

APPENDIX A:
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APPENDIX B:
LIST OF INTERVIEWEES

INTERVIEWEE LIST

Internal Interviewees	External Interviewees
Becky Clark	Darroll Clark, Franklin PUD
Brad Miller	Donna Spier, City of Plummer
Cheri Benson	Fred Gordon, ETO
Chris Milan	Garret Harris, Forest Grove
Christa Tash	Jeff Baumgarner, Pacificorp
Darby Collins	Jeff Harris, NEEA
Erin Hope	Jim Stubblefield, Columbia Power Coop
Frank Brown	John Morris, Energy Star
Jennifer Eskil	Keith Lockhart, Srpingfield Utility Board
John LeBens	Liz Klump, WA State Gov
John Pyrch	Marcus Wilcox, Cascade Engineering
Karen Hauser	Mary Smith, Puget Sound Energy
Karen Meadows	Mike Little, Seattle City Light
Ken Keating	Phil Welker, PECE
Lloyd Meyer	Ross Holter, Flathead Electric
Margaret Lewis	Susan Hermanet, NEEA
Mark Johnson	Tom Eckman, NWPC
Mark Ralston	
Mike Rose	
Mike Weedall	
Rosalie Nourse	
Tim Scanlon	
Tom Hannon	

APPENDIX C:

DETAILED CASE STUDIES

Residential:

NYSERDA Home Performance with Energy Star Program
Light Bulb Fund Raiser
Home Energy Makeover Contest

Commercial:

NYSERDA Small Commercial Lighting Program
PG&E Local Government Partnerships Program

Industrial:

Focus on Energy Pulp and Paper Industry Initiative
NYSERDA Technical Assistance Program

Other Program Snapshots:

Austin Green Building Workshops
Ontario Cool Shops
National Grid Project Expeditors

Non-Energy Sector

Marketing Trends in Other Industries

NYSERDA'S HOME PERFORMANCE WITH ENERGY STAR

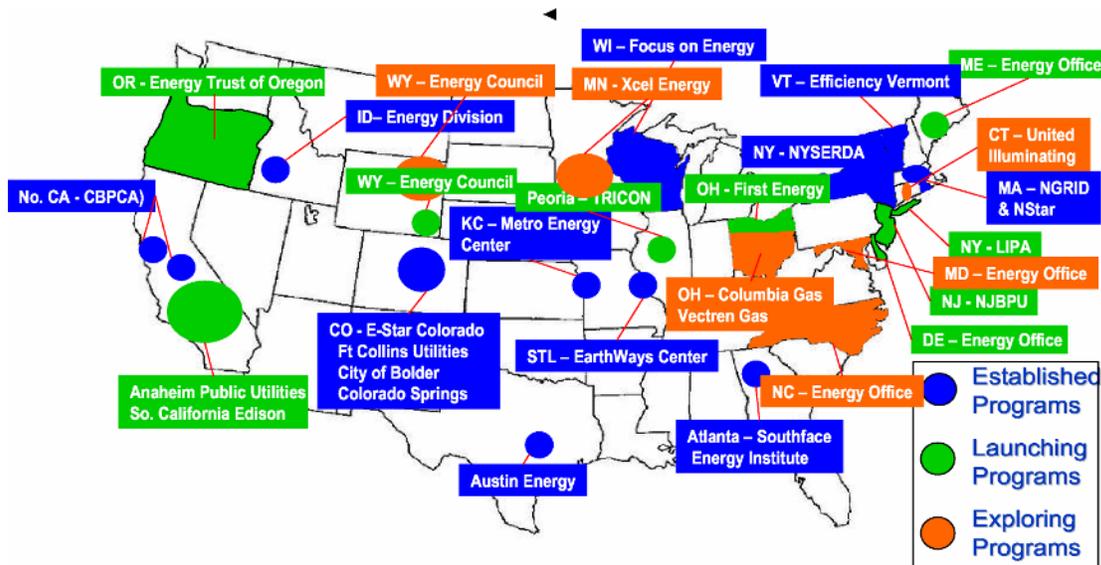
This program profile features an in-depth analysis of one of NYSERDA's most successful residential programs: Home Performance with ENERGY STAR (HPwES). This program was selected for inclusion as part of the larger set of case studies for the following reasons:

- It is part of a national effort with ENERGY STAR.
- It is focused on a critical target market for BPA: the residential retrofit market.
- The program has achieved significant savings.
- It demonstrates an effective way to leverage third-parties to deliver energy efficiency programs.
- It is replicable for BPA.

The program information is a compilation of both primary and secondary sources, including a review of conference proceedings, reports, and presentations, and interviews with program staff.

1. PROGRAM BACKGROUND

Home Performance with ENERGY STAR is a home energy efficiency service developed through the coordination of three government agencies: the U.S. Department of Energy (DOE), U.S. Department of Housing and Urban Development (HUD), and U.S. Environmental Protection Agency (EPA) through its new Partnerships for Home Energy Efficiency (Energy Savers, USEPA 2006). Rather than labeling a particular product or building, the HPwES program focuses on a comprehensive "home performance contracting" service. The effort emphasizes consumer education, value, and one-stop problem solving. While the broad program goal is saving energy, its market-based approach and message emphasizes a variety of customer needs including comfort, durability, health, and safety. It also encourages the development of a skilled contractor infrastructure that has an economic self-interest in providing and promoting comprehensive, building science-based retrofit services.

Figure 1: Home Performance with Energy Star Activities Nationwide (EPA 2007)

The program provides the homeowner with a whole-house inspection that features the following:

- Diagnostic and visual testing of the home's thermal and mechanical systems
- "Best practice" installations
- Quality assurance.

The diagnostics include air infiltration testing and duct leakage testing, combustion safety testing, and, where possible, electric baseload analysis. The inspection leads to targeted advice on the home's energy and maintenance problems, which forms the basis of the contractor's bid for making comprehensive improvements (USEPA 2006).

Energy efficiency improvements supported by the program include building shell measures; electric measures, such as refrigerators and lighting fixtures; heating and cooling measures, such as boilers and central air conditioning; and renewable energy technologies, such as photovoltaics.

1.1 Design and Operation

The HPwES model has several different program designs. In some states, such as Colorado, the program is delivered through utilities. But given NYSERDA's state focus and its mandate to serve all regions funded through its System Benefits Charge (SBC), the utilities opted out of participating directly in this program. Rather, NYSERDA became the single point of contact.

NYSERDA allocated an annual budget of \$5 million to support this program. The program's mission is to transform New York's trade contractor infrastructure by facilitating training and requiring mandatory contractor certification and accreditation by the Building Performance Institute (BPI).

Participating contractors are required to have relevant BPI certifications in disciplines such as building analysis, shell improvements, heating systems, and cooling systems. By requiring certification, training is not required for participation in the NYSERDA program. Nonetheless, the majority of contractors go

through some training, usually that developed and subsidized by the NYSERDA program (Fisk et al 2003, 7).

1.1.1 Program Incentives

NYSERDA did not want to support this program through a traditional rebate structure, based on interviews with HPwES staff. Based on their previous experience with incentive programs, they believe “rebates go to free riders,” and that once the rebates are discontinued, the market shift backs to standard efficiency equipment, according to program staff. Instead, the program staff at NYSERDA wanted to focus on building sustainable and lasting changes in contractor behavior, so the program focused on giving incentives to the contractors, in the form of training and equipment discounts, and to customers through subsidized loans for energy improvements.

The contractor incentives have included subsidies for up to 75 percent of the cost of training, partially forgivable equipment purchase loans, and a 5% total job cost incentive. NYSERDA continues to explore incentives which will lead the contractors to deliver comprehensive, high-quality improvements (Fisk et al 2003; Gerardi & Fisk 2006; Rogers, Edmunds, & Fisk 2005).

For customers, NYSERDA arranged for and bought down the interest rate on financing to help consumers pay for comprehensive jobs (Fisk, et al 2003, Fisk & Knight 2005, NYSERDA 2005). Consumer incentives include an unsecured Fannie Mae Home Improvement loan (through Energy Finance Solutions) at a subsidized rate, and a secured New York Energy SmartSM Loan.

1.1.2 Program Launch

The program was launched in six markets beginning in March 2001: Albany, Buffalo, Rochester, Syracuse, Binghamton, and the Hudson Valley. The program is now expanding into Long Island and Westchester, with footholds in New York City and around the state (Anon 2005a; Fisk, et al 2003; Fisk & Knight 2005; Gerardi & Fisk 2006; Rogers, Edmunds, & Fisk 2005).

The program launch was carefully planned to focus on six specific Metropolitan Statistical Areas (MSA). NYSERDA developed tailored marketing plans for each region because the market characteristics and conditions vary.

The program launch was executed after completing focus groups with contractors from the targeted regions, as a way to better understand these regional differences, and also to identify the appropriate messages and themes.

2. TARGET AUDIENCES

The HPwES program targets existing one-to-four family homes within **New York Energy Smart ProgramSM** territory. However, the major target audience for this program is the home improvement contractors.

The program staff would try to identify a local contractor who could “champion” this program in each regional area. These local champions may be the largest contractor serving the home improvement market, or an aggressive smaller contractor hungry to develop a successful business.

3. PROGRAM DELIVERY CHANNELS

This program focused on delivering home energy improvements to customers via third-party contactors. Therefore, identifying, recruiting, and supporting these home improvement contractors were the major focal points of its channel strategies.

3.1 Channel Strategies

The HPwES program also had to adapt to the unique market characteristics in each regional area. Therefore, NYSERDA staff would try to identify those resources used by home improvement contractors. For example, the adult training community, including community colleges and vocational centers, is where contractors learn their business. So NYSERDA would focus on developing materials and resources that would support building science education and develop the critical skills necessary for contractors to achieve BPI certification.

3.2 Strategic Allies/Partners

This program is focused on developing a strong network of third-party contractors to provide energy efficiency testing and then to install the recommended measures. To date, NYSERDA's program has more than 100 BPI-certified contractors and 138 BPI- accredited firms throughout New York State.

The program staff also identified trade associations and training associations as a way to identify and cultivate these home improvement contractors.

Clearly one of this program's most important strategic allies is its affiliation with ENERGY STAR, which creates immediate awareness and provides additional credibility to both contractors and customers.

3.3 Sales Delivery

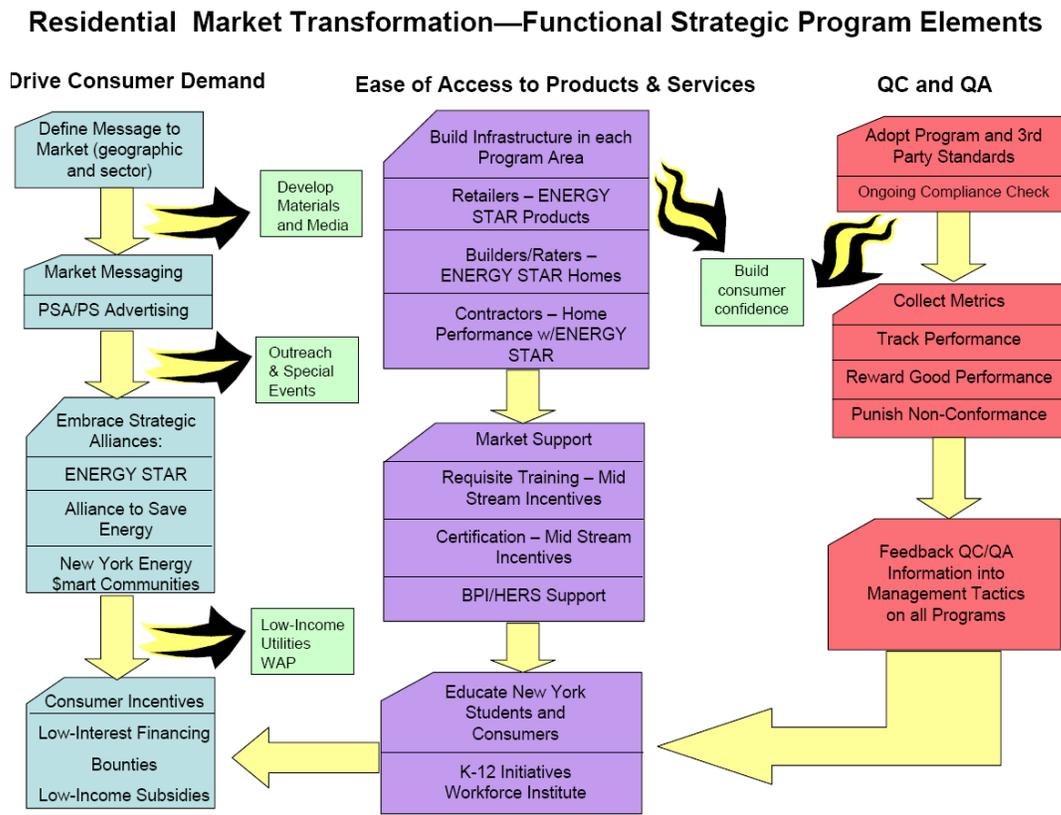
The program focuses on sales delivery through its participating contractors. The program staff soon realized that these contractors needed sales training in order to develop a self-sustaining market. Therefore, NYSERDA provided contractor sales training and support in the following areas:

- 1) Sales training which focused specifically on how to sell high margin, energy efficient equipment.
- 2) Equipment discounts on the diagnosis tools required for the home energy audits, including the infrared guns, smoke sticks, and other diagnostic tools.
- 3) Discounts on the cost of obtaining the BPI certification.

These activities all focused on making the contractor successful.

4. CRITICAL MESSAGES/THEMES

NYSERDA develops a variety of residential programs all designed to achieve lasting market transformation. As Figure 1 shows, the HPwES program is just one program in NYSERDA's residential portfolio. This figure explains the messaging process used for each NYSERDA program. It also builds in quality control mechanisms as way to ensure that these program messages stay relevant for the target audiences and achieve their objectives.

Figure 2. Residential Market Transformation Approach

As Figure 2 shows, the HPwES program focuses primarily on reaching customers indirectly by building relationships with third-party contractors.

NYSERDA developed its marketing plan after establishing a solid understanding that the traditional drivers in the home improvement market are function and appearance for reasons of comfort, aesthetics, and increased home value. NYSERDA learned that most home owners consider home improvements as an added one-time cost paid for through savings or financing, and rarely consider the opportunity to make one-time improvements that are energy efficiency related that might reduce their monthly home operating costs. Further, they learned that most home improvement contractors tend to focus along product lines and rarely take a comprehensive “whole house” approach, with the exception of home remodelers/builders which often act as the general contractor for other specialties. The program was launched after completing a series of contractor focus groups which identified the importance of creating messages that focused on delivering services from credible and trusted sources.

The focus groups also identified the critical messages that NYSERDA incorporated in its marketing campaign:

1. Health/Safety/Comfort
2. Environmental Benefits
3. Energy Savings

The marketing campaign for this program focuses on:

1. Educating the customer about the benefits of home improvements, using the themes identified previously.
2. Demonstrating to the contractor that NYSERDA has a long-term commitment to the market by creating and maintaining advertising and outreach.
3. Creating an action step that has the customer visit the website for more information or contact a local participating contractor.
4. Relying on the contractors to do the direct marketing to customers, leveraging the awareness created through NYSERDA's television spots and promotional activities.

As a program staff member observed, "Marketing creates awareness... the public will come so you have to balance the needs of creating a program targeting and building an infrastructure to support contractors and creating the customer interest... There is a balancing act between balancing the needs of the contractor and the customer."

4.1 Promotional Strategies

To stimulate the market, NYSERDA developed and deployed an aggressive marketing campaign, including paid broadcast media with the goal both of increasing consumer awareness and demand for whole house services and of attracting more contractor participation.

The promotional mix has evolved during the five years of program operation. Initially the focus was to generate "buzz" and excitement about this new activity, so NYSERDA devoted most of its promotional budgets to build awareness. Now that has changed to more of a supporting role to demonstrate NYSERDA's long-term commitment to the program, more as a signal to contractors rather than to customers.

A program staff member summarized how this program has changed, as the market has developed.

The promotional budget is about 50 percent of what it was at program launch. In the beginning, we focused on building awareness and creating an understanding and demand in the customer segment. We used a celebrity spokesman, Steve Thomas of This Old House. ... but as the program has expanded, now the focus is on televised testimonials from customers in different regional areas.

4.2 Promotional Methods

The program's promotional methods had changed from an event orientation to a heavier emphasis on local TV spots. Some of the more savvy home improvement contractors leverage NYSERDA's advertising activities by piggybacking onto the television spots. For example, these contractors will "book end," that is, buy the spots immediately before and after the NYSERDA TV ads.

This activity illustrates the importance of coordinating with the channel partners, so they can leverage the program's marketing activities and supplement them with their own.

Some contractors also focus on doing targeted telemarketing in the neighborhoods where they are already performing home energy audits and making home improvements. These contractors have learned how to successfully leverage a state-wide program and translate that into local lead generation.

4.2.1 Residential Marketing, Education, and Awareness Activities

NYSERDA maintains an active website designed to promote its variety of energy programs to residential customers. This website (www.getenergysmart.org) focuses on providing information for residential customers.

For the HPwES program, the information provided includes:

- Education about the importance of making home repairs
- Case studies documenting energy savings and non-energy benefits
- Participation guidelines and requirements
- Loan information and forms
- Referrals to BPI-qualified contractors

5. RESULTS

The HPwES has achieved impressive results in reducing energy usage while also creating a self-sustaining market in the residential retrofit sector. These results were achieved because the NYSERDA staff established tough standards to ensure high quality contractors would deliver the program, and included measurement and verification to identify those contractors who did not meet NYSERDA's quality control standards. This is an important element to the program success, because it lets the contractors know that NYSERDA was paying attention to the program, and also made this program a "level playing field."

The program staff member explained that without the standard quality control and enforcement, the program loses credibility. It is also an important mechanism that lets contractors know NYSERDA has a serious and lasting commitment to this activity.

5.1 Program Results

NYSERDA has reported the results from its HPwES to date:

- **Number and Size of Jobs:** Over 10,000 jobs have been completed at an average job cost to date of over \$7,000 per job. Customers have invested more than \$50 million of their own money in home energy improvements. NYSERDA has also subsidized over 3,500 income-eligible households for installation of eligible measures under the New York Assisted HPwES Program (Gerardi & Fisk 2006).
- **Average Electricity and Gas Savings:** Estimates of the per home average annual savings are as high as 800 kWh and 33 MMBtus (gas or oil) over the life of the program, with trends over the past two years showing higher average savings. (Gerardi & Fisk 2006)
- **Program is Cost-Effective:** The benefit-cost ratio is greater than one, based on energy-savings alone. When non-energy benefits are added, the ratio is as high as 5 (NYSERDA 2005).
- **Contractor Participation:** More than 100 technicians have been certified, and more than 100 contracting firms have been accredited by BPI (Gerardi & Fisk 2006).

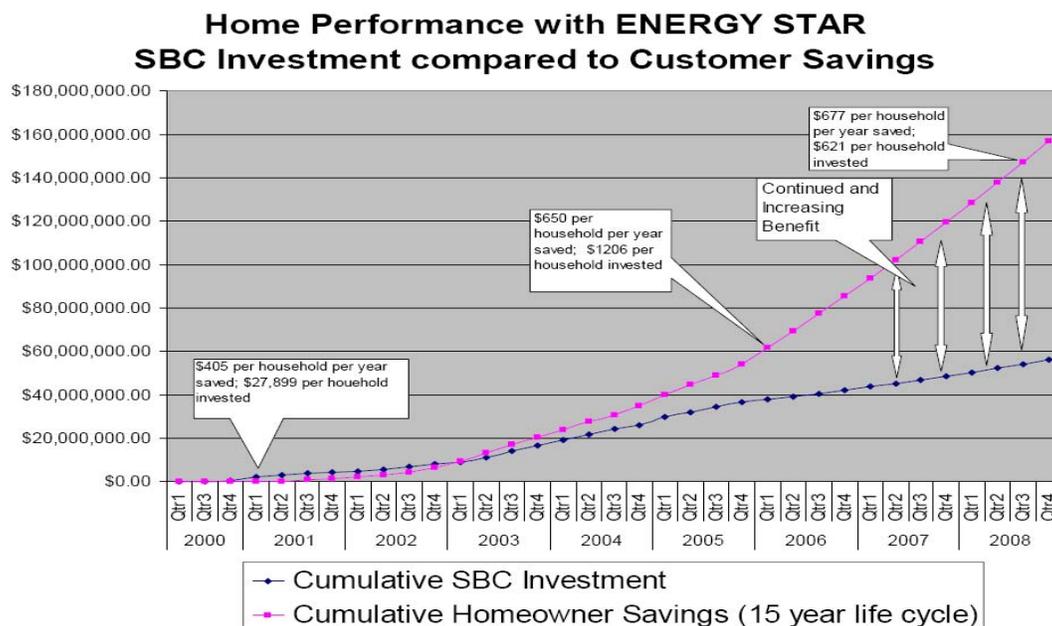
5.2 Energy and Demand Savings

To date, this program has achieved a total of 1.3 aMW of electricity savings, 2 Megawatts of demand reductions, and 424,421 MMBtu of natural gas savings. These energy savings have been achieved at a cost of approximately \$3.0 million per aMW (including both electricity and natural gas savings).¹

5.3 Other Savings

As Figure 3 illustrates, savings for home owners participating in the HPwES program have seen a steady increase in the savings achieved. The loan buy-downs have proven to be an effective way to encourage home owners to invest in cost-effective improvements using their own funds, rather than relying on traditional rebate programs, which cover nearly the entire incremental premium associated with these energy efficiency improvements.

Figure 3. Comparison of System Benefit Charges vs Customer Savings



5.4 Cost-Effectiveness Test Results

For this program, NYSERDA calculates two cost-effectiveness tests under three scenarios. The two tests are the Total Market Effects Test (TMET) and the Program Efficiency Test (PET). The difference is that TMET includes participant costs and the PET does not. The three scenarios tested are as follows:

- Scenario #1: Only the avoided costs associated with energy, capacity, natural gas, oil, propane, and water savings arising from participant actions and from market spillover were used as benefits.

¹ The cost per aMW was converting the natural gas savings from MMBtu to aMW, then dividing the total program costs to date (\$46.3 million) by the sum of the electricity and natural gas savings in aMW. Note that the program includes a large low-income component, which likely raises the average cost per aMW. Even with the low-income component, however, the program still passes NYSERDA's benefit-cost tests.

- Scenario #2: The energy and capacity market price benefits that accrue to all ratepayers from lowering the requirements for energy and capacity, given available supplies, were added to the resource benefits.
- Scenario #3: Non-energy benefits were calculated and added to the resource and market price benefits.

Table 1. Home Performance with Energy Star Program Benefit/Cost Ratios

	Total Market Effects Test (TMET)	Program Efficiency Test (PET)
Scenario 1	1.4	2.7
Scenario 2	1.5	2.7
Scenario 3	2.7	5.0

6. LESSONS LEARNED

The following summarizes the critical lessons NYSERDA learned in designing, implementing, and evaluating its HPwES program. The most important lesson that NYSERDA learned was that “Marketing works – it grabs people’s attention, so the staff must be prepared to develop the infrastructure to support this type of state-wide activity.”

This critical lesson resonates in the other “Lessons Learned” summarized below:

1. **Start at a level where you can provide market-by-market focus.** Rather than diluting funds across the entire state, NYSERDA launched this program successively in discrete markets. This allowed them to quickly reach a critical mass of contractors, and to strategically create awareness and demand (Rogers, Edmunds, & Fisk 2005; USEPA 2005).
2. **Significant spending on marketing and advertising can stimulate demand for whole-house services.** A robust marketing campaign was crucial to the success of their program. The program demonstrated that they could stimulate demand beyond what contractors could provide, and had to strike a balance between consumer demand and contractor infrastructure. Their marketing campaign also demonstrated the serious program commitment, which helps recruit contractors (Rogers, Edmunds, & Fisk 2005).
3. **Quality Assurance, Quality Control.** Quality assurance systems are important in delivering results to homeowners. It will be necessary to provide a strong, market-based QA system, such as a strong BPI accreditation program and a strong M&V component, to continue to deliver the program message of quality and results (Gerardi & Fisk 2006; Rogers, Edmunds, & Fisk 2005).
4. **There is a market for home performance contracting.** Consumers are willing to pay for a comprehensive whole-house approach to improving the performance of their homes. Contractors use building science to differentiate themselves based on added value, high quality, and solutions that deliver results. This increases homeowners’ trust and confidence in contractors, and leads to comprehensive job scopes.
5. **Consumer marketing needs to address non-energy benefits.** Although the primary program goals focus on energy savings, many consumers are more interested in—and willing to pay for—comfort, health and safety, building durability, and indoor air quality (Fisk & Knight 2005; Gerardi & Fisk 2006; James 2004c; Home Energy 2006).

- 6. Home performance contracting is a sustainable business opportunity for contractors.** Contractors report that using home performance can lead to higher closing rates, expanded jobs, and higher margins, all of which increase profitability (James 2004a; James 2004b; James 2004c; Home Energy 2006).
- 7. Contractors need to “own” this innovation.** Third party program support and marketing helps. However, to be successful, contractors must make this their business—not just mount a half-hearted attempt to pick up some government- or utility-subsidized work (James 2004a; James 2004b; James 2004c; Home Energy 2006).
- 8. There is a variety of successful business models.** From pure consultants to one-stop shop contractors, with many variations in between, different business models can succeed. Programs should recognize this in their design (James 2004a; James 2004b; James 2004c; Rogers 2005a; Home Energy 2006).
- 9. Financing is important.** With larger, more comprehensive job scopes, financing is necessary to ensure that a maximum number of homeowners can get the work done. Lower interest rates help, but more important is ease of access. Qualification should be simple, quick, and as hassle-free as possible (Fisk, et al 2003; Fisk & Knight 2005; James 2004a).
- 10. Program support can speed adoption.** Home performance contracting is going to happen—it is just a matter of how long it will take. It is clear that funding programs can help to greatly accelerate this process by providing quality training and mentoring; serving as a trusted third party messenger to increase market awareness; helping secure preferred financing; and helping provide quality assurance. Conversely, increased interest and investment by the private sector that is already being observed should help speed future program deployment, and improve TRC and other benefit/cost tests for comprehensive programs such as Home Performance with ENERGY STAR® (Gerardi & Fisk 2006; NYSERDA 2005; USEPA 2005).

7. PROGRAM IMPLEMENTATION STRATEGIES

NYSERDA and other leading programs nationwide contract with a program administrator to manage their role as Program Sponsor within the program guidelines defined by ENERGY STAR. Alternatively, BPA could fund these activities as part of its larger commitment to residential programs via the Energy Trust of Oregon or the Northwest Energy Efficiency Alliance. This program design is most successful when it is administered from a single point of contact for a specific geographic region. The key deliverables in such a contract relationship would include:

- Developing a detailed program design
- Recruiting contractors
- Developing and delivering contractor training
- Providing contractors with access to certification and accreditation
- Providing contractors with mentoring and field support
- Developing and conducting customer education and marketing
- Integrating program quality assurance in conjunction with BPI quality assurance activities
- Conducting program evaluation
- Providing program management

Fortunately, many of the program planning components already exist from the U.S. Environmental Protection Agency and are highly suitable for scalability by BPA. To support this program, EPA maintains staff to assist Program Sponsors and provides resources such as the ENERGY STAR® Contractors Tool Kit to help BPA, utilities, and participating contractors develop customized communications materials. EPA, DOE, and HUD also provide major funding to Building Performance Institute for a national infrastructure to establish quality assurance standards for home performance contractor training and certification.

Another key implementation requirement will be to establish quality assurance standards for reporting between home performance contractors and consumers. NYSERDA relies on Performance System Development's TREAT building performance software for the preparation of consumer reports by contractors with an upload component to the program administrator. The TREAT software calculates and presents energy savings as well as non-energy benefits for a full range of improvements along with "cash flow" financial analysis and a proposal to install home improvements. Since TREAT creates an editable and customizable report, contractors can use TREAT to help maintain a consultative selling relationship with the customer. TREAT is integrated into both the building science and business processes of the contractor training, providing contractors with an analysis tool that helps close home improvement installation sales with custom reports and financing options. The same data set that creates the customer reports is then uploaded to the program administrator's online database. For quality assurance, contractors provide copies of TREAT report findings and agree to follow up with consumers by phone and on-site evaluations.

The integration of concurrent consumer and contractor awareness campaigns creates a balance by demonstrating a consumer need to contractors who are recruited to modify their business practices to participate in the program. This requires strategic alliances with trade ally organizations and targeted outreach to community leaders to explain the program and to solicit help in recruiting contractors and creating awareness among the general public.

BPA would need to consider conducting a request for proposals from local and national finance providers to identify specialty financing products that could support the program. These could, but would not have to, require financial incentives to the loan program providers.

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LIGHT BULB FUND RAISER

This program profile features an in-depth analysis of a Light Bulb Fund Raiser Program - an innovative campaign that combined energy efficiency and demand side management goals with community outreach. This campaign reaped both environmental and economic benefits by promoting the purchase of high-quality, energy-efficient compact fluorescent light bulbs (CFLs) at the full retail sales price. This program, as implemented by Delta-Montrose Electric Association (DMEA), was honored by ENERGY STAR® for excellence in energy efficiency outreach.

This program was selected for inclusion as part of the larger set of case studies for the following reasons:

- It is part of a national effort with ENERGY STAR.
- It focused on a critical target market for BPA: the residential retrofit market.
- It demonstrates an effective way to leverage community groups to deliver energy efficiency messaging.
- Program delivery can be accomplished with or without “buy down” incentives.
- It is replicable for BPA.

The program information presented here is a compilation of both primary and secondary sources, including a review of reports and presentations, and interviews with program implementers, community groups, and utility staff.

1. PROGRAM BACKGROUND

Based on the findings from a 2004 study of efficient lighting, DMEA became convinced that installing CFLs in a home’s most-used lighting fixtures is among the best ways for its members to save money on monthly electricity bills. Further, DMEA identified that a Lions Club in Maine had achieved success by selling CFLs as part of a fund-raising drive. DMEA believed that this fund raising campaign approach would encourage customers to purchase a few bulbs from local community groups as a fund raiser, and then motivate customers further to buy a full range of high-quality CFLs from local retailers.

DMEA decided to use community organizations as a sales channel to promote energy-efficient lighting products. This method has been used successfully in the past by other utilities that have partnered with local community or civic groups.

DMEA had already identified a lighting vendor, TCP, which offered high-quality energy-efficient light bulbs in a variety of wattages and styles. TCP has strong utility experience, and therefore was selected to be the vendor.

1.1 Design and Operation

DMEA contracted with its subsidiary, Intermountain Energy, to develop and implement the program. Intermountain Energy was responsible for developing the program design, including meeting all legal

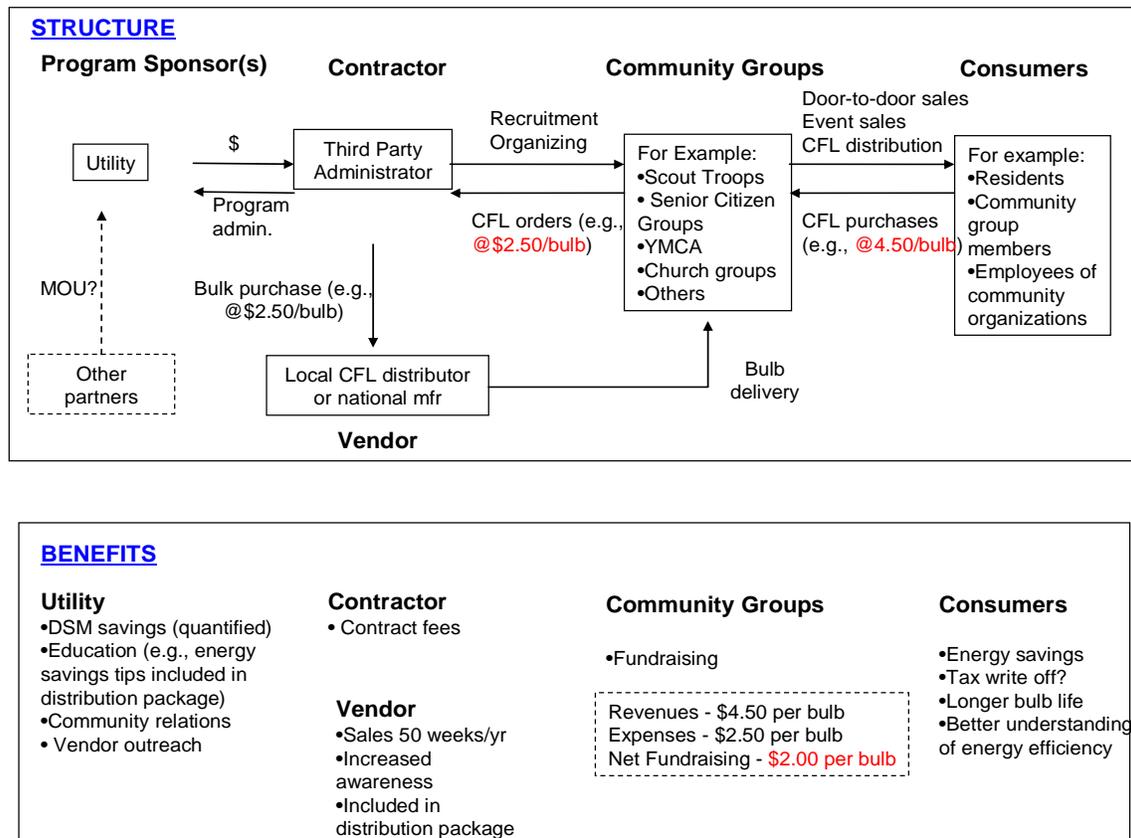


requirements for fund raisers in Colorado, developing the supporting promotional materials and training scripts, recruiting and training the community organizations, ordering the light bulbs from TCP, coordinating the delivery with participating community organizations, and promoting the light bulb fund raiser in DMEA’s service territory.

The goal of this program was to encourage the sale and installation of energy-efficient light bulbs. The key message of the program was to encourage utility customers to replace the five most frequently used light bulbs with equivalent energy-efficient light bulbs. This message was presented in all sales and training materials.

Community organizations were recruited during the summer months. The light bulbs were sold from October 1 to 14 to coincide with the Environmental Protection Agency’s (EPA) national ENERGY STAR Campaign: “Change A Light, Change the World.”

Figure 4. Structure of the Light Bulb Fund Raiser



1.1.1 Program Incentives

DMEA negotiated a competitive price with TCP to provide light bulbs in single and four-pack combinations in the three most common wattage-equivalents: 60, 75, and 100 watts. Then, Intermountain marked up the price \$2.00 plus applicable sales tax. However, the community organization received \$2.00 for each light bulb it sold.

In 2006, DMEA expanded the product offerings to include holiday LEDs. The holiday LEDs were available in two types: strings of 50-bulbs in either multi-colored LEDs for \$16.50 or all white for \$18.50. Groups received a larger incentive to sell holiday strings, since this was a higher priced item. The groups received \$6.00 per string sold.

The utility paid for all program administration costs but the CFLs were sold at full retail price, with the group keeping \$2.00 per bulb as their profit and forwarding the remainder to pay for the wholesale cost of the CFLs plus applicable sales tax.

1.1.2 Program Launch

In order to be successful, the Light Bulb Fund Raiser required coordination with the sponsoring organization, DMEA, the program implementation team, and the participating community organizations. The following figure summarizes the major milestones in this process.

Figure 5. The Light Bulb Fund Raiser Time Line

Major Fundraiser Milestones											
Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
		Draft Program Outline			Recruit Prospective Groups		Distribute Promotional Plan Outline	Conduct Promotional Campaign		Distribute Bulbs to Group	Summary Report
	Conduct Roundtable with Staff/Allies		Prepare Promotional Materials			Conduct Pre-Launch Sales Training	Launch Sales Campaign		Coordinators		
	Finalize Promotional Plans		Distribute insert in area newspapers			Place flyers, and group listings	Collect Bulb Orders from		Distribute Movie Incentive Passes		
	Identify Participating Groups					Front page article in newsletter	Group Coordinators		Conduct Program Evaluation		
	Draft Promotional Materials										

Since the community groups recruited for this program were not “energy experts,” it was also critical to provide proper sales training and support. It was also necessary to provide these groups with the promotional materials necessary to support them in their fund raising activities.

2. TARGET AUDIENCES

Homeowners were the key audience for the message to change out their five most-used light bulbs with CFLs. This program did also appeal to home renters because CFLs are an improvement that renters can take them with them should they move.

3. PROGRAM DELIVERY CHANNELS

3.1 Channel Strategies

Any locally-based, non-profit group was allowed to participate. In fact, the program attracted a disproportionate amount of senior citizen groups. These groups had no ongoing means of fund-raising, unlike the youth groups who are approached regularly by “professional” fund raisers to sell candy, cookie

dough, wrapping paper, etc. Further, the senior citizens better appreciate the value of lower energy bills. Church and environmental groups were another segment that were attracted to the concept of selling energy-saving bulbs as a fund raiser for special projects.

The critical element for success in this lighting program was to recruit, train, and motivate local community organizations to sell energy-efficient light bulbs. Since this product is a departure from the usual fund raising activities of selling candy or gift wrap, it was important to answer the following key questions:

- Did the community organizations receive the support and training needed to make this a successful fund raiser?
- Was the effort worth it?
- Would they participate in future light bulb fundraisers?
- What areas need to change or improve in the future?

The kinds of groups that participated in the Light Bulb Fund Raiser represented the diversity of this rural community and included:

- 21st Century After School Program
- Alpine Children's Environmental Services
- Black Canyon Veterans of Foreign Wars Auxiliary 9333
- Cedar Mesa Club, Cedaredge
- Center of Religious Science, Delta
- Daughters of American Revolution, Uncompaghre Valley
- Delta Barracuda Swim Team
- Delta United Methodist and Presbyterian Churches
- Faith Baptist Church
- Head Start RMSER, Delta
- Montessori School, Delta County
- Montrose High School French Class
- Oak Grove Jolly Rancher 4-H Club
- Olathe High School Band
- Paonia Public Library Foundation
- San Juan Photo Club
- Sweet Adeline's
- United Methodist Youth Foundation
- Western Colorado Congress

The light bulb fund raiser provided a unique way to raise funds. It was much different from their current fund raising activities which relied heavily on selling candy, gift wraps, or having a bake sale. One respondent indicated that this fund raiser was much less labor intensive compared to organizing merchandise for a yard sale.

One community organization representative summarized his interest in participating in this light bulb fund raiser as follows:

“I saw the fund raiser as a three-way win: good for the community, good for the customer, and help us raise money.”

Other comments from community organizations included:

“This was easier (than previous fundraisers). I enjoyed this more and did not have to fool around with much.”

“The product was useful. People wanted that and they were also getting a good value and not just spending money on a fund raiser.”

Table 1 summarizes the implementation steps that were required in order to make this fund raiser a success.

Table 2. Summary of Implementation Steps for the Light Bulb Fund Raiser

Step	Action	Description
1	Recruit Local Non-Profit Groups	Intermountain Energy identified prospective fund-raising groups and invited them to attend an Orientation Meeting. At the meeting, groups received promotional materials and forms.
2	Group Coordinator Trains Members to Sell Bulbs	Participating Group Coordinators were provided with sales/educational materials, including suggested scripts and answers to frequently asked questions.
3	Group Members Take Orders	The Fund Raising Campaign lasted from October 1-14 in coordination with a publicity campaign. At this time, the group member took orders for CFLs and collected payment at time of ordering.
4	Group Coordinator Collects Order Forms and Places Group Order	Within 1 week after the sales campaign’s conclusion, the Group Coordinator placed bulb lamp order with Intermountain Energy.
5	Intermountain Energy Place Orders With Supplier	Intermountain Energy placed the bulb order with Service Concepts, a TCP Distributor.
6	Intermountain Energy Receives Bulbs	Upon receipt of lamps by Intermountain Energy, the orders were “broken down” by group and the Group Coordinator was notified to pick up their bulbs at Intermountain Energy headquarters.
7	Group Coordinator Picks-up and Pays for Bulbs	Payment for the bulbs by the group was due at time of pick-up. When the Coordinators picked up their bulb orders they were provided with printed material that: <ul style="list-style-type: none"> - Explained the ENERGY STAR lighting program overall. - Urged buyers to begin saving energy and money immediately by install these new bulbs now BEFORE their old bulbs burn out.. - Invited them to a DMEA Home Energy Efficiency Workshop on Saturday, November 12.
8	Groups Deliver Bulbs With Workshop Flyer	

3.2 Strategic Allies/Partners

Retailers became a key ally in this program. The utility notified each local retailer in advance of the program plans with details on the product specifications, manufacturer, distributor and wholesale price points. Emphasis was given to the fact that this was a short-term program of just two weeks and that only a narrow selection of CFL types were to be available. Retailers were assured that the utility’s intent was to drive consumers to the retailers for the other 50 weeks of the year and for the wider range of CFL types that are commercial available but rarely stocked and promoted locally. The \$5.00 retail price premium gave retailers plenty of room to discount their bulbs after the campaign to leverage the program

awareness. However, at least one retailer was inundated with returns of an inferior bulb that didn't match the no flicker, instant start, warm light performance of the CFLs sold through the fund raiser.

3.3 Sales Delivery

Orders for the light bulbs were taken by the community groups in early October to coincide with the Environmental Protection Agency's (EPA) national ENERGY STAR Campaign: "*Change A Light, Change the World.*" All light bulb orders were placed by the end of the month. Community organizations received their light bulbs in early November and were responsible for delivering the light bulbs to their members.

This sales delivery channel resonated well within this community. Overall, the participants were satisfied with all aspects of the program, but especially with the high quality product and the unique delivery channel.

"I would buy again at those prices."

"Compared to the other bulbs, they were a good deal."

"I just loved the little girl who sold the bulbs. She was very knowledgeable. I think this is a great idea."

4. CRITICAL MESSAGES/THEMES

The goal of the program was to encourage the sale and installation of energy-efficient light bulbs. The key message of the program was to encourage DMEA members to replace the five most frequently used light bulbs with equivalent energy-efficient light bulbs. This message was presented in all sales and training materials.

Secondary messages about the economic and environmental benefits of CFLs were integrated into the message with a key message being that the sale would benefit the fund-raising objectives of the local group.

Sales scripts provided to the groups reinforced that they should lead with the reason why the group was raising money and follow with the value of CFLs to save energy, money, and power plant emissions.

The local community organizations were pleased with both the commitment that the utility provided in offering this fund raiser, and the training and support they received during the sales period.

"It was a very wonderful thing for DMEA to do. It made money for the organization. We always have trouble raising funds."

"I am very pleased that DMEA is behind something like this. The sample was helpful and so was the training session."

Energy Star
CHANGE A LIGHT
CHANGE THE WORLD
ENERGY STAR

DMEA and ENERGY STAR® recommend...

DMEA
A TruGreen Energy Cooperative

replacing **▶** with **▶**

Replace Your 5 Most-Used Lights! One of the best ways to save money on your electric bill is to replace your most used standard (incandescent) bulbs with high-quality compact fluorescent lamps (CFLs) that have earned the government's ENERGY STAR®. Your cost is about \$5 for each CFL.

Save Replacement Cost. Since one CFL lasts about 13 times longer, you won't have to buy 13 standard light bulbs. Your total replacement cost savings is about \$5 for each CFL.

Save Energy. Since CFLs use about 75% less energy, you could save about \$5 every year in energy costs for each CFL at today's DMEA rates. Your total energy cost savings could be about \$50 for each CFL.

Reduce Pollution. The total energy savings from one ENERGY STAR® qualified CFL equals about 500 pounds of greenhouse gases – as good for our environment as not driving for 2 weeks, according to the US Environmental Protection Agency.

Result? You Pay \$5 and Save \$50. So, how much do CFLs cost? The answer is, "Home energy saving improvements like CFLs don't cost, they pay." A one-time \$5 CFL "cost" could "pay" you \$50.

BONUS! Help Earn Money!
From October 1 to 14, you can buy CFLs at DMEA's cost and donate \$2 per bulb to our local non-profit group
Contact _____ at _____
before October 14 to place your order!

For a list of all the groups participating in the DMEA Light Bulb Fund Raiser, visit the DMEA lobby or go to www.homeenergycooperative.com

4.1 Promotional Strategies

One month prior to the Sales Campaign Launch, utility employees were invited to purchase the bulbs for their personal use. During this timeframe, local light bulb retailers were approached in-person to explain the product features, pricing, and program goals.

Every opportunity was taken to leverage and integrate existing DMEA energy education activities, including the DMEA newsletter, newspaper advertising, and Doug Rye's "Home Remedies" radio show advertising that would have otherwise been used for generic messaging.

4.2 Promotional Methods

DMEA aggressively promoted the value of replacing standard light bulbs with compact fluorescent bulbs (CFLs). DMEA ads appeared in several publications in September and October. Plus, DMEA dedicated the front page of its September bill insert newsletter to the topic. All promotions clearly recognized the ENERGY STAR "Change a Light, Change the World" campaign which is a national challenge to encourage every American to help change the world, one light - one step - at a time. The campaign culminated in the fall around ENERGY STAR Change a Light, Change the World Day on October 5th, with promotions running locally and nationally beginning October 1. Details are at http://energystar.gov/index.cfm?c=change_light.join_changealight.

The program administrator created a variety of promotional materials including newspaper inserts, four-color flyers, and advertisements which promoted the light bulb fund raiser. The materials included pictures of the light bulbs, prices, and wattage equivalencies.

5. RESULTS

This program was successful on many levels. It raised customer awareness, helped transform the market for the CFLs among local retailers, and demonstrated the effectiveness of using community groups as a sales delivery channel.

5.1 Program Results

The utility conducted process and impact evaluations in 2005 and 2006 to measure program success, identify areas for improvement, and establish the market transformation that had occurred within this rural community.

In 2005, 15 community groups sold 3,044 light bulbs that were installed in DMEA's service territory. More importantly, they raised more than \$6,000 for their charitable organizations. The results for 2006 were slightly lower, in terms of bulb sales, but overall reflected the continuing interest customers have in using energy-efficient lighting. Table 3 compares the results from 2005 and 2006.

Table 3. Comparison of Fund Raiser Sales Results from 2005 to 2006

	Results in 2005	Results in 2006
Number of Participating Community Groups	15	19
Total Sales	3,044 light bulbs	2,158 light bulbs 310 holiday strings
Amount of Money Raised by Groups	\$6,000	\$6,100
Annual Avoided Net Power Purchases	\$5,400	\$3,346
Annual kilowatt hours (kWh) saved	219,000	142,000
Annual kilowatts saved (kW)	2,200	616
Amount of Carbon Metric Tons of Emissions Avoided	139	90

Cumulatively, the effects of the Light Bulb Fund Raiser are as follows:

- Achieved a 17 percent market penetration of energy-efficient lighting products; a total of 5,202 light bulbs and 310 holiday strings have been installed in DMEA's territory.
- Fund raising groups raised than \$12,000 in contributions.
- DMEA will avoid more than \$43,000 in net power purchases during the next five years.
- Customers will save more than 1,800,000 kilowatt hours (kWh) during the next five years and 14,080 in peak kilowatts (kW).
- Approximately 1,145 metric tons of carbon emission reductions will be achieved during the next five years.

5.2 Net First Year Savings

As the following two tables show, the utility's savings were more than offset by any lost revenues due to customer savings.

Table 4: Estimated Net First Year Savings for DMEA-2005

Wattage Installed	14 W	20 W	23 W	Total
Number of Light Bulbs Installed	1,365	780	857	3,002
"Lost" Revenue	(\$6,758.85)	(\$4,617.85)	(\$7,103.20)	(\$18,479.90)
Avoided kWh Cost	\$1,649.20	\$1,126.79	\$1,733.23	\$4,509.22
Total Avoided Coincident Peak Demand Charges (kW)	\$7,100.29	\$4,851.14	\$7,462.04	\$19,413.46
Net First Year Savings to DMEA	\$1,990.65	\$1,360.07	\$2,092.07	\$5,442.78

Table 5: Estimated Net First Year Savings for DMEA-2006

Wattage Installed	14 W	20 W	23 W	4 W	Total
Number Installed	905	554	388	310	2157
“Lost” Revenue	(\$26,806.15)	(\$19,620.10)	(\$19,237.60)	(\$315.01)	(\$65,978.86)
Avoided kWh Cost	\$6,853.85	\$5,016.50	\$4,918.70	\$80.54	\$16,869.59
Avoided Tri-State Peak Period Member kW Cost	\$26,693.15	\$19,537.35	\$19,156.50	\$454.34	\$65,841.34
Net First Year Savings to DMEA	\$6,740.80	\$4,933.75	\$4,837.60	\$219.87	\$16,732.02

5.3 Energy and Demand Savings

Table 4 shows that DMEA achieved its goal of reducing peak load reductions for both 2005 and 2006 through this fund raiser program. These are the net effects, after accounting for free ridership and spillover, based on feedback from customer surveys.

Table 6: Summary of Energy (kWh) and Demand (kW) Net Effects to DMEA 2005 and 2006

2005 Installed Wattage	14 W	20 W	23 W	Total
Number of Light Bulbs	1,365	780	857	3,002
Annual kWh Savings to members	80,214	54,805	84,301	219,320
Avoided Peak KW	816.27	557.7	857.85	2231.82

2006 Installed Wattage	14 W	20 W	23 W	4W	Total
Number Sold	905	554	388	310	
Total kWh Savings to members	288,705	211,310	207,190	3,393	710,598
Total Tri-State Peak Period Member kW to DMEA	1,249	914	896	25	3,084

The total kWh savings from the 2005 and 2006 programs is the equivalent of 0.1 aMW, achieved at a cost of approximately \$659,000 per aMW. The 2005 program budget was approximately \$50,000, including such start-up costs as the initial assessment and developing a calculator. The 2006 program budget was approximately \$20,000, which mainly went towards the third-party administrator fees and the program evaluation.

6. LESSONS LEARNED

The Light Bulb Fund Raiser Pilot Program was successful based on the incorporating the following “Best Practices.” These are areas that must be addressed by any organization interested in creating their own light bulb fund raiser program.

1. **Use a quality product:** Not all CFLs are created equal. As a program sponsor, it is important to select a high quality lighting product that will reflect favorably on the organization’s image. Also, the light bulbs offered by TCP were of higher quality than typically found in the local retail outlets, and therefore not perceived as a direct threat by local retailers.
2. **Recruit a diverse group of non profits:** Rather than focusing on youth groups, this fund raiser succeeded by recruiting organizations that represented the larger community as a whole. In many

cases, these organizations did not have any other fund raising opportunities, and therefore were dedicated to promoting the light bulbs as a way to generate revenues for their group. This also allowed the utility to reach out to all demographic groups within its community, especially those that may be overlooked such as senior citizens.

3. **Incorporated successful fund raiser models into the program design:** Before developing this program, the program designers “went to school” on professional fund raising organizations. The designers identified the best practices used by other fund raisers, such as group incentives, sales training, and product demonstrations, and adapted these strategies to the Light Bulb Fund Raiser’s product offerings.
4. **Used a third-party program administrator:** DMEA hired a third party to design, implement, and evaluate this fund raiser because it did not have the internal resources, experience, or flexibility to administer this program on its own. DMEA provided the dollar support to the third-party administrator, who in turn provided the hands-on support, training, and feedback necessary to ensure success.
5. **Built evaluation metrics into program design:** Evaluation was built into the design of this program. Therefore, critical program evaluation components, like customer contact information, types of bulbs sold, and other crucial data were captured in the initial order form and tracked in the program database. This simplified the evaluation process and made it easier to track program results and make improvements.
6. **Focused sales campaign to leverage ENERGY STAR:** The timing of the Light Bulb Fund Raiser was designed to coordinate with the regional and national press that would be generated during the “*Change the Light, Change the World*” campaign. By tying this activity into a larger national event, DMEA was able to generate additional press and awareness within the local community.
7. **Engaged retailers in planning:** The local retailers who sold energy-efficient light bulbs were included in this process. They were notified about the fund raising program, kept apprised of the results, and benefited from increased awareness among the utility customers. Because they were invited to the table with the utility, they were supportive allies who realized that the utility had created a market for their unsold inventory!
8. **Created a replicable program:** The Light Bulb Fund Raiser Program was designed to be an intensive, two-week campaign that generated sales and awareness, and then *went away*. The short duration, intense focus, and program model are designed to be replicated by energy organizations of any size in any type of community.

7. PROGRAM IMPLEMENTATION STRATEGIES

The Light Bulb Fund Raiser program provides an excellent opportunity for turnkey implementation by a third-party program administrator due to the transitory nature of the program timing. This program model is successful because it focuses on a relatively simple product—light bulbs—in a short time frame. In that way it mimics many good community-based fundraising opportunities and is best suited to move products that are simple to understand and easy to transport.

Given the strong community focus of this program, BPA could provide training and support to its smaller utility partners and third-party implementers, such as NEEA and the Energy Trust. The flexibility of this program design allows BPA and its partners to provide a range of program support from a full turnkey

solution to offering more limited activities, such as training, sales support, or coordinating the advertising and promotional activities.

The key steps in the Light Bulb Fundraiser program implementation for BPA are summarized as follows:

1. **Project Kick Off** establishes baseline parameters for defining program parameters, defines the roles and responsibilities for the sponsoring organization, the third-party implementer, and BPA. The other critical deliverable is a timeline that outlines the due dates for critical activities, such as community group recruitment, program promotion, and outreach activities.
2. **Establish a Utility Employee “Pilot Program”** as a way to engage all utility staff and model the program for fund raising groups. This step allows the sponsoring organizations to gain first-hand knowledge of the sales process required, and also allows employees the opportunity to recommend additional community groups that may want to participate.
3. **Retailer Outreach** is a critical step. As this case study points out, retailers must be made aware of the plans for this program, so they will be prepared to sell additional CFL and energy efficiency products at the conclusion of the fund raiser. Therefore, time must be set aside to notify retailers, invite them to meetings, and discuss specific opportunities for promotional tie-ins. This retailer outreach also provides an opportunity to gather baseline information regarding CFL product attributes with price points already offered in the marketplace.
4. **Fund Raiser Group Recruitment** with outreach to community groups and “sales training” for group coordinators. This step includes providing the fund raising groups with sales scripts, a list of frequently asked questions, and other tools to help them sell these products.
5. **Targeted Sales Campaign** during the weeks immediately before the light bulb fund raiser begins. This could include developing newspaper inserts in the local papers and signage and flyers in the utility office. However, this is a direct marketing campaign that involves one-on-one selling, so most program awareness is generated by word-of-mouth through the community groups.
6. **Group Order Collection and Delivery** that involves creating master order forms for each group, totaling the orders, and then breaking down the orders once they arrive. This model is identical to those used by other fund raising organizations and requires coordinating delivery at central locations that are accessible to community groups at nights and weekends.
7. **Program Evaluation** begins within two weeks after the light bulbs have been delivered. The evaluation includes interviews with retailers, group coordinators, community leaders, utility staff and bulb purchasers, as well as impact analysis of program effects with regard to determining the kilowatt-hour (kWh) and kilowatt (kW) savings net of free ridership and spillover and calculating the carbon emissions reductions attributable to program activities.

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HOME ENERGY MAKEOVER CONTEST

This program profile features an in-depth analysis of Home Energy Makeover Contests conducted by various utilities.

This program was selected for inclusion as part of the larger set of case studies for the following reasons:

- It is focused on a critical target market for BPA: the residential retrofit market.
- It demonstrates an effective way to leverage third-parties to deliver energy efficiency programs.
- Program delivery can be accomplished with or without “buy down” incentives.
- It is replicable for BPA.

The program information is a compilation of both primary and secondary sources, including a review of program reports and presentations, and interviews with program implementers.

1. PROGRAM BACKGROUND

The Energy Makeover Contest is a creative way to promote energy efficiency and collaborate with home improvement contractors. Contest organizers award a major energy efficiency retrofit to the winning contest participant in a highly visible demonstration. The home, chosen for its inefficiency, produces dramatic energy savings.

Several recent Energy Makeover Contests were reviewed in preparing this document:

- Xcel Energy and the Colorado Energy Science Center (CESC) have completed two contests and are beginning a third. Last year’s contest attracted 16,000 applications and the winning homes reduced natural gas use by over 70 percent.
- The Colorado Springs Utilities conducted a contest in 2005 to spur interest in their new Home Performance with ENERGY STAR program.
- Delta Montrose Electric Association (DMEA), in Western Colorado, worked with partners to conduct an Energy Makeover Contest designed to build consumer interest in energy efficiency.
- Otter Tail Power Company, which serves parts of Minnesota, North Dakota and South Dakota, recently selected the winners for their first Energy Makeover Contest.²
- TRICON, a union construction industry association in Central Illinois, announced a Home Energy Makeover Contest in April.³



Xcel Energy is often credited with the original concept for the Energy Makeover Contest. Xcel Energy was looking for ways to better communicate energy efficiency opportunities to their customers. CESC has run a middle and high school contest since 2001 in which student teams analyzed home energy bills. CESC installed energy efficiency measures in the least efficient homes analyzed by the winning student teams. CESC was looking for a way to apply the idea in its consumer education program.

² Personal correspondence with Chris Dierker, Market Manager, Xcel Energy, christopher.j.dierker@xcelenergy.com

³ Personal correspondence with Ginger Johnson, Executive Director, Tricon, gingerj@triconpeoria.org

Xcel Energy's Melissa Wood, the Director of Strategic Marketing, said the utility invested in the new idea because it would be a great way of "showing, not just telling" the energy efficiency message. Xcel Energy wants customers to know they can exercise control over their energy bills and the contest provides an opportunity to reinforce that message every month or two as more energy savings are realized.⁴

1.1 Design and Operation

Contest Planning and Preparation Planning includes developing rules, a selection process, and a schedule. Laws governing consumer-oriented contests vary by state and should be reviewed when developing Energy Makeover Contest rules. Other areas that need to be addressed during the planning stage include eligibility, application deadlines and process, winner selection criteria, prize packages, and promotional efforts.

Application Process. To attract the highest possible number of applicants for a contest, the application process should be simple for the homeowner. Homeowners should be given the opportunity to either mail in an application form that has been included in their utility bill, provided directly by sponsors, or at local retailers, or to apply online. If print advertising is within the promotional budget, entry forms can be included in newspaper and magazine advertisements. Application forms should include a few fields in addition to contact information (e.g., the size and age of the home).

Most of the Energy Makeover Contests selected winners based, at least partly, on energy use. In these cases, the application notes that the homeowner gives the utility and the third-party administrator permission to use their energy bill data or another estimate of energy usage, such as the ENERGY STAR Home Energy Yardstick, as a part of the selection process. By law, applicants must be able to choose not to be contacted in the future or sent any additional information.

Selection Process. The selection process is designed to select winning entries that need major energy efficiency measures and can serve as a showcase for each sponsor. The process can be tailored to meet different needs and different types of housing. Some of the criteria that have been used include:

- Size of home (homes too small or too large will not be seen as replicable).
- Age of home (homes too new will not need heating or cooling equipment replaced, and may open up issues with the home builder).
- Number of occupants (homes with too few or too many may not be viewed as 'typical').

Additional information will need to be gathered in subsequent telephone interviews with selected "semifinalist" homeowners. These interviews can screen for other important factors, such as:

- Unusual energy sources or uses.
- Behavioral reasons for high energy use (windows kept open).
- Homeowners who are uncooperative or intend to move.

⁴ Personal correspondence with Chris Dierker, Market Manager, Xcel Energy, christopher.j.dierker@xcelenergy.com

Audit and Installation. Once the contest winners have been selected, implementation begins with a thorough diagnosis of the home's energy problems by an energy rater, energy auditor or home performance contractor. The energy rater or auditor (often with a General Contractor) should explain the measures to the homeowner in detail, and provide the homeowner a written summary of the work to be done, along with the schedule of work. It generally takes at least three weeks to complete installation. Once the retrofit is complete, a post-installation audit should be performed.

Marketing and Promotion. Each participating organization can play an important role in the promotional effort. Leading up to the contest, a marketing plan can be developed to capitalize on the strengths of each organization. Utilities, sponsors, and third party administrators can develop newspaper ads, media releases, and radio ads to publicize the contest. The utility can use an insert or newsletter in the utility bill to promote applications. Sponsors can also distribute contest flyers and publicize the contest to their customers through other avenues, such as invoice inserts and in-store promotion.

The "prizes" for the Home Energy Makeover contest are energy efficiency improvements designed to demonstrate cost-effective home energy improvements. The individual package for each winning home varies, depending upon the improvements needed. All of these "prizes" have been donated by local contractors and may include items such as weather stripping, energy efficient lighting, window replacements, furnace replacements, insulation, and programmable thermostats. The goal is to provide the winner with the most cost-effective set of home energy improvements that will reduce overall energy usage and increase occupant comfort, health, and safety.

Once a winner is selected, some of the contests have used a "prize patrol" approach to inform winners, which creates great pictures of excited homeowners and often generates media coverage for the contest.

After the work is completed, satisfied homeowners also can be great resources for media outreach in the months following the contest, helping to keep energy efficiency in the minds of area consumers. Sponsors have paid for brochures and promotion of workshops. Utilities have included stories about the impressive energy savings in their customer newsletters (Keegan 2005).

1.1.1 Program Incentives

Because the products and services donated by contest sponsors are what attract homeowners to the contest, sponsor recruitment is key to having a successful contest. Generally, there are two methods for building a prize package: sponsors can donate all goods and services, or the contest organizer can purchase the measures outright. Both methods have been successful. However, when funding is available, purchasing the measures outright gives greater control over what is included in the package and installation quality.

1.2 Program Launch

In 2005, Intermountain Energy developed and implemented for DMEA a Home Energy Makeover Contest that partnered DMEA with the Colorado Energy Science Center and 14 area businesses. The Contest offered up to \$45,000 in energy-related home improvements. Contest entry forms and rules are distributed in local newspapers. Two local banks placed entry forms in their lobbies as well. Contest details were available online at www.homeenergymakeover.com with links to www.dmea.com and www.energyscience.org.⁵

⁵ Personal correspondence with Ed Thomas, Marketing Director at Intermountain Energy (subsidiary of DMEA), ed.thomas@dmea.com.

Ten DMEA members with higher-than-average home energy bills were chosen from among contest entries received online and via mail. Each Contest Finalist home received an extensive energy use analysis with a blower door test and data input into the TREAT software application. The software allowed Intermountain Energy to model the home's total energy use based on the building shell and appliances, then "true up" the model using the homeowner's 12 months of actual use and local weather data. Then they input local contractor bids to determine which cost-effective improvements that we might "package" into good (up to \$2,500), better (up to \$10,000) and best (up to \$25,000) groupings.

Each of the 10 Contest Finalists received a customized report titled "Home Energy Performance Analysis with Improvement Package Recommendations." The member with the greatest potential to demonstrate home energy savings was awarded over \$25,000 in energy-related home improvements. The two runners-up received up to \$10,000 in energy-related home improvements. The seven remaining members received a comprehensive energy analysis of their home with specific recommendations on how best to cut their utility bills.

A "Home Energy Savings" workshop was presented with direct invitations to all the contest entrants as well as the general public. The workshop was a group presentation by contest co-sponsors who discussed how they improved the winners' homes and what they recommended as improvements in the other finalists' homes. At the workshop, DMEA introduced the *Home Energy Makeover Guide*, a web-based suite of self-audit tools.⁶

2. TARGET AUDIENCES

All homeowners are the target for this program, regardless of the age of the structure. It is critical to select a contest winning home that is typical of the area. It is also important to select a homeowner who will represent the utility and other contest sponsors well in media interviews and subsequent publicity.

3. PROGRAM DELIVERY CHANNELS

The Home Energy Makeover Contests featured in this case study, although they have individual differences, do have the following program components in common:

The Utility: The utility has a unique ability to deliver a promotional message to every local customer in their service area. The willingness of the utility to promote the contest often can be critical to attracting sponsors. Generally, utilities play the following roles in Energy Makeover Contests:

- Promote the contest in their energy bill insert and elsewhere.
- Provide funding for the third party administrator and sometimes for the efficiency measures.
- Provide, with applicant's permission, the energy bill data to the 3rd party administrator.
- Publicize the energy savings being realized by the winning homes.

Sponsors: Product manufacturers and retailers may donate their services and/or products, and bring additional promotional or marketing muscle to the table. The total value of the package catches the

⁶ Personal correspondence with Ed Thomas, Marketing Director at Intermountain Energy (subsidiary of DMEA), ed.thomas@dmea.com.

attention of prospective applicants, so when sponsors donate big-ticket measures, such as a new furnace or air conditioning system, appliances, or replacement windows, more homeowners enter the contest.

Contractors: In addition to sponsors who provide equipment and products, a number of service contractors are needed to identify and install selected energy efficiency measures. Again, these contractors can be approached to donate their services or the contest organizers can pay directly for the work.

- An energy auditor, rater, or home performance contractor who will perform diagnostics and develop a recommended energy upgrade package for the winning homeowner.
- A general contractor to obtain the necessary building permits and serve as the point of contact for the homeowner while overseeing the work of the other contractors.
- Insulation and air sealing contractors.
- HVAC contractors to install equipment and clean and seal ductwork.
- An electrician to upgrade the electrical service (if needed).

A Third Party Administrator: A third party administrator, especially if they have good contacts with potential sponsors and contractors, can be a critical partner in the contest effort. The third party administrator can assist with sponsor recruitment, application review and winner selection (which can be extremely time-consuming), and promotion coordination. (Keegan 2005)

3.1 Channel Strategies

A key success factor is to leverage the contest process to motivate the contest losers to make improvements on their own.

The Energy Makeover Contest generates a list of pre-screened homeowners. Homeowners, by entering the contest, have shown that they are interested in energy efficiency. They can be a receptive audience for other home energy efficiency offerings, such as additional guidance on efficiency measures or energy efficient products and announcements of workshops and classes for do-it-yourself improvements.

The Energy Makeover Contest generates leads for home performance contractors. The contest generates interest in home energy analyses and energy efficiency workshops. Contest sponsors and home performance contractors often attract inquiries directly from consumers who have entered the contest. Most Energy Makeover Contests have included some type of consumer workshop, which gives attendees an opportunity to meet sponsors and contractors. A CESC workshop in the Denver area generated 93 leads for Energy Makeover sponsors.

3.2 Strategic Allies/Partners

Sponsors, including product manufacturers, retailers, and local energy efficiency companies, all work together to give the winning homeowners a whole-house makeover that produces the best results. The collaboration can also be extended to promotion and marketing.



3.3 Sales Delivery

Contractors work in close coordination to install the improvements in the winning home in a timely fashion so as to leverage the momentum gained by the winner's selection into added publicity about the "before and after" home and how the homeowners are benefiting from the improvements.

4. CRITICAL MESSAGES/THEMES

Typically, the primary goal of the Energy Makeover Contest is to disseminate an energy efficiency message. The contest helps attract media attention to home energy efficiency. Once the improvements are made, the added comfort and the often dramatic energy savings extend the story with a powerful and compelling energy efficiency message to area consumers.

In an economic environment where utility rates are climbing, some homeowners believe that there is nothing to do but pay the bigger utility bills. However, energy-related home improvements are a one-time cost that can save homeowners money every month for as long as they own their homes. The utilities conducted **Home Energy Makeover Contests** to dramatically demonstrate how people with higher-than-average home energy costs could save by making the "right" home energy improvements. This taught all interested utility customers how best to improve their homes in ways that reduce their overall energy bills.

Other key messages can be to:

- Show homeowners how to reduce energy bills on their own without a free on-site utility audit.
- Benchmark what is a high home energy (not just electricity) bill and most cost-effective ways to save.
- Demonstrate measures that a homeowner could do that have a positive cash flow for energy savings.
- Demonstrate how to conduct a comprehensive whole house energy analysis.
- Maintain utility's leadership position as trusted energy savings information broker (Keegan 2005).

4.1 Promotional Strategies

Emphasis should be on "disrupting" the traditional home improvement marketplace to refocus buyers on the value of considering energy-saving improvements. Forward-looking and niche home improvement providers value how the contest differentiates them while aligning them with the utility's promotional resources and expertise.

4.2 Promotional Methods

Home Energy Makeover Contests have used various methods to advertise the contest and attract homeowners. Utility bills often provide a cost-effective opportunity to solicit applications and to promote the contest results. This can be done with a special insert or with an article and application form in the utility newsletter that accompanies the bill. A variety of other promotional tools can augment the utility bill, including print and television advertisements, magazine articles, and placing content about the contest on utility and sponsor Web sites.

5. RESULTS

Overall, the results for these diverse Home Energy Makeover Contests have been quite successful, in both creating awareness among the hard-to-reach residential retrofit customers and providing sales opportunities to encourage contractors to focus on energy efficiency improvements.

5.1 Program Results

Marketing staff at Xcel Energy carefully measured the effectiveness of the 2004 pilot effort in terms of “views”: the number of times information on the Energy Makeover Program was in front of a customer. Several key outreach tools were used, including the utility’s monthly bill-insert newsletter, newspaper advertisements, and free television appearances. Xcel Energy concluded that the Energy Makeover produced 3.3 million views, making it a very cost-effective way to spread the energy efficiency message. The reach grew in 2005 to about 4.5 million.⁷

The energy analysis and diagnostic work uncovered serious energy and comfort issues. More than \$25,000 worth of energy efficiency measures were installed during a 3 week period. Work was completed in November 2005 and the energy savings have been exceptional. Energy use in the two 2005 winning homes dropped by 65% to 70% during the November through February time period.

The **Colorado Springs Utilities** version of the Contest reached a wide audience, using an insert and a newsletter announcement in the utility bills, news coverage, newspaper print ads, and the utilities’ website. The Colorado Energy Science Center, a local non-profit CESC helped promote using their website, the Smart Energy Living magazine, an email newsletter, direct mail newsletter and a homeowner workshop. The outreach disseminated about one million “impressions” which is an average of five impressions for each of the utilities’ 200,000 customers. CESC conducted over 100 telephone interviews to narrow the field down to six finalists. The winning home, built in 1992, had a pre-installation home energy rating of 74, but had serious comfort issues. The sponsors improved the HERS score to 88, earning the home an ENERGY STAR qualification. Winter energy use dropped about 30%. (Keegan 2005)

Delta-Montrose Electric Association designed their version of the contest to include the launch of a new website (www.homeenergymakeover.com) in conjunction with the Contest with tools available to DMEA members to aid them in conducting self-audits and energy analysis on their homes. DMEA wanted to promote the whole-house approach and the collaborative, team effort in increasing a home’s energy efficiency.

The utility wanted to demonstrate a specific approach to analyzing homes and selecting measures and chose to fund the analysis and many of the energy efficiency measures themselves. The utility was able to provide prizes to ten winners. The Grand Prize winner received about \$25,000 in energy efficiency measures. The two runners-up each received up to \$10,000 in measures. The final seven additional winners each received a comprehensive energy audit of their homes. They conducted a wide-ranging promotional campaign:

- An announcement and application form in the DMEA newsletter.

⁷ Personal correspondence with Chris Dierker, Market Manager, Xcel Energy, christopher.j.dierker@xcelenergy.com.

- A 4-page insert was included in 2-3 different issues of the three main newspapers in the service territory.
- Advertisements were run on the radio and on television.
- Booths were set-up at a few local fairs.

The utility organized a workshop shortly after winners were selected. About 50 people attended, and heard details about the energy analysis that was being done for all ten of the selected homes. Contest co-sponsors talked about the measures they installed. As a result of the workshop, nine people have expressed interest in paying \$300 for a home energy analysis, so they would know how to go about their own energy makeover. Fourteen home improvement product and service providers participated with in-kind donations.⁸

5.2 Energy and Demand Savings

These contests were conducted as part of the utilities' energy efficiency education activities with no intent to measure savings beyond the one home improved with donated materials from contest sponsors.

6. LESSONS LEARNED

The following summarizes the critical lessons the utilities learned in designing, implementing, and evaluating the Contests.

1. **Select a typical home** that can best demonstrate energy savings based on building science, rather than the economic hardship of the home owner.
2. **Use a whole house, fuel neutral** approach and do not underestimate promotional value of non-energy benefits.
3. **Involve wide range of home improvement contractors** offering readily-available, higher efficiency products.
4. **Mimic others**-- the key success factors of commercial home improvement contest and television shows.
5. **Use the contest as a platform** to promote a larger portfolio of utility and community-sponsored energy saving programs.
6. **Focus on creating happy losers** motivated to do their own energy makeover at their own expense.
7. **Focus attention on ability to "cash flow" energy savings** improvements in a traditional home equity loan or mortgage refinance.

⁸ Personal correspondence with Ed Thomas, Marketing Director at Intermountain Energy (subsidiary of DMEA), ed.thomas@dmea.com.

7. PROGRAM IMPLEMENTATION STRATEGIES

Since the Home Energy Makeover contests are often done as a one-time only event that spans just a few months, they are ideally suited to be outsourced to a third-party program administrator. Alternatively, they could be implemented through BPA's regional partners, such as the Oregon Energy Trust, as a precursor to launching an energy efficiency program targeting existing home owners (see Home Performance with Energy Star case study). Many of the on-site home energy saving analyses skills may be accomplished via locally-based weatherization agencies while coordination of the local home improvement providers may be best provided by a local builder's association or chamber group.

The key tasks for successful program implementation are to:

- Plan contest promotion and structure
- Recruit co-sponsors and prize donations
- Pre-launch communication to utility employees, media and co-sponsors
- Launch contest and collect entries
- Screen entries and select possible finalists
- Screen finalists and select winners
- Announce winners
- Install improvements
- Conduct follow-on Home Energy Savings Workshops and/or Prize Winner Open Houses

The supporting program materials that must be developed and produced include:

- Contest Marketing Materials with Entry Form and Contest Rules
- Co-Sponsor, Finalist and Winner's Agreements
- Workshop Materials
- Prize Winner Case Study Documentation

The primary program components are described in Table 7.

Table 7. Home Energy Makeover Contest Program Components

Step	Action	Description
1	Program Consultation	Review overall program portfolio and objectives in order to customize the contest to integrate with and showcase other utility initiatives and third-party relationships.
2	Contest Marketing/Publicity	Develop Marketing Plan that leverages existing utility communication channels and relationships with trade allies.
3	Contest Administration	Establish criteria for entrants, finalists and winners, ideally through a consensus process with community leaders and trade allies. Draft contest rules and conduct legal review to confirm with local and state regulations, if applicable. Develop and implement process for receiving, screening and scoring entrants and finalists as well as winner selection with notification to all parties.
4	Contest Prizes	Identify scope and budget for potential energy efficiency improvements, then solicit trade allies for in-kind donations of products and services in exchange for promotional consideration.
5	General Contracting for Audits and Improvement Installation	Identify an organization to serve as the home energy auditor and general contractor for coordinating installation of improvements.
6	Case Study Documentation and Publication	Document the before and after condition of contest winners homes and draft case studies that emphasize the energy efficiency as well as non-energy benefits for publication by local media and trade allies in addition to utility web site, newsletters, bill inserts, etc.
7	Workshop Presentation and Publicity	Conduct a consumer-oriented workshop to detail how the winning homes were selected and improved by utility working in partnership with trade allies. Invite trade allies to co-present and/or display during the workshop. Consider following the workshop with an “open house” where general public can drive to the homes to see the improvements and meet the homeowners.

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NYSERDA'S SMALL COMMERCIAL LIGHTING PROGRAM

This program profile features an in-depth analysis of New York State Energy Research and Development Authority's (NYSERDA's) successful Small Commercial Lighting Program (SCLP). This program was selected for inclusion as part of the larger set of case studies for the following reasons:

- The program is part of larger portfolio of programs targeting commercial building owners and operators.
- It focuses on a critical target market for BPA: small commercial buildings.
- It has achieved significant energy savings and peak demand reduction.
- The program demonstrates an effective way to improve the technical skills and capabilities of trade allies and deputize them to deliver energy efficiency programs.
- It is replicable for BPA.

The program information contained in this case study is a compilation of both primary and secondary sources, including a review of conference proceedings, reports, and presentations and interviews with program staff.

1. PROGRAM DESCRIPTION

NYSERDA developed its Small Commercial Lighting Program in 1999 as a way to develop a trade ally infrastructure to support small commercial building owners and operators. The program works to establish a trained network of manufacturers, distributors, contractors, and designers who are committed to delivering effective, energy-efficient lighting designs.

According to NYSERDA staff, this program was designed to fill a hole in the small commercial market that was being ignored by traditional trade allies:

We saw some big opportunities in lighting and realized that a good lighting program just wasn't being done (in the small commercial market)...Strategically, we are looking at ways to reach out to the smaller commercial buildings because the other lighting savings opportunities were being swept up by the major new construction programs.

NYSERDA operates a large portfolio of programs that serve the commercial markets, and this program falls under that umbrella, which also includes its technical assistance programs, financial incentive offerings, marketing and general awareness initiatives, and research and development (R&D).

Lighting improvements are an effective way to reduce peak demand, but the goal of this program is to reduce peak demand while also enhancing the visual environment of persons working in the affected spaces.

This program is designed to create a market push towards energy-efficient lighting by targeting the critical trade allies who deliver lighting services. The program offers a mix of both training and incentives designed to encourage lighting designers, electrical contractors, and others to install effective, energy-efficient lighting in small commercial buildings.

The primary emphasis of this program is on proper lighting design and deployment, thereby avoiding the pitfalls of over- or under-lighting, uneven lighting, uncomfortable glare, and poor color rendition common in other prescriptive rebate lighting programs.

NYSERDA worked closely with the Lighting Research Center at Rensselaer Polytechnic Institute in program design, and the program is administered through a third-party contractor, ICF International.

1.1 Program Goals and Objectives

This is a multi-year program. Its current goals are to achieve 9,600 megawatt-hours (MWh) of energy savings, 2 megawatts (MW) of peak demand reduction, and influence lighting decisions in 1.25 million square feet of small commercial building space in NYSERDA's service territory. (CEE). More generally, the program's overarching goal is to increase awareness and knowledge of the benefits of effective, energy-efficient lighting.

The total budget for the program was \$10.6 million through 2006, including more than \$1.6 million in incentives. The remaining budget goes towards program implementation and other supporting projects and initiatives.

2. TARGET AUDIENCE

Perhaps the most unique aspect of this program was the decision to target small commercial building owners and operators using trade allies. This is traditionally a difficult audience to meet, because it is too small to interest most lighting contractors.

This was a deliberate decision on NYSERDA's part as a way to provide small building owners and operators the same level of lighting quality typically found in larger buildings. As a NYSERDA staff member explained:

We wanted to focus on improving the lighting parameters including the lighting quality and color and features that would benefit a small facility and we wanted to look at facilities that are typically overlooked by ESCOs, the small commercial market...we wanted to work with smaller customers...and we wanted to get the developers to target the smaller customers.

The target market for SCLP is the hard-to-reach small commercial sector, where end users tend to be less familiar with energy efficiency measures. The definition of "small commercial" is liberal; it is based on the size of the project (from about 1,000 to about 25,000 affected square feet), not on the size of the building or the size of the end-user's space within the building. It can also include almost any type of commercial space, except those used exclusively as residential spaces; however, the common areas of multifamily residential buildings are eligible.

2.1 Technologies

SCLP is technology independent. While certain types of lighting equipment are inherently more energy-efficient than others, SCLP looks at the entire lighting design, not just the energy savings or load reduction.

The program promotes a variety of energy efficient technologies, such as High Performance T8s as specified by the Consortium for Energy Efficiency. But the real focus is on teaching lighting contractors

to incorporate effective, energy-efficient lighting in a way that improves the overall quality of the indoor environment.

This was reiterated in the following comment made by a NYSERDA staff member, “We focus more on quality lighting and work on ways to reduce glare and improve performance of lighting system. We work with our (trade allies) and they love the focus on the performance factor,” rather than a specific energy efficiency technology.

Specifically, SCLP projects must conform to the specific requirements for on-task light levels, lighting uniformity, glare, and color rendering, and the project lighting power density must be 10% below that allowed by New York State regulations.

3. PROGRAM DELIVERY CHANNELS

Another hallmark of this program implementation is its flexibility. The program changes over time to adapt to the needs of the market and the market players who participate in the program. These changes, more evolutionary than revolutionary, have been implemented as a result of both formal and informal market research and program assessment activities. Changes in incentive offerings and amounts, training media employed, participant classification and focus, and a pilot marketing campaign to increase end-user awareness of high-quality lighting have been made during the last five years (Dare & Applebaum, 2006).

3.1 Channel Strategies

A major component of SCLP was recruiting and educating the lighting practitioners who would participate in the program – and overcoming their preconceived notions that this would be just another prescriptive rebate program. This program breaks the mold because of the various strategies used to reach contractors, including training, outreach, direct contact, and marketing and technical tools.

This strategy of targeting trade allies was not without its challenges. As one NYSERDA staff member explained, “As the first program of its type, it was difficult to get practitioners to think about quality, not just technology. (These) mid-market players in New York are used to years of prescriptive rebate types of programs: buy an energy-efficient product, get a check.”

Another staff member indicated that traditionally this is a hard audience to reach because these contractors are not interested in focusing on the small commercial market. “Initially, we had some problems in pushing the contractors towards these projects because they tend to gravitate towards the easy stuff and this was harder...and some contractors were not willing to do this.”

This is a different type of contractor program. While it provides incentives, it also relies heavily on training contractors to develop a qualified trade ally infrastructure. The incentives, which are only available to qualified contractors, serve as a reward to those trade allies that are willing to commit themselves to installing effective, energy-efficient lighting projects according to the program standards.

This approach, while unconventional, has been quite successful. In the first five years, the program trained more than 1,300 lighting professionals. The infrastructure was so well established that NYSERDA shifted its focus away from recruiting trade allies into the program to providing more in-depth training in an effort to continue raising the bar in this market. Now that the contractor infrastructure is in place, NYSERDA can again shift some program resources to generate awareness among end-users.

3.2 Strategic Allies/Partners

SCLP participants are drawn from the lighting industry in New York (and those doing business in the state). SCLP “Allies” are classified according to their main line of business in the following ways:

- **Ally Distributors** are electrical or lighting supply businesses, which must have a lighting specialist on its staff.
- **Ally Contractors** are electrical contractors or other businesses performing lighting installations.
- **Other Allies** include manufacturers, manufacturer representatives, or other lighting professionals supplying lighting equipment or services.
- **Ally Designers** are businesses that employ at least one individual to provide lighting design services for a fee. This class of allies includes lighting designers, specifiers, architects and architect/engineering firms.

Trade allies were recruited into the program in a number of ways. Originally, the model was to identify and recruit key electrical distributors throughout the state to become Ally Distributors. The intent was that these distributors would then provide access to their electrical contractor customers and assist in recruiting and training them. A “hosted training” incentive (since withdrawn) was offered to Ally Distributors sponsoring a training session for prospective Ally Contractors, with a minimum attendance required.

Since few distributors took advantage of this incentive opportunity, SCLP transitioned to regional recruiting and training activities (“mass trainings”) organized by the Program Administrator, often in conjunction with electric utilities or professional associations.

3.3 Sales Delivery

Since it was hard to get the contractors’ attention, the program went to them. As a staff member explained, “We took the program on a road show and got some interest from the smaller lighting supply houses and then we got attention from the mid-level suppliers.”

The program was successful in making in-roads at these suppliers by providing them displays of effective, energy-efficient lighting and teaching them to focus on providing a higher quality of light.

The program manager also explained that as the trade ally network was established it was important to change its focus as it moved from the rural areas of upstate New York to New York City.

“We weren’t getting any traction in the New York City market, because that market is dominated by a different group of trade allies—the designers and architects. So we had to use a different focus” to attract those trade allies.

3.4 Training

Most allies were trained through a two-hour “live” session, offered through Ally Distributors, in conjunction with trade or professional societies, or those organized solely by the Program Administrator. Alternatively, trade allies could complete a self-qualification training process that allowed these allies to complete the training at their own pace, and to demonstrate their understanding of the program by completing a 20-question examination. The training program includes:

- An introduction to NYSERDA and the **New York Energy \$martSM** program;

- A description of SCLP incentives available;
- A definition of effective, energy-efficient lighting design, along with examples;
- Detailed descriptions of each of the design criteria;
- Instructions on submitting projects for incentives;
- Guidance on how to market effective, energy-efficient lighting to end-users; and
- Descriptions of technical and marketing tools and resources available to Allies, including end-user incentive opportunities.

The lighting professionals also see a value in receiving this training, so much so that 100 contractors enrolled in an advanced lighting training class developed and presented by the Lighting Research Center (LRC). These sessions, which included a technical guide developed by the LRC, were available at both regional meetings and through the SCLP website.

3.4.1 Incentives

Program incentives are based on the square footage of participating projects. The incentives are paid to program allies upon submission of an application and verification that a project implemented by the ally meets all of the mandatory design criteria. The three-tiered incentive ranges from \$500 (for projects less than 5,000 square feet) to \$1,000 (for projects up to about 25,000 square feet).

Design incentives are available only to Ally Designers. An incentive of \$300 is paid to an Ally Designer upon submission of an application and verification that a project design meets all six of the SCLP design criteria (Phase I). If the project is subsequently built as designed (regardless of whether an SCLP Ally is involved in the construction phase), the Ally Designer is eligible for an additional \$500 incentive (Phase II).

The “Break the Ice” incentive is relatively new and is designed to attract trained Ally Contractors to become active in the program. Ally Contractors who submit their first qualifying project are eligible for this \$300 incentive.

During the past five years, the program’s incentive structure has changed and evolved to better meet these diverse trade allies’ needs and thus further transform the market.

Originally, many trade allies did not believe that the flat fee of \$500, regardless of project size, was sufficient to justify the additional design work or incentive paperwork associated with larger projects. As a result, the program structure changed to a three-tiered incentive, with a maximum of \$1,000 for the larger projects.

Other incentives that did not generate enough response were eventually withdrawn. For example, the co-op advertising incentive was withdrawn after a year when only two allies took advantage of it.

Similarly, an incentive offered to Ally Distributors to reward them for their assistance in recruiting and training of new Ally Contractors was withdrawn because of lack of interest. Instead, the program developed a “Break the Ice” incentive for Ally Contractors submitting their first qualified project.

The program manager explained the reasoning behind changing the incentive structure as the program progressed. “We wanted to keep the incentives low. The real costs to the program are setting up the implementation network and targeting the contractors. But it still has a positive benefit to cost ratio.”

3.4.2 Awards and Recognition

SCLP staff actively review completed projects to identify those worth profiling in a case study. The staff selects “Demonstration Projects” because of their potential to promote effective, energy-efficient lighting design on a number of levels. These projects are then featured as one-page case studies in support of the program. The case studies show how local lighting practitioners have used SCLP’s tools and resources to implement superior lighting projects for their customers in a wide range of applications.

“We did success stories to show successes so we can recruit others...The case studies did give a pat on the back for contractors...the case studies were a great marketing opportunity for the contractors,” explained a NYSERDA staff member.

Demonstration projects are selected quarterly. The ally contractors and distributors who are featured in these case studies are selected based on their involvement in SCLP with the greatest number or square footage of qualified lighting projects during each competition period. There are six competition categories each quarter, depending on the size and type of the participating allies, with each category winner eligible for a \$1,000 award. Examples of these case studies are included in the appendix.

4. CRITICAL MESSAGES/THEMES

The SCLP focuses on bringing effective, energy-efficient lighting education and support to its participating contractors. The key messages reinforced in all program materials include:

- Showcase the effective use of energy-efficient lighting designs
- Quantify the benefits of effective, energy-efficient lighting in terms of:
 - Increased sales
 - Visual comfort
 - Customer/employee satisfaction
 - Employee productivity

4.1 Promotional Strategies

The program relies on various strategies to reach its trade allies through TV/radio advertising, case studies, and printed material.

An account manager is assigned to each participating ally. The account manager helps identify qualifying project opportunities, assists allies with the application submittals, and delivers additional training on lighting design.

A two-page monthly newsletter is sent to each trade ally by broadcast fax or email. The newsletter includes program announcements and news (e.g., changes in incentives or participation requirements, announcement of competition winners), a marketing or technical tip, and an “Allies in Action” section highlighting recently completed projects. The monthly newsletter is supplemented by ad hoc faxes or emails as needed; these are sometimes targeted to specific types of allies in selected regions of New York. The SCLP website (www.nyserda.org/sclp) stores all program news, information, tools, and resources.

The SCLP website also provides another way for interested end-users to locate SCLP Allies in their area through a searchable directory by zip code. In addition, a separate website page for business owners and operators provides information about SCLP and how the lighting design model can help their business.

More recently, SCLP initiated a pilot end-user marketing campaign in three markets using **The Right LightSM** as a tag line. The purpose of the marketing campaign is to increase end-user awareness of the benefits of quality lighting design as they anticipate relocation or renovation projects. The marketing campaign includes a 60 second radio spot, print advertising in local media, a brochure that Allies have been sending to their customers, by-line “advertorials”, and contacts with end-user organizations.

5. RESULTS

The SCLP design model has been accepted by the small commercial sector. To date, participating trade allies have implemented approximately 580 qualifying projects representing over 4 million square feet of commercial buildings. These projects have resulted in annual end-user energy savings of nearly 3 aMW, at a cost of approximately \$2.5 million per aMW. The critical program benchmarks are summarized in the following table.

Table 8. Summary of SCLP Results from Program Inception (1999) through May 1, 2006

Program Benchmarks	Total
Electricity Savings	2.9 aMW
Peak Demand Reduction	6 MW
Enrolled Ally Companies	700
Trained Ally Personnel	1,400
# of Projects	580
Square Feet Covered	4.2 million
Incentives Paid	\$500,000

Source: Dare, Marilyn, and Applebaum, Bruce, “The New York Energy SmartSM Small Commercial Lighting Program: A New Model for Lighting Market Transformation Programs.” In *Proceedings for ACEEE Summer Study on Efficiency in Buildings*, August 2006.

However, this is just the beginning. As a NYSERDA staff member explained, “We continue to build on the earlier success. This is a market transformation process and we wanted to capture kW reductions and also meet needs for upstate New York customers.”

The program also passed NYSERDA’s cost effectiveness tests under three scenarios. NYSERDA uses the Total Market Effects Test (TMET) and the Program Efficiency Test (PET). The difference is that TMET includes participant costs and the PET does not. The three scenarios tested are as follows:

- Scenario #1: Only the avoided costs associated with energy, capacity, natural gas, oil, propane, and water savings arising from participant actions and from market spillover were used as benefits.
- Scenario #2: The energy and capacity market price benefits that accrue to all ratepayers from lowering the requirements for energy and capacity, given available supplies, were added to the resource benefits.

- Scenario #3: Non-energy benefits were calculated and added to the resource and market price benefits.

Table 9. Small Commercial Lighting Program Benefit/Cost Ratios

	Total Market Effects Test (TMET)	Program Efficiency Test (PET)
Scenario 1	2.3	2.7
Scenario 2	3.0	3.4
Scenario 3	4.3	5.0

Source: *NYSERDA New York Energy SmartSM Program Evaluation and Status Report*. Final Report. May 2006

6. LESSONS LEARNED

The following section summarizes the critical lessons that NYSERDA has learned during the past five years.

1. **Incentive offerings need to be flexible.** The project incentives have evolved from a flat fee to a three-tiered structure to better meet the needs of program allies.
2. **Review program criteria periodically to ensure relevance without compromising quality.** The SCLP criteria have been revised during the past five years to reflect changes in marketplace conditions and based on feedback from program participants and allies. The program criteria have been modified to reflect changes in equipment availability and quality. Some criteria, such as the luminous intensity criterion, many Allies found difficult to apply so it was made optional.
3. **The 80-20 Rule applies.** The program will be dominated by a few contractors who comprise most of the projects. A few allies have embraced the design model, are successful at marketing the concept to their clients, and implement several qualifying project every month. They account for the majority of all projects in the program. There is also a second group of trade allies, who are less active and less successful, but who still seem to try to make SCLP work for them and their clients. This was surprising, given that allies “self-select” into this program and must participate in a training session.

7. PROGRAM IMPLEMENTATION STRATEGIES

BPA could implement this type of program successfully if it develops the right blend between incentives and recruitment. The trade allies are critical to the success of the program, but they must perceive sufficient rewards such as higher margin sales in order to be willing to comply with the program’s requirements. NYSERDA sweetened the pot by providing additional specialized training and a more focused incentive structure that encouraged trade allies to become more aware of emerging energy efficient technologies while also rewarding them with incentives and recognition.

This program illustrates the importance of demonstrating a long-term commitment to trade allies, by offering advanced training, targeted incentives, and recognition. Too often, trade allies become discouraged because utility programs change without warning or are de-funded, and therefore they are unwilling to “play the utility’s game” and sign up. NYSERDA demonstrated an ongoing commitment and willingness to meet the needs of its trade allies, even to the point of changing program incentives and criteria to reflect market realities.

BPA could successfully adapt this program template to meet its utility member needs for both urban and rural locations. Steps to successful program implementation include:

1. Identify a technical partner to provide the certification and training these types of programs require.
2. Hire a third-party administrator to provide trade ally recruitment, training sessions, contractor outreach and support, and the development of supporting marketing materials such as case studies and a program website.
3. Conduct trade ally focus groups to determine current industry practices, to identify incentive levels, and to determine the differences in lighting practices in geographic regions.
4. Review current lighting practices to identify the most commonly used lighting applications in the target market, such as T-8's in office buildings.
5. Make program specifications consistent with other national and regional specifications to avoid trade ally confusion.
6. Stage program launches in regions, perhaps working in smaller markets and then moving into adjoining service territories.
7. Review program standards, conditions, and incentive levels quarterly to determine their effectiveness in reaching critical target markets.

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PG&E'S LOCAL GOVERNMENT PARTNERSHIP PROGRAMS

This program profile features an in-depth analysis of Pacific Gas & Electric's (PG&E)'s innovative Local Government Partnerships program. This program was selected for inclusion as part of the larger set of case studies for the following reasons:

- The program demonstrates an interesting marketing approach to reaching traditionally hard-to-reach customer groups such as residential and small business customers.
- It demonstrated an effective way to educate local community stakeholders about the value of energy efficiency and conservation.
- It provides a model that BPA could adapt for working with various communities to achieve its megawatt reduction goals.
- It is replicable for BPA.

The program information contained in this case study is a compilation of both primary and secondary sources, including a review of evaluation reports and interviews with program staff.

1. PROGRAM BACKGROUND

The 2004-05 PG&E Local Government Partnership (LGP) programs were designed to provide energy efficiency information and direct installation of energy efficient equipment to targeted local communities. The programs target market segments that are traditionally hard to reach via traditional energy efficiency programs, including small businesses, renters, low-income residential customers, and non-English speakers.

The local government partnerships include:

1. Bakersfield/Kern Energy Watch Partnership
2. City of Fresno
3. City of Stockton
4. East Bay Energy Partnership
5. El Dorado County
6. Silicon Valley Energy Partnership
7. San Francisco Peak Energy Program (SFPEP)

Services offered vary from partnership to partnership, but include some combination of the following elements:

1. Direct install services
2. Free energy audits
3. Marketing and outreach to encourage participation in statewide energy efficiency programs
4. Municipal building energy efficiency retrofits
5. New construction energy efficiency design and installation assistance
6. Support for codes and standards enforcement

7. Local training seminars for residential contractors, design/build firms, architects, and engineers.

As the largest and most successful of the local government partnerships, the San Francisco Peak Energy Program (SFPEP) will be the focus of the remainder of this case study, although some details and results from the other partnerships are included as well.

SFPEP grew out of the need to reduce the electricity peak as required within the City of San Francisco due to the impending shutdown of two power plants and the transmission constraints to and within the peninsula. The San Francisco Office of Environment (SFE) requested program funds specifically to reduce peak loads in the city, and partnered with PG&E to offer a program to meet load reduction targets.

In April 2003 the CPUC approved the partnership concept for San Francisco, and PG&E and SFE developed implementation plans soon thereafter. These plans were submitted as the San Francisco Peak

Energy Program (SFPEP) in June 2003. The partnership was designed to create new ways to capture energy savings opportunities that might otherwise be lost. The San Francisco Peak Energy Program was formally rolled out in December 2003 at City Hall by the Mayor of San Francisco and the CEO of PG&E.

The partnership estimated that a total of 24.4 MW was achievable through the program, with the majority of the potential in the commercial sector. The program has projected savings of 22.8 MW gross peak reductions in the summer, and 16.1 MW during the winter peak. The primary goal of the program is to achieve a minimum of a 16 MW (gross) load reduction coincident with the city's summer daytime peak, and to achieve similar reductions in winter evening peaks by 2005 (Summit Blue, 2006, pp 8-9).

1.1 Program Operation

The SFPEP program budget of \$16 million was based on PG&E's overall estimate of program costs relative to historical experience: about \$1 million per MW against a program impact goal of 16 MW peak impact. The budget for the San Francisco Peak Energy Program (SFPEP) work that SFE was responsible for was about 10% (\$1.56 million) of the total SFPEP budget, with the rest directed through PG&E's program structure. Of that 10%, about \$200,000 was designated specifically for outreach efforts.

Since so many stakeholders were involved, the program's design evolved into a compromise between the program's original intent of obtaining peak energy resources and providing community economic and social assistance (Summit Blue, 2006, p 89).

However, the stakeholders' ability to work effectively together was critical to the program's success. As PG&E staff commented, their interpersonal rapport with SFE staff was established quickly and was seen as key to successfully planning for and managing a large program portfolio, despite overarching organizational differences regarding efficiency program administration (state- versus utility-run efficiency programs, for example).

"...Considering the circumstances, the political sensitivity and the bureaucracy...we have an excellent relationship...we just fit and we all have the same objective in mind, we want to close down that power plant, serve the community, have happy customers...we want this to be a success. [PG&E staff] couldn't run this partnership without [SFE staff], it's too big, and there are so many programs.... I can't say enough about the partnership."

SFE staff commented, "...[All] of us got along fine. Everybody wanted this to happen, so at the table there was that going forward. At that stage, the general planning stage, where you get the

megawatts, we were all serious about how you do that and everybody came to the table with that...So from that standpoint you could say [the partnership] was very successful.”

The roles among the partners took a long time to evolve, and could not be specified fully in the contract. The partnership took a long time to gel as organizational relationships were not effectively cemented until late in the program. It took about a year before there was effective communication and coordination on planning issues (Summit Blue, 2006, p. 91).

2. TARGET AUDIENCE

PG&E’s Local Government Partnerships Program was designed to provide energy efficiency information and direct installation of energy efficient equipment to targeted local communities. The partnerships target market segments that are traditionally hard to reach via traditional energy efficiency programs, including small businesses, renters, low-income residential customers, and non-English speakers.

While the services offered varied from partnership to partnership, the major services offered to these customer groups were:

- Cash Rebates for Business Customers
- Standard Performance Contract
- Single Family Direct Install
- Torchiere Exchange
- Multi-Family Rebate
- Commercial Turnkey Services (CTS) for Small Business
- New construction energy efficiency design and installation assistance
- Support for codes and standards enforcement
- Local training seminars for residential contractors, design/build firms, architects, and engineers

3. PROGRAM DELIVERY CHANNELS

Critical to SFPEP’s success was the ability of the program to creatively market its various elements to key market segments. SFPEP had to achieve its 16 MW goal by 2005 to enable the power plant shutdown that is a central issue in the city’s electric resource plan. The program’s marketing and outreach also had to address the added objective to provide lighting retrofits to the Bay View/Hunters Point neighborhood (a high priority for the involved community groups), and to conduct an exchange effort for torchiere lamps and holiday lights. Thus, the program’s marketing and outreach efforts had to be expedited as much as possible, which meant numerous meetings in the community with residential and business organizations and individuals.

PG&E was responsible for developing all of the printed collateral materials and the website, and the City was responsible for developing the marketing and outreach plan. SFE and PG&E worked together within this arrangement to develop the program’s promotional materials, again with PG&E doing the production work for most of the materials while SFE focused on outreach planning. Once the program was in the field, PG&E staff led the marketing efforts for the Multifamily Rebate, Single Family Direct Installation, and SPC elements, and also some larger customer contact work for the Cash Rebates element. SFE staff led the marketing and field services effort for Commercial Turnkey Services (CTS), and the effort to promote the Cash Rebates element to the small business segment.

Both organizations performed a variety of outreach efforts across the program’s target market segments. SFE concentrated more on community groups and neighborhoods, while PG&E concentrated more on

business associations, though SFE also worked with those groups as well. On occasion joint promotional meetings and events were held with both partners participating, such as meeting with the San Francisco Hotel Association (Summit Blue, 2006, p. 97).

The various program elements that used PG&E's statewide programs as their basis – Single Family Direct Install, Multifamily Rebate, Cash Rebates for Business and Standard Performance Contracting – also used many of the same marketing strategies and tactics as the statewide programs. The mailings and other promotional tactics used in the statewide programs were augmented by a variety of community and business outreach efforts that helped promote the program elements to targeted market segments including small businesses and the Bay View/Hunters Point neighborhood.

The Commercial Turnkey Services (CTS) program element, unique to SFPEP, had its own marketing strategy and tactics. Initially, target market segments for CTS were not clear, though staff knew the food service market would be important.

The strategy and tactics were documented in a marketing and outreach plan which SFE developed. It was viewed as a living document and underwent constant change and updating as the program ran its course through various marketing and outreach successes and failures.

4. PROGRAM DELIVERY CHANNELS

4.1 Channel Strategies

The SFPEP partnership involved a blend of market actors in the San Francisco bay area. PG&E and SFE were the primary partners, but there were several secondary partners as well who were engaged to help carry out the program efforts. There were no formal partner agreements with other organizations that were involved with SFPEP, except the existing contracts for the installation contractors SFPEP used that had been in place previously with PG&E. PG&E staff noted that initially they were unsure how other organizations would specifically be used, so leaving those relationships informal was somewhat intentional. (Summit Blue, 2006, p. 71)

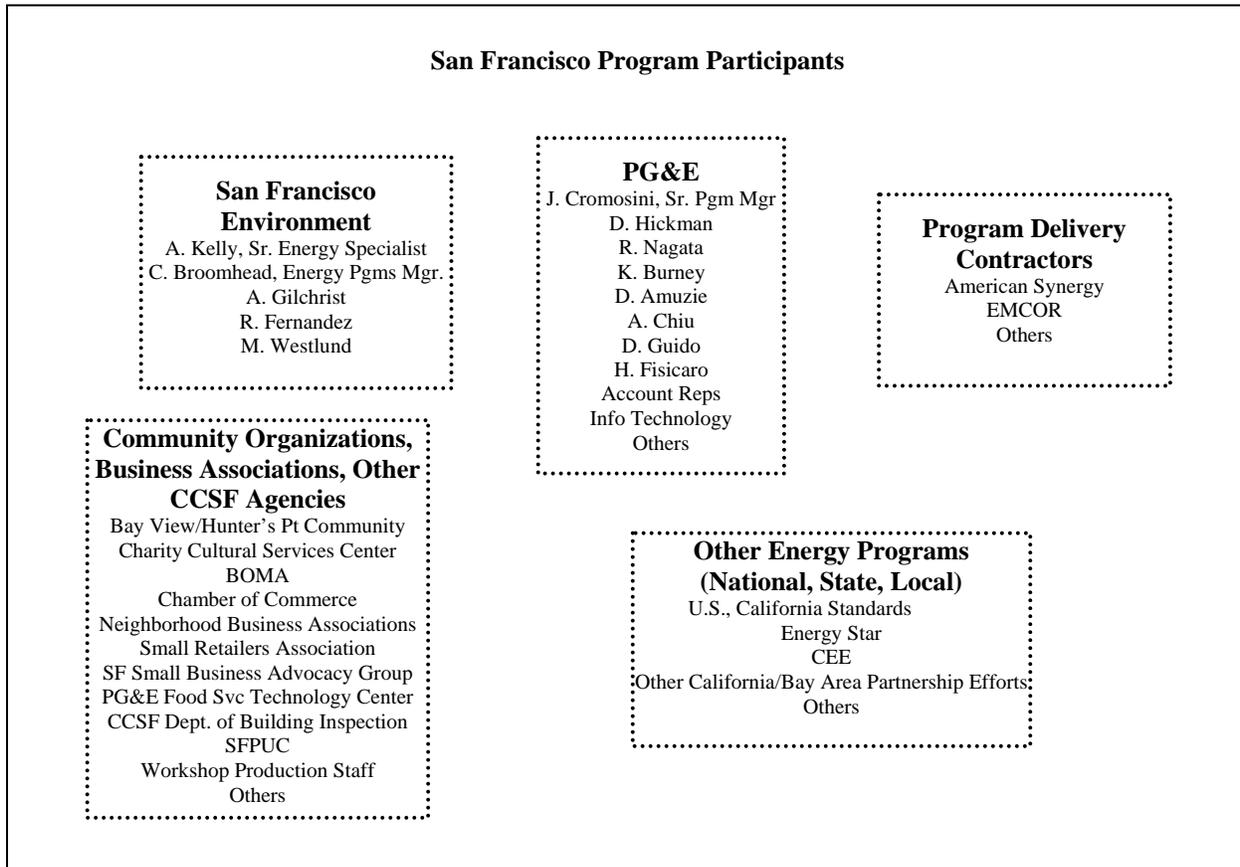
4.2 Strategic Partners/Allies

All of these programs by their nature are partnerships between PG&E and local government entities. Many of them also partner with other statewide energy efficiency programs or local organizations and agencies.

Many of the partnerships include coordination with the statewide Low Income Energy Efficiency (LIEE) and California Alternative Rates for Energy (CARE) programs to identify potential participants. Many of the partnerships partner with local planning and building organizations to identify potential commercial participants.

The Bakersfield/Kern partnership used local realtors to offer homebuyers free energy audits, programmable thermostats, and CFLs, along with information on statewide energy efficiency programs. The City of Fresno partnered with the local Economic Development Department to assist in the marketing of the small and medium size business direct install program.

Figure 6 shows all of the partnerships involved with the SFPEP program.

Figure 6. San Francisco Peak Energy Program Partner Relationships

4.3 Sales Delivery

PG&E already had the infrastructure in place to process program applications and incentives, as well as (in many cases) having existing contracts in place with local contractors who could be deployed to provide similar efficiency services for the local partnerships. PG&E also had existing relationships with large customers through their key account reps that could be leveraged to promote the SPC program element.

For SFPEP, SFE had established relationships with many small business owners, cultural groups, and neighborhood associations that could be leveraged to provide outreach to key market sectors.

Community organizations provided marketing and outreach assistance, facilitated workshops, helped exchange equipment, and otherwise catalyzed the program effort.

5. CRITICAL MESSAGES/THEMES

5.1 Promotional Strategies

From January through October 2004, some 65 community outreach meetings and other activities were conducted to promote SFPEP generally, in addition to mailings and media coverage to distribute program flyers and other information. These meetings and activities included press conferences, meetings with a

variety of business organizations, professional associations, and community organizations, and participation in various community events and festivals.

5.2 Promotional Methods

5.2.1 SFPEP

The Commercial Turnkey Services element reported 871 customer contact attempts, plus an additional 900 direct-mail contacts in May specifically with restaurants. The CTS program element, being independent of PG&E's intake process, relied more on cold calls and public presentations to generate participation.

PG&E staff felt the promotional tactics for the SFDI and Multifamily elements worked the best, where those elements used an existing low-income authorization program as an outreach vehicle, used the existing statewide program channels for the multifamily program, and involved localized publicity and promotion, including door-to-door, in-person promotional efforts.

Another marketing approach cited by PG&E staff as being effective was using energy audits for small businesses to generate interest in the Cash Rebates element. A "foot-in-the-door" twist on this tactic was to offer a one-to-one exchange of old for new, efficient LED "OPEN" signs for small businesses, to generate interest in an energy audit from which other efficiency measures could subsequently be identified and promoted to the business.

These tactics were supplemented by inexpensive, quick-to-produce flyers and events that SFE staff produced, which increased the effectiveness of the general promotional effort. Outreach to the Asian-American community for the torchiere lamp exchange was more successful when multi-lingual flyers were used and a small gift offered to entice attendance at the events. Multi-lingual flyers also helped promote the Cash Rebates element to a multi-ethnic small business community.

Promoting measures in a targeted manner, versus a "shotgun" approach promoting all measures equally, helped get the greatest impact for the money. This worked even better when focusing marketing resources to work with trade associations and vendors instead of using mass-market promotional means. For example, three vendors were recruited to work with the program to promote and install refrigeration gaskets. The vendors called on customers through direct cold-call contacts and were supported by two direct mailings of 3,000 pieces each to target customers, which generated about a 5% response rate to the mailings. Over 800 installations were achieved as a result of this integrated marketing effort. (Summit Blue, 2006, pp. 98-100).

5.2.2 Other Partnerships

The most common promotional methods include attendance at tradeshow and local events, direct mailings/bill inserts, holiday lighting events, and local newspaper articles/ads. These are the promotional activities by partnership:

- **Bakersfield/Kern:** attendance at industry trade shows and the County Fair; a program website; television and radio promotions in English and Spanish; news releases and press conferences; mail brochures; in-store promotional displays (e.g., hardware stores).
- **City of Fresno:** informational pamphlets and flyers; energy efficiency workshops and demonstration projects; radio news announcements; updates to PG&E's and the City's websites; television coverage of an installation at a local community-based organization; bill inserts; special promotional events; direct promotion by City building and health inspectors.

- **City of Stockton:** local government television channel promotions; mailed flyers in English and Spanish; attendance at industry tradeshows; project area kick-off events; updates to CAT websites; a winter Holiday Lighting Event utilizing LED lights.
- **East Bay:** program brochures; direct telephone solicitations; inserts in city business license mailings; attendance at city business-oriented symposiums; PG&E energy efficiency workshops for existing customers; holiday lighting events and exchanges.
- **El Dorado County:** local newspaper articles; program fact sheets; presentations to the El Dorado County Chamber of Commerce; sponsorship of the El Dorado Hills Community exposition, and participation in holiday (LED) lighting events.
- **Silicon Valley:** program brochures; PG&E and City website updates; PEC training notices in the San Jose Chamber of Commerce newsletters; class promotions at the Green Buildings Fair and Santa Clara Home and Garden Show; participation in holiday (LED) lighting events; distributing energy efficiency information to other environmental improvement programs (e.g., pollution prevention, water technology, green building, and recycling).

6. RESULTS

6.1 SFPEP

The stated summer and winter demand reduction target was a minimum 16 MW gross demand reduction; the program achieved 71% of that goal in the summer, and about 76% in the winter – for the 2004 program year. (Summit Blue, 2006, p. 65)

Table 10. SFPEP Net Savings Results

Energy Savings (Electricity & Natural Gas)	6.7 aMW
Summer Peak Demand Savings	9.1 MW

6.2 Other Partnerships

Table 11. aMW Savings

Partnership	Residential	Commercial	Total
Bakersfield/Kern	0.4	0.1	0.5
East Bay	0.03	1.0	1.0
El Dorado	0.1	0.2	0.3
Fresno	0.1	0.3	0.4
Stockton	0.2	0.2	0.3
Silicon Valley	--	0.4	0.4

Table 12. kW Savings

Partnership	Residential	Commercial	Total
Bakersfield/Kern	706.3	265.0	971.3
East Bay	76.1	2,000.6	2,076.7
El Dorado	193.0	343.7	536.7
Fresno	333.4	722.4	1,055.8
Stockton	262.7	442.7	705.3
Silicon Valley	--	1,075.2	1,075.2

Table 13. Benefit/Cost Ratios

Partnership	Levelized Cost (\$/aMW)	TRC Test
Bakersfield/Kern	\$613,200	1.16
East Bay	\$613,200	1.20
El Dorado	\$700,800	1.47
Fresno	\$700,800	1.25
Stockton	\$525,600	1.28
Silicon Valley	\$613,200	1.33

7. LESSONS LEARNED

1. **Benefits of the Local Partnerships.** Local governments are in the best position to understand the needs of local industries, businesses, and institutions, and thus can offer a range of services to meet the specific needs of their community. These partnerships may help cities and counties create lasting infrastructures for providing energy efficiency services that will continue after the term of the partnership. Partnerships offer an excellent opportunity for promoting improvements in energy policies (e.g., codes and standards) at the local level as well as at the regional, state, and federal levels.
2. **Knowing the Customer.** Partners often understand the industrial, commercial, institutional, and special needs groups better than the utility. They may already have strong relationships with potential customers through Chambers of Commerce. They may already have economic development programs which are complemented by DSM.
3. **Complements Current Efforts.** Cities who are especially interested in efficiency, sustainability, and greenhouse gas reduction can use the partnership to jumpstart or supplement their own approaches.
4. **Expanded Expertise.** Partners can create long-lasting programs, knowledge, and expertise through the work. For example, some cities hire a director of DSM services who then learns the intricate details of successful programs. This then resides in the City and not at PG&E.
5. **Sharing War Stories.** Best practices can be shared among partners. There are usually existing organizations that bring like-partners together (like organizations of city managers or mayors), and this creates a ready-made venue for presentations, case studies, and war stories.

6. **Customer Satisfaction.** There were high levels of customer satisfaction across the programs. Program staff believe that the key drivers of customer satisfaction are the financial incentives and lowered energy bills, as well as an appreciation that the utility is working in conjunction with the local government.
7. **Program Branding.** The number of stakeholders can make branding the programs difficult and contribute to customer confusion.

8. PROGRAM IMPLEMENTATION STRATEGIES

The following strategies are based on the experiences of this partnership program and are designed to identify the critical steps that other organizations must consider in implementing a similar program.

8.1 Planning and Program Design

1. Recognize that truly equal partnerships are difficult to achieve, and effective partnerships take time. Work to manage expectations about what can be achieved in a short timeframe. Inevitably, one organization will be the dominant player for legal, financial, or leadership reasons. This is not a sign of fundamental weakness in the SFPEP partnership or of its constituents but simply something inherent about relationships between institutions and individuals (p. 125).
2. Develop contingency plans and define an efficient process for deciding when to implement them. When planned program achievements are lagging in specific markets, have alternative approaches outlined and ready to go, and/or shift funding to program areas that are achieving targets. A predefined process that streamlines decision making will allow mid-stream program corrections to be implemented in a timely manner. Similarly, be ready to exploit unanticipated opportunities that may arise. Contingency budgets should be developed and held in reserve for this purpose.
3. Address community-development needs in dedicated programs instead of attempting to piggyback them on resource acquisition programs. The split responsibilities and dilution of effort that result from attempting multi-purpose programs risk achieving the goals of neither purpose effectively. Determine which organization is best suited to lead these programs.
4. Bundle program elements more effectively. A package of energy audits, turnkey installation services, and measure incentives can be more effective than operating such elements individually. EE measures that have low savings impact may still be helpful “*loss leaders*” in gaining community and individual participant support. Use of an LED exit sign exchange as an enticement to small businesses for subsequent energy audits and turnkey services is just one example.
5. Use the DSM programs as a springboard for other new options that go well beyond rebates. This may include better codes and standards, green building practices, GHG mitigation strategies, and local energy policies. These local policies may then become statewide policies as they become better known and as local politicians rise to the state and even national level.
6. Recognize that some barriers to program success may be insurmountable for certain market and customers. These barriers include:
 - a. Energy remains a relatively small fraction of customers’ cost of living and doing business, and there is no energy crisis at present.

- b. Simple payback for efficiency measures, even with incentives, continues to be outweighed by perceived risks associated with taking energy efficiency actions. This is especially true for small businesses, who have little spare capital or ability to deal with the difficulties of equipment that does not work properly.
- c. Split decision making authority in rental facilities (both residential and C&I) will continue to dilute the motivational power of financial incentives.

8.2 Roles and Staffing

1. Keep agreements as simple as possible without being vague about roles. Contractual agreements should be kept simple, but be clear about specific responsibilities. This will focus limited resources, improve clarity of tasks, and reduce administrative burdens. Clearly define and communicate *each* partner's role up front if possible (this includes other organizations that interact with the partnership informally). This is critical for marketing and outreach in particular.
2. Assemble and support a high-chemistry mix of dedicated individuals in each organization for the duration of the program. Staff the program with people who are willing, able, and have been successful in the past in taking on the multitude of barriers and constraints inherent in a high visibility and large-scale program effort. Also, be selective about who to recruit as informal partners in the community to promote the program. Look for those who are experienced at delivering similar messages and activities, and who are excited about energy efficiency.
3. Maintain staff continuity as much as possible throughout the program. Building and maintaining relations between the program and various market actors such as community groups and business associations depends greatly on the trust built between people. Staff turnover not only means having to train the new people but also means having to rebuild the individual trust that is central to relationships with market actors
4. Cultivate long-term relationships with potential partners and program associates. This includes community and business organizations, and also implementation contractors who made need to be asked to flex their operations beyond the strict confines of their program contract to meet unique program needs, market challenges, and opportunities.
5. Communicate, communicate, communicate! Communicate frequently—on a daily basis if needed—at all levels of the partnership and with all parties involved, including informal partners. Personal communications in real time, including phone calls, in-person meetings and email exchanges, are far more important than periodic status reports for raising and resolving issues that arise. Formal status reports are more appropriate for documenting program performance and the resolution of problems.

8.3 Marketing and Outreach

1. Develop marketing and outreach plans as early as possible, because developing, reviewing, approving, and implementing those plans will likely take significantly longer than might be expected. The development effort should include recruiting appropriate community organizations early on, to engage their support and ideas for outreach to their constituents.
2. Focus over time on a few channels and offerings that produce the most “bang for the buck.” While reliance on a limited number of marketing and outreach channels and program offerings can be risky, the successfully adaptive program will plan to try a variety of channels and offerings

that have potential for success, but be ready to cull poor performing channels [be clear about performance metrics] to focus program resources as cost- and time-effectively as possible.

8.4 Other Program Implementation Issues

1. Clearly define data collection and reporting requirements to support program tracking and evaluation for all contractors and partners. For example, tenant names and measure counts were not recorded for the Multi-family program element.
2. Keep monthly report filings up to date. The availability of the updated, accurate data for all program partners and stakeholders is important to making mid-stream program corrections. (Summit Blue, 2006, pp. 125-127)

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FOCUS ON ENERGY PULP AND PAPER INITIATIVE CASE STUDY

This program profile features an in-depth analysis of Focus on Energy's (FOE) innovative Industrial Sector program targeting energy intensive industries like the pulp and paper industry. This program was selected for inclusion as part of the larger set of case studies for the following reasons:

- This program design targets energy intensive industrial applications.
- It focused on a critical target market for BPA: the pulp and paper industry.
- It achieved significant savings.
- The program demonstrates an effective way to convince industrial decision-makers to invest in energy efficient capital improvements.
- It is replicable for BPA.

The program information contained in this case study is a compilation of both primary and secondary sources, including a review of conference proceedings, reports, presentations and interviews with program staff and consultants.

1. PROGRAM BACKGROUND

Focus on Energy is a public-private partnership offering energy information and services. It was created as a way to administer and deliver the programs established by the Wisconsin Energy Benefits Fund created by the Wisconsin legislature in 1999. Focus on Energy administers programs serving residential, business, industrial, and agricultural customers.

Pulp and paper is Wisconsin's largest manufacturing sector and is extremely energy intensive. Wisconsin is home to the largest pulp and paper industry in the nation, employing 7.3 percent of the state's total manufacturing workforce. It accounts for 30 percent of electric and 18 percent of natural gas use by Wisconsin's industrial customers. Electric use is for pumps, fans, blowers, and conveyors and natural gas use is primarily for boilers used in the drying process.

The paper industry has struggled since 1997, closing plants and cutting jobs, but Wisconsin weathered the decline better than other states. However, they are still affected by the economic pressures that have resulted in a serious lack of available capital for purchasing new equipment and this affects the amount of funds available for energy efficiency improvements.

1.1 Program Description

This program is designed to provide strategic interventions in the market place that accelerate growth in both the demand (through customers) and the availability (through providers) of energy efficiency products and services. The programs are designed to increase customer understanding and influence how they make energy efficiency decisions and choices.

Focus on Energy has grouped all the industrial programs together to provide specialized best practice support for the pulp and paper, metal casting, plastics, food/dairy and water/wastewater industries. The program offers a variety of services to improve the energy efficiency of manufacturing processes including measure identification, technical review, and financial support.

The programs offered under the Industrial General sub sector are designed to achieve the following objectives:

- 1) reduce energy intensity;
- 2) increase the number of these industries that develop and implement an energy management plan;
- 3) provide comprehensive training and education programs to help these industries achieve their energy efficiency and pollution prevention goals; and
- 4) work with participants to implement energy efficiency projects and document program services delivered to customers.

A program consultant explained the rationale behind the program design as follows:

“The Paper/Pulp sector started out to as part of an overall emphasis on DSM. Focus on Energy set up the program to be cross-cutting--- to target a number of industries with similar processes – do metal castings, printing, and pulp and paper... and we developed energy efficiency sector leaders in each sub sector to provide specialize expertise.”

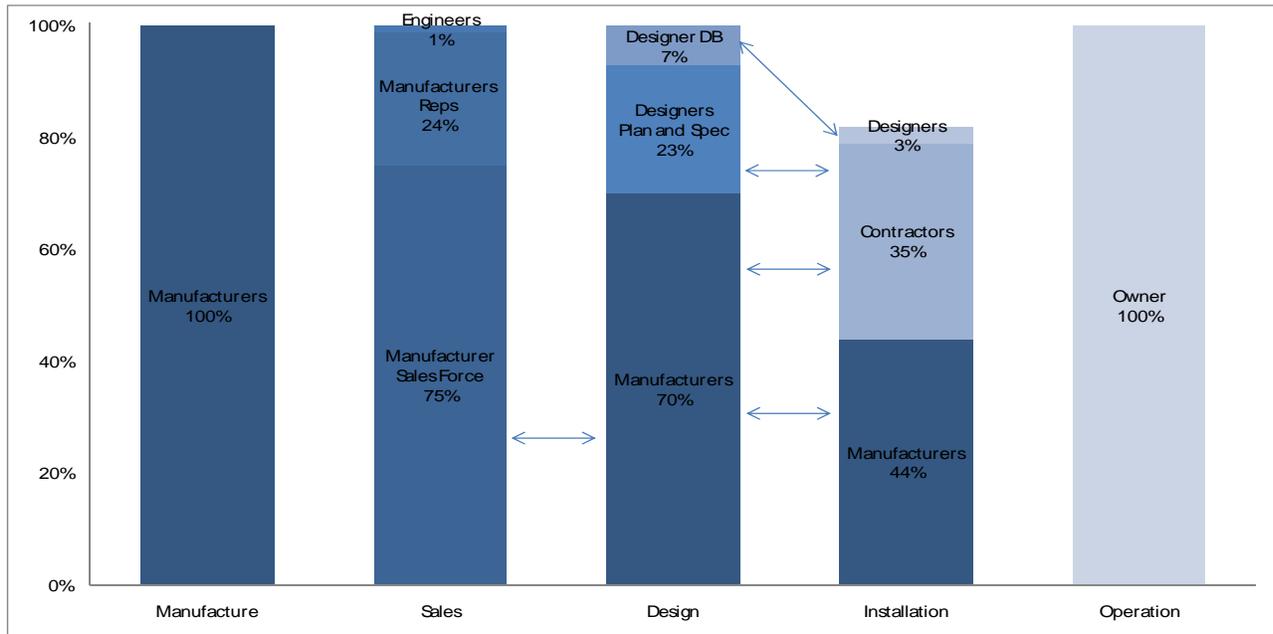
The program components include co-funding feasibility studies, providing equipment buy-downs, and other strategies designed to lower the paybacks for the targeted equipment. As the program consultant explained:

“We try to get a 10:1 investment ratio for Focus on Energy funds, and our focus is on first-year savings... The equipment receiving incentives need to have a two year payback or less. Focus on Energy will give up to \$100,000 in incentives for equipment that reduces energy intensity. For example, we had one project that saved 8,000,000 kwh – almost a megawatt of reductions... we paid \$100,000 but the savings were \$900,000, so that was a huge payback.”

To conserve resources, the program has grouped incentives together to target the entire range of applications in the industrial market. This also allowed the program to create a pool of funds that would pay for industry-specific experts to assist in identifying and facilitating high cost energy efficiency improvements.

2. TARGET AUDIENCE

The target audience is pulp and paper mills in Wisconsin. Figure 1 identifies the critical market players in Wisconsin.

Figure 7: Market Composition in WI's Paper and Pulp Industry

Source: ECW Market Assessment, 2002.

The equipment manufacturers are the most important market actors, playing major roles in equipment sales, design and installation. Most sales are made through the manufacturers' own sales force and through manufacturers representatives; a few sales are made through design engineers.

Most often, design services are also provided by manufacturers, who design approximately two-thirds of all the systems they install. Design firms account for the remaining 30 percent of designs, mostly on plan-and-specification contracts where they are hired by the mill owners, but sometimes through design-build contracts where either designers or a large construction company have responsibility for both designing and providing the equipment.

With regard to installation, the manufacturers we interviewed reported that they install an average of 44 percent of the equipment they sell. Even when they do not perform the actual installation, manufacturers will often send engineers to supervise the installation and start-up of new equipment. (ECW Industry Assessment, 2002)

3. PROGRAM DELIVERY CHANNELS

The program's marketing activities include direct mail, breakfast meetings, targeted advertisements, and on-site visits. The goal is to foster relationships between program participants and trade allies.

The program uses a targeted marketing approach that appears to be having a positive cumulative effect. Customers are sending back a larger percentage of the bounce-back cards that accompany initial solicitations. However, one-on-one contact is still viewed as absolutely required for success in this program.

Other marketing activities include a program website (PA Consulting 2001)

3.1 Channel Strategies

The program works directly with pulp and paper mills by providing financial incentives and technical assistance, funding feasibility studies, and offering training and best practices support. Focus on Energy also partners with trade allies to support promising new technologies.

As the program consultant explained: “The program process focuses on identifying projects for co-funding...Focus on Energy will pay up to 50 percent for the cost of a study.

3.2 Strategic Partners/Allies

The broad objectives of the Energy Intensive Industries subsector are to create partnerships among industry; trade groups; government; supporting laboratories; universities; and non-governmental organizations; to research, develop and deliver advanced energy efficiency, renewable energy and pollution prevention technologies to industrial customers.

Focus on Energy has also developed strategic alliances with other Wisconsin industry players including consultants in the pulp and paper industry, nonprofit organizations, such as the Center for Technology Transfer, equipment designers and manufacturers. These alliances provide the FOE staff with the technical resources they need to identify opportunities for energy savings in these operations.

“Many mill managers and their staff don’t have the time to investigate potential energy efficiency opportunities,” explained the program manager.

One particularly strong partnership has been to sponsor technical conferences in conjunction with the trade associations serving the pulp and paper industry. For the past several years, FOE has sponsored a technical forum that highlights recent project successes as part of the annual Lake State Trade Association for the Pulp and Paper Industry (TAPPI), a national organization with regional chapters. FOE also works closely with the Wisconsin Paper Council as a way to bridge relationships within this close-knit industry.

3.3 Sales Delivery

This program relies heavily on personal contacts and relationship selling. As the program consultant explained,

“The key is the personal contacts. None of the paper mills are overstaffed anymore... and you can’t do this type of program over the phone...The focus is on plant visits in specific mills. We want to do energy efficiency at the plant and talk about energy concerns, but the plant managers are worried if we started monkeying around with a specific process. Rather we focus on fine-tuning the process and focus on identifying those processes that are the least disruptive (to the manufacturing of paper products). We focus on areas that are energy intensive, but are not going to have a negative impact on plant operations.’

The pulp and paper industry is technically complex, involving 22 different processes to complete a manufacturing operation. Therefore, as the program consultant explained,

“You need to have an industry expert so you are aware of the market, aware of the projects, and get the mill people coming and asking about the program. The best selling point is having somebody who knows the pros and cons of a project from the industry...somebody who speaks the same language.”

4. CRITICAL MESSAGES/THEMES

Energy efficiency without plant disruption is the critical message of the program. FOE recognizes that this is a highly competitive market that has both capital and resource constraints. Therefore, the program focuses on ways to “change the processes but the critical issue that we still have to change people and that is challenging,” explained the program consultant.

4.1 Promotional Strategies

The program’s primary promotion focuses on establishing one-on-one contacts within the mill operations, and highlighting successful programs through case studies. These case studies are featured on the program’s website, and also in technical papers and presentations at local and regional conferences.

The critical issue is to “get ahead of the decision-making process... and be willing to sign confidentiality statements if need be... You need to take a targeted approach. We had the utilities involved in these projects, but they don’t have the expertise in house to understand this market,” explained the program consultant.

4.2 Promotional Methods

Focus on Energy also produced a best practices guidebook for the pulp and paper industry, and highlights some of those best practices and case studies on their website. The technologies highlighted throughout the guidebook, such as dryer management systems and energy efficient repulper rotors, have been a successful tool for a variety of pulp and paper mills

The program manager viewed the guidebook as a “working document that can be updated continually with new best practices and case studies provided by the Focus on Energy program.”

The “Pulp and Paper Energy Best Practice Guidebook,” published by FOE and its strategic partners, explains to industrial customers the importance of benchmarking and performing a gap analysis, and provides an overview of the mill operations that are most likely to achieve the greatest energy savings. It also provides a clear and checklist of the top energy “best practices” with a range of expected Return on Investments (ROI)—all as a part to further encourage mill owners and operators to take the first step necessary to identify potential energy efficiency improvements.

5. RESULTS

Since July 2001, the program has helped Wisconsin’s businesses and residents cut their utility bills by more than \$74 million – reducing their energy consumption by more than 703 million kilowatt-hours and more than 32 million therms of natural gas.

In 2006, the total savings from the industrial program was 5.4 Last year the industrial program saved 5.4 million therms, 49 million kWh and 9.6 MW. The pulp and paper cluster savings were 700,000 therms, 6,900,000 kWh, and 1.2 MW.

According to the program manager, the Pulp and Paper cluster accounted for approximately 12 percent of the 2006 annual budget; a total of \$5.1 million spent in the industrial program areas of which \$600,000 was spent on program labor and incentives for the pulp and paper cluster.

6. LESSONS LEARNED

This case study highlights the complexity of selling to industrial customers. The most important lessons learned include:

1. Recruit industry experts. This is the most critical element in FOE's overall program design focusing on the industrial market. Given the complexity of the pulp and paper industry, the only way to gain any market acceptance is to by approaching mill operators with recognized industry experts. The program manager stressed the importance of developing a "cluster approach" to help guide the program and identify savings opportunities.
2. Industrial customers require specialized approaches even though they share common energy applications. Another key reason this program has been successful is that while the manufacturing operations are similar in terms of end uses, FOE staff wisely recognized that the end uses are used differently, and therefore "one size did not fit all." Instead of treating all industrial customers the same, FOE created a network of experts for each critical industry group. This provided additional credibility for the program staff and accelerated market acceptance of the program.
3. Build strategic alliances within the targeted industry. Through their conferences and relationship with the critical trade organizations, FOE staff and consultants were able to gain the access required in a relatively short amount of time. Access meant that the staff was able to get ahead of the decision-making cycle and identify opportunities for energy efficiency much earlier on in the purchase process.
4. Showcase savings at forums where industry decision-makers gather. This step adds another layer of credibility to the program and assurances to other mill owners and operators. Given the competitive nature of this business, no mill wants to either jeopardize their standing by trying something unproven, or conversely, lose market share because another mill has been able to reduce its operating costs. This is a delicate balancing act that FOE has been able to achieve by providing objective opportunities for information sharing among industry insiders that yield additional energy efficiency projects.
5. Prepare a guidebook that summarizes the key areas of opportunity for energy best practices. This short guide book spells out in simple language the rationale for participating in the FOE program through examples, case studies, and checklists. It becomes a valuable selling tool for the staff and consultant to use when going on-site.

7. PROGRAM IMPLEMENTATION STRATEGIES

Through BPA's previous efforts in evaluating the pulp and paper industry operations in the Pacific Northwest, it would be possible to inaugurate a similar type of program focusing specifically on this high energy use sector. However, the best approach may be to adopt the practices employed both in NYSERDA's Technical Assistance/FlexTech Program with the outreach strategies documented in this case study.

For BPA to implement a similar type of industry-focused energy management program, requires implementing the following steps:

1. Determine program structure and critical targets

The critical decision for BPA to determine is if it wants to take a focused industry specific approach, like FOE did, or if it wants to create a more cross-cutting broader program. Since industrial customers require specialized solutions, a focused approach, like the one described in this case study may be an ideal first choice. This specialized approach would also allow BPA to slowly roll out the program to selected industrial targets based on identified energy needs and intensities. In this way, the program could start slowly and build momentum as it expands both regionally and by customer sector.

2. Recruit specialized industry experts who understand energy efficiency projects.

FOE hired former paper mill engineers, who worked as energy managers or advisors, and therefore had the in-depth knowledge and credibility required to reach customers. BPA should take a similar approach, given the close-knit nature of this industry. FOE's program also relied heavily on several selected consultants to market the program rather than relying on NYSERDA's broader approach. Cultivating a stable of qualified engineers may make sense, after the program has been running a few years.

3. Determine the level of administrative support.

The FOE program is run with relatively few staff dedicated to serving several sectors. This type of structure could make sense for BPA to establish, either via one of its third-party affiliates or through a centralized structure similar to the NYSERDA staffing. In any case, this type of program could be delivered effectively through third-parties which would make the program scalable and flexible enough to meet BPA's needs.

4. Create marketing events showcasing energy savings in the targeted industries.

This is an effective way to demonstrate energy savings, through conferences and workshops that also provide another way to reach critical decision-makers. FOE has demonstrated that in this pulp and paper sector, everyone keeps a close eye on their competitors' activities. Providing information forums, both formally and informally, will help to bolster program participation, since there is a "me-too" attitude that permeates this industry.

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NYSERDA'S TECHNICAL ASSISTANCE PROGRAM

This program profile features an in-depth analysis of the New York State Energy Research and Development Authority (NYSERDA's) successful Technical Assistance Program. This program was selected for inclusion as part of the larger set of case studies for the following reasons:

- The program is part of larger portfolio of programs targeting industrial facility owners and operators.
- It achieved significant savings.
- It demonstrates a way to work with specialized industry experts to reach critical decision-makers.
- It is replicable for BPA.

The program information contained in this case study is a compilation of both primary and secondary sources, including a review of conference proceedings, reports, and presentations and interviews with program staff.

1. PROGRAM DESCRIPTION

The Technical Assistance (TA) Program targets industrial, commercial, and institutional customers in New York State. This program is part of a larger effort funded by the New York State Research and Development Authority (NYSERDA) to help customers in the commercial and industrial sectors identify and implement cost-effective energy efficiency improvements. The focus of this case study is on the way the program operates within the industrial sector; however, there are other program components that are designed to serve the commercial and institutional sectors.

This program, which began in 1996 under a different funding mechanism, was included as part of NYSERDA's portfolio of programs funded by the System Benefits Charge (SBC) in 1998. According to program staff:

“The program started in 1998 in its current form, but this type of program has been offered by NYSERDA since 1996- it has been around 10-15 years, and this has led to awareness among plant managers... which helps to penetrate the difficult process of reaching industrial customers.”

Eligible and interested industrial customers can access the program in two ways:

- 1) Through the FlexTech program in which the customer works with a pre-selected NYSERDA consultant or
- 2) Through the Technical Assistance (TA) program in which the customer works with its own consultant.

NYSERDA developed this two-pronged approach specifically to meet the needs of industrial customers. As a program staff member explained,

“The process is to focus on flexibility because we knew early on, that we can't tell an industrial customer what to look at... They are in charge.”

Allowing them to use their own consultants adds to the industrial customers' comfort level and assurance that the project will not interrupt plant operations.

Either way, NYSERDA provides the funds necessary to complete an objective and detailed energy study designed to identify energy efficiency opportunities at the customer's facility. NYSERDA will fund up to 50 percent of the study costs, up to the lesser of either \$50,000 or 10% of the applicant's annual energy costs.

“NYSERDA pays 50% on all energy related costs – and 100% on any permitting consulting that may be necessary... The average cost to NYSERDA is \$20,000 which represents a \$40,000 project, but it can go higher.” (Program Staff Member)

NYSERDA staff emphasized the importance of having the industrial customers contribute some portion of the cost of the initial energy study. As one staff member explained, *“This cuts down on free ridership because they have to invest some money too... they have some skin in the game.”*

The TA/FlexTech Program also feeds projects into other NYSERDA programs including the Commercial/Industrial Performance Program, the Loan Fund, and the Smart Equipment Choice Program. Approximately 19 percent of the TA/FlexTech projects receive funding through another NYSERDA program to implement the recommended measures. (Quantec et al, 2007, p. 13)

The types of studies funded include:

- Energy feasibility studies, which identify energy-efficient capital improvements and energy-related operational improvements
- Industrial process energy analysis studies, which assess and modify industrial processes to increase their energy efficiency
- Energy efficiency retro-commissioning
- Energy procurement studies
- Long-term energy management projects
- Project development services
- Peak-load reduction and load management studies
- Combined heat and power (CHP) feasibility studies
- Renewable generation feasibility studies

The program's overarching goal is to increase the productivity and economic competitiveness of participating facilities through the implementation of cost-effective energy efficiency measures, peak-load curtailment, and related projects.

“The focus of the TA program is to do detailed studies and the flexibility allows them to select their own consultant or work with a consultant in NYSERDA's stable... We try to help people target as much as they can and invest in finding improvements that will be important to them...”

The eight-year budget for this program is \$37 million, of which \$24 million has been spent through 2006.

2. TARGET AUDIENCE

The TA/FlexTech program targets existing industrial facilities, not-for-profit institutions, public and private schools, colleges, health-care facilities, and state and local governments in the **New York Energy \$martSM** service territory.

3. PROGRAM DELIVERY CHANNELS

This program relies on developing a tailored response based on each industrial customer's unique needs and situation. A NYSERDA staff member explained the process:

“The process is to develop a scope of work after conducting a site visit with the consultant that is going to do the work....The consultant develops a scope of work and we negotiate that with the customer to determine what the study will focus on in terms of energy and non-energy applications.”

3.1 Channel Strategies

NYSERDA has a stable of engineering firms and technical consultants that influence commercial and industrial decision-making regarding capital investment and equipment upgrades. The program also works directly with industrial facility owners and managers to overcome some of the market barriers they face, particularly:

- Lack of time and competing priorities
- Lack of awareness, knowledge, and understanding of energy efficiency
- Lack of information to support energy efficiency investment
- Lack of funding to support analysis
- Competing needs for capital
- Uncertainty about savings
- Volatility and risk related to energy prices and business environment

The most critical element of program delivery is the site visit. As a staff member said:

“We learned that a walk-through of the facility and face-to-face interaction is really what is important for the industrial customer.”

3.2 Strategic Allies/Partners

NYSERDA recruits participating contractors through competitive solicitations for the Flex Tech and Energy Audit programs. End-use customers select their own contractors for the TA program.

3.3 Sales Delivery

Program staff ensures the quality of the studies conducted through the program by reviewing the scope of work prior to the study as well as the contractor's final report on the results of the study. The oversight and quality control provided by NYSERDA staff is a significant component of the program and aids in the contractors' professional development. Contractors gain knowledge and experience with energy efficiency measures, thereby helping to overcome several key market barriers. Energy savings are confirmed through the M&V process, thus raising end-use customers' confidence and satisfaction with the contractors and the program itself.

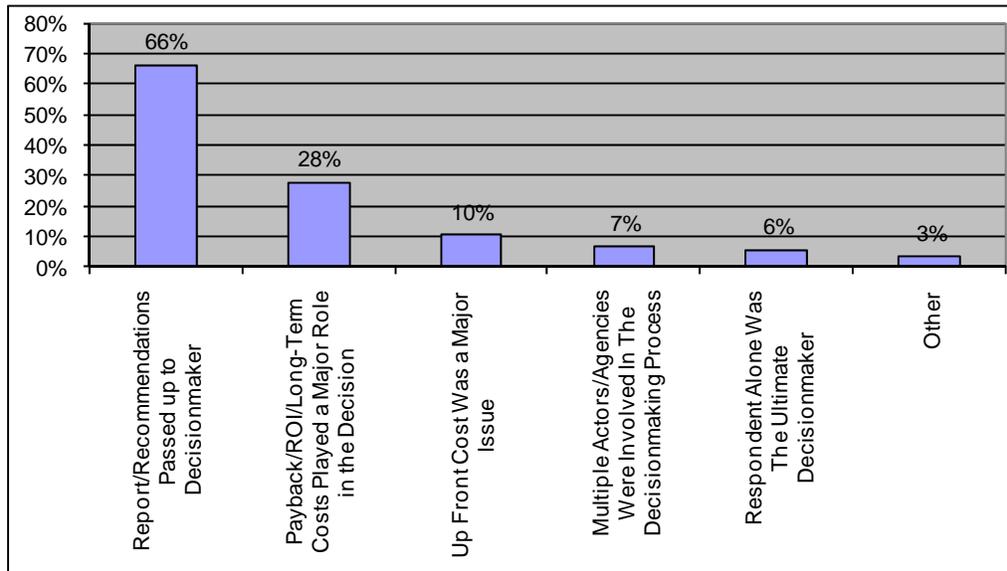
It is important to note that these energy savings reports play a crucial role in program success. These studies almost "take a life of their own" as they are circulated among critical decision-makers within an organization. Moreover, it may take several years before the study results translate into an actual project.

A program evaluation, conducted in July 2006, explored more fully the impact of these energy studies and recommendations on persuading customers to actually implement energy efficiency improvements. This evaluation found the following results:

1. Multiple decision-makers are involved, and often the energy study is just the first step towards getting project approved.
2. Payback is the most important determinant for project approval, even if funds are available. Projects will not be approved unless they meet acceptable payback criteria.
3. These studies provide the end-use customers with the objective information they need to sell a project internally to critical decision-makers.

Figure 1 illustrates the different ways these energy studies are used at customer organizations.

Figure 8. Elements of End-Use Customer’s Decision-Making Process Regarding Whether to Pursue Recommendations.



Source: Quantec, LLC & Summit Blue Consulting, LLC. *Technical Assistance Program, Market Characterization, Market Assessment and Causality Evaluation, Draft Report*. January 2007. Telephone interviews with 91 participating end-use customers.

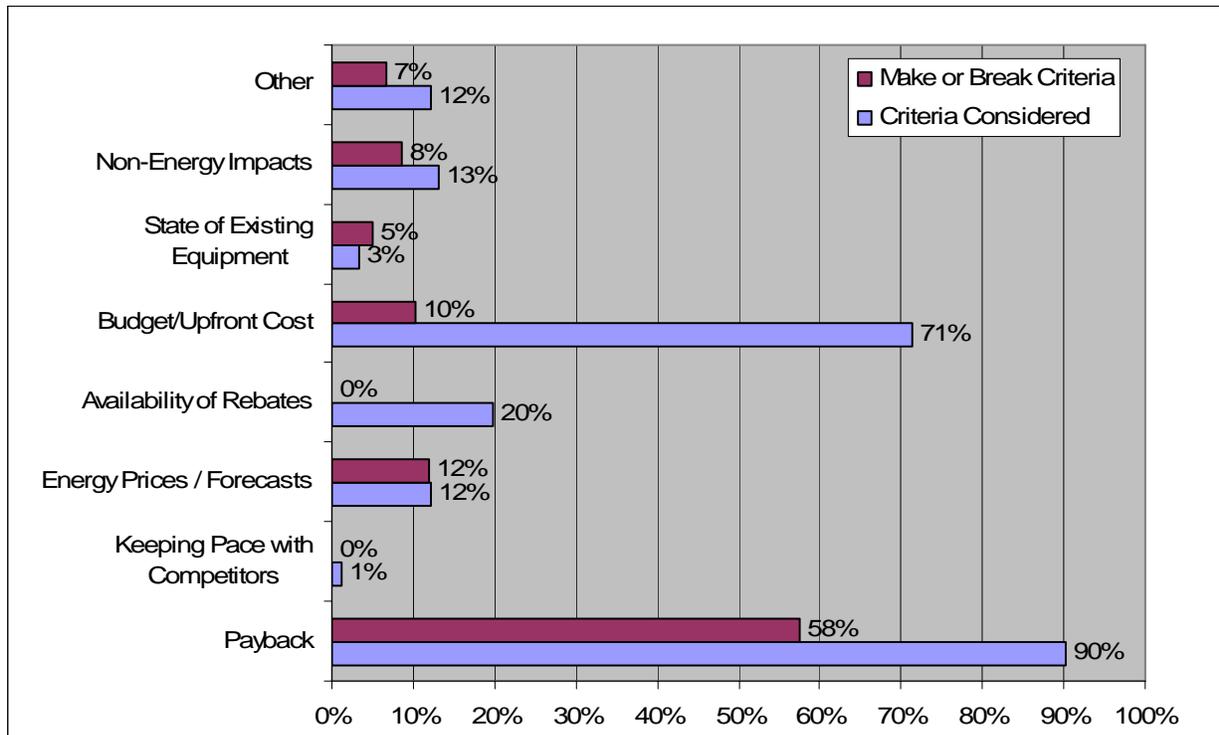
When asked about the decision making process, some characteristic responses included the following:

“[We] went with measures with the lowest payback, prioritized by implementation cost and selected those within our budget.”

“Engineering put forth recommendations, [then the] VP of Operations brought it to our management for final approval”

“I took recommendations to the president and then the decision making went to the top of the organization - the board of directors. We ultimately decided to go with the measures after realizing that they would pay for themselves via their respective energy savings over time.”

Figure 2 summarizes the customers’ criteria for deciding to implement a recommended energy efficiency project.

Figure 9. Criteria for Deciding to Undertake Project

Source: Quantec, LLC & Summit Blue Consulting, LLC. *Technical Assistance Program, Market Characterization, Market Assessment and Causality Evaluation, Draft Report*. January 2007. Telephone interviews with 91 participating end-use customers.

Although these end-users are often aware of the measures recommended, in order to proceed with installation they rely heavily on the independent, objective, and credible reports they receive through the program. The TA program is also highly effective not just at increasing awareness of energy efficiency measures, but at accelerating the timeframe in which those measures are installed. Responses include:

“[The Program] confirmed and pushed our original assessment of our energy efficiency options.”

“Our in-house staff knew VSD's were a good alternative, but the study drove home the benefit.”

Another customer was thrilled to be able to demonstrate, through an independent and credible party's analysis, that the measure he had known would be a huge savings for his facility was in fact cost-effective. He reported, “For ten years I [had] been preaching for a CoGen. [When the] VP of finance saw the actual estimated savings, it was full steam ahead.”

While some customers are using the study as an objective analysis of their own ideas of how energy costs can be reduced, others rely on the study to identify the available options and essentially use the audit report as a check-list or as the basis of a multi-year energy and cost savings plan. The report is often used or revisited on a regular basis in order to prioritize efforts, and identify the next “low-hanging fruit.” This point is clearly demonstrated by one customer who said that, “We have been using report as guide to get projects approved for capital every year... [it has become] part of our capital delivery process...” (Quantec et al, 2007, pp. 34-35)

The following table highlights that these energy studies are the critical first-step required in implementing energy efficiency projects among these customers.

Table 14. TA Program Influence on Decisions to Incorporate High Efficiency Measures

Mean	Retrospective Surveys	
	End-Use Customers	Contractors
TA Program influenced type/efficiency of equipment or amount of high-efficiency measures <i>Share of respondents</i>	65%	42%
TA Program influence on decision to install high-efficiency measures (interviewer assessment) <i>4 or 5 on 5-point scale</i>	70%	64%
Importance of TA rogram in decision to install high-efficiency measures (Respondent assessment) <i>4 or 5 on 5-point scale</i>	76%	73%

Source: Quantec, LLC & Summit Blue Consulting, LLC. *Technical Assistance Program, Market Characterization, Market Assessment and Causality Evaluation, Draft Report*. January 2007. Telephone interviews with 91 participating end-use customers.

4. CRITICAL MESSAGES/THEMES

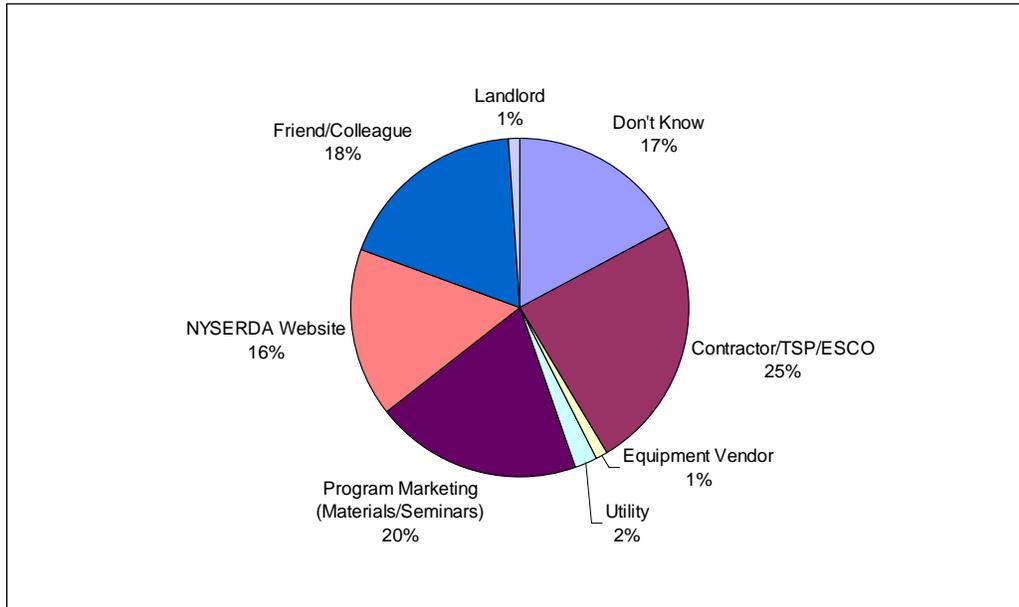
Industrial customers are an especially difficult market sector to serve and they are constantly facing challenges to increase operational efficiencies while reducing or minimizing costs. The TA/FlexTech program's primary message is that these plant improvements will lead to better overall operations, rather than just focusing on energy savings.

The industrial customer faces particular concerns and barriers. The program focus is to help our customers do their core business better. The major selling point for the program is to focus on energy efficiency improvements that will improve the overall operational efficiency of the facility...Energy savings is a secondary message. (NYSERDA staff member)

4.1 Promotional Strategies

The program's primary promotional vehicle has been, and continues to be, word-of-mouth through its stable of energy consultants, although the program is also marketed through other methods, including on its website, through program opportunity notices, announcements, and program materials. NYSERDA also distributes marketing brochures to end-use customers at trade shows, energy events, and through service providers.

Figure 3 summarizes the various ways that end-use customers learned about the TA/FlexTech program across all sectors. As this illustrates, the consultants are the primary delivery channel.

Figure 10. Source of Initial Information on the TA Program

Source: Quantec, LLC & Summit Blue Consulting, LLC. *Technical Assistance Program, Market Characterization, Market Assessment and Causality Evaluation, Draft Report*. January 2007. Telephone interviews with 91 participating end-use customers.

Even though this program has been well-established, the NYSERDA staff is committed to continuing its outreach activities especially in the industrial sector. By far, the most effective method remains the targeted one-on-one approach.

“The focus on outreach (for the industrial sector) is going out and meeting with customers and finding how best to help them improve their operations.”

5. RESULTS

Table 2 summarizes the programs’ accomplishments through July 2006. The table includes the results from the Technical Assistance and FlexTech programs. As of July 2006, 969 projects had completed energy studies through the TA Program. These projects have total gross estimated savings for all the recommended measures of 1,014 GWh. The split between Technical Assistance and FlexTech projects is very close with 45% of all projects being TA Program projects and 55% being FlexTech. The TA (customer-selected contractor) projects, however, tend to be larger and represent 62% of the expected savings. (Quantec et al, 2007, p. 1-6)

Table 15. Number of Projects and Expected Savings by TA vs. FlexTech

Program	Number of projects	% of Projects	Total Expected Savings (aMW) ⁹	% of Savings
TA (customer-selected contractor)	432	45%	71.2	62%
FlexTech (pre-approved contractor)	537	55%	44.4	38%
Total	969	100%	115.8	100%

Source: Quantec, LLC & Summit Blue Consulting, LLC. *Technical Assistance Program, Market Characterization, Market Assessment and Causality Evaluation, Draft Report*. January 2007.

Table 3 summarizes the cumulative program results since 1998. Note that this table includes TA, FlexTech, and the Energy Audits program.

Table 16. TA Program Results to Date

Number of studies completed	2,700
Total co-funding provided	\$24 million
Participating Allies	275
Annual Electricity Savings	69.1 aMW
Peak Demand Savings	111.5 MW
Annual Natural Gas Savings	3,164,334 MMBtu
Program Benefit-Cost Ratio (TMET Scenario 1)	5.4
Cost per aMW ¹⁰	\$137,196

Source: *New York Energy \$martSM Program Evaluation and Status Report*. May 2006.

Overall, the staff views this program as a success, citing a 17:1 return for their investment in energy studies. “*Our average study cost is \$20,000 and from that investment, we expect to see an installed project worth about \$340,000.*”

However, the program staff cautions that these investments take time, as they require significant capital expenditures.

“But it takes time for the customer to digest the study findings and work with the capital budgets to find the funding..... it takes a long time because of the decision-making process and there are a lot of stakeholders. We see about 20-25% of the benefits if the first year, and within 4 years, 75% of the projects have been completed.”

⁹ Note that Table 15 shows the expected savings from all recommended measures, whereas Table 16 shows installed savings as verified by the NYSERDA’s M&V contractor.

¹⁰ Cost per aMW includes both electricity and natural gas savings. Note that this is not the method by which NYSERDA calculates cost-effectiveness; this value was obtained by converting the kWh and MMBtu savings to aMW and dividing by the total program expenditures by date.

This highlights the importance of building an accurate tracking system for calculating program savings over time.

6. LESSONS LEARNED

1. Industrial customers require specialized expertise that is best handled by industry-recognized consultants and engineers.
2. The most effective way to reach industrial customers is to meet with them face-to-face, at their plant location. This type of “hand-holding” is necessary to assure the customer that any energy efficiency recommendations will not interfere with their plant operations.
3. The cost-sharing requirement of the TA/FlexTech programs is a critical component in that it weeds out customers that are unlikely to take action on the recommendations.
4. The simplicity and flexibility of the FlexTech program is one of its key strengths. There are virtually no forms or paperwork for a customer to complete, just a one-page application consisting of mainly contact information, an estimation of yearly energy costs, and an open-ended question about the type of assistance requested. By using NYSERDA’s pre-approved contractors, the time to complete a study can be reduced by six months or more.
5. NYSERDA’s quality control reviews of contractors’ scopes of work and final reports both ensures the quality of the studies conducted and aids in the contractors’ professional development. Contractors gain knowledge and experience with energy efficiency measures, thereby helping to overcome several key market barriers.

7. PROGRAM IMPLEMENTATION STRATEGIES

BPA’s Technical Services Provider (TSP) Program shares some similarities with NYSERDA’s Technical Assistance Program; however, the TSP program does not offer any cost-sharing for the technical audits it provides, and NYSERDA considers the cost-sharing a critical element of program success because it attracts customers who might otherwise not pursue an audit while effectively weeding out freeriders who are unlikely to take action on the recommendations.

BPA could modify its existing program to take into account some of NYSERDA’s lessons learned, such as adding a cost-sharing element. The long decision-making cycle for industrial customers and the need to cultivate a core of respected industry experts to provide consulting and engineering advice requires time. However, the program administration and application process can be relatively simple, as NYSERDA demonstrates, so that this program could be effectively outsourced to a third-party or run primarily via the selected contractors.

The other critical area for BPA to consider is program structure. NYSERDA considered organizing this program around industrial sectors, following Focus on Energy’s model, but found that was too difficult given the numerous stakeholders involved. Instead, they opted for a cross-cutting approach targeting all types of commercial and industrial customers. The critical difference came in the level of assistance provided: commercial customers received more generic energy audits while large industrial customers received customized energy studies.

The steps to program implementation for BPA to consider include the following:

- 1) Identifying the optimal program structure and focus;
- 2) Determining the funding levels (one option is to reimburse a greater percentage of the audit cost *if* the recommended measures are implemented; NYSERDA did this in the early years of the TA program) ;
- 3) Selecting a pool of qualified industry experts for each sector;
- 4) Developing an outreach program incorporating these industry experts including:
 - a. Developing case studies that focus on best practices in energy efficiency in selected industrial locations
 - b. Holding regional workshops or forums focusing on industrial energy efficiency improvements
 - c. Publishing and highlighting program results and information on a dedicated website.

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Marketing Method: Develop and deliver workshops for residential customers who want to build or remodel with energy efficiency and green features.

Company: Austin Energy

Program: Green by Design Workshops

Austin Energy has won numerous awards for their Green Building programs. The Green by Design Workshops series has been a surprise hit for their marketing of the programs.

Goal of the Program: Wants anyone building a new home, or doing major remodels, to include green building components, and know how to get them.

They did some initial market research to determine the best messages to use: The top messages were: 1) utility cost savings, and 2) comfort/health/safety. Then other more minor messages were: reducing outgassing and odors, reducing mold and dust mites, and humidity control.

Austin tried several methods to promote this program. The best results are through one-on-one contact at events, such as home shows and environmental fairs. They have an attractive booth that brings people in, and then they talk about green building.

The best overall results come from the workshops, however. These are full day workshops, held on Saturdays about once per quarter. The workshop includes information on building shell, materials, high efficiency appliances and HVAC, etc.

The market for this workshop keeps growing; it has not been saturated.

They charge \$35 per attendee, and they have sponsors underwrite additional costs.

Austin has also tested other media methods. Print ads have worked better than radio and TV (expensive and no response). They choose very targeted and narrow publication, with special focus on Lifestyle magazines (family, food, pets, home, health, environment, wellness/fitness).

The program has been around for many years, and word of mouth accounts for over 50% of business.

They are working on a video project that will highlight many of the benefits discussed in the workshop.

Transferable Concepts for BPA:

1. BPA could develop a workshop similar to Austin's and take it on the road around the service territory where growth and remodeling is greatest. BPA could help promote the workshops by having a booth at trade shows, and by finding appropriate print ads.
2. BPA could develop a video that highlights the benefits of green building and distribute that to all the utilities for their use.

Marketing Method: On Site audits and real time energy efficiency recommendations through use of the Palm Audit tool**Implementer: Clean Air Foundation, a not-for-profit organization in Canada. (SCE also uses the Palm Pilot for small commercial sectors with very strong results.)****Program: Cool Shops**

The Cool Shops program uses “street teams” to go directly to small businesses to promote energy efficiency. They can immediately install a few CFLs and LED Exit signs just to get the foot in the door and demonstrate that savings can be easily achieved. But the main product of the visit is an audit using the Palm Pilot. The Palm allows the results of the audit to be presented to the small business within 2 weeks. (Summit Blue believes that this 2 week lag is problematic, and the Palm can be used to create the audit results immediately, as it is done at SCE.) They can see what should be done, what savings are available, and then what equipment can be purchased with discounts and rebates. Audits should NOT be comprehensive, but be focused on certain technologies that are appropriate for that business type. In addition, the audits should be tailored to owner versus lease, so that only the most appropriate measures are then offered.

The discounts on products are available through retail partners such as Home Depot.

This is a third party program that is implemented through a non profit agency and a program implementation group. (The SCE program is implemented by SCE directly through their small business account reps.) Cool Shops partnered with 9 electric utilities and 2 gas utilities in 2006.

Cool Shops is promoting a brand, which initially meant that “our doors are closed to save Coolth, but we’re open for business...Come on In!” But has evolved to mean “We are an energy conscious store, shop with us.”

Cool Shops held launch events in seven cities, and they were able to get free media coverage from these events. Businesses that had participated were showcased in the events, creating a competitive atmosphere for other businesses to follow.

Case studies work as a way to get the word out.

Marketing materials had some local (city) flavor, highlighting local companies and partners/retailers. This made the program feel cozy and home grown.

Cool Shops partners with Business Improvement Areas, Chambers of Commerce, and community organizations to promote the program through direct mail, membership newsletters, websites, and speaking events.

Marketing Method: Use of Trade Allies to Sell Commercial DSM Program

Company: National Grid

Program: Project Expeditors

- Project Expeditors (PEs) are energy engineering firms that are qualified by NGrid. They are chosen through competitive bids. There is a team of about 15 PEs.
- NGrid provides sales leads to PEs.
- NGrid also does quality control on the projects. PEs know if they don't do a good job they will be out of the program.
- PEs are responsible for most aspects of the program from beginning to end.
- They do all of the legwork, including getting in the door, doing a comprehensive audit, then working with the customer to install appropriate upgrades, and making sure all the paperwork is done correctly.
- PEs are not paid by NGrid. So they are like a staff extension without cost.

The real benefit for the PEs are the qualified sales leads. These leads primarily come from the NGrid field reps/account managers. Most customers are larger, above 200kW or so. At the project's start, customers were smaller (as a proof of concept). There is marketing to back up the promotion of the efficiency program as well.

Customers can sometimes bypass a competitive bid process because the PEs are pre-qualified. Customers get a turnkey solution and their search costs are low.

Transferable Lessons for BPA:

There are several lessons that could be used by BPA and the utilities:

1. BPA could create a regional program (possibly the Puget Sound area) in which BPA worked to find a group of PEs, conducted the solicitation, helped train the PEs, and conducted quality assurance and measurement on results. The sales leads would likely need to come through the utilities.
2. BPA could work with utilities to create such a program to manage on their own. BPA could bring the benefits to the utilities and work to help launch the programs.

9. INTRODUCTION

In order to give BPA non-industry context for the development of a new Strategic Marketing Plan, a number of examples have been fused together from work conducted by Radar Communications with some of the top consumer brands in today's marketplace. Traditionally, concerns over channel marketing have been more prevalent in the business to business marketplace, where companies, such as Intel, must rely on their channel partners to work with their consumer. Yet today, business to consumer brands struggle with many of the same issues. Insights garnered from a number of strategic planning and in-depth qualitative research projects for B-to-B clients, such as Intel, Herman Miller and Hewlett-Packard, and business to consumer brands, such as Levi's, Sprint, Sony and WD-40, are included in this review of pertinent marketing practices.

In each case, these brands have become more dependent on their channel partners to understand and sell their products and services. More often than not, the channel partners have many competing agendas and lack the resources to help every brand they work with implement strategic marketing programs.

This universal trend means that companies must take the responsibility of the relationship with their end-user consumers and help their channel partners extend their reach with not only marketing programs but also provide deeper knowledge about consumers to their channel partners. Unfortunately, traditional marketing is not as effective as it once was in accomplishing these goals.

10. THE SHIFT TO A NEW MARKETING PARADIGM

Today in both B-to-B and B-to-C markets the power of branding has lost some of its magic. The declining effectiveness of top-down branding techniques has been fueled by many factors including:

1. Global social trends
2. Government regulations
3. Unstable macro-economic conditions
4. Disruptive technologies

These factors have the power to impart real damage on companies that remain disconnected from their ultimate consumers and the communities in which they work. Additional factors, including the *rising power of channel partners* and the prevalence of risk adversity, interject still more uncertainty into the marketing process.

Compounding marketing challenges, consumer behavior is radically changing. Customers now want to act as both consumers and producers, working creatively on things they purchase to make them their own. Factors driving this trend include:

1. Too much information
2. Too many choices
3. A lack of time

Today consumers are more unwilling to buy products from brands that are not prepared to *engage them in a dialogue*. Likewise, channel partners are demanding that brands bring a *new level of knowledge and established relationships* with consumers to the table.

While these uncertainties are difficult to predict and prepare for, the best way to operate in this environment is to accept the presence of uncertainty and actively work to gain a deeper understanding of the context in which a company's products and services work. Companies must continually strive to ***act like a local merchant***, a citizen of a community. Today, to identify with and be relevant to their customers, companies must first become trusted, committed community members. They can then begin to create more long-term and sustainable relationships.

10.1 The Importance of Learning and Flexibility

With the changes in the marketplace, many companies act like a deer caught in the headlights of an oncoming car. It is hard to get out of the habit of doing what has always been done and shift gears to be proactive in the face of an evolving environment. For many companies it is typical to resist change with tenacity; yet the changing environment and changing customer needs require – or demand – that the corporate status quo must change. Companies must place their brand within a deeper context of their customer's lives, including channel partners and end-user consumers.

Quite often, they get so wrapped up in finding that right, distinctive marketing message or developing the perfect marketing strategy that they lose touch with the communities or context in which they exist. Often times, brands exist in several overlapping communities, some made up of consumers and others of channel partners. Hence, it is critical for brands to broaden their view and understand that they are part of these larger communities instead of becoming defined by their own self-imposed boundaries from a lack of connectivity.

Case Study: Levi Strauss and the Challenges of Context

Levi Strauss & Co. highlights the challenges in becoming a part of the community. When Levi's launched their new value channel brand, Levi Strauss Signature in 2003, starting with a relationship with Wal-Mart, the team did a wonderful job of building a thoughtful business and marketing plan. In the process, they took several trips to Wal-Mart's headquarters to discuss the relationship. Yet six months into the project, no one from Levi's had ever been to a Wal-Mart store. It was hard for the Levi's team to not only understand the context of the consumer, the value shopper, but also the challenges Wal-Mart had selling apparel.

LESSON for BPA – Staff at all levels need to get out *in the field* to see how customers actually function

Likewise, in work that Radar was conducting with the Levi's design team in February 2007 with value customers, one of the Senior Vice Presidents said that it was the first time that the design team had ever met value consumers. The design team had always looked to the luxury fashion brands for inspiration and focused on driving down costs instead of understanding the community of their customers in the context of their lives.

Certainly, a large challenge for Levi's is to garner enough attention from their value channel partners, including Wal-Mart, Kmart, and Target, to achieve their goals.

10.2 Think In Terms of Communities

A community is defined by its collective dialogue, whether it is geographically or

LESSON for BPA – *we're all in this together* (to keep electricity prices down, and the environment clean)

subject based, and, hence, has no boundaries. Instead, communities have horizons. A horizon is a place one never quite reaches. It is not a boundary or a goal. It is not defined as a final destination, but more as a relative journey. A company must recognize that in order to deal with the uncertainty that the world presents they must strive to jump into the community become a part of the collective consciousness. By doing so, a company can develop more profitable long-term sustainable relationships built on mutual trust and understanding.

To accomplish this, brands must focus both on creativity and flexibility. Most businesses are isolated from the central experiences of their customers and the context of their lives, as Levi's was in the previous example. Marketing team members must be willing to get out of their offices and use their curiosity to rediscover the reality of their communities at the most basic level. This can be accomplished by adhering to more human values, including honesty and empathy, continually reframing and recontextualizing their current world-view. They must be willing to take the leap of faith, try and fail, and, most of all, use a flexible, in-context strategy to learn and become more competitive in today's dynamic world.

10.3 The Development of a New Strategic Thinking Focus

Even today, many companies focus their strategic thinking around current market needs by using an inside-out or top-down approach with the company at the center of the strategy.

In a reversal of this traditional process, leading B-to-B and B-to-C brands *use an outside-in strategy to focus their thinking on engaging in a dialogue with the other members of their community*, allowing them to not only stay ahead of their competition but also help define the market. Such a holistic strategy allows these companies to continually recontextualize and reframe their brand, making necessary adjustments as the community, channel partners, and customers evolve. A good example of outside-in strategic thinking is Linux and the open source movement. By allowing customers to join a community and help create an operating system, Linux may end up shifting the power of computing away from the powerful brands that exist today.

These dramatic changes in the relationships between companies, channel partners, and consumers also requires true corporate transparency, in everything from marketing to manufacturing, and a more long-term, sustainable outlook of the community in which they participate.

10.3.1 Creating a Learning Culture

In order to thrive in this new marketing world, a learning culture must be created. The one constant in these dynamic times is that change is happening faster than ever; thus, learning has to happen even more quickly. Part of the learning process requires knowing what to do with the intelligence you acquire and how to share that with your channel partners in order to overcome risk adversity and facilitate growth.

10.3.2 Shifting the Strategic Planning Process

Traditionally businesses often approach strategic planning as a top-down, structured process. Planning, in its nature, requires an acceptance of the unknown and receptiveness to new ideas. Unfortunately, many companies' reaction to an influx of new information is to fall into the 'paralysis by analysis' syndrome. Other companies react by panicking and making important decisions *too* quickly.

The ideal solution, but one that doesn't come easily to most companies, is to rely more heavily on intuition. This is a huge paradigm shift for many. People need the tools that give them the confidence to

rely on their intuition when exploring their marketplace. They need fast, “real,” and connected ways of making meaning of their quickly changing realities.

Real learning demands that companies are prepared to make mistakes when exploring their communities with their customers. It means that people inside companies need to be uninitiated, spontaneous, unconditioned, and expressive in these explorations. They need to *be allowed the space to learn through stories from their communities*. Companies need to revel in these stories and be creative in their interactions with other community members.

Pursuing an outside-in strategy means seeking enough inspiration and input to find the magic to drive innovation. It’s hard work. It means breaking out of categories, words, and definitions.

Case Study: The Power of Learning at Nike

Many companies struggle with staying ahead of the competition with new product and marketing innovation, and might have great people who know how to innovate, yet they suffer from a lack of support from senior management in making learning and change a priority. Mark Parker recently took over as the CEO of Nike. Mark has been at Nike for his whole career and his ascension has been seen as putting learning at the center of Nike’s future growth. His fearless approach is not to be content with stewardship of the brand. Instead, his focus has been on building the company in a way that changes the world in a positive way. The foundation of this focus is a commitment to learning.

In several conversations with Mark, he has explored the ideas of *learning from failure, reducing bureaucracy, encouraging communication*, and not getting stuck using only one method are all important in an effort to support the change, whether it be in evolving new products or channel strategies. Mark’s journey to the leadership of Nike consisted of a career in the product design and development process. Hence, Mark’s ability to solve product problems and tell compelling stories is in his blood.

Some of the tools that Mark focuses on include:

1. **Small Innovation Teams** – Mark assembles small, diverse team around specific innovation issues, insulating them from the day-to-day demands of the business.
2. **Team Chemistry** – Mark has a real talent for understanding how to put together a dynamic team, bringing together a group of personalities that work well together.
3. **Balance Between Structure and Creativity** – To stay innovative, Mark has found that it is critical to constantly seek out balance between structure and chaos, especially for the teams trying to innovate.

LESSON for BPA - Too often, annual reports profess the concept that upper management supports innovation, yet those trying to actually innovate are so weighed down by the bureaucracy of counting and tracking that they have no time to learn from their channel partner, consumers, or communities.

Focus on Open Communication – One of the stumbling blocks to which many innovative teams fall victim is a feeling of disconnectedness from the rest of the company. Mark has found that the key is to appoint evangelists on the team whose job is communicating with the rest of the organization about what the team is doing. Such a management style is critical for the success of any company in today’s uncertain business and cultural environment.

To stay ahead of the competition, businesses need to have a deep cultural commitment to learning-driven personal knowledge of their product, market, and customers, combined with ongoing support and the belief in the evolving nature of the conversation with channel partners and end-user consumers.

11. FURTHER STEPS TO WORK WITH CHANNEL PARTNERS IN EVOLVING THE MARKETPLACE

An outside-in strategy can provide a company with the flexibility to be successful. It can become a more prominent participant in its own communities and have deeper relationships with other community members, including channel partners. Other things to think about include:

11.1 Have a Dialogue with the Right Consumers

It's easy for companies to get stuck in thinking that their channel partners and even consumers see the same power of its brand as they do. As discussed earlier, it is imperative to have the right conversation about your brand, with the right customers, in context. Every company has a small set of customers that have a disproportionately great amount of power in the market conversation. You need to know who these customers are and ask them the *right* questions, which sometimes means the hardest ones.

Case Study: Intel

Intel excels in identifying the right customers to have the right conversation with. Because of the current low margin nature of the personal computer market, Intel has had to take on the mantle of growing the market and driving innovation not only for themselves but also for their channel partners in the PC market. Much of Intel's research and intelligence is focused on where innovative and early adoptive consumers are headed. Through trial and error they have built an expertise of distinguishing between these different diffusion segments. With the knowledge based on a dialogue with the right customers, Intel helps its channel partners not only understand these lead users but also design products to satisfy these needs.

This process of identifying the right consumer gives Intel not only the ability to be a community member but also take the leadership role in the community by constantly *reframing* and *recontextualizing* the computer business. By establishing the framework for where the business is going, Intel is able to accomplish two goals:

1. Stay ahead of the competition and not get dragged into a price battle for what could be perceived as a commodity.
2. The act of reframing with the right consumers helps Intel build more value in their brand.
3. Deep knowledge of the right consumers makes computer manufacturers more dependent on Intel. Intel sets the agenda for the industry with credible knowledge and everyone else follows.

11.2 Get the Right Story

The key in getting the stories from the street is to get deep enough into the lives of the people you want to reach so that a company can understand the underlying assumptions of their lives. Only at this level can the useful context and meaning behind outward actions and behaviors be fully understood. It is the primary source for new ideas and product innovation. And the only way to get to this level is by investing a lot of time and energy engaging in real, two-way conversations.

Case Study: WD-40

WD-40 is the master of developing an ongoing relationship with the right customers to get the right story. While the WD-40 brand has 80% market share, some of the company's other brands, like 2000 Flushes, 3 in 1 Lubricant, and Spot Shot, exist in a very competitive marketplace, full of much bigger competitors with much bigger marketing budgets. These products also exist in a world of very strong channel partners that drive many business and marketing decisions. To stay competitive in this turbulent market, WD40 has focused on relentless product and marketing innovation. To ensure that the resources spent on innovation are efficient, WD40 has *developed a panel of lead-users*. This panel allows a flow of constant iteration in the marketing and innovation process and allows them to take a leadership role with their channel partners in addressing the needs of end-user consumers.

BPA is commended for creating the Utility Sounding Board, and using this feedback mechanism to improve program delivery mechanisms.

11.3 Shed the Inability to Listen

At the core of any relationship, *a level of trust is required*. People feel most comfortable with those who take the time to listen to them in the context of their lives. This makes them feel important, respected, and empowered.

One of the biggest tasks any company faces is freeing itself from the anxiety of success. This is, possibly, the hardest thing for a company to do. It is hard not to always focus on the bottom line. It is also difficult not to be anxious about getting a product or service to market. Last year Radar was tasked to help a team in the consumer goods category develop a new marketing strategy for a line of shampoos.

In an effort to help the team listen to the right customers, Radar taught the team how to have an in-context conversation with consumers in the consumer's homes. One critical element that had been previously forgotten: context. While people working on the shampoo brand think about shampoo all day, every day, *the consumers think about shampoo for a very short amount of time – only when they are using it in the shower or are in the act of buying it*.

Electricity is a low-involvement purchase for most customers – people only think about it when it fluctuates or they are paying.

The brand team was very surprised that their consumers didn't have the same passion as they did for the brand and the conversations turned into interrogations. It is hard not to think about accomplishing specific goals when you are listening to consumers. This, however, is the only way to have a successful dialogue in which you are able to hear clearly.

11.4 Find Inspiration to Lead Channel Partners in Dynamic Change

It's important to look for places in the market that are beyond the periphery but can bring unexpected insights and inspiration. It takes getting out in the environment, listening at the fringes and understanding the power of networks in the community.

Case Study: Herman Miller

The furniture company, Herman Miller, is challenged by its evolving relationships with channel partners, which include architects, interior designers, and retailers. In order to stay ahead of these partners in

discovering furniture trends, they need to find inspiration that will fuel new marketing and product ideas that are ahead of trends established by others.

In order to capture this inspiration, Herman Miller has set up a small group of people in an internal division called the “Kitchen.” The Kitchen’s primary job is to look beyond the vision of the day-to-day business and find inspiration that can drive marketing and product innovation and help their channel partners better satisfy consumer’s needs.

11.5 Leverage the Power of Intuition with Channel Partners

When a company really gets to know its lead consumers, the ability to accomplish complicated marketing goals is greatly enhanced. Utilizing an outside-in strategy gives a marketing team the confidence to trust their gut.

Case Study: BMW’s Launch of the Mini-Cooper

When BMW decided to launch the Mini-Cooper brand in the United States, it needed to find a marketing partner that would be the first to launch an automobile brand without television advertising, quite a task in today’s crowded marketplace. BMW hired Crispin Porter + Bogusky to rethink automobile marketing. In order to accomplish this task, the CP+B team used their intuition to figure out that instead of a liability, the small size of the Mini-Cooper was an important place to start.

To work with Mini-Cooper’s small budgets, CP+B leveraged the power of intuition to re-enforce Mini-Cooper’s small size by putting Mini-Coopers on top of Chevrolet Suburbans. The Suburbans then drove around major cities highlighting the contrast of negotiating city streets with a Mini versus a Suburban. The success of the campaign, based on intuition, attracted enough attention to not only make the Mini brand a success but also shift the overall public’s perception about the size of cars.

11.6 The Power of Telling the Consumer Story as a Catalyst for Channel Partner Evolution

Products and services today have become less important than *the stories they convey* and the way those stories are interpreted by their channel partners and consumers. Companies also need to have stories to tell internally – true stories that inspire action. They must themselves embody those stories with congruency and authenticity.

A cornerstone of good marketing is good storytelling and strategic narrative thinking. Companies must learn to go beyond telling their *own* stories to listening to and understanding and telling their customer’s stories. By being more human and relying on storytelling and narrative strategic thinking, companies have the opportunity to be more relevant to other members of their community.

LESSON for BPA - Marketing strategy must be framed as a fluid, organic narrative instead of a static, immovable framework.
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Case Study: Levi’s Use of Strategic Narrative Thinking

As mentioned earlier, Levi’s had significant challenges in launching their Signature brand into the value channel. One way of overcoming these challenges was to *show their knowledge of the consumer’s needs and help partners* like Wal-Mart understand its customers better by providing stories of the Wal-Mart shopping experience as told by customers. These stories, told via video, allowed Levi’s more flexibility in

product design, product placement, and pricing. By leveraging the stories of Wal-Mart's customers, Levi's was able to build deeper credibility and trust with their channel partner. The end result was a higher level of success for the Signature brand than was anticipated.

APPENDIX D:
DATA COLLECTION INSTRUMENTS

BPA Staff Interview Guide

Large Utilities Interview Guide

Small & Medium Utilities Interview Guide

Utility Sounding Board Interview Guide

BPA STAFF INTERVIEW GUIDE

Set interviewee at ease. Our purpose is to better understand BPA's markets and the marketing side of BPA's role in the region, specifically as it relates to the energy efficiency function. For purposes of this effort we will define EE broadly to include all conservation efforts by BPA. The Strategic marketing plan that will be developed through this process may recommend changes to how existing/new programs are delivered to key customers and market sectors. We are not here to reorganize BPA's personnel and departments – the results of the recent EPIP project has determined the structure of the organization.

As indicated in the e-mail that was sent about this interview process, we are planning to record this interview, however we will not quote anyone in our report by name. The recording is meant solely to augment note-taking, and will be erased after notes are finalized.

Discussion Questions

1. What unique skills or unique influences can BPA bring to the market? [warm up looking for big picture broad statements, e.g. BPA is the best at....][Probe: why is BPA special? E.g. Federal entity?]
2. Where do you think (customer or program type) that BPA will get the most energy/demand savings per dollar?
3. Is there any difference in the role that customers think BPA is playing and the role that BPA sees itself playing?
4. As a follow on to that, do you think BPA should be playing a different role than the one you just mentioned? [push on issue of trying to be all things to all people....]
5. I am going to mention several different audiences that BPA serves in some capacity and then ask you questions about BPA's role with that audience, though you may not have answers for each audience. We'll use four audiences for the purposes of this conversation:
 - 1) Larger utilities such as Seattle City Light, Tacoma, Eugene, which have staff that can plan and implement programs.
 - 2) Smaller utilities, P.U.D.'s, co-ops, munis with limited staff capabilities.
 - 3) Direct industrial customers to BPA.
 - 4) Regional partners: i.e - Energy Trust of Oregon and NW Energy Efficiency Alliance, and other third party providers of EE/DR programs and services.

5.1. Larger Utilities

5.1.1. How does BPA market EE programs and services to this market today?

5.1.2. What kind of assistance does BPA provide today? What is your role?

5.1.3. Should BPA have a different approach to this [partner/market/audience]?

5.1.4. What do you think are the biggest needs of this [partner/market/audience]? What are they asking for?

5.1.5. What information about this [partner/market/audience] or their customers would help you market to them better? [Probe: Creative process...]

5.1.6. How could BPA help to enhance the effectiveness of existing or future EE programs?

5.1.7. What's working well in reaching out to the audience?

5.1.8. What's not working well?

5.1.9. What conflicts are there between BPA and this [partner/market/audience]? How significant are these conflicts in preventing BPA from reaching EE goals? How can they best be overcome?

5.1.10. What outside influences may be affecting BPA's interaction with these entities?

5.2. Smaller Utilities, Co-ops, smaller munis

5.2.1. How does BPA market EE programs and services to this market today?

5.2.2. What kind of assistance does BPA provide today? What is your role?

5.2.3.Should BPA have a different approach to this [partner/market/audience]?

5.2.4.What do you think are the biggest needs of this [partner/market/audience]? What are they asking for?

5.2.5.What information about this [partner/market/audience] or their customers would help you make better decisions? [Probe: Creative process...]

5.2.6.How could BPA help to enhance the effectiveness of existing or future EE programs?

5.2.7.What's working well in reaching out to the audience?

5.2.8.What's not working well?

5.2.9.What conflicts are there between BPA and this [partner/market/audience]? How significant are these conflicts in preventing BPA from reaching EE goals? How can they best be overcome?

5.2.10. What outside influences may be affecting BPA's interaction with these entities?

[note: The following 2 groupings will likely have limited involvement by most staff]

5.3. Direct Industrial Customers to BPA

5.3.1.How does BPA market EE programs and services to this market today?

5.3.2.What kind of assistance does BPA provide today? What is your role?

5.3.3.Should BPA have a different approach to this [partner/market/audience]?

5.3.4.What do you think are the biggest needs of this [partner/market/audience]? What are they asking for?

5.3.5. What information about this [partner/market/audience] or their customers would help you make better decisions? [Probe: Creative process...]

5.3.6. How could BPA help to enhance the effectiveness of existing or future EE programs?

5.3.7. What's working well in reaching out to the audience?

5.3.8. What's not working well?

5.3.9. What conflicts are there between BPA and this [partner/market/audience]? How significant are these conflicts in preventing BPA from reaching EE goals? How can they best be overcome?

5.3.10. What outside influences may be affecting BPA's interaction with these entities?

5.4. Regional Partners

5.4.1. How does BPA market EE programs and services to this market today?

5.4.2. What kind of assistance does BPA provide today? What is your role?

5.4.3. Should BPA have a different approach to this [partner/market/audience]?

5.4.4. What do you think are the biggest needs of this [partner/market/audience]? What are they asking for?

5.4.5. What information about this [partner/market/audience] or their customers would help you make better decisions? [Probe: Creative process...]

5.4.6. How could BPA help to enhance the effectiveness of existing or future EE programs?

5.4.7. What's working well in reaching out to the audience?

5.4.8. What's not working well?

5.4.9. What conflicts are there between BPA and this [partner/market/audience]? How significant are these conflicts in preventing BPA from reaching EE goals? How can they best be overcome?

5.4.10. What outside influences may be affecting BPA's interaction with these entities?

6. Should BPA play a "behind the scenes" role, or be prominent? [Explain. Probe re: a research role, incubator, source of funds, etc.]

7. Do you think that BPA is offering a consistent message to the players in the audience? Is there an internal audience as well? [Probe: do you know what the message is? Should it be consistent or should it be customized to each situation or customer/client?]

8. If you could provide suggestions for one or two changes that would enhance BPA's ability to successfully market conservation to the NW, what would those be?

Is there anything else you'd like to add? E.g. specific stakeholders you think we should contact?

LARGE UTILITIES INTERVIEW GUIDE

1. Warm Up: Describe their role at their utility.
2. What does BPA provide for you and your utility?
3. How do you interact with BPA?
4. Describe your relationship with BPA?
5. If you could ask BPA to do something more than they are doing today, what would that be?
[Continue with this question several times to get deeper answers]
6. Conversely, what is BPA doing today that is not really very effective?
7. Are BPA's programs appropriate for what your customers want and need? If not, what would you suggest?
8. What kind of marketing support do you need? [probe on data, market research, segmentation]
Could BPA fill this need?
9. How do you see the regional players, including BPA, working best together?
10. If you were asked to substantially increase the amount of conservation you are getting by 50% over the next 2 years, how would you go about that? (probe on marketing effectiveness, outreach)
11. Do you currently coordinate your conservation activities with other groups? [this may lead to a discussion about trade allies, see next question]
12. Describe how you interact with trade allies to implement conservation programs.
13. Are there issues surrounding marketing of your programs that you could use assistance with?
[probe on training, advertising, workshops, websites]

14. What are your motivations towards getting conservation?
15. In your opinion, what is BPA good at?
16. What role do you think BPA should be playing in the region for achieving conservation goals?
17. How do you see BPA's role compared NEEA's?
18. Should BPA be in the background or the foreground from a marketing standpoint?
19. Do you have confusion about who does what at BPA?
20. What kind of relationship management works for you?

MEDIUM AND SMALL UTILITIES INTERVIEW GUIDE

1. Warm Up: Describe their role at their utility.
2. What does BPA provide for you and your utility/association/company?
3. How do you interact with BPA?
4. Describe your relationship with BPA?
5. When it comes to implementing Conservation, what kind of support do you need?
6. Is BPA providing that to you or are you getting it elsewhere?
7. Conversely, what don't you need? Is BPA giving you things that are not necessary? Any processes that are too difficult or don't make sense?
8. Savings Targets:
9. If you are requested to increase savings by 30%, [or even double your savings] how would you go about getting it?
10. Do you think you can make these goals?
11. How do you think you can do it? Where is the most potential? [probe on market sectors, other ways of getting savings]
12. What help do you need to get there?
13. Are BPA's programs appropriate for what you customers want and need? If not, what would you suggest?

[IF the above questions are answered in a positive way, that is, they are satisfied with the programs, the level of assistance, and the BPA approach, you should then work to get more detail in the Tactical Assistance section. If not, these questions are unlikely to provide much information.]

Tactical Assistance

14. Marketing assistance? What helps you most? What else could you use?
15. How to make sure that they don't lose money with the conservation rate credit?
16. Did promotional materials work?
17. Did the manuals work?
18. How has the training been?
19. Would you like more or different training? What would be most beneficial?
20. Did you participate in 'Savings with a twist' (retail CFL program)? Does that [type of program] work? What did you like and not like about it?
21. Overall, does BPA require the right amount of M&V?

Communications and Expectations

22. Are you clear what your targets are?
23. Should groups of utilities work together? [probe on existing approaches to work with other utilities, how often they communicate, etc.]
24. What are your motivations towards getting conservation?
25. What happens when BPA gets involved with trade associations?
26. Can BPA help you look good to your customers?
27. Should BPA be in the background or the foreground.
28. How do you see BPA's role compared NEEA's?

29. [What are your fears?]

30. Do you have confusion about who does what at BPA?

31. What kind of relationship management works for you?

32. What do you think the ideal role is for BPA to play with regards to the region's energy efficiency needs?

UTILITY SOUNDING BOARD INTERVIEW GUIDE

1. Warm Up: Describe their role at their utility.
2. How do you interact with BPA?
3. Describe your relationship with BPA?
4. [What is the product or service that BPA is providing to you?]
5. When it comes to implementing Conservation, what kind of support do you need?
6. Is BPA providing that to you or are you getting it elsewhere?
7. Conversely, What don't you need? Is BPA giving you things that are not necessary? Any processes that are too difficult or don't make sense?
8. Savings Targets:
9. If you are requested to increase savings by 30%, [or even double your savings] how would you go about getting it?
10. Do you think you can make these goals?
11. How do you think you can do it? Where is the most potential?
12. Should all utilities take part equally in getting MWH?
13. What help do you need to get there?

Tactical Assistance

14. Marketing assistance? What helps you most? What else could you use?
15. How to make sure that they don't lose money with the conservation rate credit?

16. Did the 'early start' help?
17. Did promotional materials work?
18. Did the manuals work?
19. How has the training been?
20. Would you like more or different training? What would be most beneficial?
21. Right amount of M&V?
22. Are you clear what your targets are?
23. Should groups of utilities work together?
24. 'Savings with a twist'? Does that [type of program] work?
25. What are your motivations towards getting conservation?
26. What happens when BPA gets involved with trade associations?
27. Can BPA help you look good to your customers?
28. Should BPA be in the background or the foreground.
29. How do you see BPA's role compared NWEA's?
30. [What are your fears?]
31. (Late) Grocery initiative?
32. Do you have confusion about who does what at BPA?
33. What kind of relationship management works for you?