Striving for Sustainability: Avenues for Recovering Program Delivery Costs from Those Who Benefit

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For utilities faced with competition, it is becoming more and more desirable to provide valuable customer services while at the same time minimizing rebates and subsidies for energy efficiency products and services. The task, however, is finding ways to provide these ''valuable customer services'' at costs that are sustainable from the utility's perspective. This involves recovering program costs from those parties that directly benefit from the efficiency services. This paper draws on experiences from two market-driven, customer pay programs designed and delivered by Wisconsin Energy Conservation Corporation (WECC). Both programs provide insights into the possibilities and limitations of recovering program costs from stakeholders such as customers and trade allies.

In addressing the question of how to recover program costs, the paper first describes some of the difficulties of market-driven delivery and provides insight on the customer view of efficiency programs which require customer payment. The discussion then moves on to the current market-based model being delivered by WECC in two community energy projects. The paper focuses on three cost recovery facets of the current model: requiring customer payment for services rendered, extracting contributions through retail sales to participants, and offering customer financing in lieu of rebates for efficiency measure installations. Given WECC's experiences in designing and delivering the New London Resource Project and the Energy Smart project in Park Falls, Wisconsin, lessons learned on market-driven programs and cost recovery are presented. Lastly, the paper concludes with a discussion of the ''next frontiers'' in delivering market-driven, customer pay programs that strive for sustainability.

INTRODUCTION

One truth on which most people in the utility industry agree is that the provision of energy efficiency services needs to take a new approach if it is to be sustainable in the future utility environment of competition. For the past decade, free energy efficiency services and substantial rebates for efficiency products have been the norm in the marketplace. However, in a competitive environment where price becomes paramount, utilities can no longer afford these steep subsidies given their impact on rates. And while it is true that subsidies can be a positive stimulus in developing efficiency markets, they can also have a negative impact. Free services or rebates left in the marketplace too long create a customer expectation that the cost of efficiency services and products should only be valued at a free or subsidized level. In WECC's community energy efficiency projects, some customers have been reluctant to pay for audit services and purchase compact fluorescent bulbs at retail cost due to the fact that utilities have been offering free audits for years and compact fluorescent bulbs have historically been subsidized at 50–75 percent below retail cost.

With deregulation of the utility industry on the horizon, less money is available to initiate and sustain energy efficiency programs. In a competitive utility market, price becomes the driver and utility services focus on customer retention and loyalty. While efficiency services may be in the mix, strong consideration of rate impacts in a competitive environment is crucial and the efficiency services offered must either be self-sustaining or must directly impact customer retention. Herein lies the fundamental problem: how to deliver market-driven, customer pay programs that avoid the costs associated with subsidies, while at the same time overcome the various obstacles that block a customer's path toward energy efficiency for their home or business.

Market-based efficiency programs have emerged as a response to the current environment for these programs. While the concept is an obvious solution to long term efficiency improvements in our homes and businesses, it is not clear how the costs of designing and delivering these services can in reality be recovered. In addition, sufficient customer demand for non-subsidized efficiency goods and services has not yet been established in the general marketplace.

In addition, the design and delivery infrastructure for energy efficiency services is in the midst of a radical transformation. Residential and small commercial efficiency services that have traditionally been offered by utility companies have

been greatly reduced or eliminated. Many organizations and businesses that became dependent on utility funding to provide efficiency services to these sectors are wondering if they will exist down the road. Many talented individuals with years of energy-related experience are evaluating options for new careers. Furthermore, some utilities are creating deregulated affiliates which provide customers with an entire range of energy services in direct competition with historical allies, energy service companies and trades (contractors and appliance/equipment suppliers).

Wisconsin Energy Conservation Corporation (WECC) has designed and delivered several efficiency programs that have provided valuable insights into the potential for recovering delivery costs in the residential and small commercial sectors. Through a series of community projects, WECC is striving to determine if efficiency services can indeed be self-sustaining, or if they will perpetually require some level of subsidy to exist.

THE DIFFICULTY IN DELIVERING MARKET-DRIVEN PROGRAMS

Unfortunately, a second truth currently exists regarding utility delivery of energy efficiency services. While it may be agreed upon that the approach for delivering these services must either change or perish, few utilities or other efficiency service providers have much experience in providing market-driven residential and small commercial programs without grants or subsidies. Pure market-driven, customer pay programs represent a significant departure from the traditional utility programs. However, this is not to say that sustainable opportunities do not exist. Rather, while the market for energy services is undergoing dramatic changes, progress is being made toward developing workable program designs that are both sustainable and capable of generating project income that can cover all or part of the project costs (Berkowitz and Karl 1996; IRT Results Center 1996).

The major dilemma facing residential and small commercial market-based efficiency services is determining how to collect sufficient funds from the various stakeholders in order to pay for the costs of delivery. But at the same time, the collection of sufficient funds cannot significantly hamper project participation, or the purpose is defeated. The question can be posed another way: can sufficient value from residential and small commercial efficiency services be created for customers and trade allies, to the extent that these customers would be willing to pay for the services?

CUSTOMER FEEDBACK ON PAY-FOR-SERVICE PROGRAM DESIGNS

As a preface to many of the customer pay efficiency programs designed and developed by WECC, customer focus groups in several communities were asked to address various issues pertaining to program characteristics (Berkowitz and Carroll 1995; Matousek and Stary 1994). In general, most customers believe energy efficiency is very important, but many lack the money, time and/or knowledge to complete retrofits of their homes and businesses. Residential focus group participants responded positively to the idea of an energy specialist providing a home energy assessment, installing low-cost efficiency products, and suggesting major energy efficiency retrofits for their homes. This customer class also generally agreed that $30 to $50 was a reasonable fee for these services.

In the small commercial sector, business people also believed an energy assessment provided valuable information for decisions about energy efficiency improvements. For this group, the cost of an assessment was less of an issue if it could achieve lower operating costs for their business. In fact, many of the business participants stated that they would pay $50 to $100 for this service.

In terms of receiving information, most of the customers in the focus groups preferred the initial information and recommendations be provided by an objective third party. Contractors were felt to be too biased about their own products and services to provide neutral information to customers. The focus groups participants also generally liked the idea of an ‘‘energy expert’’ being able to answer their specific questions.

Contractor arranging, financing, and quality control of contractor work were other program components that were attractive to customers in both sectors. Contractor arranging involves providing the customer with assistance in screening contractors to perform specified work and soliciting bids from the chosen contractors. Customers felt these services assisted them with making educated decisions in the efficiency marketplace, as well as ensuring they would purchase the correct products and services and have them properly installed. Lastly, quality control assures customers that the contractors performing work on their homes and businesses are competent and reputable.

Customer financing was also attractive to most, as long as interest rates were kept in the single digits. Additionally, positive cash flow financing plans, in which the savings from the installed measures pay for all of the monthly loan payment for improvements, was very appealing to customers. The possibility of paying the loan payment with their regular monthly utility bill was also attractive to residential customers, although this was less important to commercial customers.

THE CURRENT MARKET-DRIVEN PROGRAM MODEL

- WECC has designed and delivered two projects aimed at assessing the potential for market-driven program design. The first is the New London Resource Project, a community energy and water efficiency project delivered in New London, Wisconsin Berkowitz, Karl, & Ramsey, 1994; Edgar, Berkowitz, & Harmelink 1994, Edgar 1995; IRT Environment Inc.—The Results Center 1995). The project was jointly sponsored by New London Utilities, Wisconsin Public Power, Inc. SYSTEM, and Wisconsin Gas Company and operated full scale from April 1993 to December 1995.

Building upon the lessons learned in New London, the Energy Smart project in Park Falls, Wisconsin (Berkowitz and Karl 1996), was designed in 1994 and has been in the delivery stages since March 1995. Sponsored by Northern States Power Company, the Energy Smart design has incorporated many critical improvements over the New London Resource Project, all aimed at improving program sustainability. As such, Energy Smart represents the next step toward market-driven, customer pay design.

The following are common program elements of both projects. Each element is described in more detail below.

- Whole building efficiency services targeting electric and natural gas efficiency opportunities
- Energy assessments for residential and small commercial buildings
- Immediate installation of low-cost efficiency products
- Contractor arranging and bid solicitation
- Efficiency measures installed by local trade allies
- Quality control of installed measures
- Customer payment for energy assessments and efficiency products
- Financing for the installation of efficiency measures

Under the whole house or whole building approach, all cost-effective electric and natural gas efficiency potential existing in a home or business is targeted for improvement (in New London, water efficiency measures were also included). Customers request and pay for a home or business energy assessment package that, in addition to a walk-through audit, includes various services aimed at making energy efficiency improvements both easy and affordable. Contractor arranging, bid solicitation and review, energy savings calculations for major measures, and contractor quality control are among the services aimed at overcoming the ‘‘hassle factor’’ that deters many customers. To make improvements affordable, the packages also include the opportunity to apply for project financing from the utility at an attractive rate and with no down payment requirement. Both projects offer positive cash flow financing, in which the loan term is extended to allow energy savings to pay all or part of the monthly loan payment, and the convenience of paying the loan payment with the regular monthly utility bill.

For residential customers, both the New London Resource Project and Energy Smart assessment packages include the installation of low-cost measures (i.e., hot water saving measures), a demonstration of compact fluorescent bulbs in the home, and a blower door test. The commercial and residential packages also include a walk-through assessment of the home or business, although in the Energy Smart project, the home assessments have been segregated into two different packages, one of which includes neither a walk-through audit nor a blower door test, but is offered at a lower price.

Of course, offering this type of comprehensive service to customers is expensive. However, both the New London Resource Project and the Energy Smart project have been designed to test the possibilities of recovering project delivery costs and minimizing utility subsidies in a few different ways. The three main facets of program cost recovery and subsidy minimization that have been tested in these projects are: customer payment for services, cost recovery from retail sales to participants, and customer financing for efficiency installations. These facets are discussed in the following paragraphs as they have been tested in the New London and Park Falls projects. Strategies beyond those tried in these two projects and to be tested in the ‘‘next frontier’’ of market-driven projects are discussed in the concluding section of this paper.

Customer payment for services

Although categorized as incentive or rebate programs, most past demand-side management programs required customers to pay a portion of the cost for energy efficiency improvements. Energy efficiency professionals have debated the impact of incentives on program participation rates for various types of customer programs (Mast and Ignelzi 1994). However, little information is available on the willingness of customers to pay the full cost for efficiency products and services. Given the recent transition to market-based efficiency programs that require full customer payment for products and services in combination with financing, little data is available on the success and sustainability of these programs. A goal of WECC community energy efficiency

projects is to determine if customer payment can sustain the services. Payment levels for home and business assessments were set based on information gathered through pre-project focus groups (Berkowitz and Carroll 1995; Matousek and Stary 1994) and the need to create customer program participation which provides the opportunity to sell other program-related products and services.

Both the New London Resource Project and the Park Falls Energy Smart project are early attempts to determine if customers are willing to purchase efficiency products at market cost and if sufficient margins can be built into the prices customers are willing to pay. Given the pricing schemes in both projects, neither resulted in totally unsubsidized projects. However, both provided a wealth of insights and lessons which are being applied to WECC's next generation program design and implementation plan.

In these two community energy efficiency projects, residential customers are charged for an energy assessment of their home. WECC has found through program implementation that residential customers are willing to pay for efficiency services but many require immediate dollar savings, such as those generated by low-cost, hot water saving measures, to justify an expense on a home energy assessment that may not reap any other benefits for the homeowner. Some customers may not have any energy efficiency improvement opportunities in their home or may be unwilling to pursue recommended efficiency improvements. Without incentives there needs to be more emphasis on marketing the benefits of these programs including comfort, ease of participation, contractor arranging, dollar savings, and positive cash flow financing.

In New London, residential customers were charged $35 for a full home assessment. This fee could be financed on the utility bill in installments. In Park Falls, a full assessment also costs $35, but includes a $5 ''prompt payment'' discount if the customer pays the fee immediately during the assessment, as opposed to financing the fee.

In Park Falls, however, a significant improvement was made in the home assessment offerings to customers. In the New London Resource Project, many customers participating in a home assessment did not have any potential for major efficiency improvements and therefore did not benefit from the full walk-through assessment of their home. Many customers in New London were willing to pay for an energy assessment to confirm that their home was energy efficient or to receive positive feedback on new equipment and/or energy improvements made on the home. However, these customers did benefit from either the low cost, hot water saving measure installations or the compact fluorescent lighting demonstration, or both. From a delivery standpoint, performing full assessments in homes with no potential for major efficiency improvements is both costly and time consuming. In addition, there is little opportunity to recoup program costs through sales of other products and services to these customers.

As a result, the Energy Smart project was designed to incorporate a new strategy for providing customer pay services to residential customers: offering two types of assessments to homeowners, depending on their needs and potential for improvements. The home assessment component of the project was split into a ''Minor Assessment'' package and a ''Complete Assessment'' package, with customers being screened during scheduling to determine which package most suits their individual needs. Accordingly, the two packages carry different price tags, with the Minor Assessment costing just $15 (if paid for during the time of the assessment) and lasting just 30–45 minutes.

By segregating the home assessments into two distinct packages, two primary objectives are served. First, more customers may be attracted to participating in the project since a lower cost option is now available to them. Someone who is very interested in having their water heater and its pipes insulated, or who wants to have compact fluorescent bulbs installed, can sign up for a Minor Assessment. In contrast, a homeowner who is interested in a new furnace and feels they have a very leaky house, can sign up for a Complete Assessment to receive the full walk-through audit and the blower door test. Second, program delivery costs are reduced by eliminating full, time-consuming assessments in home's where no potential for major improvements likely exists.

For commercial customers, WECC has found that fees around $40 are quite palatable to business owners and managers. While the New London Resource project did not charge commercial participants for their assessment, the Energy Smart business assessment costs $40. Given that the assessment fee also includes all of the other services, such as bid solicitation and contractor arranging, many business people have indicated that they consider the package to be a great value for the money.

The total delivery costs of these program services cannot be recovered with a $35 or $40 assessment fee. To fully cover costs, the assessments would have to carry price tags that may be too high to attract sufficient participation. It is important to balance customer entry fees with the opportunities to recoup delivery costs through sales of products and services. As can be seen in the results section of this paper, the customer entry fees chosen for these programs brought program participation rates to about 27%, similar to the participation rates of many incentive programs (Nadel 1991). Perhaps fees could be increased without reducing program participation. However, no data or information is available

at this time to support raising the present assessment fee structure.

Cost recovery through retail sales to participants

A second area in which program delivery costs can be captured from project participants is mark-up on low-cost efficiency products that customers purchase through the project. For example, compact fluorescent lighting products and their installation can be sold to customers on a ''cost plus'' basis. The mark-up can be chosen based on the wholesale price paid to obtain these items and estimating a customer cost that would not present a barrier to purchase. These items can also be financed through the project, even if they are not packaged with major efficiency measure installation. Other measures from which margins can be recovered are programmable thermostats and hot water saving measures beyond those included in the assessment (particularly for businesses that require multiple showerheads, tank jackets, etc.).

In the Energy Smart project, all compact fluorescent bulbs, programmable thermostats, and hot water saving measures offered for purchase through the project carry a 20–30 percent retail mark-up. This allows an additional customer contribution to be gleaned from each participant who makes one of these purchases. For example, a customer who pays $35 for a Complete Home Assessment, but then also purchases four compact fluorescent bulbs, has effectively paid about $45 towards project delivery. In Park Falls, this mark-up is charged on all sales, regardless of whether the customer is residential or commercial and regardless of the quantity of bulbs, water saving measures, etc. purchased. That means one apartment building installing compact fluorescent lighting in all common areas, for instance, could generate many times the assessment fee in mark-up contributions.

Although not related to recovering program delivery costs, the practice of charging customers a retail mark-up on all efficiency products also has the benefit of weaning customers from subsidized offerings. By having the opportunity to sell the benefits of different efficiency products in customers' homes, customers may begin to purchase efficiency products and services on value. The purchase of a $15 to $20 compact fluorescent bulb in the home hopefully will lead to secondary consumer activity in local outlets at retail prices in the future.

Customer financing for efficiency installations

As utility companies have shifted their focus away from demand-side management to industry restructuring and competition, financing has reemerged as a key element of energy efficiency transactions. Financing mechanisms are being viewed more favorably than traditional rebates because they have the potential to:

- Overcome customers' ''first cost'' barriers which pertain to limited disposable income for efficiency improvements;
- Reduce utility rate impacts from energy efficiency programs that have historically featured steep subsidies;
- Promote a method of encouraging energy efficiency that is conducive to the development of long term energy efficiency markets where customers pursue energy efficiency opportunities with little or no subsidies; and,
- Establish a mechanism that does not necessarily depend on utility resources to encourage customers to implement cost-effective energy efficiency actions.

Customer financing may provide a sustainable way to develop energy efficiency markets. Since a customer pays the full cost of energy efficiency products and services, the market is not limited to products and services that receive a utility subsidy or rebate.

However, it must be realized that a financing mechanism alone is not a comprehensive program design. Customers are not ''rational economic actors'' that make decisions based on precise calculations of costs and benefits. Customers typically make decisions for a variety of economic and often very non-economic reasons. For energy efficiency, barriers such as the ''hassle factor'' of selecting technologies or contractors, the timing of work to be performed, complicated paperwork, limited customer time to secure a loan, risk aversion to new technology, etc., can prevent the adoption of energy-efficient technologies and services by customers.

Customer financing must address these non-financial market barriers as well as respond to the lack of up-front cash of customers and the aversion of other customers about using limited or valuable disposable income. In WECC's community energy efficiency projects, customers have responded favorably to financing mechanisms with the following characteristics:

- A single digit interest rate (i.e., at or below 10 percent annually);
- A loan term that allows for all (i.e., positive cash flow financing) or part of the monthly debt to be paid by energy savings, typically 5 to 7 years;
- Options for early loan repayment without penalty;

- An easy and quick one-stop financing approval process through utility bill payment history and/or credit check; and,

- No minimum amount to be financed in the residential sector since many efficiency purchases fall below $1500; installment type loans could be offered for transactions below a set dollar amount ($1000).

Both the New London Resource Project and the Energy Smart project in Park Falls offer residential and commercial customers maximum loan terms of seven years, low interest rates (6 percent annually in New London, 7 percent in Park Falls), no down payment requirements, and no minimum loan requirements. In addition, all customer charges can be financed, including the assessment fee, purchases of low cost efficiency measures (e.g., compact fluorescent bulbs, thermostats, etc.), and major efficiency installations. No rebates whatsoever are offered to home and business participants in either project, meaning that all efficiency installations undertaken by project participants are paid for in full by the participants.

It is important to note that, in the residential sector, various consumer credit laws exist in the different states to protect residential customers from fraudulent financing schemes. Disclosures outlining the terms of financing transactions and the limits of the repayment periods will likely be required as part of the credit laws. In addition, the federal Truth in Lending Act also requires disclosures be made at the time of the loan transaction for a residential customer.

NEW LONDON RESOURCE PROJECT RESULTS

Project results from the New London Resource Project are provided below. Similar information has been collected for the Energy Smart Project in Park Falls. However, data from Northern States Power Company-Wisconsin regarding the project are not available at this time.

Participation

- Residential customer participation—555 of 2041 single-family homeowners (27%)

- Commercial/institutional customer participation—150 of 280 customers (54%)

- Industrial customer participation—8 of 18 customers (44%)

Financing

- Residential customer financing to date—$137,500

- Commercial, institutional, & industrial customer financing to date—$582,000

First year savings

- Residential energy savings to date—491 MWh; 42,000 therms

- Commercial, institutional, & industrial energy savings—2,831 Mwh; 419,941 therms

- Water savings—3,691,000 gallons

In the residential sector, 65% of the households financed the energy assessment. Forty-one percent of the homeowners receiving the assessment purchased compact fluorescent bulbs that were priced at wholesale cost plus a 25% markup. On average, 5.13 bulbs were installed in each of these homes. Natural gas was the dominant fuel for space heating (over 70%). The potential for major measure installation such as insulation and air sealing was not large for homes receiving assessments: 13% for sidewall insulation, 32% for attic insulation, and 33% for major or minor air sealing. Over 40% of the homes with insulation potential installed the recommended measure (s). However, only 4% of the homes having major air sealing potential hired a contractor to complete the work. Most homeowners believed that they could complete air sealing work. It is not known how many homeowners actually performed some or all of the identified sealing work on their own.

A great diversity of businesses types received commercial assessments in New London. Almost 50% of the installations in the commercial sector included high efficiency lighting. Space heating measures, water heating saving measures, and water conservation measures were also frequently installed by commercial customers. Some high efficiency motors were installed in industrial facilities.

A complete evaluation of the New London Resource Project is currently being conducted by the Energy Center of Wisconsin.

LESSONS LEARNED IN PROVIDING MARKET-DRIVEN SERVICES

A plethora of lessons have been gleaned from designing and implementing market-based energy efficiency projects (Edgar 1995). The following provides a sampling of these

lessons as they pertain to recovering program costs, maximizing program benefits while reducing program costs, making energy efficiency services attractive to customers, and financing energy efficiency improvements.

Recovering program costs

- In order to recoup project delivery costs and minimize subsidization, all sources of potential program revenue need to be tapped. Program beneficiaries, such as customers and participating contractors, should pay for the benefits received from efficiency services facilitated by the utility.

- Limited savings opportunities exist in the residential sector. Without differentiating customers by efficiency potential and recovering costs from the variety of stakeholders involved in providing services, it may be difficult to provide direct home-based services to this sector.

Maximizing program benefits while reducing program costs

- Comprehensive assessments including diagnostic tools and computer-based analysis can be expensive and not recoverable from customers. Charging actual costs for these services may limit customer participation.

- Bundling efficiency services, especially targeting electric, natural gas, and/or water, is essential to mitigate program costs and maximize program and customer benefits.

- Service segmentation (e.g., minor vs. complete assessments) is important due to the different potential for savings among both homes and businesses. It is costly to deliver a home or business assessment if there is no potential to capture.

- A more efficient and a less expensive means is necessary to move customers from the home assessment to actual measure installation. Involvement in the contractor bid process can be both time consuming and expensive. A further reliance on trade allies in efficiency transactions should assist in achieving this goal. In addition, customers should pay the cost of contractor arranging services, including bid solicitations and review.

- Relying on trade allies to deliver small commercial efficiency services has substantial program benefits given the existing on-going relationship between these customers and trade allies.

- Trade allies can effectively ''franchise'' commercial program services, which provides on-going marketing and customer participation with little program cost.

Making energy efficiency services attractive to customers

- A more flexible and broader menu of services (some may be non-energy) should be offered to customers. More customers will perceive value from the program services if they can be tailored to an individual customer's need. These services could include home safety testing, energy brokering, fiber optics, telecommunications services, etc.

Financing energy efficiency improvements

- Customer pay designs *can* work. When attractive financing is available, the first cost barriers of customers can be effectively addressed, without resorting to rebates or steep subsidies.

- An attractive financing package cannot, however, substitute for an ''easy and customer friendly'' program design. Customer convenience and mitigation of the ''hassle factor'' is as significant a barrier as first cost. Therefore, attractive financing options may fail if participation in the project is not convenient.

- In the residential sector, financing appears to be most attractive for major efficiency purchases. For lower cost items, many customers will pay cash especially with a prompt payment discount.

- Commercial customers are attracted to positive cash flow financing with terms of 5 to 7 years, but many prefer shorter loan terms to reduce the amount of interest paid over time and minimize outstanding debt.

- Utility risk due to customer loan default needs to be balanced with loan underwriting criteria. Customers with the most to gain from the program may have less disposable income and be a higher credit risk. Utility bill payment history can be tied to conventional credit worthiness as the basis of approving a loan. A default pool can be embedded in the cost of loans to all customers.

- Financing creates more administrative work through loan originating and servicing than rebates. These costs can be minimized by generating a sufficient number of loans to offset fixed costs and using mediums such as automatic payment mechanisms to service loans.

THE NEXT FRONTIER IN MARKET-DRIVEN PROGRAM DESIGN

The energy efficiency marketplace will continue to evolve in the next few years given utility restructuring and deregulation and less advocacy by government on issues such as energy efficiency and housing. In this environment it has become apparent that efficiency programs must stand on their own merit. Value must be perceived by the participants. The utility and the government role will be supportive but with less direct investment and resources dedicated to the effort. State governments and utility regulatory commissions will establish the extent of energy efficiency activities while utilities strive to keep rates low and provide services to customers who may have energy options in a competitive market. Currently, many utilities are transferring operation and administrative oversight of energy efficiency programs to the private sector.

It is difficult to determine if unsubsidized efficiency services are capable of surviving in a market-based environment. In its next community energy efficiency project, EfficiencyPlus in Marshfield and Hewitt, Wisconsin, WECC will attempt to determine the extent to which various stakeholders (e.g., customers and trade allies) are willing to contribute to efficiency service marketing, delivery, and administrative oversight. In addition, services will be packaged to maximize customer value and benefits.

Trade allies will become an increasing important player in customer service delivery and hopefully a greater partner in sharing program costs given the potential for market share and profits. Marketing, customer referrals, payment for use of program services such as financing, and training on field installation protocols and state-of-the-art efficiency equipment, products, and services are areas of likely contribution and payment by trade allies. Although many of these costs and fees may be passed on to customers, it can be justified as a cost of doing business for contractors. Embedding these costs in energy efficiency installations by contractors should be less objectionable than increasing front-end fees to customers for program services, especially since a portion of the costs may be absorbed by some contractors.

Program strategies designed for the next generation include:

- Non-utility financing in the residential sector in collaboration with the Federal National Mortgage Association (a.k.a. Fannie Mae)
- Small commercial loans through partnerships with financial institutions
- Large commercial and industrial financing and leasing through third parties
- An unsubsidized catalogue of efficiency products that can be sent to large numbers of residential customers with payment for purchases made by check, credit card, or installment financing
- Mark-up on products delivered to customers by project staff
- Commercial service delivery through local trade allies with contributions expected for partnering on program marketing and fees per transaction for access to reasonably priced financing
- Residential service delivery by trade allies through their normal course of business with cooperative advertising and access to reasonably priced financing on a fee per transaction basis
- Whole house delivery for residential customers on a cost-per-service basis where a residential customer can choose from a menu of services. Customers will pay for the home assessment, contractor arranging, bid solicitation and review, and quality control on an individual basis or discounted through package pricing. Other services such as home energy ratings and health and safety inspections will be available for customers that seek or desire these services. Non-energy services that complement efficiency services will be explored and bundled if appropriate.
- Customized services for industrial customers that will build on the existing relationships between the utilities and these customers. An emphasis will be placed on targeting services to decision makers and plant managers

New lessons and insights will be gained from this portfolio of program elements and services. The bounds of direct service delivery to customers with little or no subsidy should be much better understood as the project design becomes fully operational in the Marshfield EfficiencyPlus project in the fall of 1996. The involvement and limits of trade allies in these types of programs will also be learned. The next generation will ultimately further define the potential sustainability of some of the program components in a marketplace that will only support efficiency goods and services based on their value to different customer segments.

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concept that will be delivered to the residents of Marshfield, Wisconsin. The concept can also be readily transferred to other communities in each utility service territory. If successful in Marshfield, a sustainable project concept should emerge that requires minimal utility resources.

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