

Moving the Foodservice Market in Oregon

Greg Stiles, Energy Trust of Oregon, Inc., Portland, Oregon
Brooke Nelson, Energy Trust of Oregon, Inc., Portland, Oregon
Lyn Schmidt, Lockheed Martin, Portland, Oregon

ABSTRACT

This paper presents Energy Trust's experience conducting a thorough resource assessment, using a comprehensive marketing strategy and targeted product offering to enter a new market, establish credibility, and acquire large volume of cost-effective energy savings quickly.

A resource assessment in 2004 of market potential for energy savings identified the foodservice market as having a high volume of natural gas savings. A comprehensive marketing strategy was developed before entering the market. The strategy centered on a targeted product offering of a free dishwashing pre-rinse sprayer and installation for the customer, paid for by Energy Trust. Additional incentives specific to foodservice establishments such as ENERGY STAR® equipment were made available.

The marketing strategy incorporated many communication channels such as bill inserts co-branded with utility partners, website, trade shows, articles and advertisements in trade publications, case studies, and news releases. Delivery channels included trade group relationships, equipment dealer support and direct contact with foodservice managers and owners.

The strategy has worked to date, acquiring large volumes of kilowatt hour and therm savings, national press coverage, special recognition from the Environmental Protection Agency and a monthly dedicated column in the Oregon Restaurant Association's monthly magazine. The foodservice market is now the largest contributor of therm savings to the commercial retrofit program. In 2006, savings from installed foodservice equipment were 315,000 annual therms, 30% of total annual gas savings. Foodservice equipment installs jumped from 8 in 2005 to 428 year-to-date in 2007. Total sprayer installs since September 2005 are expected to surpass 2,500 this year.

The approach used is a model for other state, utility and public purpose fund programs for entering new markets.

Introduction

Energy Trust of Oregon, Inc., is a nonprofit organization dedicated to changing how Oregonians use energy by promoting energy efficiency and clean renewable energy for Oregon customers of Portland General Electric, Pacific Power, NW Natural and Cascade Natural Gas. Energy Trust operates in the residential, commercial and industrial sectors. The Energy Trust Business Energy Solutions – Existing Buildings Program objective is to acquire cost-effective electric and natural gas savings by providing technical assistance and financial incentives for installing high efficiency equipment in existing commercial buildings. The program posted impressive results in 2006 (i.e., **Table 1**).

Table 1, 2006 Existing Buildings Program Results

	Electric (MWh)	Natural Gas (Therms)
Weighted Average Measure	13.6	15.0
Savings ¹	28,641	615,526

Expenditures ²	\$4,799,616	\$1,420,246
Incentives	\$3,260,362	\$958,266
Levelized Cost ³	\$0.015	\$0.193
<p>1 – The savings have been adjusted using realization rates of 91% for electric savings and 67% for natural gas savings.</p> <p>2 – Expenditures included all costs associated with the program.</p> <p>3 – Levelized cost calculations use a 3% discount rate.</p>		

A 2004 study conducted by Energy Trust identified restaurants as having the third highest potential for natural gas savings and the sixth highest potential for electric savings in Energy Trust service territory in Oregon (Energy Trust & Ecotope 2004). Based on this study, the Existing Buildings Program researched and developed a market-based delivery mechanism and marketing strategy for acquiring electric and natural gas savings from foodservice establishments.

In September 2005, Energy Trust launched a foodservice program as an initiative of the Existing Buildings Program that included a targeted product offering built around a free dishwashing pre-rinse sprayer and installation for the customer, paid for by the program. Installing the sprayer gave Energy Trust an opportunity to build relationships and up-sell an entire suite of foodservice specific measures. Once the initiative was operational and in the field customer meetings with restaurant managers and owners leveraged the ENERGY STAR brand promoting equipment such as gas fryers and electric hot food cabinets for which Energy Trust offers incentives. Rounding out the product offerings for the foodservice industry are incentives for lighting, HVAC and water heating equipment that are standard across the Existing Buildings Program. This comprehensive strategy, especially working directly with customers and distributors, has proven very successful in establishing Energy Trust credibility with the foodservice market and in acquiring large volumes of cost-effective electric and natural gas energy savings.

Why Foodservice?

Foodservice refers to buildings used for the preparation and sale of food and beverages for consumption such as fast food, restaurants and cafeterias (Energy Information Administration 2006). As mentioned above, Energy Trust’s own research identified restaurants as having the third highest potential for natural gas savings and the sixth highest potential for electric savings. Nationwide foodservice establishments have the highest energy use per square foot of any building in the United States (Energy Information Administration 2002). Nationally, cooking equipment uses the most energy at 32% of total energy use in foodservice followed by lighting at 15%, refrigeration and space heating at 13% each and water heating at 11% (Energy Information Administration 1998, 2002, 2006). These uses account for 84% of energy use in foodservice establishments. The high energy use and therefore, energy savings potential make foodservice establishments attractive targets for energy efficiency acquisition programs.

Beyond energy savings potential, another reason for targeting the foodservice market is because Oregon has successful and willing industry trade associations and a market open to energy-efficient upgrades. Since 2002, Energy Trust has nurtured a collaborative relationship with the Oregon Restaurant Association. Comprised of more than 9,000 restaurant and foodservice members employing more than 110,000 people, the ORA is the leading business association for the restaurant industry in Oregon. The ORA views Energy Trust activities as value-added services to their membership and has proven repeatedly their willingness to work with Energy Trust.

Foodservice establishments are no exception for Oregon’s passion for sustainability. From upscale to fast food to school cafeterias there is a broad focus on sustainable, local, organic and seasonal food. Burgerville, a local fast food operation with 39 locations, buys 100% wind power, serves seasonal local food

and provides healthcare for halftime workers. A recent *NY Times* articles sums up what has been known in Oregon for many years, Oregon is in a golden age of dining and drinking (Asimov 2007).

The final deciding factor for pursuing the foodservice market in Oregon is that the market had not been targeted by many other energy efficiency programs. It is an underserved market, supported by a willing trade association and eager to expand the concept of sustainable food from the plate to back of house operations.

Comprehensive Offer

In researching delivery strategies, Energy Trust learned of other energy efficiency programs in other states and provinces offering and installing dishwashing pre-rinse sprayers. The programs were successful, but they only focused on installing sprayers and not addressing other equipment using energy. We noticed that they were missing opportunities to build long-term relationships with the industry. These relationships could eventually turn to energy-saving opportunities for a foodservice operation.

Energy Trust chose a different approach that relies heavily on relationships for installing a wide variety of foodservice measures. A comprehensive marketing strategy, product offering and delivery mechanism was developed around installing a dishwashing pre-rinse sprayer at no cost to a customer by a licensed Journeyman plumber. The sprayer would serve as a door-opener for introducing an entire suite of foodservice specific measures leveraging the ENERGY STAR brand. Rounding out the product offerings are incentives for lighting and HVAC equipment (i.e. **Table 2**)

Table 2, Comprehensive Equipment Offering

Equipment	Efficiency Rating	Cost
Dishwashing Pre-Rinse Sprayer	1.15 GPM	Free
Electrically Commutating Motor (ECM) for Refrigeration Systems	None	\$100 each
Electric Hot Food Cabinet	ENERGY STAR	\$400 each
Electric Steamer	ENERGY STAR	\$250 each
Freezer	ENERGY STAR	\$150 each
Gas Fryer	ENERGY STAR	\$1,000 each
Gas Convection Oven	Full-sized Oven (cooking capacity 6-cubic feet or more)	\$1,000 each
Refrigerator	ENERGY STAR	\$150 each
Ice Makers	Consortium for Energy Efficiency Tier II	\$300 - \$500
Vent Hood	Variable Speed Drive	\$300 per horsepower
Energy Management System	Approved by Energy Trust	\$2,750 each
Domestic Hot Water Tanks	Condensing Tank/Minimum 91% AFUE or 91% Thermal Efficiency	\$2.50/kBtu/ hr in
Domestic Tankless/Instantaneous Water Heaters	With Standing Pilot/Minimum 70.8% Energy Factor	\$30.00/GPM
Domestic Tankless/Instantaneous Water Heaters	With Electronic Ignition/Minimum 73.8%	\$40.00/GPM

	Energy Factor	
6 – 25 Ton HVAC	SEER/EER 10 – 11	\$120 - \$300
Lighting – High Performance T8, exit signs, controls, etc.	Varies	\$5 - \$50
Custom	Must pass cost-effectiveness test/Lighting projects must be 25% more efficient/Non-lighting projects must be 10% more efficient	\$1.00/Therm and \$0.12/kWh

Marketing Techniques

Before the foodservice effort was launched a marketing strategy was outlined that focused on the dishwashing pre-rinse sprayer but would also consistently reinforce the message that there are many other opportunities for saving energy in foodservice establishments. This messaging was consistent across all marketing mediums and outreach activities.

The first step in developing a marketing and outreach strategy around the dishwashing sprayer was to get input and buy-in from the ORA. From the beginning, the ORA was willing to partner with us and provide us access to their resources. Prior to program launch Energy Trust met with the ORA regularly. Meetings with the ORA are still held on a regular basis.

Each year a marketing plan identifying seven main areas is developed: print materials, website, trade shows/industry events, advertisements, articles, utility bill inserts/direct mail and dealer support. To-date printed pieces include five foodservice-specific case studies, a tri-fold brochure on no-cost, low-cost improvements, branded aprons and chef hats and a display for trade shows and conferences. A Spanish outreach letter was developed to help reach a larger audience and eliminate language barriers.

For the soft launch in April 2005, promotional fake money, one case study, a tri-fold brochure and branded aprons and chef hats were developed for the NW Foodservice Show. The show served as a soft launch of Energy Trust's new foodservice program, but the full launch was in September 2005 at the ORA Annual Leadership Conference.

Attending industry trade shows, conferences and networking events has been critical to success. Energy Trust has had a booth at the NW Foodservice Show in 2005 and 2007 (the 2006 show was in Washington, outside of Energy Trust's service territory). The event is put on by the Oregon Restaurant Association and the Washington Restaurant Association. The program had a strong presence at the 2005 and 2007 shows with a working demonstration of an efficient dishwashing pre-rinse sprayer and an inefficient sprayer.

Beyond tradeshow, each September the ORA has an annual meeting and conference. This year's conference had a session on sustainability entitled Energy: Renewables & Efficiency. It had the best attendance of any of the sessions offered at the conference. Energy Trust has attended the conference each year since 2005, using the opportunity to network and build relationships with the ORA, independent restaurant owners, equipment dealers and high-level chain operators. To continue building relationships and visibility Energy Trust attends industry luncheons and networking events.

Advertisements have been placed in the ORA's *Main Ingredient* magazine, in a statewide business magazine, *Oregon Business*, and in Portland community newspapers. The ORA has offered Energy Trust three articles on foodservice efficiency and dishwashing pre-rinse sprayers that have appeared in *Main Ingredient*. At the urging of Energy Trust starting with the September 2007 issue *Main Ingredient* has featured a monthly column on energy issues.

Energy Trust works closely with its utility partners. Energy Trust serves Oregon utility customers of

Pacific Power, Portland General Electric, NW Natural and Cascade Natural Gas. With the gas utilities, Energy Trust has done co-branded bill inserts, written newsletter articles and created direct mail pieces to small business owners. The utility partnerships have been strong and combining our efforts has proven a strong channel for communicating to this select group of customers.

A critical piece of the marketing effort is dealer support. Dealers were slow to embrace the program because they thought it would require extra work on their part without receiving any benefit. Dealers typically win business by providing the lowest equipment quote. High efficient equipment is more costly but offers many benefits in addition to energy savings. Providing equipment sales training presentations at dealer sales meetings was very effective at overcoming these obstacles and at showcasing not only the energy benefits but also non-energy benefits such as less food shrinkage, better even heating, faster cooking, better cleaning, etc. so that sales reps can educate customers at time of purchase.

In addition to training, marketing collateral was developed specifically for the dealers. Equipment placards for equipment on the showroom floors, other point of purchase displays, “Ask Me” buttons and logo shirts were provided to dealers at no cost. Many of the materials developed were requested by the dealers. The marketing collateral provided a visible connection for sales reps and equipment buyers of high efficiency equipment and Energy Trust. Other collateral like ENERGY STAR branded golf balls, cell phone mates and calendar strips were doled out to motivate top sales representatives (i.e. **Table 3**)

Table 3, Summary of Marketing Materials

Medium	Material
Print Materials	Big Bucks (fake money), Energy Trust case studies, ENERGY STAR case studies of Energy Trust projects, tri-fold foodservice brochure, foodservice incentive sheet
Exhibit Materials	One-up display, aprons, chef hats, demo of efficient and inefficient sprayer
Website	Foodservice specific webpage
Trade Shows/Industry Events	ORA annual conference, NW Foodservice Show, ORA networking events, Oregon Lodging Association events
Advertising	<i>Main Ingredient, Oregon Business, Portland Skanner, Career News, Portland Observer, Oregon Lodging Association</i>
Articles	Main Ingredient
Bill Inserts	NW Natural, Cascade Natural Gas
Direct Mail	NW Natural, Oregon Lodging Association, Energy Trust
Support/Chotchkeys for Dealers	Bi-weekly in person meetings, tagged catalogs marking qualifying equipment, point of sale signage, equipment placards, ENERGY STAR golf balls, Ask Me buttons, calendar strips, mints, pens, cell phone holders, polo shirts, refrigerator magnets

At minimum the dealers are visited in person bi-weekly by a program representative. The same program representative is their primary contact for any questions they may have. Having a consistent program contact for questions makes the process easier for dealers which in turn makes it easier for customers to participate in the program. Visiting the dealers bi-weekly keeps us in constant contact with the sales reps, providing a valuable feedback channel for improving the program. Dealers are including information about the program on their websites, in their newsletters and catalogues. They have recognized that offering efficient options can increase sales. Bargreen Ellingson, the 5th largest volume foodservice equipment dealer in OR, WA, HI, ID, MT, TX and CO has embraced the program to such an extent that they have invited program staff to train their entire sales staff on energy efficiency at their February 8, 2008 sales

rally in Spokane, WA. Dealer support has been a major key to the success of the Energy Trust program. The biggest equipment dealers in Oregon work with the program.

Delivery

Energy Trust competitively contracts out implementation of its energy efficiency programs. To launch the sprayer effort quickly Energy Trust and its program management contractor for the Existing Buildings Program, Lockheed Martin¹, jointly released a request for qualifications in spring 2005 to hire an installation contractor. A few proposals were received and earnest discussions began with the leading bidder. Negotiations were on hold for a while when the Chief Oregon State Plumbing Inspector made it clear removing an old dishwashing pre-rinse sprayer and installing a new one required the services of a licensed Journeyman plumber. The leader bidder was unaware of such a requirement so negotiations were terminated with the leading bidder. Energy Trust turned to Lockheed to serve as the installation contractor.

A letter agreement was worked out between Energy Trust and Lockheed defining expectations. Lockheed would subcontract with licensed Journeyman plumbers to do the installation work. Plumbers to do the work were found by getting referrals from mechanical contractors who worked closely with the program.

The plumbers were encouraged to promote the program but nearly all the outreach was done by Lockheed. One full time employee at Lockheed managed the outreach activities, marketing efforts and coordinated the installation work of five plumbing companies. Installation requests were received from cold phone calls, cold site visits, responses to direct mail, bill inserts and other marketing and outreach activities. Lockheed would schedule installations in a geographic area to consolidate visits to save time and money. Courtesy calls are made by program staff the day prior to installation to confirm hours of operation.

Marketing and program management staff from Energy Trust provided guidance and assistance to Lockheed on an as needed basis.

Results

The Existing Building Program successfully leveraged the free dishwashing pre-rinse sprayer for getting hundreds of measures installed in foodservice establishments. In 2005 from September to December 860 sprayers were installed. Only 8 pieces of foodservice equipment were installed (i.e. **Table 4**). For every 108 sprayers installed 1 piece of foodservice equipment was installed. In 2006, 949 sprayers were installed, along with 165 pieces of foodservice equipment. For every 6 sprayers 1 piece of high-efficiency equipment was installed. The penetration ratio improved dramatically in 2006. As of December 18, 2007, 692 sprayers and 428 pieces of foodservice equipment had been installed. In 2007 the penetration ratio is approaching one-for-one with 1.6 sprayers for every single piece of foodservice equipment installed. These are outstanding results.

In 2005 foodservice measures, including dishwashing pre-rinse sprayers, contributed 5% of the natural gas savings achieved by the Existing Buildings Program. Of the 615,526 therm savings acquired by the program in 2006 30% were from foodservice measures. For 2007 therm savings from foodservice equipment is expected to be 35% to 45% of the total natural gas savings acquired by the program. As expected natural gas savings from foodservice equipment has become a significant source of energy savings.

Table 4, Results as of December 18, 2007

¹ Aspen Systems Corporation was purchased by Lockheed Martin in 2006.

	Committed '08	Installs '07	Committed '07	Projected Total '07	Incentives '07	Installs '06	Incentives '06	Installs '05	Incentives '05
Gas Convection Oven	7	79	14	93	\$93,000	32	\$19,200	6	
Gas Fryer		23	4	27	\$27,000	9	\$5,400	1	
Freezer/Refrigeration	17	269	131	400	\$60,000	87	\$13,050		
Hot Food Holding Cabinet	4	12	1	13	\$5,200	32	\$12,800	1	
Electric Steamer	1	5	1	6	\$1,500	4	\$1,000		
Ice Makers	6	40	25	65	\$19,500				
Totals		428	176	604	\$206,200	165	\$51,450	8	\$4,600
Participants	5	254	143	397		76		7	

Lessons Learned

The results of the foodservice initiative have been successful but many obstacles have been encountered. The first major obstacle was the requirement for a licensed Journeyman plumber. It taught us to do our homework and do better due diligence about legal requirements. Another issue also involved the plumbers. Before the effort fully ramped up a few plumbing companies stopped working with Lockheed because there wasn't enough work. It was a major blow to moral but it didn't significantly delay the role out of the program. Replacement plumbing companies were again found by getting referrals from mechanical contractors.

Be persistent. Restaurant owners and managers are busy. Their priority is not saving energy. We do everything we can to make their participation easy. We fill out the paperwork for them, tell them what and where to buy, we'll make multiple phone calls and site visits at their convenience, we gladly reschedule visits, etc. It all adds up to accommodating their schedule and attitude. Be persistent but be flexible. Most restaurants are very impressed with our friendly persistence and have become repeat customers of the program. As they learn about energy use in their establishments we've found the restaurants to be surprised by the monthly cost and energy savings of the high-efficiency equipment.

A concern raised by a few of the dealers was lack of confidence in the availability of the incentives. They were concerned Energy Trust would run out of incentive money and the program would not be around next year. This issue was addressed by explaining the annual Energy Trust funding cycle and how the funding mechanism for Energy Trust is in place until the end of 2025. It was made clear that Energy Trust was committed to the foodservice market and would continue to support the market for the foreseeable future. In hindsight the questions were about trust and building a trusting relationship with the dealers. Having the dealers trust us gives them confidence in what we're doing and makes them eager to promote the high-efficiency equipment.

The biggest lesson learned is the power of relationships. The foodservice initiative has built an intimate relationship with the Oregon Restaurant Association and with the equipment dealers. Without those relationships the program would not be successful. Through the relationships the ORA and the dealers have become in essence our agents, our champions. They push their customers to the high-efficiency equipment, making the sale for us and even assisting the customer with paperwork. Dealers are the most important success factor since they are involved at the point of purchase.

The final lesson has not been learned yet. Energy Trust is currently using realization rates for energy savings acquired by the Existing Buildings Program of 91% for electric savings and 67% for natural gas savings. Often referred to as net-to-gross savings, program specific realization rates are applied to all measures acquired by a program. The realization rates include free-rider factors, spillover, impact evaluation results and comparable studies done in other states and provinces. To be clear, the realization rates for the Existing Buildings Program apply to the results of the foodservice program. For 2008 the realization rates for the program are improving, going up to 96% for electric and 74% for natural gas. Even though the last impact evaluation done on the program was for 2005, prior to significant results in the foodservice market, interim results indicate the realization rates should be raised. Energy Trust is currently doing an impact evaluation of Existing Building Program activities in 2006 and 2007. The dishwashing pre-rinse sprayer and foodservice equipment will receive special attention during the evaluation to verify savings and free-ridership.

Summary

Results to-date of the foodservice initiative as part of the Energy Trust Existing Buildings Program have shown the value of doing a thorough resource assessment, using a comprehensive marketing strategy and targeted product offering to enter a new market. This approach yielded credibility with critical stakeholders, resulting in acquiring large volume of cost-effective energy savings quickly. The approach is a successful strategic model for other state, utility and public purpose fund programs.

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