

# DESIGN AND IMPLEMENT THE PROGRAM

After you have assessed your resources, evaluated the opportunities and constraints of your facility, and established your goals, you and your team can design and implement a successful program for energy efficient behavior. This section contains sample guidelines that should be adapted to suit your particular situation. The most successful awareness programs are tailored to specific organizations and facilities. Develop and disseminate information materials and plan activities that target behaviors your team has identified. Don't try to do too much at once, and make each activity count.

## Gather Input from Staff, Management, and Others

Using input from staff to design the program is important for several reasons. First, it ensures that the program's content, themes, activities, and communication channels are valid and appropriate for the target audience. It will do no good to emphasize proper use of air conditioning equipment if staff members have no control over the settings. If people will resent energy audits of their offices or laboratories, do not make this a program activity. If, however, people seem receptive to educational activities including those that involve their children, this could become an emphasis. If many tell

you they acquire most of their information via the in-house newsletter or Web cast, use these mechanisms as major communication channels for the program.

The second reason to involve staff members is that more involvement up front will encourage buy-in and participation as the program gets underway. If staff members have been involved in designing the program, they are more likely to feel a part of it and want it to succeed.

Staff members may also act as individual points of contact that can be consulted as the program continues. Because these individuals have already expressed enough interest to contribute ideas in the planning process, they may be willing to continue to contribute in other ways later. For example, you may call on them to help distribute information, participate in events, contribute energy-saving tips for publication, help develop educational programs, poll other staff members, and so on.

You may seek formal input from staff via surveys, focus groups, and personal interviews.

### Surveys

A pre-survey of staff members requires time, funding, and the expertise to design and analyze the survey. Such a survey can be useful in four ways.

First, you can use survey results to design the program. Staff members can be asked about their current energy-use practices (control of temperature settings, use of window coverings and fans, lighting, etc.) and actions they are already taking to be energy efficient. This information can then be used to help identify desired behaviors and actions to emphasize in the program.

Second, the pre-survey can be used to gather the same types of information you might otherwise gather through focus groups (see below), such as opinions on communications channels, logos and slogans, and possible incentives.

The third use of a pre-survey is a "pretest"—a baseline for later comparison and evaluation with a post-survey. Using this approach, you may compare responses about energy-use behaviors both before and after the campaign to help you evaluate the effectiveness of the campaign in changing people's values and habits. When considering a pre-test survey, remember that it is less effective if the resident turnover rate is significant



or occupancy is likely to vary considerably. In these situations, many people who initially filled out the survey will not be the same population surveyed at the end, thus invalidating the comparison.

A fourth use of the pre-survey is to initiate and introduce the behaviors you are targeting for change. By asking people if they are already taking actions to save energy, you are also educating them about what those actions are and implying that some are better or more important than others. In this way, you actually begin your program with the pre-survey.

One survey can serve any or all of these purposes, but you need to ensure that the survey will not be too long or complex, either for people to complete or for you to analyze. See Appendix I for tips on designing a survey. For examples of energy surveys for family housing used by Fort Lewis and MCAS Yuma, please see Appendix C of the *Handbook for Promoting Behavior-Based Energy Efficiency in Military Housing* at: [www.eren.doe.gov/femp/yhttp/pdfs/military\\_hndbk\\_3.pdf](http://www.eren.doe.gov/femp/yhttp/pdfs/military_hndbk_3.pdf).

### Focus Groups

Small discussion groups or focus groups are helpful in gathering more detailed information from staff. You may recruit for focus groups via your team members and a general notice, or you may be able to “piggy-back” the group onto the end of an existing meeting to avoid having to seek volunteers or schedule a special-purpose meeting.

The following general questions may be adapted for particular sites:

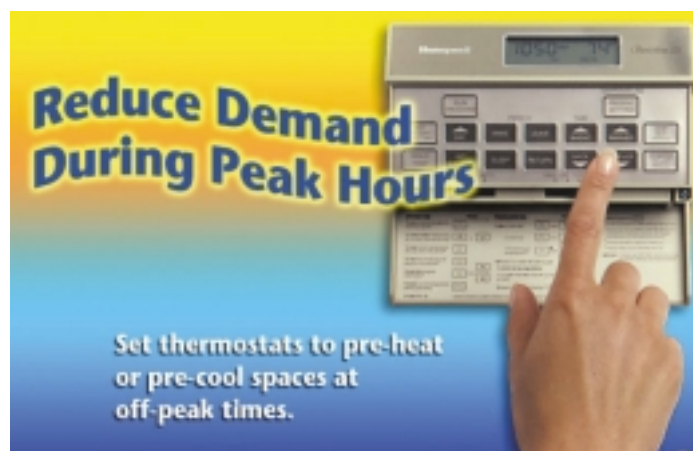
- What is the best way to get people interested and involved in saving energy?
- Here are some things we are asking people to do to use energy wisely. Are any of these unreasonable? If so, why?
- Would you be interested in being in a training video or participating in energy awareness events?
- What are the best ways to communicate program results?
- How should energy-efficiency gains be depicted?
- Do you have any other suggestions for us as we plan this program?

### Interviews

Personal interviews work very well for obtaining input from top management and facilities and maintenance managers. These people should help you scrutinize your plan and provide comments on what actions should and should not be taken by individual employees, what staff members are responsible for, and the responsibilities of different departments.

Ask them the same questions you ask staff members, but in addition, ask them, “Are there any political sensitivities, constraints, or additional necessary approvals we should be aware of in carrying out this program?” This is also a good time to ask if they would agree to be spokespersons for the program and/or how they will endorse it. Further, discuss the details of any financial incentive or other awards to be provided by top management. You must understand the exact nature of the incentive so you can communicate it in a way that properly represents the intention of those giving it.

Public Affairs staff and others responsible for communications, such as newspaper or newsletter editors, in-house TV and radio studio staff, and Web site managers, should also be interviewed. You will want to understand their requirements, deadlines, and approval processes.



### Identify Desired Behaviors

Using the results of surveys, focus groups, and interviews you conducted, identify the energy-saving actions you will ask staff members to take. The following is a partial list of actions that may be appropriate:

- Keep the thermostat at 75-76°F year round.

- Keep blinds or curtains drawn during a hot summer day; open them during the sunny part of a winter day.
- Make sure floor or wall vents are not blocked by furniture or other obstructions.
- Use daylight instead of electric light whenever possible.
- Turn out lights when you leave your office for more than a few minutes.
- Avoid using space heaters.
- Join ridesharing programs or use public transportation.
- Take advantage of work-at-home policies.
- Use phone, Internet, and video-conferences rather than traveling to meetings.
- Turn off office machines overnight.
- Share printers and fax machines instead of purchasing separate ones for each person.
- Turn off water taps when water is not being used; report all leaks promptly.
- Set refrigerator temperature to 38°F and the freezer to 0-5°F.

Once you have a list of possible actions, you need to evaluate and prioritize them.

- Make sure the actions are allowable, feasible, and reasonable for staff to follow.
- Choose only 5-10 actions. Asking people to do too many things confuses them, and the list may appear too daunting.
- Group the actions by topic: temperature, lighting, water use, etc. Or group by areas: i.e., office, lab, kitchen, rest room.
- Include behaviors that are simple and easy to adopt.
- Emphasize the actions that will save the most energy by listing them first. In most cases, these will be actions related to heating and cooling, including preventing loss of heated air to the outside. Studies have shown that people typically

underestimate the energy-saving potential of some measures (insulation, for example) and overestimate the savings of others (such as turning off lights).

## Identify What Motivates People

Before deciding how to convey the desired behaviors you have chosen, it is important to consider what motivates individuals to change their behaviors. A common mistake is to assume that people will adopt energy-efficient practices simply if they understand the need to conserve energy, believe that energy efficiency is important, and know what actions to take. Many studies conducted over the last 30 years have shown that these factors alone are not enough to change behavior. If your program is based solely on giving information to people, it will almost certainly fail.

Changing people's energy-use behaviors must go beyond one-way education. The campaign must address barriers to change, as well as making the behaviors easy, convenient, relevant, and socially desirable. Research and case studies have revealed some factors that have proven effective:



**Make your contacts personal and interactive.** Face-to-face, back-and-forth communication is one of the most effective motivators in energy education. When people are personally confronted with an opportunity to adopt more energy-efficient behavior, as opposed to having the opportunity presented through information materials or the media, their participation rises dramatically. Office visits that yield specific suggestions and offer help may be extremely effective, especially when the visitors follow up to assess, solve problems, and encourage continuing change.



**Use vivid, relevant, personalized information.**

Information that is presented in a vivid way is more likely to prompt action than a standard list of tips or numbers. If the desired behaviors are pictured, people are more likely to visualize themselves doing them. Videotapes of people taking energy-efficient actions in their homes and offices have prompted similar actions by viewers, even after only one viewing.

**Emphasize a positive gain, not deprivation.**

People naturally avoid and resent hardship and the implication that they are being asked to sacrifice their comfort to save energy. Therefore, emphasize what they will gain from adopting certain behaviors. For example, the most important factor in energy-related activities is thermal comfort. People resist doing things that make them feel uncomfortably cold or hot, even if they save energy, but are more receptive to things that will improve their comfort and health and give them a sense of control over their environment. Make it clear how certain activities, such as adjusting the temperature to be more seasonal and using daylight instead of electric lights will improve their well-being and convenience.

**Encourage active involvement and commitment.**

When people decide on which actions to take after talking with someone about their energy choices, they are more likely to carry out those actions—particularly if they sign an action plan to show their commitment. A public, written commitment is more effective than a verbal one. You can encourage public commitments by displaying or publishing the names of people who have pledged to undertake various actions.

**Provide incentives.** An incentive may take the form of a monetary reward, award plaque or certificate of recognition, or it may be as simple as a refrigerator magnet, inscribed pen, or coffee cup. In fact, some studies have shown that low-cost, ongoing incentives are associated with long-term change. A large, one-time award tends to mark the end of a “special” effort (and the start of diminishing energy behaviors), while a smaller incentive tends to keep the focus on the individual’s choice to change.

**Promote social interaction.** Community meetings and other events may be used to conduct focus groups that design and evaluate the program, but also to help foster



exchanges of information. Organizational leaders can make energy efficiency a high-status activity. Workshops, kids’ events, fairs, and other activities can be the means to promote energy-efficient behaviors.

**Consider using competition.** Competition among similar groups has been shown to motivate behavior changes. For competition to work, people must perceive that the comparison is fair and that groups are equivalent in factors that affect energy use. In addition, as many group members as possible must be aware of where they stand in comparison with others. Individuals must feel that their actions make a difference in the entire group’s outcome.

**Promote energy-efficient behavior in conjunction with other environmental programs.** Existing programs, such as pollution prevention, waste minimization, and recycling can, in association with each other, build a culture that is mindful of environmental conditions. Studies show that people often do not separate these activities, but feel that they all contribute equally to better places to live and work and a healthier planet.

**Connect energy-efficient behavior on the job with the rest of their lives.** Although you may only be able to observe and measure what employees do in the workplace, promoting energy-efficient behavior at home and on the way to work will have positive effects for workplace attitudes and behavior.

**Provide feedback.** Feedback provides people with results and successes, and actually shows how much energy they have saved over certain periods of time. Feedback also helps people visualize the results of their actions, which is important because energy-saving results are often invisible or difficult for building occupants to evaluate.

### Develop Themes and Messaging

After considering what motivates people, and based on the behaviors you have identified, you must develop messages that will provide a “hook” on which to hang the program. Messages are statements that provide the basis for action. Staff members should relate to, believe, and be motivated by the messages. Here are some examples:

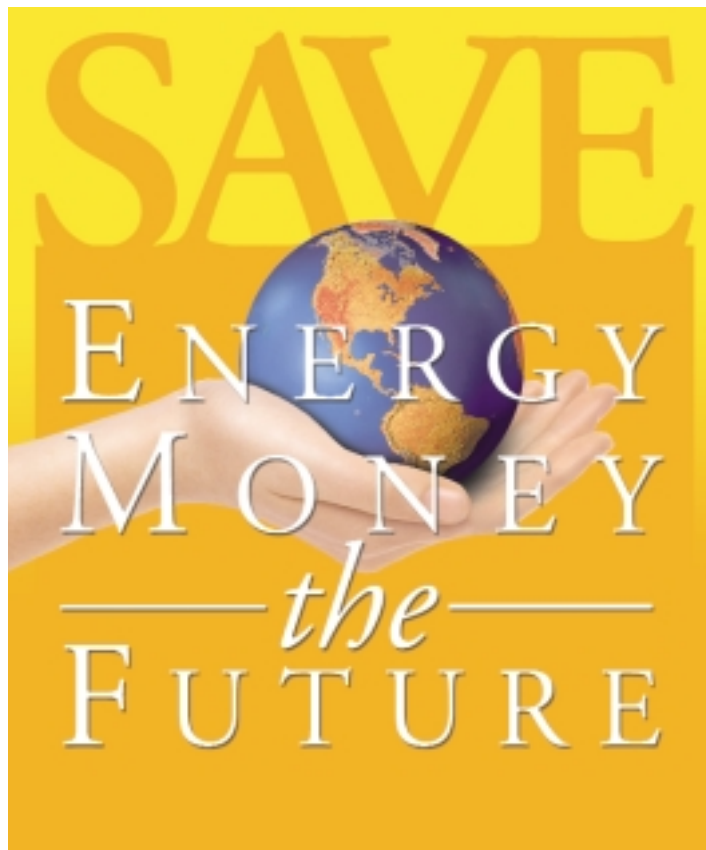
**Save energy – it’s easy as 1, 2, 3.**

**Energy efficiency – it’s a good habit to get into.**

**Save energy – it’s the right thing to do.**

Messages do not always have to be stated explicitly in the program, but they underlie information materials, visuals, and activities of the program. If your messages are that it is easy to be energy-efficient and others are there to help, program materials might show coworkers turning out lights in their offices and offering desk audits. Listing the phone numbers of energy coordinators who can answer questions sends the same message, as does holding workshops and open houses to demonstrate certain actions.

Messages in turn form the basis for themes or slogans—short, catchy, inspirational phrases that are often repeated throughout a campaign. A slogan often appears with a logo or other identifying visual. When people see the slogan and visual together, they will associate it with your program and saving energy. See Appendix II for information about FEMP’s “You Have the Power” campaign and artwork that you can use.



### Choose Communications Channels

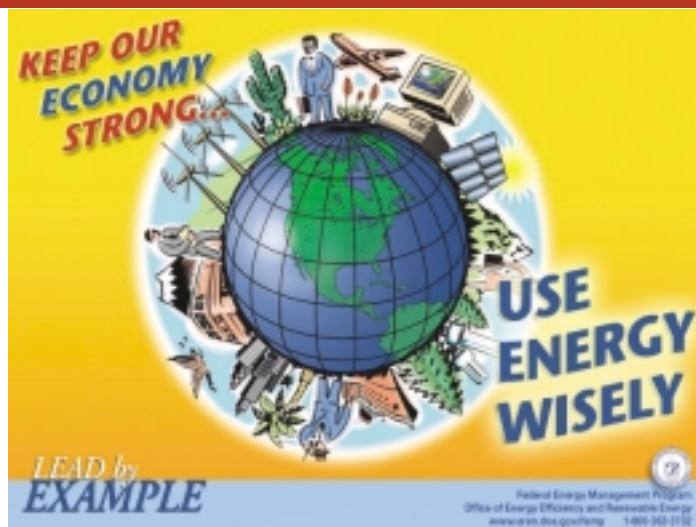
You will need to identify the communications channels to use in your program, as well as when and how you will use them. Effective channels take many forms and will vary from site to site. Choosing the best communications channels will depend on the input you obtained from surveys, focus groups, and interviews, as well as the types of information you wish to convey. Information may fit into several categories.

**Campaign and program description.** These materials are intended to introduce the program

and raise awareness among staff members about the campaign, incentives, staff roles, and time frame. Information should include names, phone numbers, and E-mail addresses of program managers (you and your team members) and other resource people. This information may be well-suited to print in a tri-fold brochure or an in-house newsletter.

**Information about targeted behaviors.** The desired energy saving actions should be conveyed in many different ways to reinforce them and to ensure that as many people as possible become aware of them. Posters may be hung in heavily traveled areas, bookmarks distributed to individuals, and other items such as magnets or light switch plate covers handed out at energy fairs or brown bag discussions.





**Progress by staff members.** Giving regular feedback on progress toward your goal is also important, as it will provide tangible results of staff efforts and reinforce behavior changes. Posters, flyers, newsletter articles, and E-mail messages may be appropriate channels. When developing visuals for this type of information, it is critical to use a format that is easy for staff members to understand. Bar charts, pie

charts, and other visual formats are better than providing numbers only. Show trends and comparisons, not just a new number each time. If you are aiming for a specific goal, consider showing progress toward that goal. If discussing energy units saved, it is helpful to put them in context. For example, you might say the facility has saved enough energy to "light up the Astrodome for a week."



**Final results and rewards.** At the end of a campaign or when any awards or other incentives are given out, inform staff members through simple flyers and E-mail announcements. Results and rewards should be associated with some fanfare, perhaps a ceremony involving top management. Recognize your volunteers with plaques or certificates, and announce the awards and participants in as many venues as possible.

Regardless of the type of information you wish to convey, using a wide variety of communications channels and repeating the same information will increase the likelihood that staff will become aware of the program. Advertising analysts have calculated that people must see an ad seven to ten times before they remember it.

### Communications Channels

- Videotapes
- In-house Web cast
- Posters
- Brochures
- Articles in organizational newsletters and local newspapers
- Updates at all-hands-meetings
- Brownbag discussions
- Booth/displays at events
- E-mail reminders
- Web pages
- Information packets for newcomers

### Specify Activities

Visible, interactive activities are best to catch attention, involve participation, and reach specific groups. However, well-run activities can require large commitments of time and resources, so make sure you have both before beginning. Examples of short-term and continuing activities include the following examples.

**Host displays or exhibits at fairs and other community events.** An Energy Fair can be a yearly event, with local utilities, energy service companies, and schools or universities providing exhibits such as alternative fueled vehicles or the latest energy-efficiency and water conservation technologies.

**Sponsor a contest related to energy awareness.** Contests could solicit logos or other artwork to be used in support of the campaign, energy-efficiency tips from staff, recruitment/pledge activities, or other related efforts.

**Organize a desk/laboratory audit program.** Volunteers from your team or the facilities management staff can visit workspaces (by invitation or appointment) and provide tips on how to conserve energy (for example, moving obstacles from heating/cooling vents or making better use of day light).

**Work with education-oriented groups to design youth/student projects.** Excited and involved children can motivate and draw in other family members. Results of the final survey at MCAS Yuma indicate that 42% of housing residents surveyed used energy-



efficient behaviors to set an example for their children. Resources for youth energy issues are available through a number of education organizations. See Appendix IV.

**Use Earth Day (April 22) and Energy Awareness Month (October) to highlight the program.** Many organizations and offices conduct activities in honor of Earth Day or during Energy Awareness Month. Use this opportunity to exhibit in a fair or host your own; conduct contests and giveaways; give awards for progress to date; roll out posters with new, fresh graphics; or organize community workshops demonstrating efficient activities such as programming a thermostat or using compact fluorescent lights.

**Conduct brown bag lunch sessions.** Invite local experts such as utility or State Energy Office officials to discuss tips for saving energy and related issues.

**Conduct tours of your facility.** Show employees how and where they can help save energy around your building. You can also arrange tours of other energy-efficient facilities and residences in your area to give employees even more ideas.

**Initiate a commuter choice or ridesharing program.** Extend the impact of your energy awareness program by focusing on transportation activities. Consider transit fare subsidies such as passes, vouchers, or other cash reimbursements; accommodations for



bicyclists (bike racks and shower facilities); and non-monetary incentives such as alternative work schedules and flextime, work at home, and carpool and vanpool parking spaces.

## Develop a Detailed Budget

In the planning stages, a rough preliminary budget is probably all that is needed or feasible to prepare. But after your program activities are better defined, you will need to carefully reassess your resources and develop a detailed budget to be approved by your organization. You should establish the budgets and obtain approvals as early as possible in the process. Certainly, you must have the budget in place before you begin the program. Your management may ask you to document the return on investment—the cost of the program versus the amount of reduced energy costs you hope to achieve. If the costs of the program exceed the expected energy cost savings, you may have a tough time defending your plan.

### Typical Budget Items

#### Labor

- Obtaining management approvals, identifying necessary resources, and designing the program
- Conducting focus groups and surveys
- Research, writing, editing, designing, and printing information materials
- Creating art, including a logo, graphics, etc.
- Shooting, narrating, and editing a video
- Working with media representatives
- Preparing educational materials for children
- Distributing materials
- Evaluating the program
- Preparing a summary report for top management

#### Materials

- Paper and services for producing printed materials
- Computer programs, disks, and color printers
- Videotape cartridges
- Display materials for special events

#### Direct Costs

- Printing
- Give-aways such as refrigerator magnets or coffee mugs
- Incentives for staff members
- Postage for mailing surveys and informational materials
- Food and beverages for focus groups and meetings



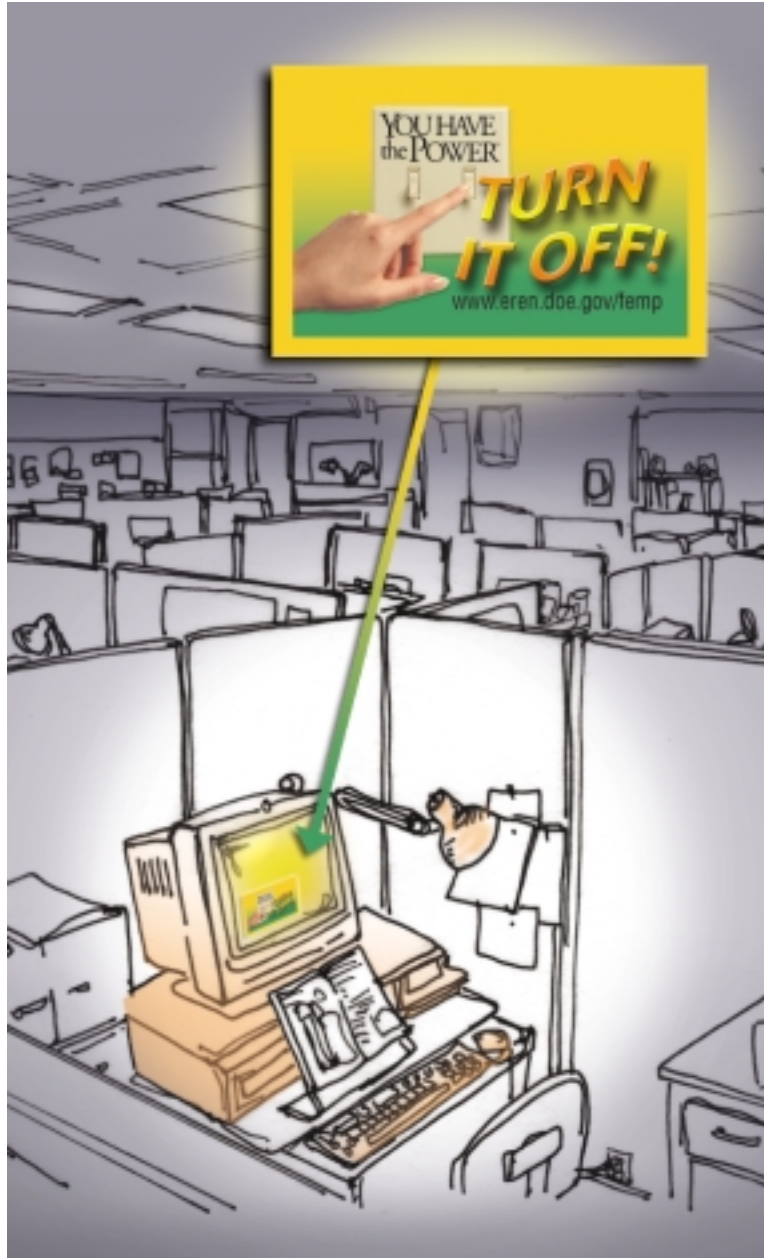
## Develop a Schedule

A campaign schedule is necessary to keep the work on track. It also keeps the team from missing certain time-dependent events such as Earth Day, Energy Awareness Month, or already-scheduled fairs. (For an example of a schedule for organizing and conducting a single event, such as an Earth Day or Energy Awareness Month celebration, please see Appendix III). The schedule can also take advantage of certain times of year when you wish to reinforce specific actions targeted for change—such as just before heating or cooling season, when reducing peak energy use or saving natural gas may be critical.

Take lead times into account when developing your schedule. For example, deadlines for submitting newspaper or newsletter articles and messages for electronic message boards may range from days to weeks in advance of publication or appearance. If you are orchestrating themes coordinated in several media, allow for approvals, deadlines, and other scheduling issues.

Depending on how energy-usage statistics are tallied at a given facility, there may be a delay before figures such as monthly meter readings and billings are available. If so, factor this time into the schedule. For example, if final campaign results have been promised in December, but energy statistics are only available 30 days after the previous month, you will need to end the data collection with October or November to announce them in December.

Some aspects of a campaign schedule may be inflexible. The ending date may be set by the end of a fiscal year, by the facility's previous energy goals, or Federal goals. If you have flexibility in setting the endpoint, keep in mind that a campaign targeting several behaviors for large facilities may require a minimum of six months, and generally closer to a year, to realize results.



## Distribute Information and Carry Out Activities

Once you have planned your activities and announced the program, the really fun part should be carrying out the campaign. In accordance with your schedule, produce and distribute information using the channels of communication you identified. Visible, interactive, inviting activities will help spread your messages, attract participants, and reach specific groups. Provide plenty of reinforcements in the form of colorful, eye catching handouts and giveaways. Keep in mind what motivates people, emphasize personal interactions, and always provide follow-up contacts.

The following examples of activities performed by Federal agencies and laboratories may give you some ideas:

- For DOE's Lawrence Berkeley Laboratory, April is Earth Month. Outside speakers discuss environmental topics, raising awareness of energy efficiency, waste minimization, recycling, and related topics.

- At the Fort Lewis Kids Fest, the energy resource manager staffed an energy education booth and handed out hundreds of giveaway materials donated by local utilities.
- DOE's Waste Isolation Pilot Plant's Energy Awareness Month activities in FY 2000 focused on solar energy with displays primarily provided on loan by Sandia National Laboratory. Demonstrations included solar water pumping, photovoltaics, solar oven and water heating, and lens technology for generating heat.
- One individual at the Department of Justice's Drug Enforcement Administration implemented a low-cost program where energy conservation tips applicable to home and office are distributed monthly. After-hours inspections identify lights and equipment left on, with a stick-on reminder indicating the energy-wasting practice. The rewards are sweet – dozens of homemade chocolate chip cookies each month to employees on the floor with the fewest violations.
- DOE's Oakland Operations Office hosts an annual Energy, Science and Environmental event with co-sponsors General Services Administration and Environmental Protection Agency. Employees of Lawrence Livermore National Laboratory and Sandia National Laboratory also participate in the event, which serves as a family event, science fair, and community education day. Students, employees, and visitors tour dozens of booths that offer hands-on exhibits and examples of recycled materials such as carpets made of shredded plastic bottles and colorful notepads recycled from outdated maps.
- The Department of Health and Human Services sent energy and water conservation posters to components nationwide. A display was set up in the Headquarters main lobby. The highlight of the display was a raffle in which the employees had to answer several energy questions, and winners were drawn from those who answered correctly. Prizes included energy-related hats and mugs, water-savings kits, and compact fluorescent lights.

