Maximizing Program Yield with Negotiated Incentives

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ABSTRACT

The offer of standardized (or “standard offer”) commercial-sector energy efficiency incentives, based upon either energy saved or project cost, can underestimate the potential value of a given project to that customer. First, these incentives presume a single, up-front payment of project costs, overlooking the impact of amortization of project costs on customer criteria such as internal rate of return or net present value. Additionally, standardized incentive offers typically ignore associated non-electric or non-energy benefits, because of the difficulty in quantifying them, failing to account for benefits of great importance to a business. Finally, standard offer programs can also inhibit the development of relationships between demand-side management (DSM) program administrators and commercial and industrial sector customers, particularly small businesses.

This paper reviews the results of two separate efforts testing the effect of incentive negotiations on program performance and yield. The first is a one-year pilot run by Efficiency Vermont to test how traditional financing options integrated with cash flow analysis would affect project completion rates and incentives offered (as compared to measure costs and energy saved). The second, Long Island Power Authority’s (LIPA’s) Commercial Construction Program, combined an energy efficiency sales training course with cash flow-based incentives. The Efficiency Vermont pilot highlights certain benefits through its negotiation process – a higher project completion rate with slightly lower-than-average paid incentives. This pilot also proved effective with small businesses. LIPA’s pilot project is still underway. Both pilots identify management challenges in transitioning from standard offer to negotiated incentive program designs.

Introduction

A core component of energy efficiency program implementation is persuasion. In some cases, advocacy-oriented program staff may seek to persuade businesses to install efficient technologies in moral terms, highlighting the benefits to the environment and/or to future generations. In other cases, technically-trained energy efficiency program staff rely upon empirical data to demonstrate the benefits of energy efficiency to customers, balancing technology costs against utility bill savings, calculating simple payback periods, studying equipment performance and reliability. These two modes of persuasion work for only certain audiences, ones predisposed to seeing energy efficiency in moral or technical terms.

The challenge for energy efficiency programs is to persuade commercial and industrial sector customers not convinced by the standard “pitch.” Such customers are not the minority, nor the least important – these are business people competing to survive in a global market, individuals accustomed to antagonistic relationships and seeking the upper hand in negotiations. Moral or data-driven arguments may not influence these individuals to adopt energy efficiency
into their business practices. These customers require critical sales skills that are often at odds with conventional DSM program philosophies, which originated with a “customer service” angle, as opposed to market-based sales.

For example:

- **Sales Qualifying Techniques** are the skills used to screen customers before attempting a sales effort. These techniques include the development of a profile of the “ideal” customer, a set of criteria that customers must meet before selling to them, and a sales system or process to judge how customers measure up to those criteria. (Industrial Ego Sales 2006). The notion of limiting the set of customers to be approached for energy efficiency is inconsistent with many DSM program philosophies geared toward “helping all customers” or providing “equity across customer classes.” But, sales qualifying techniques make more strategic use of limited resources and increase the amount of energy savings realized per program dollar spent.

- **Sales Techniques** are the skills used to persuade a customer to undertake an action desired by the sales person. These techniques include: directing the customer’s attention; stirring emotions to create an emotionally-motivated prospect; directing questions to move to a “close” on a deal; getting prospects to solve objections for themselves; and learning the principles about why people make purchase decisions (Industrial Ego Sales 2006). For technically-oriented DSM programs, such persuasive techniques may be viewed as “at odds” with an objective, technical assistance-oriented approach. But, improved sales techniques can and do result in better working relationships with commercial and industrial customers – relationships that result in both increased sales per customer and decreased cost of sales. (e.g., Frigstad 1995) These techniques also require a background of trust between the DSM manager and the customer, the establishment of which takes time and resources.

This paper seeks to explore the possibilities offered by more “businesslike” sales techniques in DSM program design and delivery. The paper centers its discussion on financial incentives as a platform for evaluating the advantages and disadvantages of a “one-size-fits all,” rather than sales-oriented, approaches to customers. It reviews conventional incentive rules and their goals, and evaluates whether these rules actually attain those goals. The paper lays out a strategy for using sales techniques in working with customers and determining financial incentives. It reports the results of testing these approaches in two DSM programs, Efficiency Vermont and the Long Island Power Authority’s Commercial Construction Program, and identifies lessons that could be tested in other DSM program settings.

**“Standard Offer” Incentives**

As has been noted in numerous studies (e.g., Eto et al. 1996; Golove & Eto 1996), there are a number of barriers to energy efficiency implementation. One key barrier is first cost - either full (for retrofit) or incremental (for equipment replacement or new construction) - for energy-efficient design and technologies. Other barriers include hassle and transaction costs, performance uncertainties (risk), and “bounded rationality.” The intent of DSM program strategies is to overcome these barriers, and financial incentives are one simple strategy utilized by these programs. The “perfect” financial incentive is one that equals the monetization of all
market barriers associated with a particular customer’s market transaction (Chernick et al. 1993). Each customer has a unique set of barriers on a given energy efficiency project, and assigns a different implicit value to those barriers. The “right” financial incentive would be the exact amount that overcomes those barriers.

There are a number of issues that DSM programs address when devising strategies for offering financial incentives to commercial and industrial customers. These include:

- **Political Challenges to Program Funding** – many large commercial and industrial customers paying into efficiency funds want to have an equal amount returned to them in the form of incentive payments.
- **Fairness** – Although one customer may truly require less of an incentive than another customer to install energy-efficient equipment, no customer wants to receive less than a competitor.
- **Criticism or Political Maneuvering** – In political landscapes already charged with the impacts of utility costs on profitability, DSM programs wish to avoid complaints stemming from the offer of different incentive levels to different customers, or customers engaging in political processes to obtain higher incentives.
- **Transparency and Ease of Communication** – DSM programs like to rely upon vendors, contractors, and other market actors to advance program objectives. Transparent incentive rules make it easy for these market actors to integrate energy-efficient technologies into proposals because proposal cost impacts can be accurately predicted.
- **Program Cost-Effectiveness** – Simple “standard offer” rules reduce the amount of time and effort required in determining a financial incentive for a given project.
- **“Repeat Business”** – Robust financial incentives can change a customer’s thinking regarding energy efficiency for future projects.

In balancing these issues, many DSM programs have standardized the offer of financial incentives, including the two case study programs for this paper (Efficiency Vermont and Long Island Power Authority). Examples of standardized approaches include:

- **Fixed Percentages** – paying a fixed percent of total project costs (e.g., 25 percent) in the case of retrofit projects, or incremental project costs (e.g., 50 percent) for market-driven projects.
- **Incentives per Unit Savings** – paying a fixed incentive per unit savings (e.g., $0.10 per kWh saved) on either retrofit or market-driven projects.
- **Fixed Performance-Based Incentives** – paying a fixed incentive per unit of efficiency improvement (e.g., $1 per watt per square foot improvement for lighting power density, then multiplied by the number of square feet).
- **Simple Payback “Floor”** – in certain cases, programs will put a minimum limit to the simple payback periods that projects can attain (e.g., two years).
- **Comprehensiveness “Bonus”** – again, in certain cases, programs will make the incentive a function of comprehensiveness (e.g., addressing more than one end-use system) or depth of savings (e.g., percent of the building’s or system’s estimated or actual consumption).
As noted, these approaches simplify the process of determining financial incentives, and also provide a basis for explaining to customers how the program determines their financial incentive. But, there are situations in which these approaches do not provide “fairness,” protection from criticism, or program cost-effectiveness.

Examples

Take two different businesses with an identical energy efficiency opportunity, a lighting retrofit project. One business is a warehouse with 4,000 hours of operation per year; the second is a three-shift industrial facility with 6,000 hours of operation per year. The project is a $50,000 installation of T-5 high output fixtures in place of metal halide fixtures. The customers’ utility has a standard offer incentive based on 25 percent of incremental cost.

Table 1. Sample Lighting Retrofit Project for Different Business Customers

<table>
<thead>
<tr>
<th></th>
<th>Active Warehouse</th>
<th>Industrial, Three Shift</th>
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</thead>
<tbody>
<tr>
<td>Project Cost</td>
<td>$50,000</td>
<td>$50,000</td>
</tr>
<tr>
<td>Hours of Operation</td>
<td>4,000</td>
<td>6,000</td>
</tr>
<tr>
<td>Demand Savings</td>
<td>32.5 kW</td>
<td>32.5 kW</td>
</tr>
<tr>
<td>Energy Savings</td>
<td>130,000 kWh/yr</td>
<td>195,000 kWh/yr</td>
</tr>
<tr>
<td>Customer Savings</td>
<td>$10,837 per year</td>
<td>$16,256 per year</td>
</tr>
<tr>
<td>Financial Incentive</td>
<td>$12,500</td>
<td>$12,500</td>
</tr>
<tr>
<td>Simple Payback</td>
<td>3.5 years</td>
<td>2.3 years</td>
</tr>
<tr>
<td>Internal Rate of Return</td>
<td>28%</td>
<td>43%</td>
</tr>
</tbody>
</table>

While both customers receive the same financial incentive ($12,500), there is a significant difference in financial returns (a 28 percent rate of return versus 43 percent rate of return). The non-energy benefits also differ – while improved lighting improves the ability of staff to find products in the warehouse, the color rendering can significantly improve productivity (and profitability) in the industrial facility. The incentive offer also presumes a full, up-front payment on the project. Were a 30-month financing package available, the industrial customer could achieve net positive cash flow with the $12,500 incentive and reap all of the non-energy benefits. The warehouse customer, on the other hand, would need a higher incentive (perhaps $25,000) to achieve net positive cash flow, with relatively fewer non-energy benefits.

An evaluation of a “real-world” standard offer incentive rule yields similar results. Hydro-Quebec provides financial incentives for energy efficiency measures (EEMs) on a per-kWh basis (Dunsky et al. 2005). The goal is to cover 75 percent of the incremental cost of EEM for public-sector customer segments, and 50 percent of incremental cost for private-sector customer segments. An analysis of the effects of this policy is shown in Figure 1. The standard offer rule (on a per-kWh basis) either under- or over-shoots its cost percentage target. Where Hydro-Québec is aiming to cover 75 percent of the incremental costs of ensuring that new schools are built to high efficiency standards, the standard offer rules only cover 28 to 33 percent of these costs. Conversely, McDonald’s restaurants receive 115 percent of a project’s incremental efficiency cost.
The objective of these preceding examples is to illustrate that the primary benefit of standard offer rules is their ease of communication and administration. These rules are “fair” in that DSM programs apply these rules consistently, but they do not reflect the real differences in value provided by site-specific energy efficiency projects.

**An Alternative Approach: Negotiated Incentives**

An alternative to the easy to administer “standard offer” incentive is to adopt a process in which DSM program staff communicate benefits, address concerns, and negotiate incentives. In this approach, the objective is not to offer one-size-fits-all incentives across customers or customer classes. Instead, the objective is to overcome as many barriers as necessary to close a deal, not only in terms of the financial incentive offer, but also other solutions to address customer needs. Elements of this process include:

- **Understanding What Motivates the Customer** – With few exceptions, energy efficiency by itself does not motivate commercial and industrial customers to take action. Instead, these customers are motivated by what makes their business more successful or what minimizes headaches and hassles. Energy-efficient design and technologies are capable of delivering on these motivators, but a successful sales pitch requires knowing what those motivators are.
• **Directing Questions to Move to a “Close”** – Negotiation involves multi-dimensional offers of assistance directed toward a commitment to take action. The process of negotiation may include help in soliciting installation proposals, either from a preferred vendor or from the marketplace; financing assistance, either bank loans or operating leases; and objective technical assistance. Only by understanding all of the barriers preventing a project from moving forward - lack of owner’s time to put a project together, lack of capital or risk aversion - can financial incentives take their proper place.

• **Tying Financial Incentives to Cash Flows and Motivators** – Most businesses use rules of thumb like simple payback because they do not view energy efficiency investment as important to their core business. They are taking action because of money made available by a DSM program and want to know how quickly that capital will be returned because they lack a better way to compare investment decisions. Presenting project cash flows shows the bottom-line impact of potential energy efficiency investments. Financial incentives can then be used to make cash flows meet certain criteria, whether net positive or a negative cash flow that is an acceptable trade for a non-energy benefit.

In this approach, determining the financial incentive is the last, rather than the first, step in the process. The goal is to have established a working relationship with a satisfied customer who will consider energy efficiency on the next project, hopefully earlier in the decision-making process. Ideally, such an approach can demonstrate to the customer that the DSM manager understands business and is willing to do the extra work to demonstrate true value.

It is important for organizations considering such negotiated incentives to ask questions about the feasibility of adopting such an approach. Some of the goals of standard offer incentives are to facilitate program delivery by other market actors (e.g., vendors, contractors), and to improve program cost-effectiveness by limiting time spent “haggling” over incentive amounts. This proposed approach will inhibit market actors from incorporating incentives into proposals and seems to increase time, and therefore money, invested in each project. To address these issues, the following section reviews two separate efforts at using this sales approach in program implementation.

**Efficiency Vermont: Customer Solutions Case Study**

Efficiency Vermont initiated its “Customer Solutions” pilot in 2004. The stated objective of the one-year pilot was to explore and gain implementation experience with incentive negotiations, using a platform of full or partial financing of efficiency projects. The impacts of these efforts were to be assessed by evaluating levels of offered and accepted cash incentives and participant acceptance rates.

**Customer Solutions Process**

In developing its Customer Solutions process, Efficiency Vermont developed a sales approach to incentive negotiations. The process identified a specific role, the Customer Solutions Manager, to be involved in all projects to ensure a consistent sales approach. Efficiency Vermont staff used a sales qualifying technique, identifying candidate projects by whether customers had:
• Already investigated or obtained other financing options,
• More comprehensive opportunities but were limited by cash flows,
• Projects offering substantial non-energy benefits, or
• A financial incentive goal beyond Efficiency Vermont’s available budget.

Efficiency Vermont followed this qualifying process with a research phase, reviewing past Efficiency Vermont involvement with the customer, the scope of the project, and information about the customer and the customer’s business (e.g., researching the company’s website, other business sector studies via the Internet, project experience with similar businesses).

The first project meeting was almost always at the customer site to discuss project options and make the customer aware of opportunities to amortize costs, i.e., finance the project. The financial incentive “offer” was actually a proposal, integrating solutions offered by a range of market actors, including contractors or vendors, banks or leasing companies, and other project participants. This proposal always included a cash flow analysis – provided by a custom Efficiency Vermont cash flow tool that evaluated a range of amortization options – and negotiated the financial incentive based upon needed cash flow performance.

The Customer Solutions process also maintained customer contact through the project implementation phase. The intent of this contact was both to ensure that the project proceeded smoothly and that the customer has not encountered additional barriers to the project completion. The contact also laid the groundwork for an ongoing relationship in which other energy efficiency opportunities could be identified at early stages of development, and also contributed to the all important element of the transaction….trust.

Results

During the implementation of the Customer Solutions process, the Customer Solutions manager did not succeed in participating in all projects. In some cases, Efficiency Vermont staff offered “standard” financial incentives (typically 25 percent of retrofit or 50 percent of incremental cost) before the process could be initiated. In other cases, customer contact did not occur until after the end of the year-long pilot phase. Table 2 summarizes the status of all projects identified by the sales qualification process. Roughly one-third of qualified projects successfully completed the entire Customer Solutions process.

Table 2: Comparison of Success Rates for Customer Solutions Pilot

<table>
<thead>
<tr>
<th></th>
<th>Customer Solutions</th>
<th>% of Subtotal</th>
<th>Standard Approach</th>
<th>% of Subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Projects</td>
<td>33</td>
<td>100%</td>
<td>61</td>
<td>100%</td>
</tr>
<tr>
<td>Successfully Completed Projects</td>
<td>19</td>
<td>58%</td>
<td>14</td>
<td>23%</td>
</tr>
<tr>
<td>Terminated Projects</td>
<td>6</td>
<td>18%</td>
<td>35</td>
<td>57%</td>
</tr>
<tr>
<td>(without Savings)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pending</td>
<td>8</td>
<td>24%</td>
<td>12</td>
<td>20%</td>
</tr>
</tbody>
</table>

Despite the low percentage of projects that went through the Customer Solutions process, the process yielded more completed projects than the standard offer approach. The relative rates of completed and terminated projects in the Customer Solutions and standard approaches are
inverses of one another. A quantitative evaluation the “added effort” of negotiating incentives with customers was not completed, but any evaluation should compare labor costs across both approaches for completed, terminated, and pending projects.

Tables 3 and 4 present aggregate information on the completed projects in the Customer Solutions and standard offer approaches. The Customer Solutions process had larger market-driven (i.e., equipment replacement, new construction) completed projects than the standard offer approach. But, the two approaches allow a fairly good comparison on completed retrofit projects. Table 5 then compares offered financial incentives by both the Customer Solutions and standard offer approach on a percentage and dollar per unit energy saved basis.

Findings

The Customer Solutions pilot suggests that a customer-focused negotiation process can improve overall program “yield” if adopted more broadly. The approach provided a much higher “close” rate than the standard offer approach. While negotiation may add time, effort, and program spending over standard offer incentives, this can be offset by reduction in the number of terminated projects. Additionally, the Customer Solutions approach required lower financial incentives to close deals with customers. In the project category affording the most direct comparison – custom retrofit projects – the approach required half of the incentive on a per-unit-
energy-saved basis. The process worked for small business customers as effectively as with large customers.

The pilot does not indicate that the negotiation of incentives led to a higher project completion rate; rather, it was the process in which Efficiency Vermont worked with customers. The in-person presentation of a project’s cash flow, translating the project economics into language that the customer regularly uses (monthly and annual cash flow impacts), greatly influenced project acceptance. The process lends itself to negotiating incentives, determining on a case-by-case basis the needed incentive in combination with financing, non-electric and non-energy benefits, and other services. The pilot also demonstrated that it can be more effective to sell energy efficiency cash flows provided as a means to get what the customer really wants – new equipment, better light, greater comfort, increased durability, enhanced productivity.

One interesting finding was that only about half of the customers in the Customer Solutions process made use of the available financing. Because financial incentives were tied to amortized cash flows, in the absence of financing those incentives provided simple payback periods of three, four, or more years. This implies that the classic “simple payback criterion” – two years or less – changes upon presentation of project cash flow information.

Efficiency Vermont also found that its own staff did not want to adopt a negotiation process in place of standard offers for incentives. Some of this may be attributed to confusion in the qualification phase – in certain cases, some Efficiency Vermont staff determined that a customer was not interested in financing (e.g., leases, loans) and then dropped the remainder of the Customer Solutions approach. But staff was reluctant (and in some cases resistant) to venture into areas outside of technical assistance, particularly the use of incentive negotiations (as opposed to quantifiable standard offer rules).

Long Island Power Authority: Commercial Construction Program Case Study

In 2004, the Long Island Power Authority’s (LIPA’s) Commercial and Industrial New Construction Program (CCP) managers evaluated whether all of the incentive dollars provided by their standard offer rules were necessary for project completion. In 2005, LIPA removed its references to these incentive rules from its website and program marketing materials, and work with customers individually to overcome their barriers. LIPA staff also began to use advanced sales techniques designed to better understand customer needs. These techniques included the use of cash flow analysis, calculations of internal rates of return and interest rate buy-downs. The CCP managers anticipated being able to provide better customer satisfaction with lower incentive amounts.

Process

Prior to this effort, LIPA provided standard offer incentives to its customers. These incentives covered fixed percentages of incremental costs (with a higher “tier” percentage for “comprehensive” projects) with incentive caps based upon simple payback periods calculated using electricity savings only. LIPA sets its criteria as the lesser of the following: 70 percent of incremental cost, 90 percent when the whole building is considered, two-year simple payback, or total utility electric benefits. The project cap is $300,000; an additional customer cap of $750,000 per year applies.
Before the launch of this effort, LIPA developed a screening/financing tool that calculates a variety of incentive levels to specifically address customer hurdles. Provided that a given project passes LIPA’s benefit-cost test, this tool allows the program staff to look at incentives from different perspectives. The tool creates a cash flow analysis using the implementation costs, and the energy, demand, water, and fossil fuel savings. The tool also prompts whether outside financing is sought for the project, and the interest (or effective interest) rate and term for that financing. The tool then suggests six separate incentive calculations, based upon internal rate of return (at 25, 50, and 100 percent), net positive cash flow, zero interest rate equivalent, and the “standard offer.”

In conjunction with the cash flow tool, LIPA developed and offered a “sales training” curriculum for its account representatives. This curriculum focused on how to understand the different personality types of individuals involved in their sales efforts, the positions of those individuals within a corporate hierarchy, their motivations, and how energy efficiency technologies could provide those motivations. LIPA also created a “Closer” role, similar to Efficiency Vermont’s Customer Solutions manager, to help oversee the incentive negotiation process and bring other resources, particularly outside financing, to the table when needed.

Results

In anticipation of the new process introduction, a few 2005 projects were used as models for adjusted rebates based on positive cash flow models. For these seven projects, LIPA staff reduced incentives by approximately 20 percent, equaling program savings of more than $160,000. LIPA is conducting the sales staff training necessary for proper application of the cash flow tool in the first quarter of 2006.

LIPA staff has already identified challenges in implementing this sales approach:

- LIPA has had difficulty meeting with the higher-level management of customers to permit negotiations. As a result, incentive negotiations have been representative-to-representative, slowing down the process and inhibiting the development of working relationships.
- Because CCP historically posted their standard offer rules on their program brochures, customers and vendors still approach LIPA with the expectation of the “old” rules. This moves the discussion on the incentive up front, rather than after other issues and solutions have been worked through.
- As with Efficiency Vermont staff, there is no incentive for LIPA staff to use this incentive negotiation process in place of the standard offer rule. LIPA staff sees themselves as responding to customer inquiries for rebates, rather than persuading customers to expand the scope of a project and accept more risk for more reward.

As a consequence, LIPA has developed its own qualifying process for this approach. This sales approach is now used only on “custom,” not “whole-building,” projects. While initially it focused on projects for which the old standard rule would offer an incentive greater than $100,000, LIPA has since lowered that threshold. The process has proven to be successful on projects where LIPA’s involvement is solicited at the outset, rather than at the end when an incentive determination is requested.
Conclusions

Energy efficiency programs are “sales” ventures. By definition, claiming energy savings beyond “freeridership” requires persuading customers to adopt energy-efficient design techniques and technologies; and architects, engineers, and contractors to design energy-efficient systems. The programs also need to persuade contractors, vendors, and suppliers to stock and make energy-efficient technologies available. And the programs must also persuade ratepayers and their political representatives that the programs themselves are worthwhile uses of ratepayer funds.

As sales ventures, however, energy efficiency programs have not adopted the full range of sales approaches to persuade their various audiences. As discussed in this paper, “standard offer” incentive programs are designed to facilitate program implementation. The techniques used by these programs to interact with their customers may not lead to a better understanding of those customers, their motivations, and their barriers. As a result, standard offer programs do spend more incentive dollars than necessary to close individual projects. This exposes DSM programs to criticism that energy efficiency improvements are not being maximized given available program funds.

Two pilot projects of a negotiation-based approach indicate that there is a viable alternative to standard offer incentive programs. Efficiency Vermont found that a process that engages the customer directly, offers services that supplement technical assistance (particularly financing), and negotiates incentives resulted in a greater percentage of completed projects at lower incentive cost per unit energy saved. While the process added labor costs, this can be balanced against labor costs associated with projects that never complete. Long Island Power Authority has also reduced incentive amounts on a limited number of projects, relative to their standard offer rules. Both pilots found management challenges associated with these shifts in approach, as would be the case in any instance of organizational change.

Based on these initial results, other DSM programs should consider whether and how to initiate a customer-focused process for pairing supplemental services with negotiated incentives on a project-by-project basis. Certain criteria – such as relative sizes of sales force to business customer base, the business decision-making culture, and organizational capacity – may favor certain strategies over others. However, given recent trends in, and awareness of, energy prices, DSM programs can make more strategic use of their available budgets than through simple, standard-rule approaches.

References


