

## Lessons learned from the field: key strategies for implementing successful on-the-bill financing programs

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**Abstract** On-the-bill financing programs have generated interest among utility program designers as a way to reduce the upfront cost associated with installing energy efficiency measures. This paper highlights the key lessons learned from program evaluations completed for two diverse programs: Midwest Energy and Hawaiian Electric Company. This paper documents the ways in which these utilities designed and implemented these innovative programs designed to promote installations of energy efficiency measures in the residential market. These programs will also describe the internal challenges faced by these utilities in developing the internal systems and resources necessary to manage the applications, billing records, and documentation required to manage these program activities. This paper also compares the approaches used by Midwest Energy and Hawaiian Electric based on two recently completed process evaluations. Midwest Energy debuted its How Smart Program in 2007 to provide renters and landlords a

mechanism to pay for a variety of energy efficiency improvements. Full program implementation began in 2008. Hawaii Electric developed the SolarSaver Pilot Program in 2007 to encourage installations of solar water heaters and has been operational for 2 years. In both programs, the utility provides the upfront capital as a way to encourage the investment in these energy efficiency improvements. This paper compares the results from both programs based on their second year of program operations. This paper will identify some “best practices” to consider for this type of program as well as learn more about benefits provided by these unique on-the-bill-financing programs.

**Keywords** On-the-bill financing · Energy efficiency · Rental market

### Introduction

The rental market is a difficult segment to target for residential energy efficiency improvements. This is primarily due to the “split-incentive” issue—that is the beneficiary of the energy efficiency improvement may not be responsible for paying the energy bill. In the rental market, the landlord has little interest in paying for energy efficiency improvements because the tenant pays the utility bills. However, that is changing since several utilities have implemented on-the-bill financing programs, patterned after the Pay-As-You-Save<sup>®</sup> Program Model. Two utilities, Hawaiian

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Electric Company (HECO) and Midwest Energy Inc. (Midwest Energy) have pioneered the development and deployment of these programs. While both utilities have experienced some challenges in implementing these programs, the overall conclusions are that: this approach is an effective way to reduce market barriers in the rental housing market, encourage customers to invest in high efficiency energy improvements, and expand the reach of traditional energy efficiency programs beyond homeowners. These programs are designed to help “close the loop” between tenants and landlords by providing them strategies that encourage the installation of long-term energy efficiency measures. This paper summarizes the approaches used by these utilities and also illustrates the “lessons learned” during the first 2 years of program implementation.

## HECO

HECO and its subsidiaries, Maui Electric Company, Ltd. (MECO), and Hawaii Electric Light Company, Inc. (HELCO), serve 95% of the state’s 1.2 million residents on the islands of O’ahu, Maui, Hawaii Island, Lana’i, and Moloka’i. This paper summarizes the company’s efforts to promote the installation of residential solar water heaters (SWH) through its SolarSaver Pilot Program (SSP).

## Midwest energy

Midwest Energy is an electric and gas cooperative that serves 48,000 electric and 42,000 gas customers in central and western Kansas. Midwest Energy is vertically integrated in that it has its own transmission system and generates electricity either from company-owned resources or procures it contractually for its members. The largest city served is Hays, Kansas with a population of approximately 20,000. The service area population is expected to stabilize after declining for the past few years.

## Description of on-the-bill financing programs

The concept of on-the-bill financing was formalized in the Pay-As-You-Save<sup>®</sup> Program Model developed by the Energy Efficiency Institute (EEI). A particularly

appealing aspect of this model is that it focuses on reducing a common market barrier: split incentives for landlords and property developers. The program theory is summarized as follows:

PAYS products eliminate any disincentive to invest in energy efficiency for developers and landlords who do not pay the energy bills. With PAYS products, these decision makers can approve installation of measures they know improve the value of their buildings and that will reduce occupants’ energy bills without incurring any financial obligation themselves © 2001, Energy Efficiency Institute, Colchester, VT (Source: [http://www.paysamerica.org/PAYSFiling\\_Final\\_2.pdf](http://www.paysamerica.org/PAYSFiling_Final_2.pdf))

Thus, these programs remove the traditional split incentive by allowing tenants to pay for and receive energy efficiency improvements, rather than relying on the landlord to fund these renovations. However, these energy efficiency improvements lower rather than increase the bill; thus, the tenant pays for the cost of these improvements from the energy savings achieved by the installation of the measures. It creates a “win-win” situation in which the tenant saves money through efficiency improvements without requiring additional landlord investment.

Table 1 compares the HECO and Midwest Energy program approaches for on-the-bill financing programs.

## HECO’s program

HECO’s SSP Program is a three-year pilot program (June 30, 2007–June 30, 2010) designed to overcome the barrier of up-front costs in the residential solar water heating market. The original focus of this program was on the rental market. This program was implemented across its subsidiaries: HECO, MECO, and HELCO and the pilot focused on the islands of O’ahu, Maui and, Hawaii Island (Big Island). The program targets the electric water heating market, a significant end use for this utility.

The program is marketed through approved residential water heater contractors, who already specialize in installing solar water heating. Hawaii’s climate and location make solar water heating a cost-effective option for residential customers. Participating customers incur no upfront cost but rather are able to finance the cost of a

**Table 1** Comparison of utility program approaches

	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

solar water heater on their monthly bill. However, the energy savings from this installation more than offset the monthly fee. Participants also receive a \$1,000 rebate for participating in HECO's Residential Water Heating Program, free maintenance and insurance on the solar water heater, and 12-year warranty.

The SSP Program was a direct result of the Hawaiian State Legislature's desire to use this approach to reduce the upfront cost associated with the installation of solar water heaters for tenants and homeowners who needed to replace their water heaters. The legislature believed this additional financing program was necessary because the current renewable energy technologies income tax credits and electric utility rebates had not been sufficient to increase installations of this technology. This was especially true for those customers living in rental housing and homes needing retrofits (Commission Docket 2006).<sup>1</sup> While HECO complied with this modification, it wanted to focus only on tenants and those homeowners who had previously considered SWH installations. However, the legislature opened

<sup>1</sup> Commission Docket 2006-0425, June 29, 2007. p. 2.

this program up to all homeowners, without setting any income qualifications or requirements. Instead, a customer only had to be in "good standing" with the utility and have 6 months of good payment history in order to qualify for the program.

Given the nature of the program, in that it focused on financing a solar water heater for a term of 12 years, HECO had to rely on internal funds to cover the financing portion of this program. Therefore, HECO had to "become a bank" and develop the internal forms and processes to manage these long-term loans.

The program requirements also meant that HECO had to develop internally all of the forms, documents, and program information to be sure that the program satisfied all necessary legal requirements. The legislative order also required that the utility properly document the installation on the deed. While this notation would not prevent the property from being sold, it did tie the installation of the solar water heater to the *property* rather than to a *property owner*.

The two program evaluations identified some of the challenges that HECO faced as it tried to comply with the required program elements while also developing a program "from scratch" as well as documented how HECO was able to successfully overcome these challenges (Johnson 2008).

### Midwest Energy's program

High natural gas prices in 2006 and 2007 resulted in an unexpected boon to the City of Hays, Kansas in the form of higher than expected franchise tax revenues from Midwest Energy. City administrators recognized that the surplus revenue was coming at a cost to residents in the form of high energy bills and offered to use above-budgeted franchise tax dollars to help pay low-income residents' utility bills. One major requirement was that in order to qualify, the resident must have an energy audit by Midwest Energy. Midwest Energy completed energy audits in 2006 and again in 2007 often on the same structures for the same customers. The repeat-audit customers were usually lower-income customers in rental properties with neither the capital nor the ability to make energy efficiency improvements. Although the barriers to energy efficiency were understood, now there was a heightened need to overcome these barriers.

Against this backdrop, Midwest Energy learned about the Pay-As-You-Save<sup>®</sup> or PAYS<sup>®</sup> concept developed by EEI Vermont. Midwest Energy's How\$mart<sup>SM</sup> program ties investments in energy efficiency to basic utility service. Unlike HECO and the pilot programs in New Hampshire (which were required to implement the program), Midwest Energy is the first utility in the world to *voluntarily* adopt the Pay-As-You-Save<sup>®</sup> concept; however it has been tailored to fit Midwest Energy's unique service area characteristics. The company has allowed investment in efficiency measures that result in How\$mart<sup>SM</sup> charges equal to 90% of the estimated savings rather than just 75% under PAYS<sup>®</sup> or 80% in the HECO's program. Midwest Energy only allows efficiency measures that are permanently attached to the foundation meaning all the improvements are related to space or water conditioning.

The How\$mart<sup>SM</sup> program began in August of 2007 as a pilot program offered in four counties. Midwest Energy has made minor adjustments to the program and has begun its first marketing efforts to the full 41 counties. There has been strong interest in this program from several landlords who view this program as a way to improve their rental properties without raising rent to their tenants. Most of these units are small multi-family buildings with two to four units.

Customers find out about the program through contacts with bill concerns or complaints. Contractors and social service agencies also often refer customers to the program, especially when financing high efficiency equipment has been an issue. After the initial contact, the customers receive a description of the How\$mart<sup>SM</sup> program and a high-level screening of energy usage. In most cases, this leads to a comprehensive onsite audit.

The audit results lead to the development of a preliminary Conservation Plan which includes recommended efficiency improvements, estimated costs of those improvements, and energy savings. Customers solicit participating contractors to provide binding bids for recommended improvements in the preliminary Conservation Plan. Once estimates are received, the Conservation Plan is finalized with total costs of the improvements, estimated utility bill savings, and the required How\$mart<sup>SM</sup> monthly charge to be added to the utility bill.

Upon completion of the prescribed work, the building owners and tenants must sign off on the

completed work. These forms include required notification of new tenants or owners that How\$mart<sup>SM</sup> charges exist and they will be included on their utility bill. The selected contractor must also be in good standing and have a signed Master Contractor Agreement on file with the Company. Midwest Energy pays the contractor upon sign-off by the customer that work has been satisfactorily completed.

Funding for the program has also grown as the program has expanded to include all of Midwest Energy's service territory. For the pilot program, \$250,000 was allocated. Each year, investment has grown. In 2010, the Company will invest more than \$1.0 million in building efficiency improvements not including program costs. Internal program costs are also considerable since auditors are all in-house. A total of seven employees spend significant parts of their day working on the How\$mart<sup>®</sup> program (Dreiling and Volker 2004).

### Evaluation activities

The evaluation activities were more formalized for HECO relative to Midwest Energy. For the SSP pilot program, the second year program evaluation consisted of the following activities:

1. Review the program database to quantify key metrics for the second year of operation;
2. Review the recommendations from the Year 1 Process Evaluation Report to determine if they were acted upon;
3. Identify areas for program modifications and improvement, regarding both the design and implementation;
4. Gather more in-depth information regarding program participation among MECO customers through customer surveys, since this group was under-represented in the PY1 process evaluation.

For Midwest Energy's How\$mart<sup>SM</sup> Program, the evaluation activities included:

1. Completing an impact evaluation of estimated savings for measures
2. Document review of the pilot program
3. Provide ongoing assessment of program progress based on feedback from staff and participating contractors.

## Key findings from HECO

This section summarizes the key findings from the program evaluation completed after the first and second years of program operation.

### Program participation

Program Year 2 (PY2) was a very successful year for the SSP Program with the program receiving a total of 413 applications, exceeding goals by 15%. A total of 328 applications were approved and 299 were processed after 29 were canceled. This is a significant increase in overall application volume compared to Program Year 1.

To accommodate the increased demand for the program, both HECO and HELCO received permission to tap into PY3 funding. This accelerated the spending of Program Year 3 funds so the program ran out of money in August 2009 in these two utility service territories.<sup>2</sup>

Since a critical component of this program design was to encourage renters and landlords to apply to the SSP, this metric is also tracked in the program database. In PY2, for example, 94% of all applications were from owner occupants. This is consistent with the rate in PY1, where 96% of all applications were from owner occupants.

### Program administration

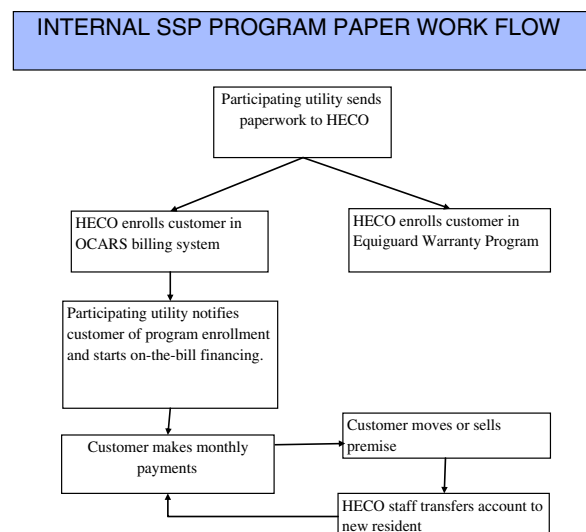
Developing the application process was a challenge for HECO staff. This process required the utility to also develop systems and responses to handle all aspects of loan financing and defaults, which were unfamiliar territory for this program staff. However, the HECO staff was successful in developing an internal system that accurately tracked the current status of all applications and addresses other billing issues such as “transferring” the account from one customer to another when there is a change in the residence. This process begins at the individual utility, such as Maui Electric, HECO or HELCO, and then is

<sup>2</sup> On June 10, 2009, HELCO requested approval to carryover unspent PY2 funds to PY3 and to reallocate funds between budget line items to allow systems approved but unable to be installed in PY2 to be installed and paid for in PY3. The request was approved by the Commission.

merged into a common billing approach at the company headquarters on Oahu. Figure 1 provides a simplified view of this program’s operation.

The PY1 process evaluation described the difficulties associated with developing this application process “from scratch.” The SSP application process must be coordinated among several entities: the utility, the customer, the contractor, the notary public, the State Bureau of Conveyances, and, in some cases, the Department of Hawaiian Home Lands and/or other government-assisted housing agencies. Even satisfied customers complained about the lengthy processing time. Moreover, applicants who are most likely to be living in government-owned low income housing have the biggest administrative burden when participating in the SSP Program.

However, most of the administrative difficulties identified in the PY1 process evaluation have been resolved, as the program staff and implementation team have become more comfortable with the process. Application processing is still a labor-intensive process as the major focus on program administration has shifted from processing new applications to managing existing ones. Currently, there are 477 SSP existing loan portfolios that must be reviewed, tracked, and matched up each month with the billing cycles. This continues to be an administrative burden for program staff.



**Fig. 1** Simplified flow chart for SSP program application processing

The utility is also starting to transition away from dedicated full-time SSP and Residential Efficient Water Heating (REWH) Program manager in anticipation of the decreased level of SSP Program activity in PY3 and the transition of the REWH Program to non-utility administration.

#### Program billing and collections

The amount of time spent on billing and collections is expected to increase in PY3 as the program's focus shifts from processing new applications to monitoring or changing the status of existing participants. Along with fee payment monitoring and collections, during PY2 several loans were either paid off early or subjected to loan subordination, so the utility staff anticipates an increase in the need for clerical support during the remaining years of the loan period.

However, there is no easy way to streamline the billing process. This is a challenge for customers who have enrolled in automatic bill payment services for their light and power bill who "forget" to pay their separate SSP monthly bill as well as for program staff. This continues to be a labor-intensive process since the billing staff has to manually track the status and timing of each of the more than 475 SSP loan applications for the life of the loans.

Program collections have not yet become an issue for this program, as only a few customers were delinquent in their SSP accounts. But, it was difficult to develop a proper way to identify and manage those few customers. One obstacle was that these customers paid the electric portion of their bills, usually through an automatic bill payment service but did not pay the separate SSP bill which has been mailed to them. However, because the total amounts of these delinquent bills were usually less than \$100; these were not high priority issues for the collections department. However, as the program continues, collections may become a larger issue for the program even though the delinquent amounts due may be relatively low.

This is expected to remain an issue going forward as these loans are transferred to new electric account holders. The utility staff is concerned that they may not have enough resources in place to process these collections for SSP applications, especially when the pilot program concludes.

#### Customer/contractor satisfaction

Consistent with the program evaluation results from PY1, the participating customers reported a high degree of satisfaction with both the utility and the SSP Program. Program staff from all three utility companies also reported that they did not receive any customer complaints during PY2.

The number of participating contractors also stabilized during PY2, according to program staff. Overall, these contractors were pleased with the SSP program operations in PY2, although they were disappointed that the program may be discontinued in the future.

#### Free ridership

A way to gauge free ridership is to examine customers' intentions. Therefore, the customer survey asked several questions to determine if they had considered purchasing a SWH prior to participating in this program. Sixty-three percent of these respondents said they did not consider purchasing a SWH system earlier, while 38% said they did. However, the major reason that prevented these customers from making this purchase was that they did not have the money at the time (89%). Other reasons mentioned by these customers included not thinking the program would save money (33%), they did not want to take a loan out (11%), or they could not find a qualified contractor (11%).

Furthermore, most customers (66%) did not receiving a previous bid from the program, which further suggests that free ridership for the SSP Program is low.

#### Barriers to program participation

The major barrier to participation continues to be a lack of awareness of the program. While the survey respondents suggested that the utility should increase overall program awareness, this may not be feasible as the program winds down. Few tenants and landlords participate in the program. A major recommendation from PY1 was to expand outreach to the low income and rental communities. While the utility staff reported they increased awareness among these groups following the request for additional funding to expand the utilities' outreach, once the request for expansion of the program

was denied, the utilities scaled back their efforts. Moreover, the funding constraints made it difficult to develop a separate outreach activity just for this community.

### Key findings from Midwest Energy

This section summarizes the findings from Midwest Energy's on-bill financing program. To date, the majority of the applicants have been homeowners (88%) compared with landlords/renters (12%).

#### Program participation

Midwest Energy has invested \$464,000 toward the installed efficiency measures (not including program fees). Total cost of the projects completed including the customer contribution to the project cost (but not including program fees) is over \$595,000. The total number of projects completed to date is 185.

Midwest Energy has been successful in attracting participating tenants and landlords 14% of the completed jobs for Midwest Energy are rental homes. While this may seem low, it is consistent with the demographic make-up of the service area where approximately 14.6% of customers rent their homes (Midwest Energy Customer Satisfaction Tracking Study 2008)

#### Program administration

The program is delivered to all 41 counties of the service area by five employees. All five are certified energy raters who complete roughly three HowSmart<sup>SM</sup> energy audits and the accompanying Conservation Plan each week. These same employees provide the field support for all other energy service offerings of the Company. There are no explicit audit fees for program participants.

#### Free ridership

The free ridership potential is high and comprehensive energy audits are expensive. Currently, Midwest Energy provides walk-thru audits free of charge, but the utility charges for more comprehensive analysis such as air infiltration tests or infrared scans. To minimize the potential for free ridership for the more comprehensive audits yet not discourage customers that are serious about making energy efficiency

improvements, a limited audit charge policy has been adopted. If the customer follows-up on the audit and participates in the program, there is no audit fee. If Midwest Energy cannot find improvements that result in a net lower bill with no upfront capital required, no audit fee is charged (Johnson 2009).

#### Contractor satisfaction

The HowSmart<sup>SM</sup> program is well accepted among contractors. The company's marketing efforts have focused on contractor training and education. For the most part, contractors have sold the program for the company. Midwest Energy is continuing to nurture relationships with trade allies.

#### Customer satisfaction

Overall, customer satisfaction is high, especially among the primary target market-landlords. To date, the 13 HowSmart<sup>SM</sup> rental properties are owned by nine different landlords. Each landlord has multiple properties increasing the potential for more rental projects. A few of the landlords have become ambassadors for the program by completing projects on their personal properties as well. In general, landlords have indicated that the program is appealing to them because it allows them to preserve their own capital while improving their property as the motivating factor for them to participate in the program.

#### Program cost-effectiveness

The program focuses on financing cost-effective improvements for the customer. However, Midwest Energy has gone one step further and is now using this program to "leverage" additional dollars for energy efficiency improvements. The company does allow for contributions by building owners to the overall cost of the project if the improvement is not deemed "economic." For example, the replacement of a 60% efficient furnace with 96% efficient furnace may not be paid for completely by the energy savings in a particular application. But, if the building owner contributes additional funds, then the savings on the energy bill can become at least 10% greater than the required HowSmart<sup>SM</sup> charge. This approach has proven successful in convincing building owners to upgrade their equipment to high efficiency HVAC

rather than simply replacing installations with standard efficiency equipment. Of the 95 projects completed through November 30, 2008, building owners on average had contributed approximately 22% toward the total cost of the efficiency measures.

### Barriers to participation

Initially, the company had a policy discouraging early payoff of How\$mart<sup>SM</sup> obligations by including an interest penalty for early payoff. The company simply did not anticipate landlords (or other customers) would want to pay off early when the interest rate embedded in the How\$mart<sup>SM</sup> charge was favorable (currently 4%). The company has addressed the challenges with the billing system issue and now allows customers to pay off the principal balance at any time without interest penalty. As a result, more landlords are willing to participate.

### Program recommendations

Midwest Energy found also learned during the first 2 years of program operations, that customers who own properties with How\$mart<sup>SM</sup> obligations are not likely to provide notification of the obligation to the succeeding owner of the property. Often the obligation is not discovered until the utilities are transferred to the buyer. Midwest Energy is also required to provide notification to the buyer that the obligation exists. To address this issue, Midwest Energy changed its protocols for communication related to a How\$mart<sup>®</sup> property. An identifying code was added to each How\$mart<sup>®</sup> account so the Customer Service Representative could immediately remind a selling party that if the property was sold, notification of the How\$mart<sup>®</sup> obligation was required. The utility also began filing Uniform Commercial Code forms on every How\$mart<sup>®</sup> property. These changes satisfied the realtors because now title searches would identify properties with How\$mart<sup>®</sup> obligations.

### Summary of evaluation results

Both programs have led to substantial energy savings reductions for participating customers, as shown in

Table 2. Midwest Energy can claim energy reductions beyond electricity since they target heating equipment which may use natural gas or propane. HECO's program is only focused on electric savings.

Midwest Energy developed this program as a way to expand both its overall market reach and to renovate the existing housing market. The biggest appeal of these programs, for both utilities, was that on-the-bill financing programs are to remove barriers in the rental housing market. Although both programs target the rental market, HECO has not been as successful in reaching out to renters and landlords compared to Midwest Energy. To date, nearly all of the program participants for HECO's SSP program have been by homeowners in single family homes, even though the only slightly more than half of all Hawaii residents (57%) own their own homes.<sup>3</sup> Moreover, Hawaii is known for its high cost of living and relatively low annual household incomes, making these types of programs even more important for renters who are not able to afford these types of energy efficiency improvements.

As these programs both illustrate, the rental market is slow to embrace these types of programs. For example, Midwest Energy learned that many landlords in the service area invest and divest in rental properties relatively quickly. Customers wishing to pay off their How\$mart<sup>SM</sup> balance early could do so but their payoff would be the monthly payment amount times the remaining number of payments, not just the remaining principal.

Both HECO and Midwest Energy rely on their strong contractor relations to develop these on-the-bill financing programs. HECO leveraged its network of existing water heating contractors, cultivated through its successful REWH program, and further nurtured through its support of the solar industry trade groups throughout the Hawaiian Islands.

Midwest Energy has also developed strong relationships with contractors over time. The primary strategy in developing relationship has been to offer local training opportunities, thereby increasing the competence of the contractor as well as reducing training costs. Typically, Midwest Energy has brought in a well-known speaker for training on specific topics such as the building envelope, building

<sup>3</sup> <http://www.census.gov/hhes/www/housing/census/historic/ownerchar.html>



**Table 2** Comparison of HECO and Midwest Energy Programs

2007–2009 Cumulative Program Year Results

	HECO	Midwest Energy
Number of customers reached	484	350
Value of home improvements	\$2,130,377	\$2,288,664
Estimated energy savings (kWh)	1,189,188	637,000
Mmbtu Gas/propane	NA	8,806
Estimated annual energy savings <sup>a</sup>	\$463,783	\$200,000

<sup>a</sup> Assumes an average of 39 cents per kWh for HECO customers

strategies, and furnace safety. Typically, these training sessions are attended by 50–100 contractors. In addition to training, Midwest Energy has provided for at least three informational luncheons regarding the How\$mart<sup>SM</sup> program in locations across the service area. Invitees include HVAC contractors, builders, housing inspectors, and other potential trade allies. By explaining the benefits of the How\$mart<sup>SM</sup> program to the allies, the company has not had much need to market the program directly to customers.

### Lessons learned

The experiences from both these utilities have led to the following “lessons learned” regarding the best way to develop and implement these types of on-the-bill financing program.

#### Keep the focus on the rental housing market

The original PAYS design was to offer a program that would reduce the high up-front cost of installing energy efficiency improvements so that the energy savings would pay for the cost of the installation. However, this approach becomes less effective as it tries to expand beyond the traditional rental housing market, or include measures that have longer paybacks. As this paper shows, while both utilities developed successful programs, Midwest Energy has been more successful in tapping into the rental market. Of particular note is the fact that rental property efficiency improvements are being completed at a rate consistent with the mix of rental properties in the service area. In other words, How\$mart<sup>®</sup> is living up to its promise to

bypass barriers in the tough to reach markets and overcoming the split incentive barrier.

In contrast, HECO had to expand the program to include the entire existing housing market, which diluted its original focus on the rental market. Therefore, one recommendation was to encourage tenants and landlords to participate more fully in this program, by perhaps establishing some specific goals for this customer segment. In that way, this program will achieve its original goal by offering financing to those customers who really need it—tenants.

#### Keep the application process simple

Midwest Energy was able to leverage its existing skills and capabilities into the How\$mart Program while HECO had to develop this entire program from the ground up. This issue, combined with the unique nature of the housing market in the Hawaiian Islands, added a layer of complexity for HECO to address. These programs are most successful when the application process is simple and straightforward and the contractors receive prompt payment for their services. Despite the challenges associated with the application processing, HECO has found ways to streamline its application process and accelerate payments to the contractors. All of these are critical determinants for program success.

#### Voluntary programs offer more flexibility and increase the potential for long-term success

Another reason for Midwest Energy’s success is that it was a utility-initiated rather than a government-mandated program. The utility saw this program as a

way to improve the overall housing stock in its service territory, ultimately benefiting both its customers and the utility. Since this was also a voluntary program, the utility had the flexibility to determine the terms and conditions of this program rather than having to comply with outside rules or constraints. In contrast, HECO spent a lot of time and effort getting the program “up and running,” which increased the overall program costs.

In fact, the utility argues that How\$mart<sup>®</sup> is not a traditional financing program, but rather is an extension of the company’s rate base to provide utility services. First, like regular utility rate base, Midwest Energy is allowed to earn its regulated rate of return on its How\$mart<sup>®</sup> project investment—the same as investment in meters, service drops, primary and secondary distribution plant. Second, like other investment in rate base, when a customer moves, the investment stays at the current location and is picked up by the succeeding customer until paid off. Finally, like more traditional utility service, customers that fail to pay their share for the investment in plant can be disconnected for non-payment of How\$mart<sup>®</sup> charges. From the utility’s perspective, this is what makes How\$mart<sup>®</sup> concept unique: it is not just an expense aimed at lessening the utility’s sales volumes, but rather *an investment* that yields a rate of return like traditional utility investment while satisfying the same end-use need for the customer at lower cost.

Contractor relationships are critical

These programs also demonstrate the importance and value that a strong contractor network has in delivering utility programs. Both companies were able to successfully implement these programs because they worked within the contractor community. Moreover, they demonstrated a strong sense of commitment to these contractors by offering them training and by treating them an essential partner in this process. The utility needs the contractor to install the equipment and the contractors benefited by being able to expand into a new customer group that may not have participated previously—those customers who did not have the money for equipment installations and could not finance it on their own. Moreover, because the program provides mutual benefits to both the contractor and the utility, this makes it easier for utilities to require post-equipment installations.

## Conclusion

Both utilities believe that the concept of the on-the-bill financing program is an effective one. The biggest challenge with HECO’s SSP program is that it focused on an expensive energy efficiency measure, a solar water heater, with a long payback—up to 12 years. It also did not focus on the rental housing market, but included home-owners—many of whom could have afforded to install these measures on their own.

As a brief update, the HECO program was discontinued at the conclusion of the SSP Pilot Program period. The major reasons were the shift in the responsibilities from utilities to a statewide administrator to provide energy efficiency programs. A second reason was that this program, which focused only on one technology, was simply not cost-effective given the high internal costs required to manage the program. Meanwhile, the How\$mart Program continues to expand and gain momentum in the marketplace. The 2010 cumulative results include 478 completed projects with another 241 pending and annual energy savings to date of 844,000 kWh and 123,000 therms of gas/propane.

These programs are living up to the promise tearing down market barriers to energy efficiency. While HECO and Midwest Energy were the first two utilities to implement these types of programs, it is clear that more utilities will start considering them. For example, Midwest Energy has received more than 200 inquiries from every region of the country while HECO’s program continues to be a model for utility-financed efficiency improvements and is serving as a blueprint for other utilities to use. While the rental market can be hard to reach, these two utilities have demonstrated that with innovative program design, patience, and the ability to make program adjustments as needed, the demand and interest in these types of programs will continue to grow.

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