

Small Business Energy Efficiency: Roadmap to Program Design

Kristen Funk, Center for Energy and Environment

ABSTRACT

The small business sector represents a largely untapped market for energy efficiency (EE) programs. Small businesses account for 29% of Xcel Energy's electric energy sales in Minnesota. However, traditional prescriptive rebate programs have failed to achieve high participation rates by small businesses. Free audits and generous rebates are not sufficient to overcome the burden on the business to initiate action and do not address the unique market barriers faced by small businesses.

Designing a successful small business retrofit program requires a paradigm shift from traditional EE programs. EE must be treated as a product to be sold. High volumes of opportunities must be generated and every aspect of the delivery process integrated with software that has the capacity to organize thousands of audits, while allowing customization to the unique needs of each business. Program staff must be technically proficient, but ultimately be selected because of sales experience. Extensive efforts must be made to develop, maintain and train an extensive network of contractors. While not sufficient by themselves, generous rebates are critical to initiation of the sales process. Neutral cash flow financing makes projects even more attractive.

The combination of these program elements has proven to be a successful approach for the One-Stop Efficiency ShopSM lighting retrofit program. This is a full-service program for small businesses with demand below 400 kW. Almost 57% of program participants have a demand smaller than 50 kW. Between 2000-2012 the program will have served 8,600 small businesses resulting in 86 MW of savings.

Introduction

The One-Stop Efficiency ShopSM (One-Stop) is a full-service rebate program available to small businesses in Xcel Energy's Minnesota service territory with an electric demand of 400 kW or less. The program is designed to save business owners energy and money through the installation of energy efficient lighting by specifically targeting barriers that prevent small businesses from investing in energy efficiency (EE) products: limited financial resources and time, limited knowledge of lighting products and lack of access to quality contractors. To address these issues the program offers:

- A simple, one-stop service that holds customer time requirements to a minimum
- Intensive marketing to bring the service to the customer, rather than relying on the customer to seek it out
- Substantial incentives

- Convenient and attractive financing
- A computerized audit/data communication and reporting system that generates and tracks all site-specific paperwork

Since 2000 the program has saved 74 MW and has disbursed \$32 million in rebates to 7,100 program participants. Participating business owners will save \$250 million over the life of the new lighting equipment they have installed.¹

Now in its 13th year, the program has become very successful saving nearly 12 MW in 2011 alone. However, this was not always the case. Even with a full suite of services and benefits available from its initial launch, One-Stop only saved 55 kW in 2000 and was in danger of not being renewed beyond 2001. This paper is an effort to break down some of Center for Energy and Environment's (CEE) early misconceptions about implementing lighting efficiency projects, and how individual elements of the program have evolved through lessons learned over the last decade. Although CEE's experience is specific to lighting, we believe these lessons can be applied more broadly to small business programs across EE technologies.

Full Service is Essential but not Enough

Small business owners are notoriously short of time and resources. They face barriers such as lack of information, lack of capital, high financing costs and split incentives (Quantum Consulting Inc. 2004). In most cases EE is not even a consideration. If the lights work when they turn them on that is all that matters. As part of a 2010 One-Stop program evaluation 39 program participants were surveyed concerning the amount of time they spent researching EE. The average response was ten hours annually (the highest response was 100 hours) and 13 respondents reported that they spent no time researching EE, the most common answer (Frontier 2010).

Traditional rebate programs historically have not been able to penetrate the small business sector (Quantum Consulting Inc. 2004). CEE believed the most effective way to overcome the barriers unique to small businesses was to create a full-service program that brought all of the necessary resources directly to a business, thus eliminating the need for a business owner to assemble and manage their own retrofit project. The original design of the program accomplished this by offering:

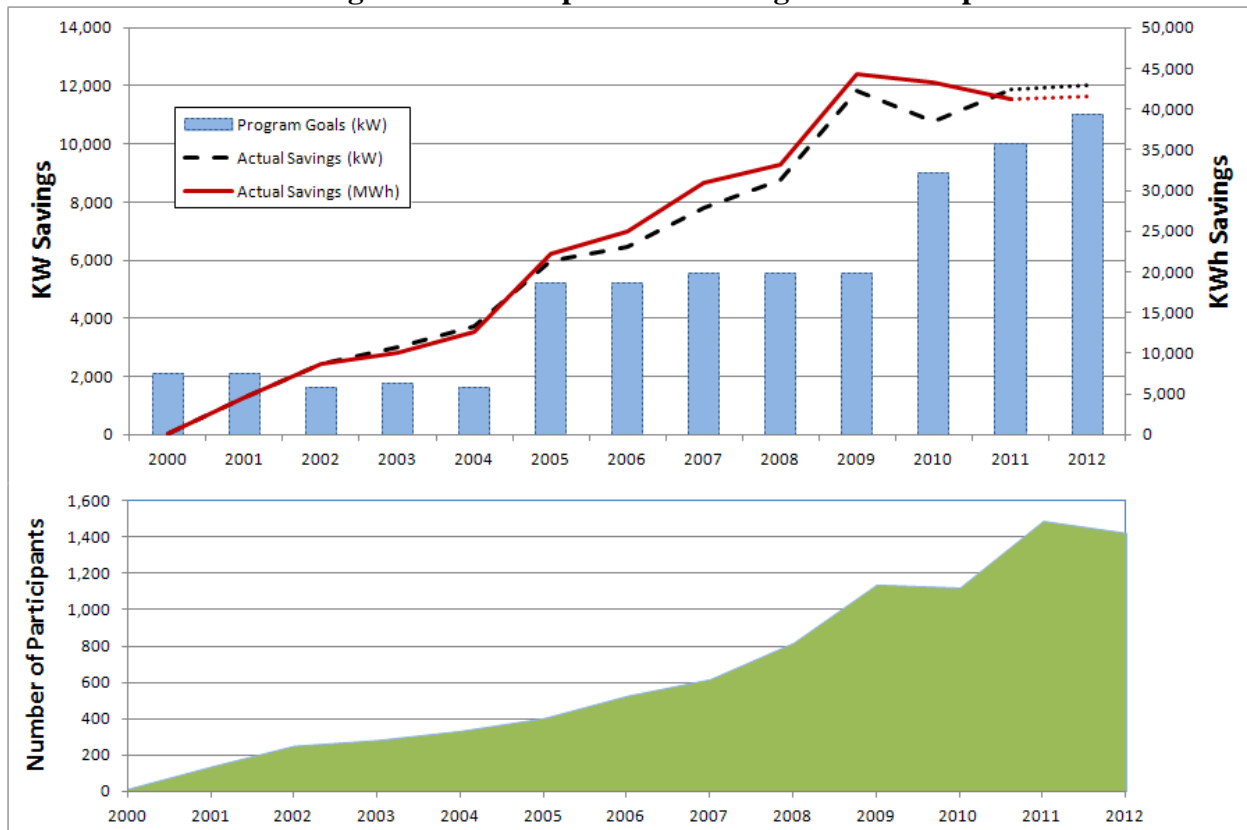
- A free, no-obligation lighting assessment with cost savings recommendations
- Below market rate, neutral cash flow financing
- Rebates up to 60% of the total installed cost of the project
- Qualified contractors to install the new lighting
- Start-to-finish oversight of the lighting upgrade
- Completion and submission of all rebate paperwork

The 2010 program evaluation validated the design finding that "The full services of the One-Stop Shop are essential for the characteristics faced by the small business market. Without services to overcome these barriers, many small firms would likely not engage in lighting

¹ Equipment lifetime based on a conservative estimate of 12.5 years by CEE.

retrofits” (Frontier 2010, 4). Yet in the early stages of the program, this did not guarantee participation. Figure 1 shows annual program goals, actual savings and total participants.²

Figure 1. One-Stop Annual Savings and Participants



CEE quickly learned that although fundamental to the success of the program, offering a full suite of services was only one part of the equation. Assuming that the program would sell itself, too much emphasis was placed on completing audits with less priority placed on follow-up and implementation. CEE realized that this approach was not productive and that the potential energy savings were not being achieved. CEE reorganized the program in 2001 and placed more emphasis on promoting implementation rather than making audits the primary focus.

This shift in philosophy was a key component to the future success of the program. Although it is critical to have all the necessary resources available to deliver an EE program, success is not a given unless the program administrator can sell the program in a way that meets each potential participant’s unique needs. It is the idea of selling EE that has ultimately led to the program’s continued success.

Not All Leads are Created Equal

A lot of money is squandered every day because companies lack a clear understanding of what a “sales lead” really means. Consequently, they fail to make lead definition a credible facet of their business. [M]ost of the leads that sales receive aren’t qualified leads or

² Numbers for 2012 are estimated based on the year’s progress to date.

appropriate buyers for what is being sold. – Lead Generation for the Complex Sale (Carroll 2006, 6)

This type of sales saturated language may seem irrelevant to EE because those of us administering EE programs often do not view EE as a product that we are selling. In fact, we are selling a product. We are asking someone to choose EE over other items in which they might invest their finite resources. Since implementation is the ultimate goal and program administrators also have finite resources, it makes sense that we should spend those resources on businesses most likely to participate in our programs.

Like many programs, One-Stop offers a free lighting audit to entice people to participate. This is an effective way to attract the attention of business owners who are bombarded by requests for their time on a daily basis (Environment Northeast 2012). When the program launched, the One-Stop scheduler was asked to emphasize the free audit, potential rebates and money savings opportunities offered by the program. Promoting the program in this way was effective at getting business owners to complete an audit, but not very successful at achieving implementation. Not surprisingly, auditors found many business owners who were interested in the free information about their building, but little else. EE program administrators are ultimately looking for people who want to implement EE projects, not just complete an audit. The more time auditors spend with business owners who are not serious about EE, the less time they have to spend with those who are.

After learning this lesson, CEE took some time to define a good lead in the context of One-Stop and then worked with the scheduling company to create a new script for their callers. Table 1 is a matrix of questions the caller asks each potential participant.

Table 1. One-Stop Questions for Filtering Potential Program Participants

Questions	List of Potential Responses
What type of lighting are you currently using (if already retrofitted skip the remainder of the questions)?	Fluorescent Incandescent Exit Signs High Intensity Discharge (HID) Multiple Technologies
What is your building type?	Office Manufacturing Church Multi Family Multi Tenant Service Multiple Use Other
Can you help us identify some of your building's characteristics?	Square footage Number of buildings Number of fixtures
Do you have a lease situation that would restrict your payback criteria?	Yes No
Is a high energy bill a concern for your business or have you been looking for ways to reduce your energy use?	Yes No
Are you or your employees concerned about light levels or lighting quality – frequently burned out lights, color, brightness, high maintenance costs?	Yes No

With this reworked script, the caller lets the business owner know that One-Stop is a full-service, lighting rebate program, but a free audit is not even mentioned until the caller determines the business is a good candidate. This approach allows the caller to filter out businesses that are obviously not a good fit for the program such as those who have already retrofitted or do not have the budget to pay for a retrofit. If warranted, the caller has the ability to schedule a call-back for a later date. It should be noted that CEE also works with other organizations that might make referrals to make sure they understand how One-Stop defines a good candidate for the program. This allows everyone involved to make the best use of their time.

Once an audit is scheduled and completed the auditor begins the work of prioritizing those businesses that seem most likely to implement. At this point the auditor has a fairly clear idea of the business owner's interest level. Persistence and follow-up are crucial to the success of the program, but only effective if targeted at the right audience. CEE has incorporated a tracking page into its program software to help auditors identify prospects with the most potential for moving forward. The tab shown in Figure 2 gives auditors the ability to rank their projects as well as set up follow-up calls.

Even good leads do not always result in a decision to implement immediately, if ever. It is part of the auditor's responsibility to cultivate each lead appropriately and set up a level of communication that coincides with a business owner's needs and interests. This may mean a high level of contact over a short time span or setting up a follow-up call for several months in the future.

Figure 2. Prospect Tab – One-Stop Program Software

Creating a culture of prioritization and follow up is critical for maintaining a consistent flow of jobs through the program. Even with targeted marketing, the average job takes almost one year to complete from initial audit to installation. Approximately 17% take two years or more to complete a retrofit. Even when business owners with a high level of interest and good savings potential are identified, auditors need to be proactive in addressing any concerns that

might arise. Until the retrofit is actually completed there is any number of reasons a business owner may decide not to move forward.

Good leads, not audits, should be the basis of any EE program. Program administrators should take the time to define what an ideal lead is and then anyone who is a potential point of contact for the program should be taught the definition and trained on how to apply it to their interactions with potential program participants. This includes program staff, outside personnel who may be contracted to work with the program or other organizations that are providing referrals. Once good leads are generated they can be fostered as needed to obtain the best result. Ultimately this will lead to the best use of program and participant resources and produce a higher rate of implementation.

Education is not Sales

Lighting auditors are the frontline of the One-Stop program. They are the face of the program for potential participants and their role is crucial in generating project implementation. Their priorities in engaging potential participants will have a significant impact on the ultimate success of the program.

One-Stop was originally designed under the misconception that the program would sell itself. It is often difficult for those of us who administer EE programs to internalize the idea that others do not always perceive the benefits of EE the way we do. In the context of lighting, EE projects are relatively inexpensive and the payback can be quick. With significant rebates added to the mix there does not seem to be a reason for businesses not to participate. Due to this misperception, completing audits was the initial focus and lighting auditors were selected primarily for their technical expertise.

It soon became clear that this approach was not working. One-Stop auditors completed 215 audits in 2000, but only six businesses participated for a total savings of 55 kW (compared to a savings goal of 2100 kW). Because the auditors were recruited for their technical aptitude, they were able to educate business owners about, but not sell them on, EE. The difference may seem subtle but the impacts are substantial. Table 2 provides a summary of the differences between people who are “tellers” and people who are “sellers” (Ruth & Wysocki 2002).

Table 2. Tellers vs. Sellers

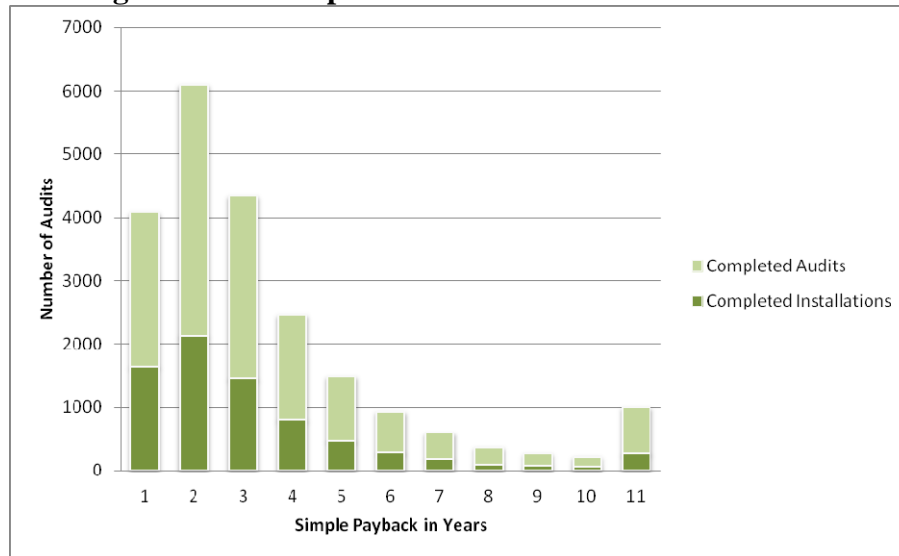
Tellers	Sellers
Give information	Solve Problems
Leave decision to the prospect	Gain conviction
Present features	Translate features into benefits
Avoid rejection	Risk rejection
Try to win by showing knowledge	Win by closing sales
Use rational level	Use emotional and rational levels
Reactive	Proactive
Want structure and stability	Accept uncertainty as the norm
Identify needs	Intensify needs and wants
Everyone comes to your door	You go to everyone’s door

The low level of participation caused CEE to reprioritize. Implementation became the primary focus and sales experience became the main requirement for new auditors. In fact, CEE hired three new auditors that had no experience in lighting, but had years of sales experience in other industries or the right personality to become a successful sales person. Their potential to

learn the technical aspects of lighting retrofits was also gauged, but was considered secondary to their ability to sell.

The results of this refocused effort were almost immediate. During the first half of 2001, the sales rate increased 50% and the average kW saved per week almost doubled. Figure 3 illustrates why the new emphasis on a sales mentality was so important.

Figure 3. One-Stop Audits vs. Installations – 2000-2011



CEE’s experience indicates that a payback of three years or less is usually the most enticing to business owners. However, out of 74MW of total savings One-Stop has generated 20MW of savings from projects with a payback of four years or more. It is also clear that a quick payback is not an automatic deal closer. Business owners obviously have many reasons for choosing or not choosing to implement EE projects. As Chart 1 indicates by the number of short payback jobs that have not gone forward, saving money is not the only factor in their decision making process. Business owners choose to retrofit their lighting because: it’s good for the environment, their maintenance costs are too high, it’s a tax write-off, they want to increase the value of their building, they need better light and the list goes on. Saving money is often a secondary concern.

That is why it is so important to have an auditing staff that is capable of uncovering the unique needs and concerns of each individual business owner. The auditor then works to convince them that the program can meet those needs and is persistent in follow up after the initial audit. Education does not get to this point, but selling will.

Vendors are also Participants

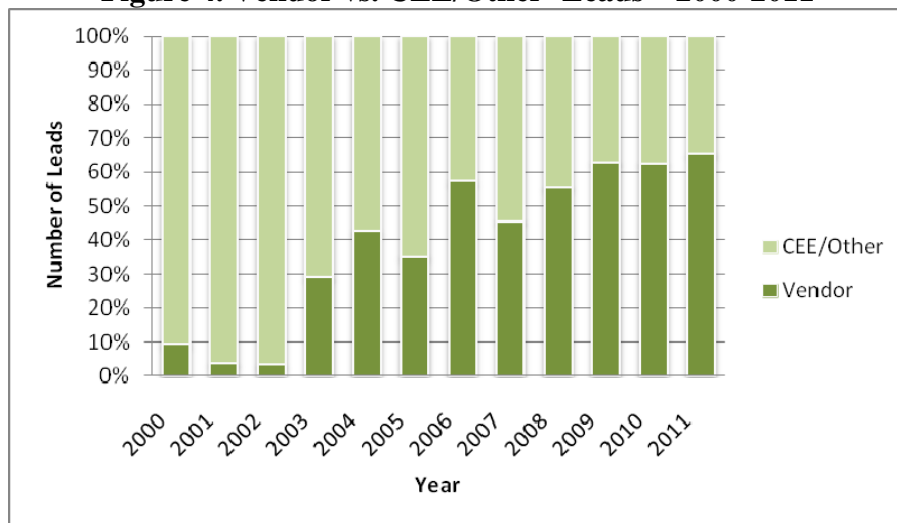
Vendors are often considered allies in the EE arena (U.S. Department of Energy 2006). This categorization of vendors can result in a passive relationship with EE program administrators. We understand each other’s utility in the field we both work in, but the relationship will not automatically move beyond that point. This does not bode well for the small business sector because contractors often do not find rebate offerings attractive enough to shift their focus to this market segment.

When designing One-Stop, CEE hoped to promote vendor interest in small businesses by offering enhanced rebates, financing tools and completion of all project paperwork. The learning curve for a rebate program, specifically a full-service rebate program, can be quite steep. Vendors are not used to the additional benefits that are available and are often wary of the increased oversight required by the program manager in the context of audits, project management and post-installation inspections.

CEE found that over the first couple years of the program there was a minimal level of vendor interest outside of those vendors initially recruited to work with the program. In the interest of generating better leads CEE wanted to cultivate this resource because vendors already have established relationships with thousands of businesses that need lighting upgrades. As with business owners the program was not selling itself to vendors, so CEE decided to use the skills of its sales staff and make a concerted effort to market the program to vendors.

The foundation of this marketing effort was, and still is, one-on-one communication with vendors to explain the program process and how its various services can benefit them and their customers. Although an understanding of the program is important, One-Stop staff's interaction with vendors goes well beyond a simple explanation of the process. One-Stop auditors have spent countless hours educating vendors on lead generation, lighting technologies and selling techniques. One-Stop auditors often serve as advisers for new staff hired by vendors who work with the program, as well as to vendors who are just getting into lighting, or have always retrofitted a certain way and have not kept up with the changes in technology. These relationships require time to build, as well as consistent attention to maintain a level of trust and service so that vendors know they can rely on the program to serve their customers effectively and efficiently. Figure 4 shows the results of One-Stop's effort to reach out to vendors.

Figure 4. Vendor vs. CEE/Other³ Leads – 2000-2011



Since the beginning of the program, CEE has worked with over 350 vendors to provide audit services and rebates to their customers. Since 2003, vendor referrals have increased significantly and for the past four years have represented over 50% of the audits scheduled by the program. A vendor referral does not automatically lead to implementation. One-Stop staff still

³ CEE/Other includes leads generated by CEE as well as other non-vendor organizations such as local non-governmental organizations (NGO), utility customer service representatives, etc.

has to work with the vendor to convince the business owner to participate in the program. However, vendor referrals are usually much better leads than cold calling. The vendor has a pre-established relationship with the business owner and has already done some preliminary filtering like identifying opportunity for energy savings and determining the business owner's level of interest. One-Stop auditors can then help vendors with the sales process and bring oversight from a neutral, third-party that ensures contractor credibility and customer confidence through the retrofit and finalization of the rebate.

Vendors are an important resource for any EE program. They are integral to the implementation phase of any project, but more importantly they are a gateway to potential program participants. Vendors have already established relationships and a level of trust with their customers that makes their referrals much more valuable than any other source. When designing EE programs administrators should consider how vendors will work within them and try to incorporate elements that will make the program attractive and accessible. Once the program is launched administrators should proactively seek out relationships with appropriate vendors and their industry membership organizations. These relationships will take time to build and require consistent attention, but the rewards to the program will be well worth the effort.⁴

Software as Sales Support

Even with a full-service program, a philosophy of good lead generation, a sales mentality and outreach to vendors, not all audits will result in implementation. To be successful a program, One-Stop must generate thousands of leads per year. Thousands of reports must be delivered that provide potential participants with a simple, meaningful summary of the benefits of EE upgrades. One-Stop staff must be able to organize, track and modify their leads so they can effectively prioritize and follow-up. To accomplish these tasks a robust software package is a necessity (Quantum Consulting Inc. 2004).

CEE uses a software package called the Facility Assessment and Evaluation Tool (FACET) for One-Stop. The software is a database-driven auditing tool that was developed in-house specifically for One-Stop and has the ability to: a) complete all energy savings, financing and rebate calculations; b) provide a platform for program staff to modify audits as necessary to meet the unique needs of each participant; c) generate all necessary reporting from initial audit to completion paperwork; d) track construction progress; and f) retain all audits scheduled since the beginning of the program. Because it was programmed in Microsoft Access, program administrators have the ability to query against a live database and compile data on every piece of information that is collected during an audit. This is an extremely powerful tracking tool for identifying technology trends, best sales opportunities and market penetration.

⁴ EE program administrators should also make a purposeful commitment to building relationships with like-minded organizations or organizations that could benefit from leading an EE campaign for their constituents. These might include NGO's that also have an interest in EE, business associations, utility customer service centers, chambers of commerce, neighborhood associations and local governments. The leverage these groups have in their communities can be used to help sell EE programs to potential participants. As an example, CEE recently worked with the City of Slayton in southeastern Minnesota. Small towns are often a difficult market to serve because they can be very skeptical of outside influences. CEE initially introduced One-Stop to city officials and convinced them to retrofit the city's buildings. They were so pleased with the results that CEE was able to partner with them to market One-Stop to local business owners and to date a total of 33 businesses have participated in the program. CEE recently finished a documentary on these projects which will be used in other marketing efforts for the program.

FACET is currently used to track over 19,000 audits. Maintaining a historical record of audits is critical to the program. The average installation for One-Stop takes approximately one year from the initial audit through finalization of the rebate paperwork. This means that many businesses that ultimately choose to retrofit their lighting take two, three or even more years to make the decision and complete the work. Business interests, financial viability and personnel change over time. What may not be a good investment one year can become a good investment two or three years later. By retaining historical data in a data-base format, CEE is able to identify those businesses with the greatest opportunity for savings and follow up as needed to keep One-Stop's services a part of the decision making process as the business evolves.

FACET also gives program staff the flexibility to easily modify properties to meet the unique budget and bidding requirements of each business. At the macro level, One-Stop staff can easily make copies of whole audits if they want to retain the original data. This is useful if a business owner can only afford to retrofit a portion of the building, but may consider retrofitting the rest at a later date. The auditor can easily create multiple phases for the property and provide the owner with cost, rebate and savings information for each phase. Auditors also often use this function to create multiple versions of a property to modify pricing or recommendations in a multiple bid situation. This allows auditors to provide an accurate rebate calculation for each bidder and keep each bid independent and confidential. The business can then compare bids and make an informed decision. Currently, 12% of audits in FACET have at least two phases or versions.

At the micro level, program staff can easily customize pricing and recommendations to tailor each audit to the business owner's needs. Individual recommendations or entire areas of the building can be deselected if they do not make sense to implement. Since they are not deleted from the audit, they can easily be selected again based on the business owner's circumstances.

Figure 5. FACET Lighting Analysis - Summary Page

Lighting Upgrades	Estimated Costs	Estimated Annual Savings	Payback
Total Installed Cost <i>Before rebate</i>	\$19,708.95		
One-Stop Efficiency Shop Rebate*	\$8,924.19		
Your Final Cost <i>After rebate</i>	\$10,784.76	\$4,356.10 ^(a)	2.5 years
<i>⇒ Rebate equals 45% of installed cost. (Including special orders)</i>			
<i>*This offer is only valid for a period of 45 days. The project costs are based on current equipment pricing, utility rebate levels and customer eligibility requirements. After this offer's expiration date of 10/23/2010 you must request pre-approval and an updated rebate offer from the One-Stop program before starting the job.</i>			
Xcel Energy Financing Option			
Estimated monthly savings		\$363.01 ^(a)	
Monthly loan payments at 3.9% for 31 month term		\$375.95 ^(b)	2.7 years
<small>(b) Estimate based on a loan amount of \$10,984.76, including a \$200 loan processing fee. The loan term has a maximum of 5 years, with monthly payments not less than the estimated monthly savings. Final terms and conditions set by bank upon loan approval.</small>			<small>(Including Xcel Loan Financing Charges)</small>

As Figure 5 illustrates, reporting generated by FACET immediately provides the business owner with a straightforward summary of the project that includes estimated project costs, rebates, payback and monthly loan payments if financing is being considered.

Detailed recommendations follow, each with their own savings and cost factors so the business owner can review each part of the project. Figure 6 is an example of a typical recommendation for existing T12 fixtures. After the installation is completed FACET also generates all final rebate paperwork so neither the business owner nor vendor have to take on that responsibility.

Figure 6. FACET Lighting Analysis – Detailed Recommendations

Recommended Lighting System Upgrades				Schedule Name & Hours/year of Operation	Installed Cost (Without Rebate)	Estimated Annual Savings	Selected
Area A: Offices							
Project: #1				A: Offices & Classrooms 2,477 hrs/yr	\$523.39 Incl Special Order	\$83.49	<input checked="" type="checkbox"/>
Qty	Watts	EXISTING Luminaire		Qty	Watts	NEW Luminaire	
9	84.20	T12 4' 34W, STD-2, 2L		9	48	T8 4' 28W ELC2 2L *	

Software is a necessary tool for EE programs, but it should not only serve as a repository for program information, it should also help program administrators and staff organize and interact with projects in a manner that results in greater implementation. FACET was developed by CEE, but there are other auditing and sales tools that can give EE program administrators the power to analyze data, track and follow up on quality leads and tailor audits to individual participant needs. The more functionality the software has, the easier it is for program administrators to use it to help market the program and sell jobs.

Conclusion

Small businesses are difficult to serve with EE programs. Small business owners have limited resources and EE is often the last thing on their minds. To serve this market effectively EE program administrators need to design aggressive programs that bring a wide range of services directly to potential participants, which are founded on a sales, not an educational mentality. Administrators should foster a culture of sales from lead generation through issuing a rebate check. Key aspects in developing a sales-oriented program include:

- Offering a full-service program – significant rebates, technical guidance, financing and contractors to complete the work
- Defining what a good lead is and creating a process for lead development and follow-up – is there good savings potential, can the potential participant pay for the project, are they really interested?
- Hiring staff with sales experience – when staff interacts with potential participants their goal should be to close a sale, not just provide information.

- Aggressively building relationships with vendors and other relevant organizations that can generate leads.
- Employing robust supporting software – program software should not only be a repository for audit information, but have the functionality to allow staff to organize and track projects to promote implementation.

None of these elements is sufficient by itself to create a successful EE program, but as One-Stop administrators have learned over the years their combination can lead to significant implementation of EE projects in the small business market.

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