Outreach and Awareness Best Practices for Demand Response –

The View from California - Patricia Thompson, Nicole Wobus and Kevin Cooney, Summit Blue Consulting, and Mark S. Martinez, Southern California Edison[1]

Overview

This paper highlights the key findings from a process evaluation of selected Education, Awareness, and Outreach Programs promoting demand response (DR) in California by the state's major investor-owned electric utilities during 2005.[2] Although the programs include a portfolio of efforts at various stages of development, the unifying theme of the programs is their focus on increasing consumer awareness and educating consumers about DR program opportunities and strategies for curtailing load during periods of peak demand. In general, the programs are targeted to businesses with peak demands under 200 kW. However, programs targeting school children, the general public, and larger (over 200kW) businesses were also included. The evaluation focused on the channels utilized by the utilities in their outreach, education, and awareness efforts. A channel in this context is the vehicle through which the utility sought to deliver their messaging. In this set of programs, various channels of different types (direct contact, government and trade channels) were utilized and engaged to help deliver messaging. A brief review of the programs evaluated is included below followed by a description of the evaluation framework and key findings. The evaluation finds that the programs show promise yet continue to be a challenged in efforts to prepare clear and compelling messaging and by lack of program delivery support. The paper closes with a list of overarching recommendations and a view on future DR program development.

The Programs

San Diego Gas & Electric (SDG&E)

Community Partnership Program – SDG&E worked with cities, community organizations, and trade affinity groups to disseminate information about DR and energy efficiency (EE) strategies, and program opportunities. Primary activities included presentations to city agencies, chambers of commerce, participation in board and membership meetings of partner community organizations, distribution of information through partner organization newsletters and email lists, and event displays.

PEAK - The goal of this program was to instill a "smart energy management" consciousness in San Diego's elementary school-aged youth by distributing educational workbooks highlighting the problem, "the energy traffic jam," as well as a variety of simple ways students can be part of the solution by shifting their household energy use to off-peak periods. The workbook used a highly visual format focusing on the battle between the "Bulbman" and the evil "Energy Sucker." In June of 2005, 120,000 workbooks were distributed to 3rd through 5th graders.

---

[1] The Summit Blue team included: Patricia Thompson, Nicole Wobus, Mark Thornsjo and CEO Kevin Cooney. Bill LeBlanc of the Boulder Energy Group was also instrumental in the evaluation.

[2] The evaluation was capably steered and improved by a committee which included project manager, Kevin McKinley of SDG&E, Ed Lovelace of SCE, Susan McNicoll of PG&E, David Hungerford of the CEC, and Bruce Kaneshiro and Dorris Lam of the CPUC.

Energy Orb - During the summer of 2005, SDG&E installed radio-controlled orbs at seventeen city facilities throughout San Diego County, primarily in under-served communities with an additional temporary use at a trade show. The grapefruit-sized devices glow in red, blue, or green depending on the electricity rate in effect at a given time during the day. With a primary goal of educating the public about energy conservation and DR opportunities, the orbs were placed in high-traffic areas of facilities such as city halls, libraries, and community centers. The orbs were in place for one month during summer peak pricing, which ends in September.

Southern California Edison (SCE)

Integrated EE/DR Audit - This program seeks to deliver EE and DR information during on-site facility audits of customers with peak demand less than 100 kW. The auditor educates customers about curtailment strategies for peak demand periods and provides information and enrollment forms for DR programs. The DR component of the program was added in February of 2005. Some 300 hundred audits were completed in six months with only a few dozen opting to receive the DR information.

Local Community DR Demonstration - SCE works in partnership with local government and non-governmental agencies to deliver EE and DR information to large customers. By sending invitations under the name of the city, and hosting events at government facilities, the program leverages the credibility and communications channels of government for message delivery. This program is being pilot-tested in the City of Ontario and is still in its initial stages of implementation. A memorandum of understanding with the City of Ontario is in place, and businesses have been recruited and presented to. However, individual businesses have not been asked to sign up for DR programs through this effort, as SCE's account managers are responsible for that action.

Institutional DR Partnership Demonstration - This program used affiliations with institutional organizations to disseminate DR educational messages to the "virtual" communities served by these organizations. Organizations included LA County, Southern California Association of Governments (SCAG), and Building Owners and Managers Association of Greater Los Angeles (BOMA-GLA). The program leverages the credibility and communications channels of these associations for effective message delivery. At the time the study was conducted, this program is also in the very early stages of implementation. Several partnerships with institutional organizations had been established and the media outreach process was underway. However, customer enrollment in programs had just begun.

Pacific Gas & Electric (PG&E)

Event Styled Outreach – PG&E sponsored trade and event outreach efforts including a business trade show, and an Energy and Air Quality Trade Show. PG&E brought information on EE/DR, audits, Flex Your Power Now, and time of use (TOU) management to the events, representing an "approved set" of marketing/outreach material for all outreach. Flex Your Power Now flyers were used to increase awareness and provide education as opposed to offering specific programs. The Air Quality Trade Show was cosponsored with SCE and SCG and included key note addresses by PG&E's Director of Customer Energy Efficiency on the 2006-2008 IDSM portfolio, and by the California Secretary of Food and Agriculture on Air Quality. There were breakout sessions for continuing education, the California Rural Watershed Association, the Bakersfield Chamber of Commerce, as well as one breakout for each utility.

California Rural Water Associations (CRWA) - PG&E trained representatives from the

CRWA and provided the approved messaging used in other outreach. PG&E paid the CRWA an incremental amount to conduct this outreach to its membership while already visiting on water business. PG&E therefore piggybacks on the time and credibility of the rep. CRWA reps filled out visit forms after their contact to indicate interest in additional contact and preliminary potential for EE and potential DR awareness and participation.

Walk Knock and Talk – PG&E targeted areas with high growth rates, such as Placer County, with incremental labor and outsourced labor in Santa Maria and Stockton. The outreach consisted of an in person contact with a representative who discussed and distributed the approved set of marketing materials. Although a subcontractor was utilized to do the walking and knocking for some of these efforts, a face to face "talk" remained the focus of the program. Site visits generated a number of follow on audit requests.

Evaluation Framework

As a means of developing a contextual framework for evaluating the programs, the Summit Blue team reviewed over twenty-five articles, reports and books covering a range of relevant topics including: consumer behavior theory; education and awareness program strategies; DR program strategies; and methodologies for evaluating education and awareness programs. The literature review provided insights into the common elements of successful outreach and awareness programs. The following section provides an overview of the "best practice" program components that the evaluation team identified as most important and which served as the basis for establishing the indicators of success in the evaluation.

Program Goals and Objectives are Carefully Set and Clearly Defined

Given the multitude of different directions an outreach and awareness program could take, it is critical to commit to a particular path by setting clear goals and objectives at the outset of the program. Program managers should document the goals and objectives, share them with staff and refer back to them consistently throughout the stages of implementation. The objectives should also function as a yardstick for measuring program success.[3] Objectives should take the form of specific, measurable targets that relate to the outcomes sought by program managers. For example, a recruitment target of 500 new program participants is a more appropriate objective than simply distributing 1,000 program brochures. For less readily measurable program objectives, such as changes in household energy use behaviors, pre and post telephone surveys may be an appropriate tool.[4]

Identifying and understanding the target audience are key first steps to establishing appropriate goals and objectives. The appropriate target audience will depend, to some extent, on the nature of the program and the existing level of awareness about the actions or ideas being promoted. A founding social marketing theorist, Everett Rogers, advocates targeting innovators and community leaders first, as their actions and attitudes toward a new idea will greatly influence others in their social networks, making them efficient and effective program messengers.[5]

---

[3] Stewart, 2005.

[4] Engle, et al., 2003; McKenzie Mohr & Smith, 1999; Conlon et al., 1999.

[5] Rogers, 2003.

Learning from the experience of others through networking and secondary research is an important initial and ongoing planning exercise. To inform the specific needs of a program, however, there is no substitute for primary research. Surveys and focus groups are ideal tools for identifying the characteristics, preferences and behaviors of the target audience, and importantly to understand *barriers* that may limit the adoption of behaviors a program seeks to promote.

Another valuable resource that should not be overlooked in the process of setting and adjusting program goals and objectives is utilizing existing program staff and implementing partners. Regardless of whether a program is brand new or many years old, those who have front-line experience with the delivery of a program, or programs of a similar nature, can provide valuable insights. Together with surveys and focus groups, the input of veteran program implementers will help guide program planners in putting forth an effective program that suits the needs of the target audience.

While investments in initial planning exercises are sometimes seen as unnecessary, program planning expenditures can pale in comparison to the loss of funds resulting from programs that can lack focus and mechanisms for accountability. Whether they confirm prior assumptions or reveal new insights, data from primary and secondary research will provide a solid and defensible basis for program decision-making. [6]

Messaging is Concise and On-Target

Since individuals are bombarded each day with far more information and solicitations than they can possibly absorb or act upon, effective messages are essential to the success of education, outreach and awareness campaigns. Program messages are the words, images and actions that convey a call to action to a target audience. In a creative, concise and compelling manner, messages must inform an individual about *what* it is you want them to care about, *why* they should care about it, and *how* you want them to act on this information. Developing different messages tailored specifically to the interests and awareness levels of different sub-groups within the target audience can improve the efficacy of the message.

While a target audience should already be fairly focused (i.e., small businesses in a particular geographic area), the needs and interests of different sub-groups within that target audience (i.e., restaurants and hardware stores) may vary substantially. Messages should be targeted appropriately, reflecting each group's unique barriers and opportunities.[7]

As a general rule, messages should call on people to take a small number of simple, specific actions rather than conveying broad concepts and general information.[8] In addition, different types of messages are appropriate at different stages of the decision-making process. When making first contact with an audience, messaging should grab their attention, persuade them to care about the issue you are presenting, and prepare them to receive or seek out further information. First stage messaging should use unique images and hook phrases, and it should

---

[6] McKenzie Mohr & Smith, 1999.

[7] Moezzi et al., 2004; Reed et al, 1999.

[8] Green & Skumatz, 2000. Lutzenhiser et al., 2004; Riggert et al., 1999.

highlight a few key benefits of relevance to the target audience.[9] In some cases, an appropriate "hook" may be to highlight how much money a person or business will lose if they don't act (i.e., by passing up an opportunity to receive monetary incentives). Social norms can be another persuasive tool; if an individual learns about or observes many others who are benefiting by adopting a behavior, they are more likely to follow suit.[10] At this early stage, and throughout the decision-making process, it is also important for messages to convey a sense of self-efficacy, highlighting that individuals *can* make a difference or achieve a desired outcome by adopting the target idea or behavior.[11]

Repeated exposure to early messaging may be necessary before individuals are ready to move forward in their decision-making. Once individuals choose to process further information on a topic, it is important to continue persuasive messaging that focuses on adoption of the new idea or behavior. Varying levels of detailed information should be made available to individuals so they can address any uncertainties and satisfy their own individual thirst for knowledge on the topic. After individuals have adopted the target idea or behavior, it is important to reward them, remind them to continue engaging in the behavior, and encourage them to share their enthusiasm with others in their social network.[12] Focus groups can be a very effective tool for testing messages and should be used prior to launching a full campaign.[13]

<u>Messages are Effectively Delivered</u>

The messenger is as important as the message! As noted earlier, social marketing theorists encourage the use of opinion leaders for early message delivery. The value of using community leaders and other role models stems from the fact that they are persuasive and they make regular contact with the target audience. Since many people base their economic decisions on subjective factors rather than a rational analysis of the facts, a program can't depend on a compelling value proposition to "sell" itself. Rather, it is important build relationships with the social networks and associations that matter to the various sub-groups within a target audience. The president of a cultural association interviewed as part of the evaluation of California's DR education, outreach and awareness programs commented, "You've got to reach these small businesses where they already are. [The utility] can't expect them to read and act on the information in a brochure just because it's handed to them." For the purposes of social marketing, "community" can be defined based on geography, culture, trade, and affinity.

At the early stages of message delivery, traditional outreach channels can be effective at introducing new ideas. However, unless a program possesses the resources to conduct a robust and long-term advertising campaign, mass media alone is unlikely to persuade consumers to act. If the budget permits, an ideal strategy is to couple mass media with peer endorsement delivered through multiple channels. Organizers of a successful social marketing campaign noted, "It took

---

[9] Peters, A. 2000.

[10] Rogers, 2003; McKenzie Mohr & Smith, 1999; Geltz & Martinez, 2004.

[11] Peters & Feldman, 2001. Ajzen, 1991; Bandura, 1982.

[12] McKenzie Mohr & Smith, 1999.

[13] Auch & McDonald 1994.

the effective one-two punch of a well-researched program design delivered through a variety of diffusion communication channels to achieve successful adoption of the program."[14]

<u>Programs Measure their Success and Adapt Based on Regular Feedback</u>

The most successful programs are those that invest resources into periodic evaluation of program processes and impacts.[15] Using carefully-established objectives as the metrics for measuring success, program managers can learn from inevitable mistakes, and programs can evolve over time to meet the changing needs of their target audience. As noted earlier, administrative feedback loops are an essential component in the cycle of effective program management. Front-line program staff and implementing partners should be given the opportunity to voice concerns and to share their perspectives on program strengths and weaknesses.

Evaluation Approach

The project team identified a number of research issues important to understanding the effectiveness of each program effort. These research issues varied by program, and focused on two key areas: 1) the effectiveness of the message in raising awareness and the benefits of that awareness; and 2) whether the channel was effectively engaged (e.g., was access to the target audience achieved? Did the outreach match the needs of the channel?) Over 50 interviews, 7 focus groups, and one quantitative survey were conducted to understand how the information delivery channels utilized by the utilities' outreach and education programs were received, and to collect information on the effectiveness of the programs to date in relation to these delivery channels.

Key Overarching Findings

All of the programs reviewed by the evaluation team were carrying a relatively new message to customers, and many were delivering that message through new channels. In addition to a core focus on small business customers, the programs included a broad range of programs targeting the general public, children, and large businesses. The unifying theme of the programs is their focus on increasing awareness and educating customers about DR program opportunities and strategies for curtailing load during periods of peak demand. Many of the common threads uncovered during the course of the evaluation are endemic to new programs within large organizations. A few of the overarching findings, by issue area, include:

<u>Pilot & Utility Organization/Administration</u>

The organizational processes of the pilot studies must continue to evolve. Most pilots lacked a feedback loop to let the representatives that are carrying the EE/DR messaging know how they are doing. They also failed to provide feedback to the channel once it was engaged (e.g., Institutional DR Partnership Demonstration, CRWA) to let them know how a channel effort was progressing. Additional ongoing training, check-ins, ride-alongs, or facilitation of meetings with community contacts would provide feedback that a channel may be missing some low hanging

---

[14] Geltz & Martinez, 2004.

[15] Stewart, 2005; Hanson & Siegel, 1995.

fruit, or that individuals have failed to comprehend the message or need additional training to be effective.

On the utility side, the organization must continue to adapt to address DR issues and evolve practical strategies for DR. Often, the DR programs' innovator was a "one-man innovation shop" in a large organization. The innovators that attempt to carry projects alone or piggy-back efforts onto existing EE sales struggle with how to invent, proselytize, recruit, manage, and continue creating, all at the same time. These individual product/service champions need to be nurtured and supported in the organization.

The following table is adapted from the work of Christensen and Raynor on the difficulties of creating a disruptive growth engine in large companies and contrasts conditions that can affect DR program development.

Creating Innovation Space for DR[16]	
DR Struggles to Grow	**DR Given Room to Grow**
Changes in regulatory values and infrastructure needs demand that DR programs develop and grow quickly	DR messaging given time to develop
Aggressive deliberate strategies are believed necessary to achieve measurable cost-effective results	DR pilots discover viable strategies
DR investments are substantially less than EE	DR pilots are launched in a supported and targeted effective manner
EE delivery mechanisms do not flex to accommodate DR program delivery	Resources ultimately allocated to effective programs

Timing

Universally, all of the utilities' implementation staff and the contractors to which they outsourced specific program delivery functions feel they managed to do quite a bit in a very short amount of time. The utilities reported that receiving funding in March left little time to create marketing plans, bid, evaluate, staff, and implement projects prior to the summer peak. Some also reported that the lack of an established institutional framework for DR program support also contributed to difficulty in administering the programs.

DR Terminology and Messaging Challenges

The pilot efforts show that it is logical to pair EE and DR messaging, because most customers desire one-stop shopping. Most reps will not lead with or get to a DR message when calling on customers because it is perceived to be the most complex and technical idea in their sales arsenal. Future efforts should tap the experience of field personnel to discover what works when designing communications about DR. Since DR programs and strategies can be heavy on complex details and light on financial benefits, it is a challenge for utilities to motivate businesses to take action.

A good example of this utility-centric messaging is in the Integrated EE/DR Audits, where utility representatives discussed the Summer Discount Program (AC cycling program) with small

---

[16] Adapted from Christiansen and Raynor, Innovator's Solution, 2003.

businesses. In this program, "enhanced" AC cycling seems at first glance to refer to enhancements for the utility, not the customer. Similarly, on a semantic level, the majority of end-user-representatives interviewed as part of this effort thought that the term "DR" was confusing. Some believed the term referred to actions taken on the part of the utility - not the consumer. Simple, specific language is needed to make it clear that the utility is asking for a shift in customer usage patterns during times of high energy demand.

Market Segmentation

Some of the efforts used traditional event approaches and some of the programs used canvassing techniques with customers that had never seen a utility representative in person before. The small business outreach initiatives across the three utilities almost universally suffered from three critical barriers:

1) An unengaged market, where small businesses appear to be too busy and too bottom line - oriented to respond to demand signals – moreover, some segments are very busy during peak times; 2) If they were interested, there wasn't a clear value proposition to sell them on; 3) Some representatives are not convinced that small businesses are worthwhile DR targets, and so even internal to the utility, DR is not yet sold across all business organizations.

However, small business customers were pleased to receive attention and interest from the utility, and within more targeted segments, messages could be better tailored to the desired audience. Actual DR program offerings to the small business segment, which provide focused incentives and support for specific end-use energy and demand management actions, are few.

Effectiveness of Communication Methods and Materials

Trade associations and utility field representatives alike believe that brochures and print materials need to use less text and more images. Most small and medium businesses and residential customers will not take the time to read energy-related literature. Different materials should be developed for the different stages in the customers' decision process. For example, initial outreach materials should be geared simply toward grabbing the audience's attention. They should include testimonials from businesses within the target audience that have benefited from implementing DR behaviors, and then direct them to further resources. One option would be to shift the focus from providing information, to using the channels developed as a means of linking consumers with actual one-stop-shopping services and actionable programs. Such a shift would address the inability of current information-only programs to "close the sale." If more programs were available, there would be a more specific call to action. The phrase "all dressed up and nowhere to go" is perhaps an apt way to think about where information-only programs leave both utilities and customers.

Program specific effectiveness

As the evaluation team gathered information from the field interviews and discussions, some common metrics of effectiveness emerged. The table below provides a quick snapshot of each program in relation to success factors.

Program Effectiveness in Key Areas

	SDG&E			SCE			PG&E		
	CPP*	PEAK	Orb	Audit	Community Demonstration (Ontario)	Institutional Demonstration (BOMA, SCAG)	CRWA	Events	Walk Knock and Talk
Goals defined?	●	●	◑	●	●	●	●	●	●
Target audience defined?	●	●	○	●	◑	◑	●	◑	◑
Access to target audience?	●	◑	◑	●	●	◑	●	◑	◑
Message content clear, understandable and appropriate to target audience?	◑	◑	○	◑	◑	◑	○	○	◑
Message delivery effective?	◑	○	○	●	◑	◑	◑	○	◑
Customer/ Partner satisfaction?	●	◑	◑	●	●	◑	◑	◑	◑
Program administration?	◑	◑	◑	◑	○	○	◑	◑	◑

* CPP = Community Partnership Program

KEY:

● = working well as currently implemented

◑ = potential for improvement, utility should consider making recommended changes in this area

○ = improvements in this area are critical to effective implementation of the program

Overarching Recommendations

The following were the core recommendations from the evaluation team that were fed back to the DR program administrators at the three utilities:

- Do not give up easily on the basis of short term results. To succeed in educating the public about DR, as with any new concept, will require time and exposure before the concept takes hold in the form of customer acceptance.

- Coordinate and integrate statewide messages to avoid confusing customers and inundating them with potentially conflicting marketing collateral and materials. Print multilingual materials, especially Spanish and Asian languages.

- Since small businesses are such a difficult target market, creating a one-stop, simple-to-participate, simple-to-understand program would help reach these customers. This is true in particular for DR programs that are naturally more complex than EE programs. Businesses could be grouped by type rather than by location, in order to hone in on the small businesses with the greatest load-shedding potential

- EE and DR are both seen as ways to lower energy bills, and EE and DR should be presented as part of a spectrum of options to help business customers manage their energy bills. The key message for small businesses should be financial savings off the energy bill and control of their escalating energy costs. Secondary messages should be targeted by market sector if possible, and may include messages about avoiding blackouts and helping the community.

- Keep it simple! When first reaching small business customers with a DR message, materials should present simply-stated messages that are customer-centric and not utility-centric. The content should feature successful DR testimonials from businesses that are appropriate to the size and business type of a given audience. It may be more effective if community leaders or small business owners speak about their DR experiences.

- Presentations and materials should promote a few specific actions that are customized to the specific small business sector. Those specific actions should include signing up for a DR program or directing the business to a specific resource to accomplish that action.

- General messages are not well received, and messages that are not applicable (such as lighting messages for water utilities) can be a negative.

- The message may be ahead of the offerings. It appears that there are not many program options for small businesses at this time, and it would be better to offer customers a choice of DR program opportunities that allow for participation at an appropriate level, given their specific capability and desire.

- Set program regulatory approval filings and approvals on a schedule that enables utility staff to make timely program marketing and sales plans so that each program can be better developed and have a more timely effect in the market.

- A detailed baseline study on understanding of and behavior around DR issues should be completed for the small business and residential market. Through such a market research study, changes due to utility efforts can be measured and their costs evaluated.

- Methods should be in place to track the effectiveness of education and outreach and to facilitate data collection efforts that focus on broader program impacts (e.g. number of program sign-ups, or kWh/kW savings).

Future Program Directions

Many of the programs reviewed in this research effort show promise, though a few efforts were less successful and could be improved. The biggest challenges the programs face are the difficulty of preparing a compelling message that promotes clear actions (see above) around DR and the lack of administrative support in program delivery.

As with all new outreach and education efforts, there is a need to communicate the key message in both an engaging as well as informative manner. The general public is inundated with different types and levels of marketing messages, from every media possible in our modern society. Attention spans are short and traditional messaging needs to "hit the nail on the head" in thirty seconds or less in order to grab the reader's interest. The message not only needs to be concise, but also delivered in a context that differentiates it enough from general market "noise" so that customers take notice, act on the request and maintain a persistent participation. No issue

is probably as important as electricity reliability, yet the IOUs are hesitant to raise the flag of alarm to engage customers and to enroll them in programs that help meet reliability goals.

In order to engage their customers, electric utilities may need to adopt a portfolio marketing approach that is both "tried and true" —since they are also competing for the attention of their customers along with hundreds of other businesses, but one that also taps into the additional delivery channels available through social marketing styled outreach. Future efforts will need to continue to provide both logical and emotional arguments for behavior adoption through a combination of financial incentives, trusted delivery channels, and engaging tools and concepts (like the Energy Orb and Bulbman).
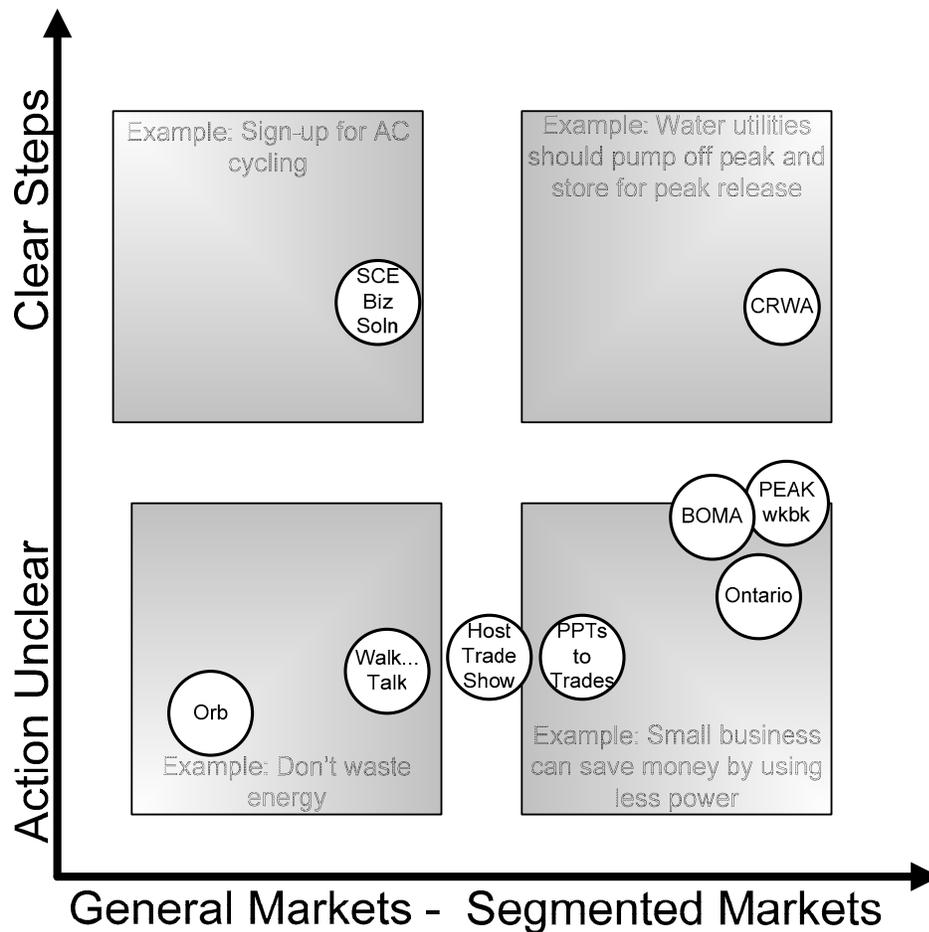
The recommendations in this paper provide a clear roadmap for enhancing the current IOU DR program outreach and awareness for residential, small business, and larger customers. It is through the identification of best practices as well as innovative success stories and the incorporation of these success features into the IOU program delivery that the concept of DR will someday be an institutional concept in California. Once electricity customers understand what the short and long term benefits of their behavior can do to ensure a reliable electricity market, then DR may some day be a "business as usual" concept that will no longer need more than a thirty second explanation.

References

Ajzen, Icek. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.

Bandura, A. (1982). "Self-efficacy mechanism in human agency." *American Psychologist*, 37, 122-147.

Auch, L. & M. McDonald. 1994. "Conservation Advertising Campaigns and Advertising Effectiveness Research: The Right Combination to Solidify the Conservation Ethic." *Proceedings of the 1994 ACEEE Summer Study*, pp. 1.1-1.7.

Conlon, T., Weisbrod, G. & Samiullah, S. 1999. "How Can We Tell if Free Information is Really Transforming Our Market?" *Proceedings of the 1999 International Energy Program Evaluation Conference, pp. 829-840.* NEPEC.

Engle, V., Megdal, L., Rooney, T. Pakenas, L. & Sowek, S. 2003. "Quantifying Load-Shifting Benefits from an Advertising Campaign." *Proceedings of the 2003 International Energy Program Evaluation Conference,* In press. NEPEC.

Feldman, S. & E. Rambo. 2003. "How'm I doing? Benefits (and costs) of tracking the effectiveness of marketing for an energy efficiency program." *Proceedings of the 2003 International Energy Program Evaluation Conference. In press.* NEPEC

Geltz, Christine & Mark Martinez. 2004. "Diffusion in the Desert: Adoption of Demand Response Technology by Rural Small Businesses." *Proceedings of the 2004 ACEEE Summer Study*, pp. 7.62-7.73. ACE3.

Green, J. & Skumatz, L. 2000. "Evaluating the Impacts of Education/Outreach Programs: Lessons on Impacts, Methods, and Optimal Education." *Proceedings of the 2000 ACEEE Summer Study, pp. 8.123-8.136.* ACE3.

Lutzenhiser, Loren, Rick Kunkle, James Woods, Susan Lutzenhiser, and Sylvia Bender. 2004. "Lasting Impressions: Conservation and the 2001 California Energy Crisis." *Proceedings of the 2004 American Council for and Energy Efficient Economy Summer Study Conference*, pp. 7-229 – 7-240.

Moezzi, Mithra, Charles Goldman, Osman Sezgen, Ranjit Bharvirkar, and Nicole Hopper. 2004. "Real Time Pricing and the Real Live Firm," Lawrence Berkeley National Laboratory." *Proceedings of the 2004 American Council for and Energy Efficient Economy Summer Study Conference*, pp. 5-168 – 5-180.

Peters, Anne. 2000. Madison Avenue Meets the Monopoly: AdvertisingApproaches for Energy Companies. *E-Source, Inc.*, ER-00-11.

Peters, J.S. & S. Feldman. 2001. "I Can Do It! The Role of Self-Efficacy in Motivating Changes in Attitudes and Behavior Relating to Energy Efficiency and Renewables." *Proceedings of the 2001 International Energy Program Evaluation Conference, pp.479-486.* NEPEC.

Stewart, David (Marshall School of Business) "Evaluating Results of Marketing Program Activities and Investments." Presentation to Consortium for Energy Efficiency, December 13, 2005.