WINNING COMMUNITY SUPPORT FOR DEMAND-SIDE PROGRAMS THROUGH PILOT PROGRAMS

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Abstract

Demand-side management programs require the cooperation of customers to be successful. This paper presents a case study of pilot programs developed by an energy consumer group, a utility company and a community group to build customer support for utility demand-side management programs. Community group collaboration is shown to enhance program effectiveness by involving customers in initial project development. Conservation programs discussed include a solar bank lending program, a refrigerator rebate program and a residential energy audit program.

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The Consumer Energy Council of America (CECA) is demonstrating new ways to ensure customer support and participation in utility conservation and load management programs by involving local community groups.

This paper presents a case study outlining CECA's role in assisting utilities and community groups to implement pilot programs. Participants in the case study include: CECA; a utility, the New England Electric System (NEES); and a community group, the Center for Ecological Technology (CET). Several projects received the benefit of this collaboration. The association began with a solar bank lending program. The second pilot demonstration project, a refrigerator rebate program, is in progress. A third project, to implement a residential audit using community group auditors, is in the development stage.

BACKGROUND

Conservation and load management programs are seen increasingly by utilities as one alternative to construction of new capacity. In order to meet the energy power supply requirements through the year 2000, many utilities are adding "conservation energy" resources to their supply planning framework. 1/ Developing new and additional capacity is becoming more difficult for utilities due to the protracted time for new plant construction and its associated costs. As new and expensive generating plants near completion, the problem of rate shock draws the concerns of many utility regulators. 2/

In response to these situations, many utilities have begun to use demand-side management strategies in an effort to reduce overall operating costs for the utility in order to lower costs to consumers. One problem affecting demand-side management planning undertaken by utilities is the uncertainty about customer acceptance and response to conservation programs and policies. Demand-side management requires customer support to be successful.

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One way to achieve customer support and increase the customer participation in conservation programs is to include community groups in the development and implementation of the program. However, such collaboration may prove especially difficult when the partners are former, but recent, adversaries.

Active customer participation in utility sponsored conservation programs is not easy to achieve. The past 10 years have presented many confrontational situations between utilities and consumers due to rapid rate increases, construction of nuclear power plants and other environmental issues.

Confrontation is the hallmark of the past. Today, consultation and consensus are more effective tools for resolving these issues, and gaining customer support. This is where consumer groups, like CECA, can play an important role as the mediators between consumers and utilities.

UTILITY PLANNING

Today, many of the nation's electric utilities are considering load patterns and the control of load growth in their utility planning. Utility planning includes programs initially designed to meet utility operating requirements and load share objectives, as well as programs to encourage energy efficiency. "Demand-side planning and management tries to reduce demand peaks, fill valleys and shift loads. All demand-side programs have a common characteristic: they require the cooperation or direct assistance of the customer to be successful." 3/ Many utilities now look at energy efficiency measures as investment opportunities to be weighed against construction of new generating capacity. The cost-effectiveness of conservation and load management programs is being recognized throughout the electric industry.

Additionally, utilities must win customer support in order to meet reduced peak load goals using demand-side initiatives. New demand-side programs will not be as effective if customers are unaware of these programs and the importance of demand reduction goals. A clear message of customer/utility partnership is critical, and the benefits that accrue to each must be explained. In order to most effectively implement conservation and energy management objectives, utilities must assess and influence customer energy use. Dependable and least-cost electricity, the ultimate goal here, will benefit both the consumer and the utility.

COMMUNITY GROUP RESOURCES

Utilities have always offered a full array of customer services related to service connections, outages and billing. They are now actively soliciting customers' advice in conservation and load management planning.

Many utilities sponsor focus groups and allied trade meetings to gather input from their customers and related businesses. This activity also benefits the utility with improved community standing. "Demand- side management opens the door to better communication between utilities and their customers." 4/

Local community groups are very important in facilitating this communication. They have experience in delivering energy services to the low and moderate income residents of the community and are often most familiar with its needs and resources. Many have administered the weatherization and home energy assistance programs. Community groups such as the local community action program (CAP) have skills and resources which are easily transferrable to utility conservation programs.

These resources include:

- Outreach and education to the community;
- Program development and implementation;
- Conservation installation programs;
- Energy financing programs;
- Influence amongst other local and state agencies; and,
- Access to local private organizations.

Utilities can access these resources by collaborating with community groups to implement community conservation programs.

NEES AND CET COLLABORATION: A CASE STUDY

CECA has been active in uniting utility conservation programs with the complementary activities of community-based organizations and civic groups. CECA assisted New England Electric System (NEES) on the design and implementation of a comprehensive conservation program for all customer classes using shared saving financing. A major aspect of the program included forging a partnership between NEES and the loally based Center for Ecological Technology to build support for a NEES pilot program for residential customers.

The Solar Bank Lending Program

Employing the theme of "economic recovery," this utility project was targeted for two economically-depressed "enterprise zones" in central and western Massachusetts. The purpose of the project is to save energy for consumers, reduce operating costs for the utility and to promote new employment opportunities in the community. The target audience includes 3,000 commercial and industrial electric customers and 32,000 residential customers.

The work leading to collaboration began when CECA organized a series of meetings with community, civic and business leaders to discuss the utility's new comprehensive conservation project. Participants included representatives from the local community action agencies; Kiwanis, Rotary and other civic organizations; the city government; senior citizen associations; and nonprofit energy groups. During these community discussions, utility representatives had the opportunity to solicit ideas from community leaders and, eventually, to obtain their full endorsement of the new shared savings initiative. Business leaders concerned about plant closings due to high operating and labor costs welcomed the financial and technical assistance that NEES offered. The community meetings helped to carve out roles the community groups could play in the demonstration project.

Initial briefings led to further discussions with leaders from the nonprofit sector. The area administrator of the solar bank funds, and several weatherization program coordinators, participated in dialogues with utility staff members to explore joint marketing and program implementation strategies. Through utility and community group cooperation, NEES became a solar bank lender and could offer residential customers the opportunity to borrow money to finance conservation measures at reduced principal and interest rates, depending on customers' income eligibility. This program began as a limited experimental project; it has since been expanded to include additional measures and eliminate duplication and competition with other lending programs. Through direct consultation, the utility and community organizations were able to pave the way for establishing a cooperative community/utility partnership.

By bringing together NEES and local community groups, CECA was able to bridge the gap between the utility and the community. This initial pilot project paved the way for the second pilot project between NEES and CET.

Refrigerator Rebate Program

Early research on utility rebate programs indicates that it can be more cost effective for utilities to reduce demand through rebates than to meet new demand through power plant construction. 5/ Cash incentive programs are used in the electric industry to promote customer demand for energy efficient products. Cash rebates give consumers a demonstration that their conservation efforts will be rewarded with dollar savings. Utilities hope to be rewarded with peak load reduction.

CECA is presently monitoring a refrigerator rebate program in the "Enterprise Zone" that is sponsored by Massachusets Electric Company. This program also involves CET, and it has received considerable attention and acceptance to date by appliance dealers and consumers. Several of the 17 appliance dealers reported ordering from manufacturers only those refrigerators which qualify for the rebate. In the first five weeks of operation, more than 100 applications for rebates were approved. The goal is to distribute one thousand rebates before the end of the project in December, 1986.

The cash incentive in this case is $100. In order to qualify, the purchaser must be a utility customer and live in one of the "Enterprise Zone" communities. The refrigerator must be selected from the utility's list of qualifying models. Only one rebate is allowed per customer, and the refrigerator must be purchased and installed between March 15 and December 31, 1986.

Newer models of refrigerators use less than half the energy of those produced in the early 1970s and about one-third less energy than a comparable 1980 model. 6/ The utility has reasoned that the more energy-efficent its customers' refrigerators are, the less electricity they will have to produce in the future to power those appliances. This reduces the need for new power plants, and therefore benfits the consumer and the utility. 7/

The utility supplies all promotional material and administrative support in addition to the rebates. CET and CECA developed a training manual for appliance dealers. CET staff respond in person to any questions by appliance dealers and monitor a random group of purchasers to verify installation. Evaluation of the program is ongoing and is expected to be completed in early 1987.

Residential Energy Audit Program

The success of pilot projects such as the solar bank lender and refrigerator rebate programs have provided an opportunity for future cooperative efforts between the utility and other community groups. This cooperation resulted in a pilot demonstration project currently planned involving CECA, NEES, CET, and the Berkshire Community Action Coalition (BCAC). At this writing, the project is in the developmental stage.

The utility will sponsor the community groups to perform the energy audits, install low-cost, no-cost conservation measures, and inform those receiving audits on the financing programs available. The targeted community for this project is Great Barrington, MA. It was chosen because the area had previously received only minimal conservation marketing to date, and because it would be least likely to be confused by consumers with the MASS-SAVE audit.

The utility's goal for this pilot project is to implement a comprehensive residential conservation demonstration program in the target community through an active partnership with local community organizations and the state, using the state-approved residential energy audit procedure.

The project team is expected to begin performing audits in August 1986. The project is expected to run through December 1986.

CONCLUSION

The challenge for utilities in the 1980s and 1990s is to build and nurture customer support for demand-side initiatives. Often the least costly solution to meeting load growth, conservation and load management

programs is a new resource for utility management. To realize the potential of demand-side programs, utilities must strive for consultation leading to consensus with regulators, business leaders and state and local energy organizations, such as community action agencies, housing finance agencies and state energy offices.

Utilities can further their demand-side efforts by opening up the communication channels to customers through new programs and direct communication with targeted customer classes. Working with local or national consumer organizations can bring added credibility and outside objectivity to utility programs. This will enhance the utility's ability to obtain community support for demand-side initiatives.

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