



“Breaking Down the Barriers to Efficiency Improvements in the Rental Housing Market: *A Comparison of Two Utility Approaches*”

Katherine Johnson, Johnson Consulting Group,
Email: kjohnson@johnsonconsults.com

Michael Volker, Midwest Energy;
Email: mvolker@mwenergy.com

Wade Shimoda, Hawaii Electric Company,
Email: wade.shimoda@heco.com

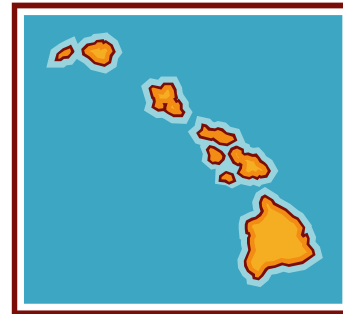
Dr. George Willoughby, Hawaii Electric Company,
Email: george.willoughby@heco.com



Hawaiian Electric Company



Hawaiian Electric Company has provided the energy that has fueled the islands' development from a Hawaiian kingdom to a modern state.



Midwest Energy



Midwest Energy Inc.



Midwest Energy, Inc. (Midwest Energy) is an electric and gas cooperative that serves 48,000 electric and 42,000 gas customers in central and western Kansas.



Challenges in the Rental Market

The rental market is a difficult segment to target for residential energy efficiency improvements.



- Due to the “split-incentive”
- Several utilities have implemented on-the-bill financing programs, patterned after the Pay-As-You-Save Program[®] Model.



On-the-Bill Financing Program Features

Utility provides the up-front capital.

Other program features:

- Efficiency improvements are paid for through a surcharge on the utility bill;
- The surcharge is tied to the location, not to the individual customer;
- Eliminates the “split incentives”



Comparison of Approaches

Hawaiian Electric and Midwest Energy

	HECO	Midwest Energy
Targeted Equipment	Solar Water Heaters	Space and Water Efficiency Measures
Marketing Approach	Contractor Driven	Customer Driven
No Customer Down Payment	√	√
On-the-Bill Financing of Efficiency Improvements	√	√
Utility Tariff Service	√	√
Installation Tied to Location	√	√
Implemented thru Approved Contractors	√	√
Required Post Inspection/Verification	√	√
Term of Loan (Maximum)	12 years	15 years
Additional Features	\$1,000 rebate	Comprehensive Energy Audit
	Equipment Warranty	Economic Analysis
	Free Maintenance	Contractor Management



HECO's Evaluation Activities

HECO's SSP pilot program evaluation consisted of the following activities:

- ***Document Review*** including program database and all supporting materials
- ***In-Depth Interviews*** with program staff, third-party implementers, and participating and non-participating solar water heater contractors
- ***Customer Surveys*** with participating customers.

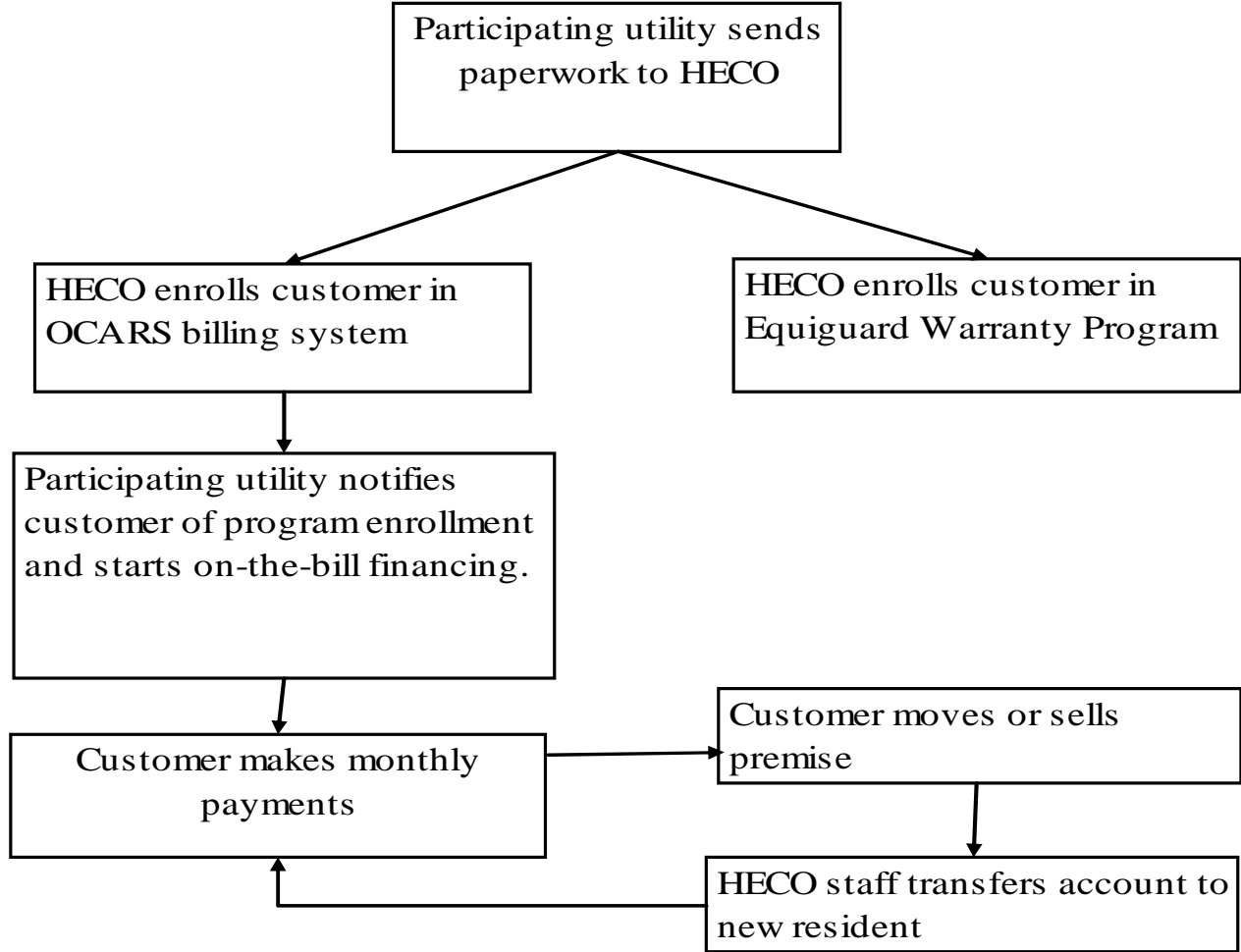


SSP Program Participation

Applicant Types	Count	% of PY1 total goal
Owner Occupants Applied	203	102%
Renters Applied	3	2%
Landlords Applied	2	1%



INTERNAL SSP PROGRAM PAPER WORK FLOW



Free Ridership

Types of Financing Options Considered	Number Responding	% of Responses
Did not consider other financing options	39	62%
Savings	8	13%
Loan from bank/credit union	6	10%
Home equity line of credit	5	8%
Loan from contractor	2	3%
Other (not specified)	3	5%
Total	63	100%

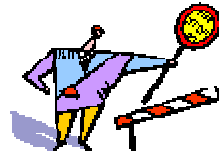


Overall Satisfaction and Effectiveness

- **Contractor Satisfaction:** *Surprising Results*
Participating contractors registered higher dissatisfaction compared to non-participating contractors.
- **Customer Satisfaction:** Overall, customer satisfaction is high among program participants
- **Program Cost-Effectiveness:** Not likely to be cost-effective



Barriers to Participation



- **Application Processing** time and requirements
- **Non-participating contractors** would prefer to use alternative financing methods or no financing methods at all, rather than comply with the SSP Program requirements.



Midwest Energy's Evaluation Activities

- **Impact Evaluation** of estimated savings for measures
- **Document Review** of the pilot program
- **On-going Assessment** of program progress based on feedback from staff and participating contractors.



Key Findings from Midwest Energy's Evaluation

- **Program Administration:** Delivered to all 41 counties of the service area by five employees.
- **Program Participation:** Midwest Energy has invested \$464,000 toward the installed efficiency measures
- **Midwest Energy:** Successful in attracting participating tenants and landlords



Free Ridership



- Free ridership potential is high
- Comprehensive energy audits are expensive.
- Midwest Energy provides free walk-through audits but charges for more comprehensive analysis
- To minimize free ridership, a limited audit charge policy has been adopted.



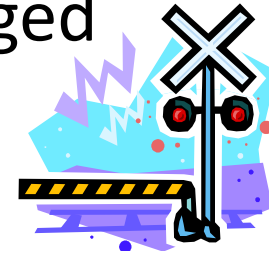
Overall Satisfaction and Effectiveness

- **Contractor Satisfaction:** The How\$martSM program is well accepted among contractors.
- **Customer Satisfaction:** Customer satisfaction is high, especially among **landlords**.
- **Program Cost-Effectiveness:** The program focuses on financing cost-effective improvements for the customer.”



Barriers to Participation

- Initially, the company discouraged early payoff of How\$martSM obligations by including an interest penalty for early payoff.
- The company now allows customers to pay off the principal balance at any time without interest penalty. As a result, more landlords are willing to participate.



Comparison of Program Results

2007-2008 Program Year Results		
	HECO	Midwest Energy
Number of residences reached	185	98
Value of home improvements	\$417,048	\$464,000
Estimated energy savings(kWh)	454,650	221,000
Mmbtu	NA	1900
Gallons of Propane	NA	575
Estimated Annual Energy Savings	NA	\$58,000



Lessons Learned



- **Keep the focus on the rental housing market**
 - Design works best for low cost measures that have a short payback
 - Midwest Energy has been successful in tapping because of its focus on lower-cost shell and heating measures.
- **Keep the application process simple**
 - Midwest Energy was able to leverage its existing skills and capabilities into the How\$martSM Program
 - HECO had to develop this entire program from the ground up.



Lessons Learned

- **Voluntary is better than mandated**
 - Offers more flexibility and increases the potential for long-term success
 - Midwest Energy viewed this as a way to improve the overall housing stock in its service territory
- **Contractor relationships are critical for program success**
 - Demonstrated a strong sense of commitment to these contractors by offering them training and by treating them an essential partner in this process.



HECO's Next Steps

- Program has been turned over to third-party administrator due to administrative burdens
- Free ridership still a concern
- Doubtful that program will be continued after pilot period
- **Biggest Challenge:** Implementing a mandated program cost-effectively



Midwest Energy's Next Steps

- Program continues to gain in enrollment and interest – especially among landlords
- Formal evaluation will be conducted in 2010
- **Biggest challenge:** Finding skilled contractors to keep up with demand for these types of improvements
- Generating a lot of buzz from program operators and utility regulators



Special thanks to my co-authors

Michael Volker, Midwest Energy;
Email: mvolker@mwenergy.com

Wade Shimoda, Hawaii Electric Company,
Email: wade.shimoda@heco.com

Dr. George Willoughby, Hawaii Electric Company,
Email: george.willoughby@heco.com

