Cooking Up a New Approach for Program Design II: A Recipe for Success

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ABSTRACT

Foodservice facilities consume over 2.5 times more energy per square foot than typical commercial buildings—427 trillion British Thermal Units (Btus) of electricity and natural gas per year—yet are considered hard to reach markets for energy efficiency (EIA 2003). Due to the large potential for energy conservation at these facilities, efficiency programs across the nation have come together to better understand the complex decision-making structures that impact product availability and procurement in this sector. By incorporating industry perspectives as well as consumer thinking into program strategies and design, market focused programs will have greater, longer-term impacts in the market.

This paper follows up "Cooking Up a New Approach for Commercial Program Design" presented at the 2006 American Council for an Energy-Efficient Economy Summer Study by providing an update of results and lessons learned from a new program approach that simultaneously addresses multiple efficiency opportunities within the foodservice sector with a "bundled" offering, while at the same time using key aspects of the market to deliver this package (Andrews, et al. 2006). In this paper, the authors—who include water agencies and energy efficiency program managers—present the results of this approach, lessons learned, and provide recommendations for application of this program approach to other sectors and markets.

Introduction

According to the North American Association of Food Equipment Manufacturers' (NAFEM) 2004 *Size and Shape of the Industry Study*, energy costs were one of the top three concerns for primary equipment operators (9). This concern has led to a strong trend towards energy and water efficient equipment. In fact, a National Restaurant Association (NRA) survey of over 1,200 chefs determined that energy and water efficient equipment has become one of the top two hottest trends when it comes to kitchen equipment (2008, 17). With this growing awareness by equipment operators of the benefit of applying energy and water saving equipment, the opportunity is ripe for delivering efficiency programs targeted at this market.

In January 2005, a national effort was launched by the Consortium for Energy Efficiency (CEE) that brought together energy and water efficiency program administrators as well as staff from ENERGY STAR® to identify an approach that can target energy and water savings within the foodservice market sector. This effort, also known as the CEE Commercial Kitchens Initiative, is based upon lessons learned by program administrators when leading programs came

together through CEE in 2001 to address energy efficient commercial refrigeration equipment. Initiative participants agreed that program effectiveness could be increased by developing an initiative that would offer a suite of strategies relevant to the foodservice sector, thereby creating a commercial kitchens focus. This approach involved broadening the suite of products beyond refrigeration to include cooking and sanitation, and tailoring marketing messages and strategies to a specific segment within foodservice, initially restaurants. Restaurants, a diverse market segment, were selected due to the relative market size of this category compared to other categories in commercial foodservice (74% of the commercial foodservice market) and the resulting potential for impact (Johnson, et al. 2004, 139).

With the launch of this national effort, water and energy efficiency programs began incorporating various strategies to increase the penetration of energy and water efficient products and practices in the foodservice sector. The specific structure of these programs varies, but the overall approach using market segmentation for messaging and program delivery is the same. A market segmentation approach is defined by:

- identification of a group of customers who are primed for an energy efficiency message;
- identification of a suite of energy and water saving technologies relevant to the group that is significant enough to generate interest; and
- understanding of the decision making mechanisms and influencers of the group and tailoring program delivery based on this understanding.

The Market Segmentation Approach

Restaurants: Primed for Energy Efficiency

Foodservice equipment operators are primed for energy efficiency, and with energy expenses totaling up to 25 to 30 percent of an operator's expenses, it's not difficult to understand why (White 2006). For operators, energy conservation is not just good for the environment; it's good for business. Utility costs account for a median of between 2.3 percent and 3.6 percent of sales in restaurants, depending on the type of operation. That's a sizeable operating cost in a business where pre-tax income hovers at around 5 percent of sales for full service restaurants (NRA 2008). According to Foodservice Equipment and Supplies Magazine's 2008 Industry Forecast, 38 percent of foodservice operators rate the importance of energy efficiency for their next equipment purchase as "extremely important" and 42 percent rate it as "somewhat important" (Carbonara 2008). This is a market where operators are hungry for energy efficiency solutions to improve their operations and bottom line.

Energy and Water Saving Technologies

In a typical commercial building, lighting, heating, ventilation, and cooling are the dominant energy consuming components. Foodservice facilities have a very different energy profile. The majority of energy consumption in foodservice facilities—approximately 60 percent—is from cooking (30%), refrigeration (19%), and sanitation (10%) (Johnson, et al. 2004, 148). The total savings potential from more efficient commercial kitchen equipment can vary from 10-30% depending upon the technologies in place.

To reach this potential, the first step is to identify and define energy and water efficient products in the foodservice equipment market. To do this, CEE, program administrators, and ENERGY STAR, worked together to create a matrix of foodservice equipment categories in which significant energy and water savings are possible should operators purchase the more efficient models available in the market (Table 1).

Table 1. Foodservice Technology Matrix

			Annual Consumption			Savings Potential (%)		
Equipment	Life (yrs)	Inc. Cost ($)	Water (10^3 Gal)	Gas (Mbtu)	Electric (MWh)	Water	Gas	Electric
Broilers	7-15	Varies		160-200	18-22		25-35%	25-35%
Dishwashers	10-12	Varies	350-1100	170-200	50-70	30-50%	30-50%	30-50%
Solid Door Reach-In Freezers	9-10	$100-500			8-10			10-30%
Glass Door Reach-In Refrigerators	9-10	$100-500			16-20			10-30%
Fryers	8	$500-1000		100-150	10-12		25-35%	5-10%
Insulated Hot Food Holding Cabinets	15	~$500			5-6			55-65%
Ice Makers	5-10	$100-200	150-200		4-8	20-40%		15-30%
Solid Door Reach-In Refrigerators	9-10	$100-500			3-4			25-55%
Pre-Rinse Spray Valves	5-7	$5-20	270-400	180-230	40-60	30-60%	30-60%	30-60%
Connectionless Steamers	10	Varies	140-160	150-300	25-50	90%	30-40%	30-50%

The organizations and program administrators then worked with industry stakeholders to develop efficiency specifications for each category of equipment. This involves first defining the boundaries of each equipment category. For example, there are many different types of ice machines, and so which ice machines are covered under each efficiency specification must be determined. Next, to develop a specification, industry-accepted test methods for energy and water consumption must exist. Where there is no test method, one must be developed. If and when industry-accepted test methods exist, energy and water consumption data is collected and analyzed to determine the definition of energy and water efficiency for each equipment category. Finally, the suggested definitions, test methods, and efficiency specifications are vetted with industry stakeholders to ensure they are achievable and will be accepted and promoted by the industry. This process has taken place for all of the equipment categories listed in Table 1 with the exception of broilers, which is slated for development during the second half of 2008.

Factors in Decision Making and Program Design

Typical efficiency program design would take the efficiency specifications identified for this market and incorporate them into an extensive catalog of technologies in their existing efficiency program for all commercial customers. In fact, some program administrators did try this approach prior to 2005 and many continue it today. The results, however, are usually lackluster, with few people knowing about the existence of these programs and even fewer

purchasing more efficient equipment (as measured by the number of financial incentive applications) or using the technical assistance available.

To address this situation, CEE and program administrators aimed to understand how foodservice equipment buyers make decisions and how and when program administrators can influence those decisions towards more efficient equipment. Table 2 below defines the major stakeholders and relevant associations in the foodservice equipment industry. Table 3 below depicts the decision making sources for chain-owned and versus franchisee-owned facilities. Decision making sources for independent operators are likely similar to franchisee-owned facilities given the similarity of the resources available and primary concerns of each operator type.

Table 2. Industry Stakeholders and Relevant Associations

STAKEHOLDERS	DESCRIPTION	ASSOCIATION(S)
Operators – Independent	Independent owners have complete control of their businesses. Their top concerns are personnel, profitability, and energy costs	National Restaurants Association www.restaurant.org
Operators – Franchisees	Similar to independent owners but with less latitude in how to run their business and chain support behind them.	National Restaurants Association www.restaurant.org
Chain Owners	Owners of franchise groups own the product concept and pass along decisions that enforce, support or modify that concept to franchisee owners. They can specify lists of equipment needed at start-up as well as menu options and make strategic decisions.	National Restaurants Association www.restaurant.org
Manufacturers	Manufacturers design and build equipment for commercial kitchens that meet mandated food safety and energy guidelines.	North American Food Equipment Manufacturers www.nafem.org
Manufacturer Representatives	Manufacturer representatives are hired by manufacturers to bring their products to market through promotion and coordination with dealers.	Manufacturers' Agents Association for the Food Service Industry www.mafsi.org
Dealers and Distributors	Dealers are the link between manufacturers and the end user. Fifty six percent of operators used dealer and distributor networks in 2004.	Food Equipment Dealers Association www.feda.com
Kitchen Designers and Specifiers	Designers and specifiers are employed, usually as a consultant, by operators, chain owners, and architects. They design kitchens or make recommendations on the types of equipment necessary for particular applications.	Foodservice Consultants Society International www.fcsi.org
Service Companies	Service companies provide maintenance and repair services to operators. Service companies may also recommend and sell replacement equipment.	Commercial Food Equipment Service Association www.cfesa.com

Table 3. Decision Making Sources by Ownership Type (EEA 2003, 88)

Information Sources for Decision Making	Chain-Owners	Operators (Independent and Franchisees)
Manufacturer Representatives	52%	13%
Trade Shows	46%	3%
Past Experiences	45%	27%
Trade Journals	21%	4%
Company Staff	21%	23%
Electric Utilities	10%	1%
Distributors and Dealers	4%	12%

From this research, it is evident that there are a number of industry players that influence foodservice equipment purchases, and purchasers use a variety of information sources for equipment information. The next step is to analyze this information and determine how to design a program approach that will reach the right people the right way.

The data indicates that there are two major subgroups in the restaurants categories—chains and independent operators—with very different purchasing methods that require different program designs. Chains, especially larger ones, often specify equipment from a corporate headquarters, gathering information from manufacturer representatives, trade shows, and past experiences. Independent operators, on the other hand, rely on past experience, company staff, manufacturer representatives, and local dealers and distributors.

In addition to differences in where chains and independent operators collect information, previous program experience identified a number of other challenges unique to chains. First, specifiers and purchasers are often located in different regions of the country, and by the time local utilities find out about a chain's plans for new facilities or equipment upgrades, the process is too far along to discuss energy efficiency programs and options. Second, equipment used by chains is often custom designed for the chain's specific application, which makes prescriptive rebate programs supported by a qualifying products list irrelevant. To overcome these barriers, program administrators developed unique strategies to target chains that include establishing relationships with manufacturers and manufacturer representatives to learn earlier on when custom equipment is under development and about plans for launching new equipment and locations, offering custom measure programs to ensure chains have an incentive to use the programs available even if their equipment is custom, and offering to test the energy efficiency of custom equipment as part of a chain's purchasing process to develop credible relationships that provide real value to chains.

Program design for independent operators aimed to reach the major decision making sources for this group. Program administrators developed programs that included direct customer marketing campaigns, manufacturer representative outreach, and dealer outreach. These programs focus on offering a wide range of prescriptive measures as this group of stakeholders purchases and offers a variety of standard equipment that can be identified as energy and water efficient using the efficiency specifications previously discussed.

To demonstrate in detail how efficiency programs have been integrating a market segmentation approach into their efforts while recognizing the complexity in decision making, we will discuss programs and results from leading commercial kitchens programs in three states: California, New York, and Wisconsin.

Results of the Market Segmentation Approach

California Investor Owned Utilities (IOUs)*

Addressing energy efficiency in the food service sector has been a priority for California for over 30 years. Prior to 2006, each California utility ran their own program, each of which had different characteristics. The major commonality in the programs was that there was essentially no interaction with industry stakeholders in any of them. In 2006, California IOUs made two major changes to how they ran their commercial kitchens programs: incorporation of a market segmentation approach, including engagement of as many key points in the market as possible; and partnering up with other investor owned utilities statewide to offer a consistent program across California.

Chains. The California IOU's program targets chain owners in three main ways: free equipment testing, statewide consistency, and manufacturer and manufacturer representative outreach.

Pacific Gas and Electric (PG&E), Southern California Edison, and Southern California Gas Company (SCG) offer free equipment testing to local utility customers free of charge at local Food Service Technology Centers (FSTCs). This is especially appealing to chains as they often work directly with manufacturers to create custom equipment. In addition, chains have long understood that a small amount of energy saved by changing one piece of equipment when multiplied by their number of units can be quite significant, and they have been using PG&E's FSTC for a number of years. The availability of these testing centers has been an important factor in building the strong relationships California currently enjoys with a number of chains.

By creating consistent programs statewide, California IOUs offer more value to chains because they can apply equipment analysis, changes, and rebates across all units in the entire state. Prior to statewide consistency, if a chain wanted to work with utilities on efficiency, they would have had to work with each one individually through differing programs. This additional level of complexity to adopting efficiency measures was a barrier to working with chains, which statewide consistency removed.

Manufacturer and manufacturer representative outreach has been another component of the California IOUs strategy. Because chains rely on manufacturers and their representatives as a major source of information for making decisions (see Table 3), their promotion of the energy efficient products they represent helps reinforce the utilities' efforts.

All of these factors played a role when Carl Jr.'s energy manager began working with SCG's Account Executives beginning in 2006 when replacing fryers and griddles for several locations. Working with SCG, Carl Jr.'s has been able to identify and replace equipment that saves over 73,000 therms of natural gas per year over standard models, saving Carl Jr.'s over $35,000 in energy costs every year. The total cost of the replacement equipment was approximately $360,000, on which SCG issued $72,500 in rebates.

* California IOUs include Pacific Gas & Electric (PG&E), Southern California Edison (SCE), San Diego Gas & Electric (SDG&E), and Southern California Gas Company (SCG).

Independent operators. To target independent operators California IOUs implemented four main strategies: development of and offering a large set of qualifying equipment categories for prescriptive incentives, statewide consistency, dealer outreach, and direct customer marketing campaigns.

The entire foodservice equipment industry, from manufacturers to dealers to end users, is generally very difficult to reach. With more categories of equipment for which prescriptive incentives are available, industry stakeholders have a bigger reason to pay attention to utility incentive programs. For example, if only one equipment category is available, it may not be worth the effort for a dealer (or any industry stakeholder) to spend the time learning how the program works. On the other hand, if there are ten equipment categories, the incentive to learn about the program is much greater because the dealer (and other stakeholders) can offer much more to their customers, giving the dealer a competitive advantage. Table 4 below show how when the number of equipment categories in the program jumped from 2 in 2005 to 10 and more in 2006 and later, PG&E's program took off.

For independent operators, the move to statewide consistency is most significant in its impacts on the availability of efficient equipment. As a state, California represents at least 10 percent of the foodservice equipment market, so when the entire state offers incentives for more efficient equipment, the incentive for manufacturers to fill that market need grows. Table 4 below shows how when the IOUs joined their programs in 2006, PG&E's program grew quickly.

The most common place for independent operators to purchase equipment is through a traditional dealership (Carbonara 2008). Therefore, for effective program delivery, dealers need to be on board to educate customers about the programs available and stock energy efficient models. California IOUs work directly with dealers to communicate about the programs available, give advanced notice of direct marketing campaigns, and provide program support in the form of point of sale materials, dealer salesperson training, and support at dealer events. All of these efforts have paid off by steadily increasing the number of dealers that support the programs. Table 4 below shows how PG&E's program success has increased with the number of dealer partners.

Finally, the California IOUs have created effective direct marketing campaigns to their customers. The goal of these campaigns is to educate foodservice customers to increase awareness and promote long-term market transformation. Because only a small fraction of customers are prepared to buy equipment at the time of a mailing, immediate impacts are not seen quickly. However, electronic tracking of email campaigns have shown that people are interested in reading the content and following links to more information.

It is important to note that California IOUs implemented many changes to their programs at one time. It is virtually impossible to isolate the effects of these changes to determine whether or not one strategy played a larger role than the other. What is evident is that delivering the foodservice program through a statewide market-segmentation approach has wildly increased the use of the programs. In PG&E's territory, from 2003 to 2005, before these strategies were implemented, the average amount of rebates issued each year was less than $4000 on less than 8 pieces of equipment. In 2006, the value of rebates issued grew 5800% over the 2005 value to $280,300 on 675 pieces of equipment. From 2006 to 2007 the value of rebates issued grew 330% to almost $926,000 on 1,213 pieces of equipment. The program is on target in 2008 to increase the value of rebates by approximately 180% over 2007 based on data from the first quarter. Energy savings for each year shows comparable gains as well (see Table 4). The consistent

increases in program success over a three year period demonstrate the effectiveness of a statewide market-segmentation approach to efficiency program design and delivery.

Table 4. Results from PG&E's Program 2003 Through March 2008

	2003	2004	2005	2006	2007	2008 Q1
# Pieces Rebated	9	6	8	675	1,213	690
Rebates Issued	$3,760	$3,315	$4,815	$280,300	$925,927	$434,736
Therms Saved (Over Equipment Life)	0	0	0	635,608	1,225,248	1,200,488
kWh Saved (Over Equipment Life)	255,120	221,760	327,680	11,192,352	67,490,592	23,134,192
Gas Savings ($)	$0	$0	$0	$762,730	$1,470,298	$1,440,586
Electric Savings ($)	$38,268	$33,264	$49,152	$1,678,853	$10,123,589	$3,470,129
# Pieces Eligible in Prescriptive Program	2	2	2	10	11	12
Availability of Program Support	1	1	1	8	10	12
# Relationships with Dealers/Distributors	0	0	0	20	50	55

New York State Energy Research and Development Authority (NYSERDA)

Energy efficiency initiatives in New York State are managed by NYSERDA, a public benefits corporation. NYSERDA launched a pilot Commercial Kitchens program in September of 2006. This pilot program was designed to measure the impacts of a market-segmentation approach in program delivery on reaching the restaurant industry. Before the launch of the pilot program, restaurants were eligible for energy efficiency incentives through NYSERDA's commercial program offerings. There was no marketing support for this program beyond listing the available measures in the application, and very few restaurants took advantage of the program.

With the launch of the pilot program, the program design remained essentially the same—the program still resided within the larger commercial programs umbrella, though the number of equipment categories targeted for restaurants did increase to 11. What changed the most was the program delivery approach: foodservice equipment industry stakeholders were actively sought out and educated about the program.

NYSERDA's pilot program originally focused on small, independent operators in New York's Capital Region and later expanded to restaurants serviced by Consolidated Edison in New York City and Westchester County. Because the pilot targeted independent operators in a relatively small geographic area, NYSERDA tailored its marketing efforts to this group, focusing on engaging independent operators directly and through industry associations and developing relationships with dealers and manufacturers representatives.

As mentioned above, prior to the pilot NYSERDA did not actively market its programs directly to the restaurant industry. Very few restaurants knew that NYSERDA offered programs at all, and only a handful of them took advantage of the Small Commercial Energy Audit program. To educate restaurant operators, NYSERDA developed relationships with industry associations, including the New York State Restaurant Association and the New York State Hotel and Tourism Association. Through these relationships, NYSERDA was able to offer energy efficiency education sessions for restaurants, increasing the awareness of available programs. This resulted in increased use of the programs. For example, as seen in Table 5, the number of small commercial energy audits for restaurants per year increased from 6.3 for the

period from October 2005 through September 2006 to 35 from October 2006 through September 2007.

In addition to marketing directly to independent restaurant operators, NYSERDA developed relationships with stakeholders across the distribution channel. Prior to the pilot program, NYSERDA had no direct relationship with any entity in the distribution channel. Through the pilot program, NYSERDA met with over 100 manufacturers, distributors, dealers, and buying groups. Of those, 17 entities became actively engaged in the pilot program. Manufacturer representatives showed enthusiasm for the program and promoted the program to their manufacturers, dealer customers, and operators. Dealers and distributors promoted the program to their customers and streamlined the application process for them. The result of developing relationships with the distribution chains was that the program was in turn broadcast to a wider audience through these partners, resulting in increased product sales for the partners and increased use of the NYSERDA program. For example, the number of prescriptive incentives issued from October 2005 through September 2006 was zero whereas from October 2006 through September 2007 forty-one incentives were issued (see Table 5).

Table 5. NYSERDA's Small Commercial Kitchen Pilot Program Results
October 2005 - September 2007

Metric Type	Indicator	Oct. 2005 – Sept. 2006	Oct. 2006 – Sept. 2007	Trend (+/-)
NYSERDA Program Participation – Number of restaurants	Small Commercial Energy Audits for restaurants, annual	6.3	35	+
	Small Commercial Energy Audits attributable to Pilot	--	31	+
	Kitchen Pilot – kitchen audits performed	0	51*	n/a
	Incentives Issued – # of participants / # attributable to Pilot	0	40/38	+
	Incentives Issued ($)	0	$13,535	+
High Efficiency Electric Product Sales (within Pilot region)	Electric fryers	0	1	+
	Commercial solid door refrigerators	0	7	+
	Commercial ice makers	0	16	+
	Commercial reach-in glass door refrigerators	0	7	+
	Commercial reach-in solid door freezers	0	5	+
	Insulated holding cabinets	0	0	+
	Electric steamers	0	1	+
	Commercial combination ovens	0	4	+
	Commercial convection ovens	0	0	+
	Commercial electric griddle	0	0	+
	Low flow pre-rinse spray valves (sold/distributed through Pilot)	0	2 sold/38 distributed	+
Annual Energy and Cost Savings (To Date)	kWh	0	164,833	+
	Cost Savings	0	$24,725	
Total Energy and Cost Savings (Over Equip. Life)	kWh	0	1,328,369	+
	Cost Savings	0	$204,569	

*29 formal and 22 informal consultative support

The Commercial Kitchens Pilot has since been absorbed by NYSERDA's "Focus on Hospitality." The Focus on Hospitality initiative provides a broader sector approach than previously used at NYSERDA and will reach out to lodging and food service entities across the entire state using lessons learned from the Commercial Kitchens Pilot. NYSERDA also recognizes that commercial kitchens cross several sectors on which they are currently focusing, including healthcare, K-12 schools, and universities and institutions and is developing strategies for program design and delivery to target each sector appropriately across efficiency opportunities.

Wisconsin Focus on Energy (Focus)

Wisconsin Focus on Energy began using components of a market-segmentation approach in 2004 for the restaurant industry. At the time, the Focus program provided custom project support, training, and incentives. The program offerings were promoted through trade associations, trade allies, and direct to customers. By identifying the restaurant industry as a market primed for an energy efficiency message, Focus had taken the first step in a market-segmentation approach. Focus had also taken another step towards a market-segmentation approach by analyzing the market and promoting the programs to appropriate industry stakeholders and influencers.

Yet the restaurant program struggled. Program administrators experienced difficulty in engaging restaurant industry stakeholders and influencers as well as operators. In analyzing the program, Focus program administrators realized that they had not developed a reason that was sufficiently compelling for industry stakeholders and independent operators to partner with them. In other words, with the custom program, industry stakeholders and operators found it difficult to see the benefit of their participation. Manufacturer representatives and dealers would not be able to sell more of the products they promote and carry based on a custom program in part because there was no way for them to know which equipment choices would qualify even if they wanted to participate. Independent operators were difficult to reach because the majority of their purchases are for replacement equipment after failure, and taking the time to work with Focus through a custom program is not an option when a critical piece of restaurant equipment has failed (Carbonara 2008).

To address these concerns, Focus implemented the third component of a market-segmentation approach: identification of a suite of energy and water saving technologies relevant to the group that is significant enough to generate interest. In early 2006, Focus developed prescriptive incentives for qualified foodservice equipment. The number of supported equipment categories began at 5 in 2006 and grew through 2007 to 10. The identification and growth of prescriptive measures has increased the acceptance of the program by industry stakeholders. From 2006 to 2007, Focus increased the number of manufacturers taking advantage of incentive offerings from zero to three and the number of dealers and distributors from 17 to 27. The success of the program in terms of number of facilities working with, pieces rebated, rebates issued, and energy savings have all increased with the increase in industry partners (see Table 6). In 2008 Focus began providing program support (point-of-sale materials, brochures, fact sheets, and cooperative advertising) to industry partners to further solidify these relationships.

For operators, the move towards a prescriptive program was beneficial in that they can now take advantage of the program without radically modifying the way or reasons they currently purchase equipment. When a piece of equipment breaks beyond repair, customers can more quickly determine which pieces of equipment qualify for incentives and how much those incentives are, two key pieces of information to make an informed purchasing decision.

Table 6. Wisconsin Focus on Energy Results 2006 – March 2008

	2006	2007	2008 (Jan.-Mar.)
# Foodservice Facilities Worked With	43	51	17
# Pieces Rebated	62	82	29
Rebates Issued	$6,255	$21,393	$6,150
Therms Saved (Over Equipment Life)	54,000	47,280	17,520
kWh Saved (Over Equipment Life)	648,264	2,777,510	1,000,668
Gas Savings ($)	$45,900	$44,916	$17,520
Electric Savings ($)	$55,102	$249,976	$95,063
# Pieces Eligible in Prescriptive Program	5	5-10	10
Availability of Program Support (Point-of-Sale Materials, Brochures)	No	No	Yes
# Manufacturers Actively Promoting Incentives	0	3	NA
# Dealers/Distributors Actively Promoting Incentives	17	27	NA

Conclusions and Areas for Further Research

Based on the results from the three programs studied, the use of a comprehensive market-segmentation approach has proven effective thus far. All three programs saw increases in energy efficient equipment purchases and energy savings with the adoption of all three components of a market-segmentation approach. It is interesting to note that all three programs had previously used pieces of the approach in isolation, to little effect. For the market-segmentation approach it is necessary to identify a market primed for energy efficiency, develop a significant suite of efficient technologies for the market, and deliver efficiency programs to the market based on how the market works; the omission of any one of these steps led to mediocre results prior to 2006, whereas once programs addressed all three areas they quickly gained momentum.

CEE and ENERGY STAR have developed a significant suite of energy and water efficient technologies for the restaurant industry that program administrators can draw from as they design their programs. In determining how to deliver new foodservice programs, lessons learned from the programs presented here can be applied. Programs tailored for chains will be more successful with the provision of custom approaches, are easier to promote given program consistency over a large geographic area, and may involve working with manufacturers to test custom equipment. Programs for independent operators are most successful when strong partnerships are developed along the distribution chain in addition to direct operator marketing.

The results from this study also suggest a number of areas for further research. Given the demonstrated success of a market-segmentation approach in foodservice, the field is ripe for testing this approach in other markets, such as healthcare, schools, and grocery. The successes in California suggest that creating partnerships across large geographic areas may be an effective strategy for increased chain and manufacturer influence. Further investigation of changes in efficiency program effectiveness with cross-utility partnerships may be able to isolate this variable. Finally, more research is needed to determine how to reach chains in areas where

programs do not have the opportunity to partner across large geographic areas or the resources to offer custom equipment testing for chains.

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