-Days and Over" categories for residential and commercial classes. Additionally, because the CIS reporting program was designed to count the account if there was a value in the bucket, there is double-counting of data for this time period. For example, if an account was 60 days in arrears and had an amount in both the 30 and 60 day buckets, the account would be counted in each the 30 and 60 day columns. Therefore, the counts and percentages in Attachment 1 are overstated.

2. Both the former and current CIS programs were not programmed to capture or generate a report on partial payment information. This information is therefore unavailable. The Companies track the unpaid portion of the bill, if it remains unpaid after the bill due date. These delinquent amounts are tracked for credit and collection purposes.

3. Refer to Attachment 2 for the number of customers by Schedules G and R rate classes in each credit risk category from 2007 to 2011. In lieu of providing the five most recent consecutive years, the Companies are providing years 2007 through 2011 to maintain and allow for consistency in data from one source rather than from two different CIS. The current CIS program is not programmed to capture or generate a report on the number of customers by rate classes in credit risk classifications or categories.

   Customer risk classifications or categories used prior to the SAP CIS implementation in May 2012 were tracked by a system of three credit codes:

CB-ACCESS CIS Credit Codes 2007 to 2011	Description	SAP CIS Risk Classes Current
3	Customers who have established good credit	Low Risk
2	Customers formerly in the Credit 1 category with improved credit or formerly in the Credit 3 category with deteriorating credit.	Medium Risk
1	Customers who just started service or chronic delinquent	High Risk Very High Risk

A customer in the Credit Code 1 category could gradually move up to Credit Code 2 or Credit Code 3 with improved payment performance. Although three credit codes existed, the system had two automated collection paths. An accelerated collection path was triggered by Credit Code 1 for new customers or chronically delinquent customers who posed a higher risk of non-payment. A less aggressive collection path was triggered by Credit Codes 2 and 3, whose payment history suggested less of a risk. In April 2009, a programming change was made to minimize rising bad debt during the adverse economy. The change involved moving the collection path for Credit Code 2 customers from the less aggressive collection path, to the accelerated collection path. The change was implemented for Hawaiian Electric, MECO and HELCO customers.

Payment performance (or failure to pay) would result in credit actions that were weighted and used to lower/increase credit code. Credit actions were:

1 Reminder Notice
2 Suspension Notice
3 Field Call
4 Disconnection

Although terminology may differ, the current SAP CIS collection strategy is similar in its concepts of tracking payment performance and triggering collection paths based on the customer's risk class.

4. The Companies' historical delinquencies and default rates of Solar Saver Program ("SSP") participants are shown below. For the purpose of the SSP, a delinquency is when a customer does not make the payment after 30 days. A default is when there are both electric commodity and SSP payments 60-days or more in arrears and the collections process is initiated.

Hawaiian Electric Company					
Year	Participants	No. Delinquent	Delinquent Rate	No. Default	Default Rate
2010	274	20	7%	0	0%
2011	274	15	5%	0	0%
2012	264	15	6%	0	0%
Hawaii Electric Light Company [2]					
Year	Participants	No. Delinquent	Delinquent Rate	No. Default	Default Rate
2010	138	50	36%	0	0%
2011	132	24	18%	0	0%
2012	125	45	36%	0	0%
Maui Electric Company					
Year	Participants	No. Delinquent	Delinquent Rate	No. Default	Default Rate
2010	94	1	1%	0	0%
2011	91	1	1%	0	0%
2012	89	1	1%	0	0%

HELCO's customer base relative to the rest of the State of Hawaii consists of a higher percentage of economically challenged customers. Hawaii Island's population has the lowest average personal income in the State, the highest percentage of households below the national poverty level, the highest percentage of households

[2] Although HELCO did not have a default within the three-year period, one customer with a SSP filed for bankruptcy in 2010.

receiving financial assistance and the highest unemployment rate. Such characteristics of HELCO's customer base has an impact on the higher electric account delinquency rate experienced by HELCO historically when compared to Hawaiian Electric Company and MECO.

Hawaiian Electric Company, Inc.

Number of Customers Past Due and Percentage of Rate Class

2007 to 2011

Double-counting of data for this time period is prevalent. The reporting program simply counted the account if there was a value in the bucket. For example, if an account was 60 days in arrears and had an amount in both the 30 and 60 day buckets, the account would be counted in each the 30 and 60 day columns.

		Residential		**Commercial**	
		30 Day	**=>60 Day**	**30 Day**	**=>60 Day**
2007					
	Monthly Avg	17,148	4,765	1,872	264
	% of Rate Class	7%	2%	6%	1%
2008					
	Monthly Avg	17,471	4,316	1,737	266
	% of Rate Class	7%	2%	5%	1%
2009					
	Monthly Avg	16,001	3,684	1,645	229
	% of Rate Class	6%	1%	5%	1%
2010					
	Monthly Avg	16,875	3,079	1,782	215
	% of Rate Class	6%	1%	5%	1%
2011					
	Monthly Avg	16,971	3,431	1,564	184
	% of Rate Class	6%	1%	5%	1%

Hawaii Electric Light Company, Inc.
Number of Customers Past Due and Percentage of Rate Class
2007 to 2011

Double-counting of data for this time period is prevalent. The reporting program simply counted the account if there was a value in the bucket. For example, if an account was 60 days in arrears and had an amount in both the 30 and 60 day buckets, the account would be counted in each the 30 and 60 day columns.

		Residential		**Commercial**	
		30 Day	**=>60 Day**	**30 Day**	**=>60 Day**
2007					
	Monthly Avg	3,770	1,078	629	173
	% of Rate Class	6%	2%	5%	1%
2008					
	2008 Monthly Avg	7,631	2,526	1,324	394
	% of Rate Class	12%	4%	10%	3%
2009					
	2009 Monthly Avg	7,597	2,372	1,179	303
	% of Rate Class	11%	4%	9%	2%
2010					
	2010 Monthly Avg	6,784	1,717	1,023	219
	% of Rate Class	10%	3%	8%	2%
2011					
	2011 Monthly Avg	6,625	1,832	959	215
	% of Rate Class	10%	3%	8%	2%

Maui Electric Company, Ltd.
Number of Customers Past Due and Percentage of Rate Class
2007 to 2011

Double-counting of data for this time period is prevalent. The reporting program simply counted the account if there was a value in the bucket. For example, if an account was 60 days in arrears and had an amount in both the 30 and 60 day buckets, the account would be counted in each the 30 and 60 day columns.

		Residential		Commercial	
		30 Day	**=>60 Day**	**30 Day**	**=>60 Day**
2007					
	Monthly Avg	17,148	4,765	1,872	264
	% of Rate Class	7%	2%	6%	1%
2008					
	Monthly Avg	17,471	4,316	1,737	266
	% of Rate Class	7%	2%	5%	1%
2009					
	Monthly Avg	16,001	3,684	1,645	229
	% of Rate Class	6%	1%	5%	1%
2010					
	Monthly Avg	16,875	3,079	1,782	215
	% of Rate Class	6%	1%	5%	1%
2011					
	Monthly Avg	16,971	3,431	1,564	184
	% of Rate Class	6%	1%	5%	1%

Hawaiian Electric Company, Inc.
Hawaii Electric Light Company, Inc.
Maui Electric Company, Limited
Number of Customers (Rate Schedule G & R) by Credit Code
January 2007 to December 2011

Double-counting of data occurred if a customer changed rate schedule. Data is for Rate Schedules G and R and any variations such as net metering, TOU-R, and TOU-EV customers. For Maui Electric Company, Limited, the counts for the three divisions were combined.

Hawaiian Electric Company, Inc.				
	Rate Schedule	Credit Code 1 - New Customer or chronic delinquent	Credit Code 2 - Improving or Deteriorating Credit	Credit Code 3 - Established Good Credit
2007	G	4,626	2,207	21,872
2008	G	4,603	1,996	22,153
2009	G	4,565	1,644	22,439
2010	G	4,369	1,404	22,232
2011	G	4,904	1,643	22,064
2007	R	76,148	3,449	233,405
2008	R	73,094	3,848	234,905
2009	R	72,431	3,042	240,734
2010	R	70,517	2,749	243,286
2011	R	77,916	3,336	237,088

Hawaii Electric Light Company, Inc.				
	Rate Schedule	Credit Code 1 - New Customer or chronic delinquent	Credit Code 2 - Improving or Deteriorating Credit	Credit Code 3 - Established Good Credit
2007	G	3,173	2,206	9,517
2008	G	3,231	1,501	9,411
2009	G	2,878	1,069	9,066
2010	G	2,763	845	8,779
2011	G	2,746	908	8,253
2007	R	25,754	3,025	49,818
2008	R	26,923	2,485	50,491
2009	R	26,762	2,317	51,709
2010	R	26,259	2,412	53,476
2011	R	28,197	2,309	53,103

Maui Electric Company, Limited				
	Rate Schedule	Credit Code 1 - New Customer or chronic delinquent	Credit Code 2 - Improving or Deteriorating Credit	Credit Code 3 - Established Good Credit
2007	G	2,063	1,548	6,248
2008	G	2,191	1,183	6,350
2009	G	2,074	838	6,167
2010	G	1,952	563	6,224
2011	G	2,001	511	6,082
2007	R	22,936	2,468	41,050
2008	R	24,252	2,522	41,279
2009	R	24,132	2,308	42,155
2010	R	23,182	2,547	43,424
2011	R	24,218	2,563	42,924

PUC-IR-HECO-HELCO-MECO-102

Concept:
The Program requires that non-payment results in the initiation of disconnection procedures for electric service. Because electricity is an essential service, the potential of disconnection would further encourage repayment of arrears. Understanding the disconnection procedures of the utilities and the reactions of ratepayers to disconnection will provide a finance program administrator insight into the performance of the payment of on-bill service charges.

The following requests pertain to disconnection occurrences and procedures for each of the following rate classes R, TOU-R, TOU-EV and G, as applicable. For each utility:

1. Please provide the disconnection frequency of customers monthly for the past five consecutive, recent years;
2. Please describe the effects of disconnection (number of reinstated accounts after shut off) for five consecutive, recent years;
3. Please describe your procedures for disconnection as it relates to non-payment. At what point(s) do you pursue disconnection?
4. Please detail the average period of time electricity gets shut off as a result of delinquencies for disconnection. Please include the number of reinstatements after a specified time from disconnection.

Hawaiian Electric Companies' Response:

1. Refer to Attachment 1 for the disconnection frequency of customers monthly for 2007 to 2011. In lieu of providing information for the five most recent consecutive years, the Companies[1] are providing information for 2007 through 2011 to maintain and allow for consistency in data from one source rather than from two different Customer Information Systems ("CIS"). Similar data is available from the new CIS for more recent time periods.

2. Refer to Attachment 2 for the effects of disconnection (number of reinstated accounts *from 0 to 6 days* after shut off) for 2007 to 2011. In lieu of providing information for

[1]The "Hawaiian Electric Companies" or "Companies" are Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited.

the five most recent consecutive years, the Companies are providing information for 2007 through 2011 to maintain and allow for consistency in data from one source rather than from two different CIS. Similar data is available from the new CIS for more recent time periods.

3. The procedure for disconnection as it relates to non-payment is initiated when the CIS automatically generates an electronic disconnect notification as described in PUC-IR-HECO-HELCO-MECO-104. In accordance with General Order No. 7, Rule 4.6, field collections are normally scheduled on Mondays through Thursdays. The Field Services Planner reviews outstanding disconnect notifications in the morning and assigns work to the Field Services Representatives ("FSRs") based on the following criteria:

- workforce availability;
- outstanding backlog levels of all field work;
- disconnection notification priorities such as
    - defaulted payment arrangements,
    - returned payments used to prevent disconnection or to reconnect services, and
    - age and arrears amount.

Once the FSRs receive the assignments, they try to complete as much work as they can for the day. Generally, the desired outcome is for the FSR to either collect payment or disconnect service. Factors that may affect their ability to either collect or disconnect include, but are not limited to, the following:

- access to the meter;
- meter equipment problems;
- safety conditions (e.g., previous hostile incident, dogs, hazards, etc.);
- unknown customer issues (e.g., military, critical care, or other protected situations requiring special handling or extra time);
- pending billing or payment disputes; and

- customer skipped [2] or is not present at the time of the visit.

If a condition exists, a door hanger may be left or given to the customer if the condition warrants additional time to pay. If the condition does not warrant additional time to pay, alternative means of disconnection may be deployed (e.g., disconnection at pole). Otherwise, FSRs are expected to either collect or disconnect service.

If payment is rendered, the FSR presents the customer with a receipt and the payment is sent for processing when the FSR returns to the office. If disconnection is performed, the FSR calls in the transaction immediately to the dispatcher who enters the update in the CIS so that the status is available for Customer Assistance Representatives when the customer calls in.

Once a customer is disconnected, they must meet established reconnection guidelines to restore service which includes payment of all amounts owing on the account, a cash deposit, and a service establishment charge as explained on their disconnection notice. That night, the CIS will automatically assess a deposit (or assess an additional amount for those who have already paid a deposit) for select customers.[3] A Request for Security Deposit Due to Disconnection letter is also automatically generated by the CIS and mailed to the customer the next business day.

If a customer does not settle their account within seven days of disconnection, the account is automatically closed by the CIS and final billing collections will begin.

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[2] "Customer Skipped" is when a customer moves-out of the premise without notifying the company that their electric service is to be terminated and leaves an outstanding balance.
[3] Request for Security Deposit Due to Disconnection is sent to customers who are in medium, high, and very high risk classes. Risk classes are also mentioned in PUC-IR-HECO-HELCO-MECO-104.

Requests for electrical service after this seven day period are treated as new service establishment requests.

4. Both the former and current CIS programs were not programmed to capture or generate a report on the average period of time electricity gets shut off as a result of disconnection due to delinquency or the number of reinstatements after a specified time from disconnection. This information is therefore unavailable.

Hawaiian Electric Company
Monthly Disconnection Frequency
2007 to 2011

Month/Year	G	R
2007		
Jan	51	1,155
Feb	18	618
Mar	24	631
Apr	21	622
May	24	603
Jun	22	542
Jul	33	643
Aug	25	655
Sep	27	833
Oct	40	832
Nov	34	849
Dec	24	884
2007 Total	**343**	**8,867**
2008	G	R
Jan	43	996
Feb	32	797
Mar	27	648
Apr	32	1,085
May	33	904
Jun	45	779
Jul	40	1,183
Aug	42	954
Sep	47	1,182
Oct	50	1,050
Nov	38	928
Dec	32	859
2008 Total	**461**	**11,365**
2009	G	R
Jan	54	1,541
Feb	54	1,003
Mar	44	968
Apr	41	717
May	20	631

Month/Year	G	R
Jun	24	644
Jul	17	574
Aug	26	663
Sep	43	765
Oct	34	611
Nov	32	519
Dec	32	640
2009 Total	**421**	**9,276**
2010	G	R
Jan	36	1,118
Feb	42	585
Mar	34	684
Apr	40	577
May	21	601
Jun	30	645
Jul	30	574
Aug	28	690
Sep	27	667
Oct	25	679
Nov	39	744
Dec	38	494
2010 Total	**390**	**8,058**
2011	G	R
Jan	45	888
Feb	36	610
Mar	16	383
Apr	31	753
May	33	755
Jun	26	784
Jul	36	654
Aug	43	971
Sep	52	789
Oct	23	726
Nov	26	724
Dec	18	503
2011 Total	**385**	**8,540**

Hawaii Electric Light Company
Monthly Disconnection Frequency
2007 to 2011

Month/Year	G	R
2007		
Jan	18	129
Feb	11	150
Mar	27	166
Apr	14	79
May	13	178
Jun	5	109
Jul	13	89
Aug	19	217
Sep	26	238
Oct	22	159
Nov	22	143
Dec	23	146
2007 Total	**213**	**1,803**

2008	G	R
Jan	26	274
Feb	20	198
Mar	23	144
Apr	13	220
May	12	139
Jun	10	117
Jul	20	162
Aug	22	168
Sep	17	123
Oct	26	141
Nov	15	127
Dec	21	151
2008 Total	**225**	**1,964**

2009	G	R
Jan	31	235
Feb	24	235
Mar	14	146
Apr	16	162
May	28	240

Month/Year	G	R
Jun	20	190
Jul	21	183
Aug	13	211
Sep	22	218
Oct	7	176
Nov	22	218
Dec	16	171
2009 Total	**234**	**2,385**
2010	G	R
Jan	14	187
Feb	20	139
Mar	31	215
Apr	15	137
May	13	186
Jun	16	178
Jul	13	145
Aug	21	148
Sep	15	153
Oct	8	152
Nov	6	110
Dec	7	45
2010 Total	**179**	**1,795**
2011	G	R
Jan	30	165
Feb	11	92
Mar	4	44
Apr	2	56
May	20	195
Jun	15	99
Jul	11	98
Aug	20	160
Sep	11	176
Oct	6	135
Nov	9	78
Dec	5	61
2011 Total	**144**	**1,359**

Maui Electric Company
Monthly Disconnection Frequency
2007 to 2011

Month/Year	G	R
2007		
Jan	8	130
Feb	2	42
Mar		47
Apr	10	132
May	4	85
Jun	4	108
Jul	5	98
Aug	2	68
Sep	10	182
Oct	2	127
Nov	6	122
Dec	3	123
2007 Total	**56**	**1,264**

2008	G	R
Jan	9	124
Feb	3	188
Mar	6	97
Apr	6	184
May	2	129
Jun	6	104
Jul	6	185
Aug	4	103
Sep	11	254
Oct	6	196
Nov	9	159
Dec	5	181
2008 Total	**73**	**1,904**

2009	G	R
Jan	7	161
Feb	13	111
Mar	3	138
Apr	6	98
May	4	106

Month/Year	G	R
Jun	9	101
Jul	7	133
Aug	6	92
Sep	5	133
Oct	7	145
Nov	2	113
Dec	3	101
2009 Total	**72**	**1,432**

2010	G	R
Jan	6	95
Feb	6	105
Mar	7	162
Apr	9	201
May	9	165
Jun	6	93
Jul	5	148
Aug	6	136
Sep	3	113
Oct	1	79
Nov	6	112
Dec	7	50
2010 Total	**71**	**1,459**

2011	G	R
Jan	6	112
Feb	7	99
Mar	1	10
Apr	8	109
May	5	112
Jun	9	73
Jul	13	103
Aug	5	111
Sep	7	99
Oct	3	56
Nov	2	79
Dec	3	50
2011 Total	**69**	**1,013**

Hawaiian Electric Company
Monthly Reconnection Frequency
2007 to 2011

Month/Year	**G**	**R**
2007		
Jan	22	784
Feb	13	498
Mar	15	486
Apr	13	469
May	10	440
Jun	13	405
Jul	19	423
Aug	14	485
Sep	14	568
Oct	30	604
Nov	20	651
Dec	17	668
2007 Total	**200**	**6,481**
2008	G	R
Jan	26	650
Feb	22	634
Mar	15	464
Apr	17	795
May	19	706
Jun	26	498
Jul	25	837
Aug	22	716
Sep	33	796
Oct	22	785
Nov	21	661
Dec	17	581
2008 Total	**265**	**8,123**
2009	G	R
Jan	25	1,057
Feb	24	761
Mar	21	720
Apr	11	561
May	14	490

Month/Year	G	R
Jun	14	443
Jul	9	401
Aug	16	440
Sep	25	525
Oct	19	438
Nov	14	315
Dec	23	479
2009 Total	**215**	**6,630**

2010	G	R
Jan	18	790
Feb	25	439
Mar	22	460
Apr	25	425
May	11	409
Jun	15	435
Jul	16	385
Aug	12	414
Sep	18	438
Oct	16	452
Nov	22	455
Dec	21	421
2010 Total	**221**	**5,523**

2011	G	R
Jan	27	554
Feb	13	455
Mar	3	277
Apr	22	582
May	16	544
Jun	13	540
Jul	17	456
Aug	23	647
Sep	32	598
Oct	15	480
Nov	16	497
Dec	10	447
2011 Total	**207**	**6,077**

Hawaii Electric Light Company
Monthly Reconnection Frequency
2007 to 2011

Month/Year	G	R
2007		
Jan	9	71
Feb	3	106
Mar	15	115
Apr	8	56
May	6	115
Jun	3	74
Jul	8	46
Aug	9	134
Sep	10	137
Oct	8	98
Nov	10	93
Dec	9	90
2007 Total	**98**	**1,135**
2008	G	R
Jan	6	159
Feb	10	135
Mar	13	76
Apr	10	128
May	7	78
Jun	5	56
Jul	8	76
Aug	10	100
Sep	7	69
Oct	7	63
Nov	1	51
Dec	8	62
2008 Total	**92**	**1,053**
2009	G	R
Jan	12	108
Feb	8	135
Mar	6	81
Apr	7	90
May	9	137

Month/Year	G	R
Jun	8	104
Jul	5	100
Aug	6	117
Sep	9	125
Oct	4	92
Nov	7	115
Dec	8	106
2009 Total	**89**	**1,310**
2010	G	R
Jan	9	102
Feb	8	78
Mar	10	101
Apr	10	77
May	5	109
Jun	11	91
Jul	5	71
Aug	4	74
Sep	6	77
Oct	4	78
Nov		62
Dec	5	26
2010 Total	**77**	**946**
2011	G	R
Jan	10	76
Feb	6	51
Mar	1	20
Apr	3	29
May	7	82
Jun	4	47
Jul	3	42
Aug	6	59
Sep	5	89
Oct	1	64
Nov	5	39
Dec	5	29
2011 Total	**56**	**627**

Maui Electric Company
Monthly Reconnection Frequency
2007 to 2011

Month/Year	G	R
2007		
Jan	3	93
Feb		31
Mar		32
Apr	4	103
May	1	69
Jun	1	77
Jul	1	61
Aug		52
Sep	7	132
Oct	2	97
Nov	3	97
Dec	1	103
2007 Total	**23**	**947**

2008	G	R
Jan	1	94
Feb	1	150
Mar	1	66
Apr	4	148
May		96
Jun		79
Jul	3	120
Aug	2	71
Sep	3	174
Oct	2	139
Nov	2	107
Dec	2	140
2008 Total	**21**	**1,384**

2009	G	R
Jan	2	107
Feb	2	75
Mar	2	97
Apr	1	80
May	3	74

Month/Year	G	R
Jun	5	67
Jul	4	85
Aug	3	67
Sep	1	91
Oct	3	91
Nov	1	77
Dec	1	55
2009 Total	**28**	**966**

2010	G	R
Jan	4	72
Feb	3	77
Mar	3	124
Apr	5	156
May	7	121
Jun	3	59
Jul	1	93
Aug	3	81
Sep	1	67
Oct		53
Nov	3	72
Dec	2	60
2010 Total	**35**	**1,035**

2011	G	R
Jan	1	66
Feb	5	84
Mar	1	9
Apr	4	61
May	5	61
Jun	6	35
Jul	7	64
Aug	4	68
Sep	3	63
Oct	1	30
Nov	1	42
Dec	3	31
2011 Total	**41**	**614**

PUC-IR-HECO-HELCO-MECO-103

Concept:
In order to work with the program administrator and finance program administrator, each utility will need to give data to these entities, accept data from the entities to incorporate into a utility billing system and perhaps allow access to data within the billing system.

The following requests pertain to utility system requirements for implementing an OBF program. For each utility, please provide:

1. Billing system requirements: What is/are the best or acceptable ways to receive information to put into the billing system? Is there a specific form of information and method of data transfer? How frequently can information be received? Is there a lag time between the timing of receipt of data and the incorporation of the data into the system?
2. Data transfer protocols and approvals necessary: Please provide specific information about the approvals necessary for data transfer or allowing outside entities to access data in the utilities' systems.
3. Billing system payment allocation procedures: Does the billing system offer a way to allocate over-payments or paying off the obligation in advance?

Hawaiian Electric Companies' Response:

1. Files received from external systems can be formatted in various ways such as extended mark-up language (XML), comma-separated values (CSV), character-delimited text, or electronic data interchange ("EDI"). The actual file format is normally determined through requirements analysis and interface design activities. The Companies do not have a preferred format, however most external system interface files are character-delimited text files or EDI (for financial transactions).

   We currently receive data from external systems via two different data transfer methods:

   a. **Point to Point ("P2P"):** P2P is direct communication with the SAP Customer Information System ("CIS") from an external system through file delivery directly to the CIS application server.

b. **Middleware:** Middleware is the use of a third party application to handle things like file delivery, data transformation to a common format, and transactional real time interfaces. The Hawaiian Electric Companies have choosen IBM's MQ Series as the middleware to interface external systems with the CIS. MQ Series is the Hawaiian Electric Companies' preferred method for all new interfaces.

The frequency of receiving data from external systems typically depends on business needs. Data can be retrieved either in real time or on a scheduled basis. In a non-real time scenario, there could be a lag time that occurs between the receipt of the data file from the external system and the time it is uploaded and posted/updated into the Companies' system. The business process requirements and the technical system requirements will dictate the acceptable duration of any lag time. In a real time scenario, there is no lag time.

2. Any new interface between the CIS and an external system or vendor will go through a functional and technical design effort with the Hawaiian Electric Companies' during which the specific transfer protocols and approvals will be determined and addressed in the interface design. Outside entities are not allowed to access data directly in the Hawaiian Electric Companies' systems, rather the Hawaiian Electric Companies will provide the required data to the external system or entity through an interface program as agreed to by the parties.

3. Billing system payment allocation procedures are in accordance with the Hawaiian Electric Companies' Rule No. 8 Rendering and Payment of Bills. The CIS utilizes

Clearing Rules to dictate the sequence of how payments are applied to receivables.

The current automated clearing rules are as follows:

a. Past Due

b. By oldest due date

   i. If due date is the same, payment shall be applied in this sequence:

      1. Statemented (Invoiced) Late Payment Charges

      2. Donations

      3. Cash Security Deposits

      4. Fees (Service Establishment, Reconnection, Field Collection, Return Payment)

      5. Consumption

      6. Installment Plans

      7. Loans (HELCO's Special Subdivision Project Provisions (SSPP) for line extensions)

      8. Non-Commodity

c. All other transactions posted will be cleared subsequently.

If an overpayment is made to an account, the overpayment will show as a credit on the account until such time an invoice is generated for the customer. When a new invoice is generated, the overpayment credit will clear the new invoice according to the payment application procedures that are in accordance with Rule No. 8 Rendering and Payment of Bills.

Customers who request to pay-off the obligation in advance will need to inform the applicable Hawaiian Electric Company of their request in order to initiate a manual override of the automated clearing rules.

PUC-IR-HECO-HELCO-MECO-104

Concept:
A financing institution will have requirements for collecting arrears. The requirements and protocols of the financial institution may differ from the utilities, or could offer a chance to increase efficiency by combining efforts on delinquencies.

1. For each utility, please describe your communications standards and procedures for non-payment by customers for services provided.

Hawaiian Electric Companies' Response:

1. The communication standards and procedures for non-payment by residential rate class customers and Schedule G rate class customers for services provided is established pursuant to the State of Hawaii Public Utilities Commission General Order No. 7[1] and the Companies' tariffs.[2] The Companies' Customer Information System ("CIS") is configured around these and other business level rules to effect collections and, ultimately, disconnection.

   Within the CIS, risk classes ranging from low to very high, are used to segment customers for collection treatment. Once the total arrears on an account meets the "threshold" established for the risk class and account type, the specified collection action is taken when the amount of days in arrears elapses. See the following tables for Residential class and Schedule G rate class collection action by risk type.

[1] PUC General Order No. 7 Rule 4.6: "No service shall be discontinued on the day preceding or day or days on which the utility's business office is closed, except as provided in Rules 4.6a and 4.6b."
[2] Hawaiian Electric Company Tariff Rule No. 7.A.8: "For non-payment of bill provided that the Company has made a reasonable attempt to effect collection and has given the customer written notice that he has at least 5 days, excluding Sundays and holidays, in which to make settlement on his account or have his service denied."

Residential (All Rate Class R)			
Low Risk Class		Medium to Very High Risk Class	
Days in Arrears[3]	Collection Action	Days in Arrears	Collection Action
10	Reminder Notice	10	Disconnection Notice
40	Disconnection Notice	18	Automated Courtesy Call
48	Automated Courtesy Call	25	Field Collection/Disconnection
55	Field Collection/Disconnection		

Commercial (All Rate Class G)			
Low Risk Class		Medium to Very High Risk Class	
Days in Arrears	Collection Action	Days in Arrears	Collection Action
10	Reminder Notice	10	Disconnection Notice
40	Disconnection Notice	25	Field Collection/Disconnection
55	Field Collection/Disconnection		

The table below describes the activity related to the respective collection actions.

Description of Collection Actions	
Collection Action	Description
Reminder Notice	Written reminder notice indicating past due amount
Disconnection Notice	Final written notice indicating past due amount, total amount due, and date payment must be made to prevent disconnection
Automated Courtesy Call	Residential customers with a valid home phone number in the CIS receive an automated outbound courtesy call by third party vendor indicating past due amount, total amount due
Field Collection/Disconnection	Electronic disconnect notification generated by the CIS and available to be assigned to Field Services Representatives ("FSRs")

[3] Days in Arrears is an approximate number based on the number of days past the bill's due date. The actual number can be higher depending on weekends and holidays. The bill due date is 19 days past the bill's mail date.

The table below describes the risk classes defined in the SAP CIS and its associated credit code from the former CIS at the time of conversion. Risk classes for new customers are based on a combination of their external credit and identification verification at the time the customer registers for service.

CB-ACCESS CIS Credit Codes 2007 to 2011	Description	SAP CIS Risk Classes Current
3	Customers who have established good credit	Low Risk
2	Customers formerly in the Credit 1 category with improved credit or formerly in the Credit 3 category with deteriorating credit.	Medium Risk
1	Customers who just started service or chronic delinquent	High Risk Very High Risk

For the Reminder Notice and Disconnection Notice steps, notices are generated automatically during a nightly batch process by the CIS and mailed out to customers the next business day. Customers receiving the notices and who subsequently contact the call center are urged by Customer Assistance Representatives to make the requested payment before the next collection step is taken. Eligible customers unable to make the payment before the due date may be granted a payment arrangement based on the customer's risk class and previous credit history.

If an account continues to be delinquent, the Automated Courtesy Call step occurs, which consists of an automated outbound call made by a third party vendor to residential customers with a valid home phone number set up in the CIS. This is a final communication to the customer that payment is due to prevent disconnection.

If an account is still delinquent when the Field Collection/Disconnection step occurs, an internal electronic Disconnect Notification is created by the CIS. On days when field collections work will be scheduled, the Field Services Planner ("Planner") will review the outstanding disconnect notifications and assign them to Field Services Representatives ("FSRs"). When there is more work available than FSRs, the Planner will schedule work based on priorities determined by the Field Services Supervisor. Refer to PUC-IR-HECO-HELCO-MECO-102, subpart 3, for more detailed information on the disconnection procedure.

In summary, the Companies' communication standards provide for multiple opportunities and channels to reach customers as shown in the tables above. The CIS is configured to automatically trigger printing of notices and generation of files for telephone calls.

Maui Electric Company
Amounts Past Due and Percentage of Total Receivables
2007 to 2011

		Residential		Commercial	
		30 Day	**=>60 Day**	**30 Day**	**=>60 Day**
2007					
	Monthly Avg	$885,622	$163,718	$578,666	$64,239
	% of Receivables	4.7%	0.9%	3.1%	0.3%
2008					
	2008 Monthly Avg	$1,183,631	$220,077	$648,579	$105,167
	% of Receivables	4.7%	0.9%	2.6%	0.4%
2009					
	2009 Monthly Avg	$787,664	$139,418	$507,021	$124,600
	% of Receivables	4.9%	0.9%	3.1%	0.8%
2010					
	2010 Monthly Avg	$733,866	$89,732	$383,165	$43,479
	% of Receivables	4.0%	0.5%	2.1%	0.2%
2011					
	2011 Monthly Avg	$856,735	$142,005	$499,553	$223,705
	% of Receivables	3.7%	0.6%	2.2%	1.0%

Hawaii Electric Light Company
Amounts Past Due and Percentage of Total Receivables
2007 to 2011

		Residential		Commercial	
		30 Day	**=>60 Day**	**30 Day**	**=>60 Day**
2007					
	Monthly Avg	$1,236,558	$375,805	$711,073	$395,139
	% of Receivables	5.5%	1.7%	3.1%	1.7%
2008					
	2008 Monthly Avg	$1,583,150	$549,569	$1,079,584	$486,977
	% of Receivables	5.5%	1.9%	3.7%	1.7%
2009					
	2009 Monthly Avg	$1,385,935	$425,608	$619,764	$191,039
	% of Receivables	6.1%	1.9%	2.7%	0.8%
2010					
	2010 Monthly Avg	$1,234,350	$262,827	$439,079	$65,802
	% of Receivables	5.7%	1.2%	2.0%	0.3%
2011					
	2011 Monthly Avg	$1,353,158	$330,972	$640,342	$74,978
	% of Receivables	5.3%	1.3%	2.5%	0.3%

PUC Follow Up Question #3 – Ref: Attachment 2 of Response to PUC-IR-101

Can the HECO internal credit codes be categorized with the instances and amounts of delinquencies?

Hawaiian Electric Companies' Response:

The former Customer Information System was not programmed to capture or generate a report that categorized the internal credit codes with instances and amounts of delinquencies. This information is, therefore, unavailable.

PUC Follow Up Question #4 – Ref: Attachment 2 of Response to PUC-IR-101

Please provide information for total number of R and G customers, for percent calculations (Can we assume that all R / G customers are represented once in each of the credit codes?)

Hawaiian Electric Companies' Response:

Please refer to the tables below for the average number of Schedule G & R customers for Hawaiian Electric, HELCO, and MECO for 2007 through 2011 and the percentage of such customers in each credit code category. Double-counting of customers by credit code occurred if a customer changed rate schedules. The information below is for Rate Schedules G and R and includes variations under those schedules, such as net metering, TOU-R, and TOU-EV customers.

Hawaiian Electric Company
Average Number of Schedule G&R Customers and Percentage of Customers in each credit code

Hawaiian Electric Company, Inc.					
Year	Rate Schedule	Avg No. of Customers in Rate Schedule	Credit Code 1 - New Customer or chronic delinquent (%)	Credit Code 2 - Improving or Deteriorating Credit (%)	Credit Code 3 - Established Good Credit (%)
2007	G	25,806	18%	9%	85%
2008	G	25,857	18%	8%	86%
2009	G	25,570	18%	6%	88%
2010	G	25,351	17%	6%	88%
2011	G	25,716	19%	6%	86%
2007	R	259,860	29%	1%	90%
2008	R	260,388	28%	1%	90%
2009	R	261,021	28%	1%	92%
2010	R	262,038	27%	1%	93%
2011	R	263,023	30%	1%	90%

Hawaii Electric Light Company

Average Number of Schedule G & R Customers and Percentage of Customers in each credit code

Hawaii Electric Light Company, Inc.					
Year	Rate Schedule	Avg No. of Customers in Rate Schedule	Credit Code 1 - New Customer or chronic delinquent (%)	Credit Code 2 - Improving or Deteriorating Credit (%)	Credit Code 3 - Established Good Credit (%)
2007	G	13,185	24%	17%	72%
2008	G	13,032	25%	12%	72%
2009	G	12,623	23%	8%	72%
2010	G	12,380	22%	7%	71%
2011	G	12,253	22%	7%	67%
2007	R	64,267	40%	5%	78%
2008	R	65,855	41%	4%	77%
2009	R	66,542	40%	3%	78%
2010	R	67,277	39%	4%	79%
2011	R	68,055	41%	3%	78%

Maui Electric Company

Average Number of Schedule G & R Customers and Percentage of Customers in each credit code

Maui Electric Company, Limited					
Year	Rate Schedule	Avg No. of Customers in Rate Schedule	Credit Code 1 - New Customer or chronic delinquent (%)	Credit Code 2 - Improving or Deteriorating Credit (%)	Credit Code 3 - Established Good Credit (%)
2007	G	8,155	25%	19%	77%
2008	G	8,146	27%	15%	78%
2009	G	8,042	26%	10%	77%
2010	G	8,003	24%	7%	78%
2011	G	8,011	25%	6%	76%
2007	R	55,494	41%	4%	74%
2008	R	56,548	43%	4%	73%
2009	R	57,037	42%	4%	74%
2010	R	57,452	40%	4%	76%
2011	R	58,082	42%	4%	74%

PUC Follow Up Question #5 – Ref: Response to PUC-IR-103

What form of communication does Hawaii Energy use with SAP?

Hawaiian Electric Companies' Response:

Data for Hawaii Energy is transferred using the Point to Point ("P2P") data transfer method. Data is sent from the SAP Customer Information System ("CIS") to Hawaii Energy by file delivery directly to a secured web folder.

PUC Follow Up Question #6 – Ref: Response to PUC-IR-103

What do each of the data transfer methods cost to the utility (cost can be assessed via order of magnitude for each individually or comparison between options)?

Hawaiian Electric Companies' Response:

The costs associated with the data transfer methods are dependent on the specific requirements of the Finance Program Administrator, which has not been selected. However, the Companies are working with their CIS consultant to develop a rough cost for data transfer based on assumptions of the requirements in response to the Commission's request for a budget estimate to implement the On Bill Financing program. The Companies will submit the budget estimate at the end of July, 2013.

PUC Follow Up Question #7 – Ref: PUC-IR-103

How much would it cost to change clearing rules for pari passu?

Hawaiian Electric Companies' Response:

The high-level estimated cost to change the clearing rules for pari passu is $65,000 subject to negotiation with a CIS consultant, once the specific requirements are finalized.

PUC Follow Up Question #8

Is collections information (and process for collections) somehow recorded in the CIS? Idea is to follow through with communications and sharing of data between Hawaii Energy, Finance Program Administrator, and Utilities; How will the FPA be informed of the collections for a delinquent participant? Do we need to share data beyond what is in CIS?

<u>Hawaiian Electric Companies' Response</u>:

Collection actions taken by the Companies for a customer is recorded and logged in the CIS system. Sharing of confidential financial information will require permission by the customer before the Company can release the information to a third party and will be subject to a Non Disclosure Agreement with the third party. If the information is filed in the docket, it should be filed under Protective Order. The Companies will work with the Program Administrator and the Finance Program Administrator, when selected, to address the requirements to authorize the release of this information.

Since sharing collections information through automated data transfer with other customer data is difficult and costly to design and implement, the Companies suggest utilizing the external reporting capabilites within the CIS to prepare reports for the Program Administrator and Finance Program Administrator. The monthly reports will communicate the collections activity by the Companies for a delinquent On Bill Financing ("OBF") customer.

The collections information contained in the report should be sufficient as it reflects the current collection procedures by the Companies. Adding more data beyond what is in CIS may require changes to those procedures, modifications to the CIS system, and add more cost to support OBF, which is undesirable.

Appendix 4b

HECO Bill Collection and Security Deposit Process

Hawaiian Electric Company, Inc.

Hawaiian Electric Companies Bill Collection & Security Deposit Process

(Revised 7/18/2013)

HEI

Hawaiian Electric Company, Inc.

Bill Collection Process

Low Risk

Day 0
- Net Due Date on Bill

Day 10 - 39
- Reminder Notice indicating past due amount sent on Day 10

Day 40-47
- Disconnection Notice sent on Day 40 for unpaid energy, OBF, and deposit charges (if any)
- Customer has 8 Calendar Days to Pay Bill

Day 48
- Automated Courtesy Call to customer indicating past due amount and total amount due

Day 55 - 89
- Electronic disconnect notification generated and listed on Field Service Work Order Lisiting on Day 55
- Depending on work load and priorities, disconnect order may or may not be assigned to work. If assigned, FSR attempt to collect past due amout listed on disconnect letter or disconnects (1-30 days)
- If service is disconnected and the account is not settled within 7 days, CIS automatically generates move-out and closes account; Final Bill sent;

Day 90 -120
- Amount due for light and power charges is written off by the Company at Day 90 from final bill due date.
- Account turned over to Collection agency for collection of light & power charges. OBF collection returned to Finance Program Admin. to collect OBF amount
- Collection agency attempts to recover past due within 6 year time frame. If unable to collect and no judgment filed, account is returned to HECO.
- Of the Amount Recovered, collection agency keeps: 33% if no legal action required, 50% if legal action required

Medium to Very High Risk

Day 0
- Net Due Date on Bill

Day 10 - 17
- Disconnection Notice sent on Day 10 for unpaid energy, OBF, and deposit charges (if any)
- Customer has 8 Calendar Days to Pay Bill

Day 18 -24
- Automated Courtesy Call to customer on Day 18 indicating past due amount and total amount due

Day 25 - 89
- Electronic disconnect notification generated and listed on Field Service Work Order Lisiting on Day 25
- Depending on work load and priorities, disconnect order may or may not be assigned to work. If assigned, FSR attempt to collect past due amount listed on disconnect letter or disconnects (1-30 days)
- If service is disconnected, CIS automatically generates move-out and closes account 7 days after disconnect; Final Bill sent

Day 90 - 120
- Amount due for light and power charges is written off by the Company at Day 90 from final bill due date
- Account turned over to Collection agency for collection of light & power charges. OBF collection returned to Finance Program Admin. to collect OBF amount
- Collection agency attempts to recover past due within 6 year time frame. If unable to collect and no judgment filed, account is returned to HECO.
- Of the Amount Recovered, collection agency keeps: 33% if no legal action required, 50% if legal action required

HEI

On-Bill Financing Security Deposit Process

Hawaiian Electric Company, Inc.

ON-BILL FINANCING SECURITY DEPOSIT				
SAP (New CIS)	Low Risk	Medium Risk	High Risk	Very High Risk
ACCESS (Old CIS)	3	2	1	N/A
Customer Description	Customers with established good credit	Former customers with Credit Code 1 with improving credit Former customers with Credit Code 3 with deteriorating credit	New customers starting service or chronic delinquent	
Deposit	Not Required	Sum of 2 highest months' bills over last 12 months (from Previous tenant's use) Minimum of $200 for Residential and $500 for Commercial.	Sum of 2 highest months' bills over last 12 months (from Previous tenant's use) Minimum of $200 for Residential and $500 for Commercial.	Sum of 2 highest months' bills over last 12 months (from Previous tenant's use) Minimum of $200 for Residential and $500 for Commercial.
Disconnection / Reconnect		Upon disconnection, a security deposit is automatically assessed, that night. If there is a existing deposit, an additional amount is assessed. The deposit amount is now included in the amount that must be paid before reconnection. When the customer pays, the Companies reconnect. If the customer does not settle their delinquency, the account is closed.	Upon disconnection, a security deposit is automatically assessed, that night. If there is a existing deposit, an additional amount is assessed. The deposit amount is now included in the amount that must be paid before reconnection. When the customer pays, the Companies reconnect. If the customer does not settle their delinquency, the account is closed.	Upon disconnection, a security deposit is automatically assessed, that night. If there is a existing deposit, an additional amount is assessed. The deposit amount is now included in the amount that must be paid before reconnection. When the customer pays, the Companies reconnect. If the customer does not settle their delinquency, the account is closed.
Deposit Exemptions	Not Applicable	Military with signature of supervisor Proof of ownership (homeowner) Utility Letter of Credit, APB, or Guarantor	Military with signature of supervisor Proof of ownership (homeowner) Utility Letter of Credit, APB, or Guarantor	Military with signature of supervisor Proof of ownership (homeowner)

Notes:

1) Very High Risk Category added with new CIS System in May 2012.

HEI

Appendix 4c

KIUC Response to Information Request and Follow Up

Original Information Request filed in Docket 2011-0186 on May 03, 2013.
Initial Response filed on May 24, 2013, with follow up information emailed to the Commission

KAUAI ISLAND UTILITY COOPERATIVE'S RESPONSES TO THE PUBLIC UTILITIES COMMISSION'S INFORMATION REQUESTS

DOCKET NO. 2011-0186

PUC-1R-KlUC-101 Concept:

In procuring a finance program administrator that potentially manages funds from private and public capital sources, some financial information is necessary to assess the confidence of program participants meeting payment deadlines. Because these payments will be assessed to participants on a utility bill and the Program aims to reduce the overall utility bill of participants, a certain level of confidence can be gained from understanding the historical payment performance of ratepayers. Because the Program also specifies a pari passu allocation of payments in the event of partial payment, distributing the partial payment between the electric service charges and the on-bill repayment charges, an understanding of the frequency of partial payment is also relevant to the performance of ratepayers' payment of the on-bill charges. The Program is currently restricted to residential and small business rate classes, so to the extent possible data that can be attributed to these specific rate-classes is necessary and valuable.

The following requests pertain to utility bill payment history for rate classes D and G, as applicable. Please provide:

PUC-1R-KIUC-101 (cont.)

1. Number of customers (and percentage of the rate class) whose payments were 30-, 60-, 90-day past-due for each rate classes for five consecutive, recent years;

RESPONSE: See Attachment PUC-1R-KIUC-101, which provides (a) the dollar amount of arrears, including the amounts that were 1-30, 31-60, 61-90, and more than 90 days past due, and (b) of the accounts that were past due, the percentage that were 1-30, 31-60, 61-90, and more than 90 days past due. The above information is provided for each month for the past five consecutive recent years (Le., from December 2012 back through January 2008) and covers all customer classes. At this time, KIUC is unable to separate the information by customer class and is also unable to provide the number of customers whose payments were past due.

The residential and small commercial rate classes represent 50% of sales in kWh. The number of customers to fall into arrears in these rate classes (D and G) is high in comparison to other rate classes; however, the value of arrears could be attributed to a larger customer. Table 1 in Appendix A outlines total customer accounts, and kWh sales per customer class.

2. Partial payment information in both frequency and amount for five consecutive, recent years; and

RESPONSE: KIUC is unable to provide the requested information, as KIUC does not track partial payment information.

PUC-1R-KIUC-101 (cont.)

3. Customer risk classifications or categories used by the utility in each of the rate classes and any payment performance tied to these risk classifications

RESPONSE: KIUC classifies/categorizes "customer risk" by using payment codes. Every month, KIUC assigns a payment code to each customer account, based on the following criteria:

0 Account has never been billed (i.e., new account)

1 Account has been billed

2 Account has a delinquent notice

3 Account paid with a check that was returned

4 - Account has a collection notice

6 Account disconnected for non-payment

KIUC retains 13 months of payment code information for each customer account, after which time that payment code information is automatically deleted from KIUC's system.

SPONSOR: Maile Alfiler

[1] KIUC notes it does not use a payment code "5."

ATTACHMENT
PUC-IR-KIUC 101

Month End Aged Report Totals for Active Accounts w/Amounts Owing - 2011 (no adjustments included)

Month	Current	1-30 PstDue	31-60 PstDue	61-90 PstDue	>90 PstDue	Total Arrears	Total Due	% of Total Arrears: 1-30 Days PstDue	31-60 Days PstDue	61-90 Days PstDue	>90 Days PstDue
January	$916,799	$754,391	$168,751	$41,082	$1,572	$965,796	$1,882,595	78.1%	17.5%	4%	0%
February	$908,201	$898,059	$168,338	$139,107	$20,749	$1,226,253	$2,134,454	73.2%	13.7%	11%	2%
March	$912,882	$744,948	$163,765	$131,443	$122,253	$1,162,409	$2,075,291	64.1%	14.1%	11%	11%
April	$972,671	$840,607	$145,952	$138,798	$239,970	$1,365,327	$2,337,998	61.6%	10.7%	10%	18%
May	$921,431	$784,846	$25,456	$6,377	$5,848	$822,527	$1,743,958	95.4%	3.1%	1%	1%
June	$808,760	$690,080	$53,840	$7,611	$4,182	$755,713	$1,564,473	91.3%	7.1%	1%	1%
July	$1,068,749	$1,029,213	$46,333	$25,522	$2,743	$1,103,811	$2,172,560	93.2%	4.2%	2%	0%
August	$961,899	$765,304	$19,463	$7,165	$1,598	$793,530	$1,755,429	96.4%	2.5%	1%	0%
September	$1,808,155	$835,935	$113,831	$6,509	$2,407	$958,682	$2,766,837	87.2%	11.9%	1%	0%
October	$1,271,176	$1,130,697	$168,379	$98,539	$6,372	$1,403,987	$2,675,163	80.5%	12.0%	7%	0%
November	$1,003,409	$939,460	$35,286	$7,973	$6,222	$988,941	$1,992,350	95.0%	3.6%	1%	1%
December	$1,128,137	$1,075,111	$29,937	$6,539	$5,878	$1,117,465	$2,245,602	96.2%	2.7%	1%	1%
TOTALS	$12,682,269	$10,488,651	$1,139,331	$616,665	$419,794	$12,664,441	$25,346,710				

	1-30 Days PstDue	31-60 Days PstDue	61-90 Days PstDue	>90 Days PstDue
	84.4%	8.6%	4.3%	2.8%
2010 12 mo avg =	95.4%	4.1%	1.2%	0.6%
2009 12 mo avg =	92.8%	5.5%	1.2%	0.6%
2008 12 mo avg =	95.6%	3.6%	**0.4%**	0.4%

Note: the increase in >90 Days Past due arrears in March and April 2011 was attributed to one particular large customer falling into arrears. KIUC worked directly with the customer to resolve the issue; payment was received in May 2011.

Month End Aged Report Totals for Active Accounts w/Amounts Owing - 2010 (no adjustments included)

								% of Total Arrears			
Month	Current	1-30 PstDue	31-60 PstDue	61-90 PstDue	>90 PstDue	Total Arrears	Total Due	1-30 Days PstDue	31-60 Days PstDue	61-90 Days PstDue	>90 Days PstDue
January	$755,414	$653,441	$27,137	$1,882	$241	$682,701	$1,438,115	95.7%	4.0%	0%	0 %
February	$755,006	$779,674	$44,049	$4,961	$66	$828,750	$1,583,756	94.1%	5.3%	1%	0%
March	$571,261	$479,597	$18,064	$295	$63	$498,019	$1,069,280	96.3%	3.6%	0%	0%
April	$825,721	$553,040	$15,143	$2,672	$89	$570,944	$1,396,665	96.9%	2.7%	0%	0%
May	$674,098	$656,107	$28,689	$1,938	$133	$686,867	$1,360,965	95.5%	4.2%	0%	0%
June	$717,404	$571,560	$21,523	$4,671	$22	$597,776	$1,315,180	95.6%	3.6%	1%	0%
July	$647,064	$604,252	$22,094	$2,725	$47	$629,118	$1,276,182	96.0%	3.5%	0%	0%
August	$702,972	$654,844	$25,764	$1,834	$931	$683,373	$1,386,345	95.8%	3.8%	0%	0%
September	$925,831	$566,786	$24,090	$4,523	$39	$595,438	$1,521,269	95.2%	4.0%	1%	0%
October	$829,311	$662,652	$20,046	$1,280	$60	$684,038	$1,513,349	96.9%	2.9%	0%	0%
November	$781,849	$714,303	$39,065	$2,172	$519	$756,059	$1,537,908	94.5%	5.2%	0%	0%
December	$1,063,447	$995,322	$70,315	$8,073	$1,735	$1,075,445	$2,138,892	92.5%	6.5%	1%	0%
TOTALS	$9249,378	$7,891,575	$355,979	$37,026	$3.945	$8,288,528	$17,537,906				
					2010 12 mo avg =			95.4%	4.1%	0.4%	0.0%
					2009 12 mo avg =			92.8%	5.5%	1.2%	0.6%
					2008 12 mo avg =			95.6%	3.6%	0.4%	0.4%

Month End Aged Report Totals for Active Accounts w/Amounts Owing - 2009 (no adjustments included)

Month	Current	1-30 Days PstDue	31-60 Days PstDue	61-90 Days PstDue	>90 Days PstDue	Total Arrears	Total Due	°A) of Total Arrears: 1-30 Days PstDue	°A) of Total Arrears: 31-60 Days PstDue	°A) of Total Arrears: 61-90 Days PstDue	°A) of Total Arrears: >90 Days PstDue
January	$522,959	$518,284	$19,075	$2,829	$217	$540,405	$1,063,364	95.9%	3.5%	1%	0%
February	$431,599	$480,606	$40,717	$3,256	$1,870	$526,449	$958,048	91.3%	7.7%	1%	0%
March	$463,800	$356,933	$45,355	$1,158	$2,217	$405,663	$869,463	88.0%	11.2%	0%	1%
April	$373,009	$330,902	$34,413	$20,956	$75	$386,346	$759,355	85.6%	8.9%	5%	0%
May	$417,864	$360,611	$34,525	$22,822	$20,203	$438,161	$856,025	82.3%	7.9%	5%	5%
June	$485,820	$381,871	$20,096	$1,920	$797	$404,684	$890,504	94.4%	5.0%	0%	0%
July	$531,698	$453,100	$15,389	$1,198	$1,305	$470,992	$1,002,690	96.2%	3.3%	0%	0%
August	$545,991	$458,985	$17,104	$1,281	$1,985	$479,355	$1,025,346	95.8%	3.6%	0%	0%
September	$676,794	$577,139	$25,568	$975	$91	$603,773	$1,280,567	95.6%	4.2%	0%	0%
October	$669,268	$600,941	$22,243	$3,349	$438	$626,971	$1,296,239	95.8%	3.5%	1%	0%
November	$899,412	$832,951	$31,891	$2,170	$201	$867,213	$1,766,625	96.0%	3.7%	0%	0%
December	$753,536	$642,302	$23,325	$2,371	$224	$668,222	$1,421,758	96.1%	3.5%	0%	0%
TOTALS	$6,771,750	$5,994,625	$329,701	$64,285	$29,623	$6,418,234	$13,189,984				
						2009 12 mo avg =		92.8%	5.5%	1.2%	0.6%
						2008 12 mo avg =		95.6%	3.6%	0.4%	0.4%

Month End Aged Report Totals for Active Accounts w/Amounts Owing - 2008 (no adjustments included)

Month	Current	1-30 Days PstDue	31-60 Days PstDue	61-90 Days PstDue		>90 Days PstDue	Total	% of Total Arrears			
								1-30 Days PstDue	31-60 Days PstDue	61-90 Days PstDue	>90 Days PstDue
January	$798,422	$655,505	$21,269	$5,298	$4,938	$687,010	$1,485,432	95.4%	3.1%	1%	1%
February	$1,090,526	$1,042,441	$39,279	$1,472	$4,265	$1,087,457	$2,177,983	95.9%	3.6%	0%	0%
March	$876,203	$817,733	$16,893	$1,588	$5,235	$841,449	$1,717,652	97.2%	2.0%	0%	1%
April	$778,033	$604,109	$25,594	$1,670	$6,260	$637,633	$1,415,666	94.7%	4.0%	0%	1%
May	$820,706	$713,555	$13,497	$1,368	$2,739	$731,159	$1,551,865	97.6%	1.8%	0%	0%
June	$944,641	$784,640	$43,083	$2,720	$3,831	$834,274	$1,778,915	94.1%	5.2%	0%	0%
July	$980,994	$756,705	$49,295	$3,578	$5,165	$814,743	$1,795,737	92.9%	6.1%	0%	1%
August	$2,607,599	$2,313,159	$56,576	$25,859	$7,029	$2,402,623	$5,010,222	96.3%	2.4%	1%	0%
September	$1,365,984	$1,232,488	$32,140	$5,474	$61	$1,270,163	$2,636,147	97.0%	2.5%	0%	0%
October	$1,221,480	$1,226,503	$40,332	$9,074	$1,177	$1,277,086	$2,498,566	96.0%	3.2%	1%	0%
November	$867,718	$953,646	$55,874	$935	$213	$1,010,668	$1,878,386	94.4%	5.5%	0%	0%
December	$765,219	$719,547	$25,821	$3,775	$191	$749,334	$1,514,553	96.0%	3.4%	1%	0%
TOTALS	$13,117,525	$11,820,031	$419,653	$62,811	041,104	012,343,599	$25,461,124				
					2008 12 mo avg =			95.6%	3.6%	0.4%	0.4%

KAUAI ISLAND UTILITY COOPERATIVE'S RESPONSES TO THE PUBLIC UTILITIES COMMISSION'S INFORMATION REQUESTS

DOCKET NO. 2011-0186

PUC-1R-KIUC-102 Concept:

The Program requires that non-payment results in the initiation of disconnection procedures for electric service. Because electricity is an essential service, the potential of disconnection would further encourage repayment of arrears. Understanding the disconnection procedures of the utilities and the reactions of ratepayers to disconnection will provide a finance program administrator insight into the performance of the payment of on-bill service charges.

The following requests pertain to disconnection occurrences and procedures for rate classes D and G, as applicable.

1. Please provide the disconnection frequency of customers monthly for the past five consecutive, recent years;

RESPONSE: See Attachment PUC-IR-KIUC-102, which sets forth the frequency of KIUC's various procedures leading up to permanent disconnection/termination of service (e.g., delinquent notice, collection letter, installation of limiter, etc.) for the past five years. Page 1 of the attachment shows the information on a yearly basis. Pages 2 and 3 of the attachment show the information on a monthly basis.

Action 6 — 7 days after service is limited, service is booted (meter boot is installed).

Action 7 — 1 day after service is booted, service is permanently disconnected (service is terminated and account is closed).

KIUC notes that in the future and in connection with smart meters' capabilities and/or technologies to streamline various utility processes, KIUC may have an opportunity to streamline its disconnection process/procedure.

4. Please detail the average period of time electricity gets shut off as a result of delinquencies for disconnection. Please include the number of reinstatements after a specified time from disconnection.

RESPONSE: As explained in the response to part 2 above, when KIUC disconnects a customer account, that disconnection is permanent and that account cannot be reinstated.

SPONSOR: Maile Alfiler

ATTACHMENT
PUC-IR KIUC 102

	2012	2011	2010	2009	2008
	Total	**Total**	**Total**	**Total**	**Total**
Total Bills	395,537	393,676	394,578	387,249	386,556
Delinquent Notice	68,029	69,085	66,389	60,070	66,801
Collection Letter	43,854	45,384	40,835	34,656	41,083
No Payment by Final Date	18,058	15,054	13,105	12,096	2,603
Collection Notice (Door Visit)	11,740	12,158	11,283	9,364	10,123
Limiter Installed'	417	440	376	363	465
Meter Booted[2]	89	85	106	147	122
Accounts Limited/Booted	506	525	482	510	587
Accounts Closed Due to Nonpayment[3]	154	143	102	139	199

'An electric service load limiter limits the level of current a consumer receives from an electric utility power line. If the level of current is greater than the preselected maximum level, the flow of current will be interrupted from the utility power line through the consumer's power circuit, thereby disrupting electrical service to the consumer. A limiter allows the utility to extend service to delinquent consumers for a limited period prior to installing a meter boot or terminating service.

[2]A meter boot, also known as a disconnect sleeve, is a safe and economical means of temporarily isolating the customer meter from the electrical service (i.e., disconnecting the customer) while allowing the meter to stay in place.

'Once an account is closed, service is permanently terminated for that account and the customer must reapply for a new account and fulfill any required financial obligations before electric service will be provided.

	Total Bills	Delinquent Notice	Collection Letter	No Payment by Final Date	Collection Notice (Door Visit)	Limiter Installed	Meter Booted	Accounts Limited/Booted	Accounts Closed Due to Nonpayment
Jan-12	32894	5492	3683	1583,	1163	45	12	57	16
Feb-12	32845	5658	3367	14711	654	18	5	23	5
Mar-12	32911	5130	3478	15561	1173	24	9	33	7
Apr-12	32898	6092	3579	1370[1]	979	14	3	17	3
May-12	32961	5476	3945	1688[1]	1144	33	8	41	14
Jun-12	33061	5546	3298	1385	917	38	10	48	10
Jul-12	32950	5225	3608	1500	1001	13	12	25	8
Aug-12	33058	5406	3902	1456!	908	50	11	61	30
Sep-12	32932	5391	3140	1379	886	34	3	37	10
Oct-12	33026	6048	4051	14871	1068	60	7	67	22
Nov-12	33001	5728	3638	14081	929	50	5	55	18
Dec-12	33000	6837	4165	17751	918	38	4	42	11
2012 Total	**395537**	**68029**	**43854**	**180581**	**11740**	**417**	**89**	**506**	**154**
Jan-11	32774	5193	3399	1200	652	19	4	23	2
Feb-11	32727	6103	3729	1211[1]	922	27	12	39	14
Mar-11	32804	5745	3344	12541	1006	40	8	48	11
Apr-11	32789	5375	3120	13021	1052	35	2	37	3
May-11	32840	5110	4372	12951	1085	38	13	51	18
Jun-11	32813	5704	4279	1320	858	36	7	43	3
Jul-11	32811	5694	3357	1300'	967	38	8	46	24
Aug-11	32851	5439	3727	1310	1366	51	10	61	13
Sep-11	32854	5800	3961	15831	1240	58	5	63	21
Oct-11	32775	5813	3586	i ,	941	46	4	50	16
Nov-11	32815	6407	4300	16021	964	33	5	38	7
Dec-11	32823	6702	4210	1677	1105	19	7	26	11
2011 Total	**393676**	**69085**	**45384**	**15054**	**12158**	**440**	**85**	**525**	**143**
Jan-10	32531	5108	2823	900	918	26	3	29	6
Feb-10	32585	6014	3259	1233	844	23	8	31	0
Mar-10	32651	5423	3449	1126[1]	859	48	9	57	16
Apr-10	32657	5037	3142	1004]	808	31		5----- 36	7
May-10	32515	5862	3329	1010	888	31	5	36	7
Jun-10	32697	5240	3403	1519	993	45	21	66	12
Jul-10	32637	5178	3274	11231	926	26	10	36	13
Aug-10	32672	5218	3328	9781	910	43	7	50	11
Sep-10	32600	5342	3411	9711	1121	32	14	46	9
Oct-10	35741	5656	3490	975	1015	30	10	40	6
Nov-10	32642	5451	3870	1010	904	23	11	34	6
Dec-10	32650	6860	4057	12561	1097	18	3	21	9
2010 Total	**394578**	**66389**	**40835**	**13105**	**11283**	**376**	**106**	**482**	**102**

	Total Bills	Delinquent Notice	Collection Letter	No Payment by Final Date	Collection Notice (Door Visit)	Limiter Installed	Meter Booted	Accounts Limited/Booted	Accounts Closed Due to Nonpayment
Jan-09	32395	4871	3020	13311	790	52	13	65	30
Feb-09	32279	5335	2776	11921	929	23	3	26	13
Mar-09	32401	4747	2692	8921	682	34	10	44	12
Apr-09	32362	4382	2285	805	719	26	9	35	10
May-09	32337	4583	2444	829	808	18	9	27	12
Jun-09	32460	4467	2197	878	761	20	12	32	6
Jul-09	32508	4770	2955	939	779	31	20	51	8
Aug-09	32491	4949	2658	911	735	25	16	41	10
Sep-09	30318	4894	2943	11041,	838	33	9	42	13
Oct-09	32579	5090	3151	970	803	29	10	39	4
Nov-09	32520	5839	3779	1288'	610	37	17	54	10
Dec-09	32599	6143	3756	957'	910	35	19	54	11
2009 Total	**387249**	**60070**	**34656**	**12096**	**9364**	**363**	**147**	**510**	**139**
Jan-08	32055	5506	3550		953	45	13	58	11
Feb-08	31948	5441	2980		900	36	13	49	12
Mar-08	32049	5401	3185		705	24	6	30	4
Apr-08	32206	5063	3071		952	35	12	47	10
May-08	32173	5451	3435		863	46	18	64	15
Jun-08	32226	5346	2943		871	38	11	49	12
Jul-08	32260	5227	3768		827	15	4	19	9
Aug-08	32296	5886	3136		891	50	11	61	8
Sep-08	32313	5588	3586		939	60	15	75	47
Oct-08	32375	5366	3546		772	32	2	34	17
Nov-08	32310	5352	3234	12301	757	50	10	60	37
Dec-08	32345	7174	4649	1373	693	34	7	41	17
2008 Total	**386556**	**66801**	**41083**	**2603**	**10123**	**465**	**122**	**587**	**199**

KAUAI ISLAND UTILITY COOPERATIVE'S RESPONSES TO THE PUBLIC UTILITIES COMMISSION'S INFORMATION REQUESTS

DOCKET NO. 2011-0186

PUC-IR-KIUC-103 Concept:

In order to work with the program administrator and finance program administrator, each utility will need to give data to these entities, accept data from the entities to incorporate into a utility billing system and perhaps allow access to data within the billing system.

The following requests pertain to utility system requirements for implementing an OBF program. Please provide:

1. Billing system requirements: What is/are the best or acceptable ways to receive information to put into the billing system? Is there a specific form of information and method of data transfer? How frequently can information be received? Is there a lag time between the timing of receipt of data and the incorporation of the data into the system?

RESPONSE: The best way for KIUC to receive information to put into its billing system is via a secure File Transfer Protocol (FTP) site (preferably to be provided by the program administrator) with the data in Comma-Separated Values (CSV) format. KIUC believes it would be reasonable for KIUC to receive information once per week, provided that KIUC receives the information on a working day. KIUC

PUC-IR-KIUC-103 (cont.)

estimates that, depending on circumstances, there could be up to three working days of lag time between receipt of data and when the data is incorporated into KIUC's applicable systems and databases.

2. Data transfer protocols and approvals necessary: Please provide specific information about the approvals necessary for data transfer or allowing outside entities to access data in the utility's systems.

RESPONSE:

Generally and depending on the circumstances and type of data requested, KIUC does not allow outside entities (i.e., unaffiliated entities) to directly access data in KIUC's systems and databases, including its Customer Information System (CIS) database without obtaining the necessary waivers, authorizations and/or confidentiality/non-disclosure agreements. KIUC notes that, due to KIUC's obligations to protect its members'/customers' confidential and private information, whenever KIUC allows an outside entity to access certain data that could contain confidential or private member/customer information, KIUC requires, at

PUC-IR-KIUC-103 (cont.)

the minimum, that the outside entity enter into a confidentiality/non-disclosure agreement with KIUC.

3. Billing system payment allocation procedures: Does the billing system offer a way to allocate over-payments or paying off the obligation in advance?

RESPONSE: KIUC's billing system does not currently offer a way to allocate over-payments. Any over payments received by KIUC are treated as credits and applied to the customer's next billing.

4. Billing system pari passu accommodation: Does the billing system offer an automated way to allocate payments on a pari passu basis? If not, can this be programmed into the billing system?

RESPONSE: KIUC's billing system does not currently offer an automated way to allocate payments on a pari passu basis. KIUC is not certain whether this function can be programmed into KIUC's billing system, but KIUC is willing to explore whether such function is feasible and could be programmed into KIUC's billing system for a reasonable cost.

Note: The collections data, submitted as attachment KIUC is manually collected on a daily basis and *reconciled at month-end. The status of a customer in the collections process changes frequently, and requires a manual recording.*

SPONSOR: Myles Aquino and Maile Alfiler

**KAUAI ISLAND UTILITY COOPERATIVE'S RESPONSES
TO THE PUBLIC UTILITIES COMMISSION'S INFORMATION REQUESTS**

DOCKET NO. 2011-0186

PUC-1R-KIUC-104 Concept:

A financing institution will have requirements for collecting arrears. The requirements and protocols of the financial institution may differ from the utilities, or could offer a chance to increase efficiency by combining efforts on delinquencies.

1. Please describe your communications standards and procedures for nonpayment by customers for services provided.

RESPONSE: See the response to PUC-IR-KIUC-102, part 3.

SPONSOR: Maile Alfiler

APPENDIX A

Table 1: Customer accounts per class, and percentage kWh sales

Rate Class	*No. of Customer Accounts Billed*	*% of Annual kWh Sales*
Residential	*28,215*	*36%*
Small Commercial	*4,209*	*14%*
Large Commercial	*332*	*12%*
Large Power - Primary (L)	*14*	*11%*
Large Power - Secondary (P)	*113*	*27%*
Street Lighting (SL)	*111*	*1%*
Total	***32,994***	***100%***

Appendix 5

Basic Market Characterization provided by Hawaii Energy

Figures of the estimated range of transactions and capital funding needed per year for the first three years.

	PV (Average system cost $25,000)	**Solar Water Heating** (Average system cost $7000)	**Number of Transactions** (per 12 months)	
			Min	**Max**
Low Participation	350	350	350	700
High Participation	1500	1200	1500	2700
	PV	**Solar Water Heating**	Total	
Low funding	$8,750,000	$2,450,000	$11,200,000	
Max funding	$37,500,000	$8,400,000	$45,900,000	

Appendix 6

GEMS Integration into the On-Bill Mechanism

On-Bill Repayment Platform and Capital Sources (including GEMS Program)