

Energy Innovators Initiative

# Turn Energy Dollars into Health Care Dollars

*A Guide to Implementing an Energy Efficiency Awareness Program in a Health Care Facility*



Canadian College of Health Service Executives  
collège canadien des directeurs de services de santé



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Turn Energy Dollars into Health Care Dollars:  
A Guide to Implementing an Energy Efficiency  
Awareness Program in a Health Care Facility

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# *preface*

Produced by Natural Resources Canada's Energy Innovators Initiative (EII) and the Canadian College of Health Service Executives, this Guide describes a step-by-step approach to designing and implementing an effective energy efficiency awareness program. It has been specifically designed for the health care sector and includes real-life examples and case studies.

The information presented in this Guide will help you plan and implement an awareness program designed to meet the needs of your health care facility, be it small or large, acute or long-term care. Useful tips and practical advice are included throughout to get you started. Following a step-by-step approach, the Guide can be implemented in its entirety, or you may choose to implement only certain concepts or elements.

Climate change has been called the greatest environmental and economic challenge facing the world today – one that calls for action on many fronts. The Government of Canada is playing a lead role in developing initiatives that support Canada's commitment to reduce greenhouse gas (GHG) emissions and adapt to the impacts of climate change. In November 2002, the Government of Canada released the *Climate Change Plan for Canada*. The Plan is the result of intensive consultation with the provinces and territories, as well as with stakeholders and individual Canadians and reflects the Government of Canada's commitment to action on climate change while ensuring our economic competitiveness and growth.

The Plan provides a clear framework for the way forward while allowing for continuous adjustment as we assess our progress. Participating in the global effort to address climate change will require a national effort, one that summons the best from our citizens, entrepreneurs, scientists, communities, and governments. With commitment and resolve we can create the healthy environment and dynamic economy we want for ourselves and for future generations of Canadians.

The Government of Canada is committed to continuing to collaborate with its partners as we move forward. The energy efficiency and alternative fuels programs offered by Natural Resources Canada's Office of Energy Efficiency are key to helping Canada address its GHG reduction targets. One of these programs, the Energy Innovators Initiative (EII), helps commercial businesses and public institutions explore energy efficiency options and strategies. Member organizations can save money and help protect the environment by reducing GHG emissions related to energy consumption. The EII offers access to tools, information, services and financial incentives to stimulate the development and implementation of energy retrofits.

Targeted at facilities that consume large quantities of energy, the EII's financial incentive, Energy Retrofit Assistance, is available for

- retrofit planning, whereby eligible organizations may qualify to receive up to 50 percent of approved costs for energy retrofit planning (up to \$25,000); and
- retrofit projects, whereby eligible organizations may qualify to receive up to 25 percent of approved costs for energy retrofit projects (up to \$250,000), based on the projected energy savings.

For more information on the EII or Energy Retrofit Assistance, see the contact information at the end of this Guide or visit the EII's Web site at [oee.nrcan.gc.ca/eii](http://oee.nrcan.gc.ca/eii).

## More information on climate change

For more information on climate change, visit the Government of Canada's climate change Web site at [www.climatechange.gc.ca](http://www.climatechange.gc.ca).



# introduction

Canada's health care facilities work hard to provide the best patient care possible while facing ongoing funding challenges. Innovative health care facilities seek new ways to address funding cutbacks without compromising patient care. A growing number of facilities are reducing costs by improving their energy efficiency.

In addition to saving money, becoming more energy efficient reduces GHG emissions that are released into the atmosphere. Reducing emissions improves air quality and our global environment – something that has a direct impact on the health and well-being of all Canadians. Becoming more energy efficient should be part of every health care facility's mandate.

A comprehensive awareness program can support and reinforce the overall objectives of an energy efficiency initiative. An awareness program can

- increase the understanding of the benefits of energy efficiency
- make the link between individual actions and behaviour and energy use and potential savings
- motivate users to modify behaviour that affects energy consumption
- reduce energy consumption and save money

The overall success of an energy efficiency initiative depends on the cooperation, acceptance and involvement of all those using the facility, including staff, patients, volunteers, contractors and visitors. An awareness program can provide other benefits:

- increase productivity and boost morale through working together to achieve a common goal
- contribute to a healthier environment through reduced GHG emissions
- enhance the facility's reputation as a leader in environmental stewardship in the community



## What they said...



“There are great benefits for us as individuals and much to be learned and taught to our staff about energy use. Collectively, improved use of energy will pay major dividends in cost savings, guarantee future availability of energy resources and help us work toward a healthier environment. In health care, what we save in supporting operating costs such as energy can be reallocated to patient care. Isn't that really why we are here in the first place?”

– Bruce H. Swan, C.H.E., Former CEO, South Westman Regional Health Authority

“With limited resources available for direct patient care, it's vital that hospitals investigate all possible opportunities to find operating savings. We're pleased that this initiative has found efficiencies that will help us spend less on energy. The bottom line is that more money is available for patient care and clinical programs. We see this as a win-win situation for the environment and the patients we serve.”

– Dr. Peter Glynn, Former CEO, Kingston General Hospital

“An action as simple as turning off unnecessary lights is the most effective cost-saving measure available. Every dollar saved on building operation is more money that can be spent on patient care.”

– Source: “Engineering and Maintenance,” KGH Spectrum, Vol. 7, No. 21, November 23, 1998.

“In my mind there is no doubt whatsoever regarding the value of awareness campaigns. There are a lot of savings to be had by teaching people what they can do to contribute. I have been involved in a number of campaigns, and they have all paid off handsomely.”

– Dale Robertson, P.Eng., Enerscan Engineering Inc., Halifax, Nova Scotia

## Tip

Energy-saving tips learned at work can be transferred to the home. Showing staff how to save money on their personal energy bills is an excellent way to gain interest and support for the facility's program.

An effective awareness program is an easy, low-cost and low-risk opportunity to lower your facility's operating costs. Coupled with a long-term energy management plan (for more information, see the "Dollars to \$ense' Workshops" box below), your facility has the potential to achieve cost savings that will continue over time and free up operating and maintenance funds for patient care.

### "Dollars to \$ense" workshops

Natural Resources Canada's Office of Energy Efficiency offers a series of energy management workshops to help lower operating and production costs, reduce GHG emissions, increase operational efficiency and create a better work environment. The "Dollars to \$ense: Energy Master Plan" workshop can help you prepare your organization's energy management plan. For more information, call 1 800 387-2000 (toll-free), fax (613) 947-4121, e-mail [innov.gen@nrcan.gc.ca](mailto:innov.gen@nrcan.gc.ca) or visit the Web site at [oee.nrcan.gc.ca/workshops](http://oee.nrcan.gc.ca/workshops).

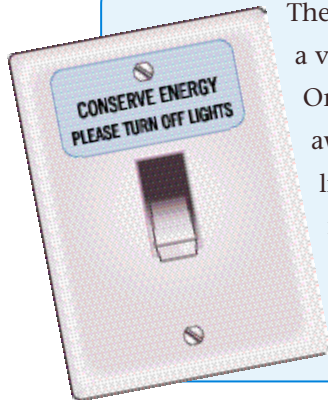
# the step-by-step approach

This Guide is organized into a series of steps that your facility can follow to build a framework for a comprehensive energy efficiency awareness program. Your health care facility's awareness program can be as simple or as multi-faceted as your resources allow. Many activities suggested in this Guide can increase awareness and reduce energy consumption with little cost or effort. The ideas and suggestions presented here can be adapted and customized to meet the specific needs of your facility. Figure 1 provides a comprehensive framework for implementing an awareness program. You may choose to follow the framework step-by-step or implement one on a smaller scale.

## *Working with an energy consultant*

Many health care facilities work with energy consultants or other professionals to help them reduce energy consumption and costs. Typically, facility upgrades are paid for by energy savings. Energy consultants can provide a full range of services, including help in implementing an awareness campaign. Find out if your facility is working with an energy consultant who can help you with your program.

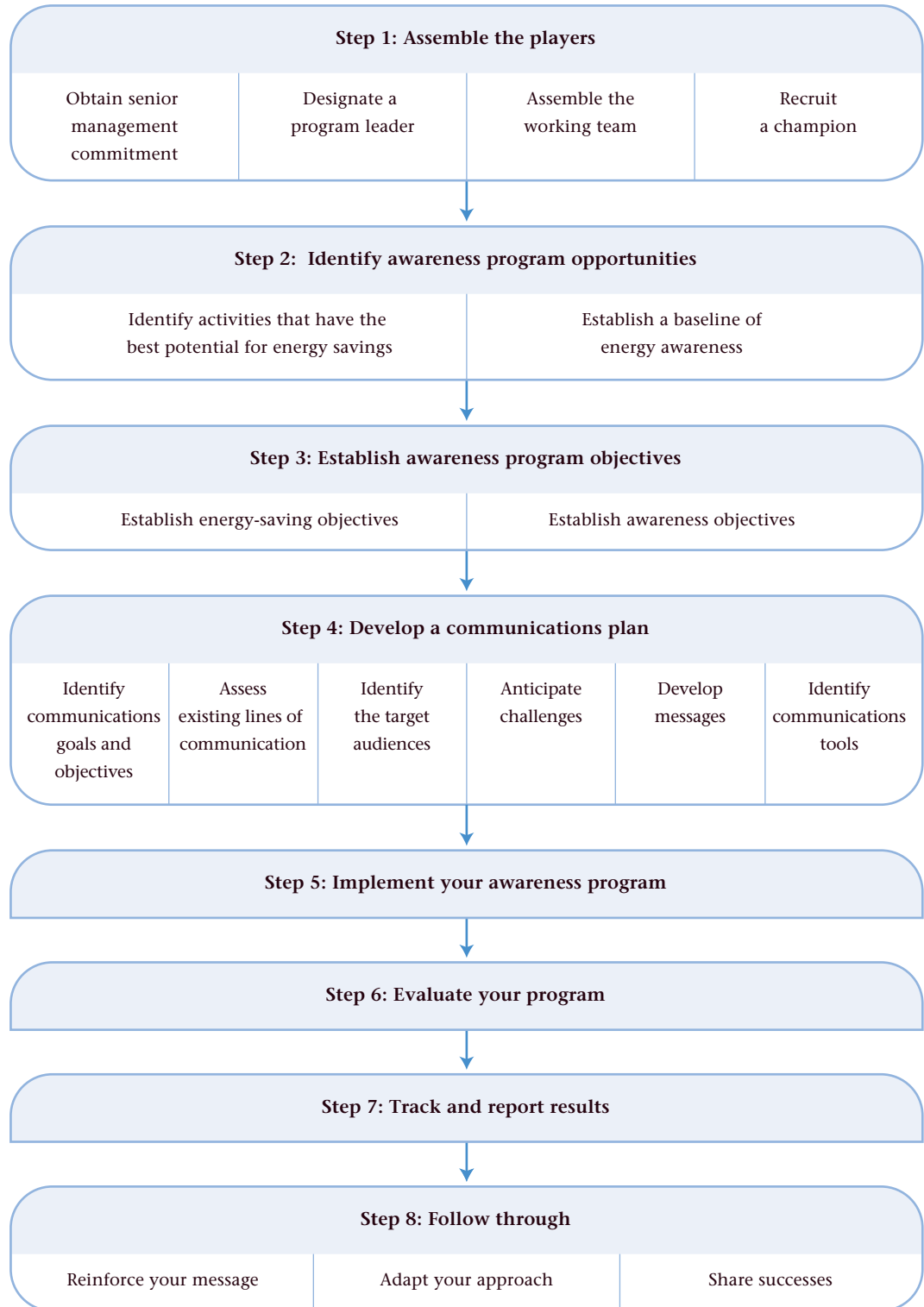
## What they did...



The University of Alberta Hospital in Edmonton implemented a variety of energy retrofits, including an awareness program. One of the first things the hospital did for its employee awareness program was very simple: stickers were affixed to light switches to remind occupants to turn them off when not in use. The hospital estimates that these stickers alone saved \$7,000 in energy costs in the first year of the program!



*Figure 1. A framework for an energy awareness plan*



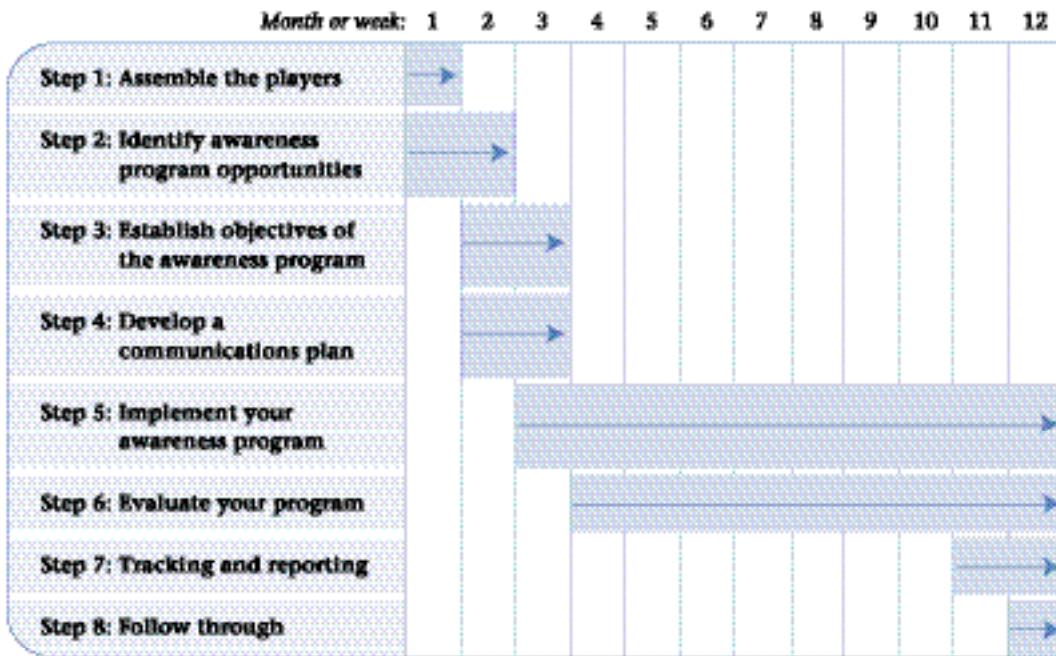
## Timing

When you are familiar with the various steps identified in the framework, create a schedule to map out your awareness program. The time required for each step will vary according to

- the size of your facility
- the number of employees
- the scale and complexity of your program

Remember to keep your schedule flexible to accommodate changing circumstances. A sample time line follows.

### Sample time line for an awareness program



# step 1

## Assemble the players

### Sub-steps

- 1.1 Obtain senior management commitment
- 1.2 Designate a program leader
- 1.3 Assemble the working team
- 1.4 Recruit an energy efficiency champion

An awareness campaign may be part of your organization's overall energy management plan. Its successful implementation may lead your facility to consider a comprehensive approach that includes technical retrofits. Either way, when launching your awareness program, it is important to establish senior management buy-in, assemble a team composed of the right players and assign responsibility for implementing the program. Remember that the sub-steps and their sequence may vary, depending on your facility and how it operates.

### 1.1 Obtain senior management commitment

Early and ongoing support from senior management is critical to the success of your program. Communicating the fact that management is behind the campaign and requests support from employees will enhance the program's credibility. Messages from senior management that promote the program and that provide updates are a way to demonstrate this commitment.

### 1.2 Designate a program leader

Management should publicly identify and assign an individual to initiate and oversee the planning and implementation of the awareness program. This individual will need to have the resources and authority to carry out the program. Another option is to assign the task to a special projects officer.



### 1.3 Assemble the working team

When assembling your team, be sure to include individuals who have a wide range of skills, knowledge and interests from all areas of the facility. This will ensure a good understanding of the diverse energy-consuming activities throughout the facility and provide spokespeople that represent a range of programs and departments.

Members of your team could include representatives from the following:

- front-line staff such as nursing, physiotherapy or social work personnel
- administration and support staff, including admitting, records, finance or information technology personnel
- facility engineering or plant operations staff
- housekeeping staff
- management
- personnel from public relations, marketing or special events planning
- volunteers

#### What they did...



Atlantic Health Sciences Corporation in New Brunswick has an energy manager who is a dedicated staff person responsible for coordinating training and awareness programs. This position was suspended temporarily and then reinstated when it was found to be a contributing factor in helping to control energy costs.

Encourage buy-in by assigning specific tasks to team members and by ensuring that roles and responsibilities are clear and agreed upon. Tasks could include the following:

- review and assess other facility-wide initiatives to look for possible “piggyback” opportunities
- coordinate activities and special events
- design print materials
- develop promotional products
- write articles for newsletters, memos, etc.
- communicate with facility staff regularly about progress achieved
- work with operations and management staff to track energy consumption and savings

If team members are chosen from various areas and functions within your facility, identifying roles and assigning tasks will come naturally. For example, public relations personnel can work on the development of promotional material.

Many hospitals have committees that deal with a range of topics, including environmental issues. In some cases, these committees might be interested in taking on the energy awareness challenge. Alternatively, these existing committees could be the starting point for a new committee based on energy awareness.

### *Tip*

Where appropriate, include patient representatives as team members to bring the client perspective to the discussions.

## What they did...



A hospital in Ontario involved its information technology (IT) department during the initial stages of its employee awareness program. IT staff were extremely supportive. They provided many tips for reducing computer-related energy use, including turning computers off when not in use. The department now installs an energy-saving feature on all the hospital's computers. The energy team and the IT team are still working together to identify other energy-saving actions.

The Cambridge Memorial Hospital's Green Team participates in planning, prioritizing and approving environmental initiatives, delivering environmental education to hospital staff and planning "Green Days." The team now incorporates energy efficiency awareness in its environmental messages. This made the most of an existing initiative and communications network that is effective and recognized within the facility as a credible source.

### 1.4 Recruit an energy efficiency champion

Selecting a "champion" to represent your program is critical to successfully achieving the objectives of your campaign. You may wish to recruit a member from senior management as your champion because this person will have the required clout to get things started. Your champion should be someone who is enthusiastic and committed to ensuring that energy efficiency is a high-profile activity. The champion should be prepared to become the program spokesperson as someone who is recognized and publicly associated with the awareness program within the facility and the community.

# step 2

## Identify awareness program opportunities

- *Sub-steps*

- *2.1 Identify activities that have the best potential for energy savings*

- *2.2 Establish a baseline of energy awareness*

### 2.1 Identify activities that have the best potential for energy savings

If you know how, where and by whom energy is being used, it becomes easier to focus on those activities that will generate the best results. Information about your facility's current energy use provides an energy consumption baseline for setting awareness program objectives and sets some of the indicators against which the program can be evaluated at a later date.

In facilities where energy management initiatives or retrofits are underway, an analysis of energy use may already be available. A sub-team that has a representative from plant operations could be assigned to work with an appropriate representative from operations and maintenance to coordinate information requirements. This sub-team could also discuss how to monitor and track any changes in energy use resulting from awareness activities.

The energy use analysis will highlight which departments present the greatest potential for energy savings through low- or no-cost measures that can easily be implemented by facility users.



### What they did...



Using funding from Human Resources Development Canada's ON-SITE Program, London Health Sciences Centre hired a research assistant for six months to help support the energy managers of its London hospitals. The assistant's duties included evaluating the energy management firm's proposals, communicating information on energy programs to building occupants and researching and developing implementation strategies. (For more information on ON-SITE, see page 15.)



## ON-SITE

ON-SITE is a Human Resources Development Canada program that provides qualified assistance in a number of areas for up to six months. Under this program, an employer pays \$100 a week toward a hired professional's salary. For more information, call (613) 235-7976, fax (613) 235-2190 or visit ON-SITE's Web site at [www.epi.ca](http://www.epi.ca).

### *Low-cost/no-cost measures for savings*

Each computer turned off when not in use can save up to \$75 each year in energy costs. Multiplied by the number of computers in your facility, it adds up! For example, 150 computers shut down at night and on weekends could save more than \$11,000 in one year and reduce GHG emissions by up to 170 kilograms.

Each incandescent light bulb turned off when not required could save about \$30 annually. Aside from reducing the number of replacement bulbs needed each year, this could represent significant savings for your facility.

*Estimates are based on Canadian averages for energy costs and account for regional differences in energy sources.*

## 2.2 Establish a baseline of energy awareness

The success of your program will be measured not only in terms of your facility's reduced energy costs, but also in terms of the increased level of energy awareness of your workplace.

To assess your program's success at a later stage, a baseline of energy awareness should be determined within your organization. To develop this baseline, you could distribute a brief energy awareness questionnaire to test the staff's knowledge of energy issues and efficiency measures before the program begins. Several sample questions are included on the following page. Use the information collected from this questionnaire as your facility's awareness baseline. You can administer the questionnaire again after the program has been implemented and compare the results to help determine your campaign's overall impact.

### *Tips on conducting surveys*

- Questionnaires should be short – one to two pages at most.
- Most questions should be formatted with multiple choice, “yes or no” or “true or false” questions, with only a few open-ended questions.
- To encourage survey completion, organizers should provide an incentive for returning the questionnaire, such as a draw for a prize from all questionnaires collected.

Your goal is to have a reasonably accurate portrait of the population in your facility. The higher the percentage of staff you survey, the more accurate the findings are likely to be. It is not necessary to survey everyone; it is more important to ensure that you have a sample that represents different departments.

Additional information on conducting surveys and evaluations is presented in Step 6 on page 40.

### *Examples of possible questions to include in an awareness questionnaire*

- Do you think energy management is an important issue at [facility name]?
- On a scale of 1 to 10, with 10 being the most important, how important do you think energy management is at [facility name]?
- Have you heard about [facility name]’s energy management program?
- Are you aware of any energy-saving projects that have been completed or are ongoing at [facility name]? If yes, what are they?
- Do you feel that individual employees affect energy usage at [facility name]? If yes, what actions can you take?
- Turning off 10 computers every night and weekends for one year would save \$250, \$750 or \$1,500?
- Do you turn off your electronic equipment (computer, printer, lights, photocopier, etc.) at the end of the day?
- What actions do you take at work to be energy efficient?
- What actions do you take at home to be energy efficient?
- Can you think of any ways that [facility name] could improve its energy efficiency?

# step 3

## Establish awareness program objectives

- *Sub-steps*
- *3.1 Establish energy-saving objectives*
- *3.2 Establish awareness objectives*

The underlying goal of your facility's awareness program is to redirect energy dollars to patient care. Working as a team, you can establish specific objectives for your awareness program.

### 3.1 Establish energy-saving objectives

A possible objective for your campaign would be to save specified units of energy or a dollar amount by a specific date as a result of awareness program activities. In many cases, it will be difficult to separate which activity is responsible for the energy savings. An objective such as this can be a valuable indicator of the program's success.

Specific objectives will vary from facility to facility, depending on their size, type, location and a range of other variables. Your awareness team, in conjunction with senior management, should determine what constitutes realistic and obtainable goals for your facility; establishing objectives that are too high can have a demoralizing effect if targets cannot be reached.

### 3.2 Establish awareness objectives

A less tangible objective is to change levels of awareness and alter the behaviour of people who use the facility. These changes can be measured against the awareness baseline established by the questionnaire (see Step 2.2, page 15).



# step 4

## Develop a communications plan

### *Sub-steps*

4.1 *Identify communications goals and objectives*

4.2 *Assess existing lines of communication*

4.3 *Identify the target audiences*

4.4 *Anticipate challenges*

4.5 *Develop messages*

4.6 *Identify communications tools*

Once you have a good understanding of your facility's energy consumption patterns and you have established clear program objectives, you can begin to develop your facility's program. The primary tool for creating an effective awareness program is a communications plan that is well thought out and well executed.

### 4.1 Identify communications goals and objectives

Defining the goals and objectives of your communications plan is critical to the success of your awareness program. Once the overall goals and objectives of your plan have been established, communicating with your audience is much easier. Review your overall objectives and consider which of these can be achieved through your communications plan. See below for some objectives of a typical awareness program.

#### *Communications plan objectives for a health care facility*

- Help facility users better understand the importance of energy efficiency in terms of improved patient care and better working conditions.
- Promote the idea that the actions of individuals can make a difference.
- Encourage staff and patients to develop – and sustain – energy-efficient behaviour.
- Identify the economic and environmental benefits of the awareness program, not only for the health care facility but also for the community, Canada and beyond.



## 4.2 Assess existing lines of communication

A communications assessment is an evaluation of how your health care facility currently communicates with its users. Using existing lines of communication may make it easier to communicate with staff and patients in a format with which they are familiar. You may also wish to identify innovative ways to contact your target audience.

Take inventory of the lines of communication that already exist within your facility. Several examples are provided below. Your facility may also have others. Then identify the best ways to deliver your message. If communication lines are already in place, consider how you could build on them.

### *Communication lines in a health care facility*

- committees
- regular staff and departmental meetings
- newsletters and communiqués
- bulletin boards
- posters
- e-mail
- on-line networks
- intranet
- energy efficiency “news tickers” on the facility’s Web site
- paycheque notices
- personal contact (word of mouth)

Once you know how information is best communicated in your facility, consider how effective each approach is. Ask around. Do people take notice of the bulletin board? Do people read the newsletters? Are staff meetings well attended? Ask to see your internal communications department’s readership data to determine what tools would be most effective.

For each of your facility's communications approaches, determine and record the following:

- **Who is in charge?**
  - Who is your newsletter's editor?
  - Who organizes departmental meetings?
  - Who is responsible for corporate-wide e-mail messages?
- **Will they accept contributions?**
  - Can you include an article in the newsletter?
  - Can the awareness program be included on the agenda at the next departmental meeting?
- **What format should you use to submit information?**
  - Should a newsletter article be submitted on disk?
  - How many words can you use on a pay cheque notice?
  - Can you provide handouts at a meeting, or should someone deliver the message in person?
- **Are there specific deadlines?**
  - How often is the newsletter distributed?
  - When do submissions need to be provided to the editor to be included in the next issue?

### 4.3 Identify target audiences

Your messages and delivery will differ according to the intended audiences. It is important to recognize and consider varying circumstances, needs and concerns. Clearly defining your target audiences will allow you to develop specific messages, activities and plans for each group.

Consider your internal and external audiences. Internal audiences are the people you are directly targeting with your campaign, i.e., facility employees. External audiences include the people who are not necessarily involved in the day-to-day operation of your facility but who could be affected indirectly and could participate in your program's activities. See page 21 for examples of different types of audiences in a health care facility.

## Examples of target audiences in a health care facility

Internal audiences	External audiences
<ul style="list-style-type: none"><li>• patient-care staff</li><li>• physicians</li><li>• administration and support staff</li><li>• housekeeping staff</li><li>• kitchen or food services staff</li><li>• facility maintenance and operations staff</li><li>• patients</li><li>• volunteers</li></ul>	<ul style="list-style-type: none"><li>• visitors</li><li>• community and other health care organizations</li><li>• the general public</li><li>• contractors and outside consultants</li><li>• utility companies</li></ul>

In Step 2, you reviewed the energy consumption patterns of your facility. With this information, you can prioritize your target audiences. For example, staff that operate the physical plant will have a greater impact on your facility's energy consumption than patients. Remember to consider all programs and departments.

## What they did...



After considering the energy use patterns of its hospitals, the Peninsulas Health Care Corporation of Newfoundland and Labrador started its awareness program by targeting laundry, kitchen and central stabilizing-room staff. All of these staff members were directly involved in daily operations that consumed large quantities of energy. Later, the facility targeted a wider audience using bulletin board displays and articles in its energy efficiency newsletter.

The awareness campaign of Grenfell Regional Health Services in northern Newfoundland and Labrador targeted three audiences: the public, general staff and facilities staff. Public awareness was achieved through articles in the local newspaper, general staff were made aware using the facility's newsletter and through special editions of a dedicated energy efficiency publication, and facilities staff were made aware through various training programs.



## 4.4 Anticipate challenges

Communications efforts will often be challenged along the way. Anticipating possible challenges early on allows you to be ready for them as they arise. Following are a few examples.

### *Communications challenges in a health care facility*

- Staff are distracted by pressure to provide demanding services with limited time and financial resources.
- There is a perception that the program provides few immediate, tangible or direct benefits.
- Staff are skeptical about the benefits of energy-efficient practices.
- Not all staff believe that individual actions will make a difference.

The challenges identified above apply to most health care facilities. Clear messaging is an effective tool to address these challenges. The next section provides information on how to develop simple messages that are directed to your target audience.

## 4.5 Develop messages

Messages are the most significant ideas you want to convey. Once you understand what your audiences need to know, you can develop messages that specifically address these requirements. When developing messages, consider the following:

- who you are talking to
- what you will say
- how you will say it

Your messages should highlight your overall objectives and inform your target audience about their role in the program.

### *Tip*

Individuals are more willing to buy into energy efficiency when

- the issue is understood on a personal level
- the impacts associated with individual energy use are known
- they know what they can do to make a difference
- they are not inconvenienced (for example, they are not required to do something that is too time consuming)

Following is a sample list of the primary messages that can be conveyed to your audience.

### *Communications messages for a health care facility*

- **Turn energy dollars into health care dollars.**
  - Creating an energy-efficient facility will generate additional resources for improved patient care (for example, purchasing new medical equipment).
  - The savings generated could be used for facility improvements, new equipment or salary dollars and could even save jobs. (For more information, see “How to Make Your Messages ‘Real’” on page 24.)
- **Saving energy does not mean lowering the standard of patient care.** Patients and employees will not “freeze in the dark.” Reducing energy consumption through behavioural change and energy retrofits will not compromise patient care or the quality of the work environment.
- **Individuals can make a difference.**
  - Everyone has a role to play.
  - The success of the project depends on everybody's contribution.
  - Provide examples of easy things that staff can do to save energy.
  - Provide interesting and informative savings trivia: “If each person in the facility turned off their computer at night and on weekends, it would save about \$XX [estimate the number of computers and calculate savings at \$75 per computer] per year.”
  - Individuals should be proud of and be recognized for their energy efficiency efforts.
- **A more energy-efficient facility produces environmental benefits.**
  - Improving energy efficiency reduces Canada's GHG emissions and helps protect our environment.
  - Employees and patients benefit from improved indoor air quality.
- **Improved health and energy efficiency are directly related.** Health care facilities should embrace energy efficiency because of the direct and indirect health-related benefits of using energy wisely.





### *How to make your messages “real”*

Potential cost savings should be translated into concrete benefits that people can relate to such as new hospital equipment, a salary or a computer. For example, if lighting represents 5 to 10 percent of your facility’s energy bill, your messages should communicate that a 10 percent savings from turning off lights that are not in use could save a specific dollar amount every year. These savings could then be related to an equivalent such as health care staff positions, new hospital equipment or other concrete patient-care benefits.

Find out if your facility is undergoing or planning to undergo any energy retrofit projects. Talk with your engineering or plant operations department to find out how much energy is being saved. Use communications messages to link the savings achieved by this broader energy management program to the additional savings that could be achieved by staff’s changing their energy use patterns.

### *Tip*

Messages should be

- simple
- consistent
- repeated frequently
- personal
- vivid
- relevant

Remember to use plain language in your materials:

- Your target audiences come from diverse cultural and language backgrounds: adapt your messages and materials accordingly, i.e., messages may need to be translated into more than one language.
- Say it simply, and say it often!

## What they did...



- Capital Health in Edmonton, Alberta, made sure that its messages were relevant to its employees. Energy savings were related to increased funding for health care and resources for additional staff.
- At the Peninsulas Health Care Corporation, concrete messages were used to make a point. For example, one of the energy tips in the employee newsletter stated that a leaking faucet loses 175 gallons of water every month at one drop per second – wasting not only water but the energy used to heat it. Another helpful hint suggested that reducing electricity consumption by as little as 50 kWh per day can save as much as \$1,500 to \$2,000 per year.
- The planning team of the Health Sciences Centre of Winnipeg, Manitoba, estimated that the cost savings from activities such as turning off lights and computers when not in use were more than \$220,000 per year. This information was included in the team's messaging. Messages also noted that conserving energy not only saved money but also made funds available for staffing and medical equipment. Also highlighted was the fact that unused energy could be sold.

## 4.6 Identify communications tools

Communications tools deliver key messages to your target audiences. Tools can be used to inform employees about how they can participate. The selection of effective communications tools depends on various factors, including the complexity of the message, the nature of the target audiences, the size of the facility and existing communications mechanisms. Some communications tools that you may wish to consider are identified below. Your facility may have others as well.

### *Examples of communications tools*

<b>Print materials</b>	<b>Promotional items</b>	<b>Activities and events</b>
<ul style="list-style-type: none"><li>• newsletters</li><li>• bulletins</li><li>• pamphlets and brochures</li><li>• press releases</li><li>• posters, signs and stickers</li><li>• tent cards</li><li>• paycheque notices</li><li>• displays and booths</li><li>• information packages for new employees</li></ul>	<ul style="list-style-type: none"><li>• T-shirts</li><li>• caps</li><li>• stickers</li><li>• magnets</li><li>• Post-it® notes</li><li>• pens and pencils</li><li>• mouse pads</li><li>• mugs</li><li>• energy-saving devices such as occupancy sensors and computer monitor screen savers</li></ul>	<ul style="list-style-type: none"><li>• competitions and challenges</li><li>• special events</li><li>• awards programs</li><li>• information sessions</li><li>• workshops, presentations and seminars</li><li>• appearances by your facility's energy efficiency mascot</li></ul>

## Print materials

### Newsletters

Newsletters are a low-cost approach that can be used regularly to reinforce your message. They can inform new staff, patients and visitors about the program, successes and areas that need improvement. A series of newsletter articles would serve as reminders and help maintain momentum. Newsletters can be used at various stages of your awareness program, can be distributed electronically at very low cost and can be produced in hard copy format. Examples are shown below.

Program launch	Updates and reminders throughout campaign	Results and success stories
<ul style="list-style-type: none"><li>• objectives and importance of the awareness program</li><li>• a quote from the CEO or champion that demonstrates support for the program</li><li>• suggestions on what staff can do (i.e., how they can participate or contribute)</li></ul>	<ul style="list-style-type: none"><li>• new initiatives</li><li>• promotion of upcoming events</li><li>• tips on how to save energy at home, at work and on the road</li><li>• messages from the facility's energy efficiency champion</li></ul>	<ul style="list-style-type: none"><li>• report on energy/cost savings and reduced impact on the environment (data can be presented as "fast facts" or arranged into "at a glance" formats, such as bar graphs or pie charts)</li><li>• recognize exemplary staff or departments</li><li>• identify award or contest winners</li><li>• promote any recognition from the community or media</li></ul>

### Tip

Newsletters are convenient for providing factual or instructional information. They are most effective when messages are linked to current events in the facility or in the community.



## What they are doing...

Toronto East General Hospital produces an internal newsletter that provides information on the hospital's energy efficiency activities, including providing updates on its status and successes. The hospital also communicates to staff, patients and visitors using a bulletin board located at the main entrance of the hospital. The bulletin board features information on technical measures and includes before-and-after graphic illustrations of energy usage.

### **Pamphlets and brochures**

Pamphlets and brochures can provide a greater level of detail than newsletters. They can have a specific focus such as "how to" messages. In addition, pamphlets and brochures are often available free of charge from a variety of sources, including Natural Resources Canada's Office of Energy Efficiency. These communications tools can address a wide range of energy efficiency topics.

### **Bulletins**

Shorter than a newsletter or brochure and not as formal as a press release, bulletins are an effective tool to relay information quickly to staff, patients and visitors. Bulletins can be produced in hard copy format or can be distributed via e-mail. Hard copies can be posted on bulletin boards and placed in other areas of high visibility.

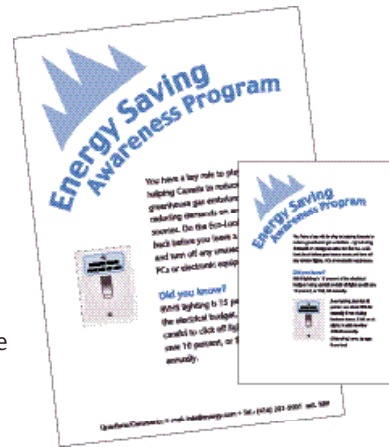
### **Press releases**

Press releases issued to local media can be used to announce your awareness program, publicize special events and promote results. Media coverage will encourage staff members and involve them in your facility's energy management program. Press releases issued by the Kingston General Hospital resulted in local TV coverage that promoted the facility's energy awareness initiative.



## Posters

Posters attract attention and raise awareness. They can be used to promote workshops or guest speakers, announce progress, encourage participation and build momentum. Placed in high-traffic areas such as cafeterias, lobbies, gift shops, waiting areas, elevators and patient-care units or nursing stations, posters should present an idea or message that is simple and direct.



## Signs or stickers

Signs or stickers can be placed on or near equipment, lights and thermostats to help remind users to turn them off when not in use. However, stickers will not be useful if applied to equipment that automatically shuts down or on equipment that is sensor-activated.

## Tip

Partner with a local high school or college by involving their media arts students in developing posters and other materials for your awareness program. Not only does this help you produce posters at low cost, it also involves your local community.

## Tent cards

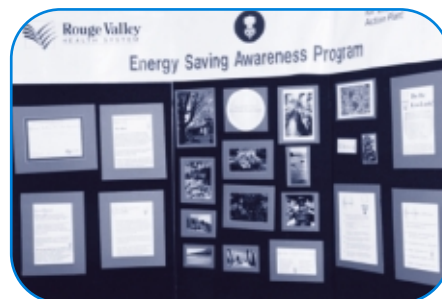
Tent cards can be used to provide information and program updates on energy and dollar savings. They also act as reminders and encourage further participation. The cards can be displayed on the wards, in waiting areas and on cafeteria tabletops, lobby tables, cash registers or computer monitors.

## Paycheque notices

Reminders and other useful information can be included in the envelopes of employee paycheques.

## Displays and booths

Displays, booths or bulletin boards placed in high-traffic areas such as cafeterias and work areas can promote the program and convey detailed and comprehensive messages. They should be simple, clear and visually appealing. They should be creative and have strong visual content (colour, graphics, etc.).



## What they did...



The Children's & Women's Health Centre of British Columbia's Energy Management Committee used a number of tools to increase energy awareness. The program featured

- a "button spotter" program that provided prizes to hospital staff who wore energy efficiency buttons
- posters throughout the hospital
- display booths

### *Tip*

You may wish to invite an outside expert to help staff your display booth and to help respond to inquiries. Staff from Natural Resources Canada's Office of Energy Efficiency are available and can provide information and advice on a wide variety energy efficiency topics. For more information, see "Learn more" (page 48).

Booths should be staffed by knowledgeable members of your team who are able to respond to inquiries about your campaign and about energy efficiency in general. Booths and displays also provide an opportunity to include information from other sources such as local utilities and energy management firms. Displays, booths and bulletin boards can also be effective communications tools for special events or can be used regularly to maintain awareness within the facility.

#### **Information packages for new employees**

To engage new employees in your facility's energy efficiency activities, information could be included as part of a new employee's orientation.

Once you have developed your communications plan and determined which tools best meet your facility's needs, you are ready to produce your materials. Some things to consider are presented on the following page.

### *Developing Material*

- Get it right before the copy leaves your hands. This applies to content and translation into other languages.
- Make use of internal resources – use people who are experienced in communications to help you write, design and prepare your artwork.
- Get written approval on the content before production begins.

### *Printing Material*

- Use in-house design and printing facilities, if available.
- Keep environmental production in mind. For example:
  - use paper that has an acceptable level of recycled content;
  - choose non-glossy paper;
  - make sure you print or copy double-sided; and
  - avoid “bleeds” and non-standard paper sizes.

If you use an external printer, keep the following in mind:

- Quality of work, pricing and the ability to meet your deadlines should be your main concerns.
- Build in enough time to meet your deadlines.
- You will need to provide information about the size of the publication, the paper required, the number of folds, the ink colours and the quantities you need.
- Request a copy of “blues” before the material is printed. “Blues” are essentially a blueprint of how your finished product will look. Printed on special paper, all the words and photos are in shades of blue. Check thoroughly – this is your last chance to correct any errors. Corrections become very expensive after this step.

## What they did...



All new staff at the Hamilton Health Sciences Corporation are provided with information from Natural Resources Canada’s Office of Energy Efficiency on how to conserve energy. Information includes consumer guides on how to conserve energy at home, at work and on the road.



## Promotional items

Promotional items such as buttons, T-shirts, coffee mugs, stickers and caps can be given away as prizes, raffled or sold. Items such as these will help build enthusiasm among staff and will act as reminders. Promotional items can also be used to help brand your message.

Instead of the typical promotional items, energy-saving devices such as energy-efficient light bulbs, faucet aerators and set-back thermostats can be given away as prizes or as awards for participating in special activities or events. These types of products may be more relevant to your program's overall objectives and encourage participants to think about energy efficiency.

### Tip

- Beware! Although promotional items are frequently used, they should be produced and used only after due consideration of their value.
- When planning promotional items, be sure to use a bold identity and design to ensure that your material stands out against the visual "noise" of most health care facilities. A strong, easily identifiable brand, reinforced with a logo, tag line, style or colour, as well as a consistent look will help your audience identify with your program and its various components.

## Activities and events

### Competitions and challenges

Friendly competition among departments, programs and/or employees can encourage and motivate staff to participate in your awareness program.

#### *Ideas for competitions and challenges*

- Determine which department, program or employee can reduce energy use most effectively.
- Encourage suggestions for creative energy efficiency improvements.
- Produce an energy efficiency poster, poem, song or jingle, program mascot or energy awareness character.
- Promote energy-efficient transportation by rewarding departments that have the highest number of people who use car pools or take public transit.
- Reduce off-peak electricity use by issuing challenges to employees in various buildings within a facility.

- Organize a competition in which an energy efficiency auditor checks various parts of the facility at night to verify if computers, lights and equipment that are not in use have been turned off. Prizes could be awarded to groups that demonstrate the most energy-efficient behaviour.

## Tip

When implementing a competition or challenge, post notices of the time frames and prizes in public areas or in newsletters. If possible, display the prizes to build anticipation. Post the rules and other key information well in advance. Rules could explain the maximum number of entries, participation guidelines, contact names and general guidelines.

## Special events

Hosting special events or “theme” days and weeks provides the opportunity to impart detailed information to employees and patients and engage them in the program. Special events should be colourful and dynamic and use a wide mix of communications tools. Events can feature special activities such as raffles, quizzes and random draws at displays.

## What they did...



The Rouge Valley Health System, located in the eastern Greater Toronto Area, launched its awareness campaign as part of Earth Week. Local television and newspaper celebrities assisted facility executives in making this element of their environmental improvement pledge a community event.



The Cambridge Memorial Hospital celebrated its ISO 14001 certification in February 2001 (it was the first hospital in North America to achieve this certification) with presentations by the hospital’s CEO, the Parliamentary Assistant to the Minister of Environment and others. Hospital staff and the public attended the event. The hospital’s Green Team also set up various displays and posters on environmental issues, including energy efficiency, to further promote environmental and energy awareness among staff.

A special event is a good opportunity for your energy efficiency champion to be a visible part of your campaign and show leadership by example. It may also be an opportunity to invite a local celebrity to encourage participation. Events should be promoted at least two weeks in advance. Consider issuing a press release. Events can help draw attention to the program and demonstrate that people working together can achieve a common goal.

### **Awards programs**

Awards programs build and maintain momentum. They also generate interest and motivate behavioural change. Have a suggestion box and offer prizes for the best or most innovative solutions. Quizzes about energy efficiency at work and at home can help stimulate interest and participation. Prizes can be awarded for the highest number of correct answers.

Awards can range from small items such as fluorescent lightbulbs, T-shirts, set-back thermostats and low-flow aerators to larger items such as an energy-efficient appliance (microwave, dishwasher, etc.). Solicit support for awards from local sponsors.

### *Tip*

#### **Involve children and youth in your initiative**

Initiate energy awareness activities that target young people. Drawing and colouring competitions or cooperative projects can generate material to decorate your facility or other buildings in the community, demonstrate active involvement and keep participants occupied.

### **Information sessions, special workshops and presentations**

Information sessions such as workshops and other presentations provide opportunities to learn about energy efficiency, show how facility and individuals can benefit and illustrate practical ways to save energy. The sessions can be in the form of presentations, workshops and discussion groups or a combination of these approaches. Such sessions can be part of your facility's Energy Awareness Week or Earth Day activities.

## What they are planning...



The Green Team at Cambridge Memorial Hospital recognizes that maintenance staff have the most control over improving the energy efficiency of their facility. These employees were among the first to be targeted in the hospital's energy management plan and have taken specialized training at Seneca College's accredited Building Environmental Systems Program and in the "Dollars to \$ense" workshop series offered by Natural Resources Canada's Office of Energy Efficiency.

Departmental and committee meetings also provide an opportunity to educate staff and encourage participation. Most importantly, they provide an opportunity for two-way communication. Facility users can suggest ideas to reduce energy use, and any questions or concerns can be addressed immediately. Presentations at meetings should be short and focus on what individuals can do to reduce energy costs and on the associated benefits.

## What they are doing...



One hospital is trying to speak to as many of its employees as possible about energy efficiency. The hospital worked to get a 10-minute presentation on the agenda of as many staff meetings as possible. The presentation is simple, concise and targeted for the audience. The message focused on the control the individual end-user has on the amount of energy used.

Energy efficiency is a regular agenda item at the University of Alberta Hospital's operations and maintenance staff meetings, offering an opportunity for staff to discuss new ideas and suggest energy efficiency action items.

## What they did...



The Health Sciences Centre of Winnipeg, Manitoba, believes that although the topic of energy efficiency is serious, the approach used in an awareness program does not have to be. To reach its objectives, the planning committee came up with a mascot to make the campaign fun and effective. The “Energy Elf” was something staff could easily



recognize and associate with energy efficiency, and it also kept the message fun and light. The image is used on Post-it® notes and posters, on the Centre’s intranet site and in displays, and is part of a regular column in the Centre’s newsletter.

Two versions of Post-it® notes were created and placed on unused equipment and lights by cleaning and security staff to remind facility users to turn equipment off when not in use. Before launching this part of the campaign, cleaning and security staff participated in a training program that provided an overview of program goals. These include the reasons it is important to conserve energy, estimates of savings (“turning lights off in one office saves more than \$40 per year”) and ways that staff would play an important role in this campaign. Staff were encouraged to leave the notes where lights and appliances were left on and to report any dripping faucets or running toilets to the maintenance department.

[continued >>](#)



<< continued

The Elf also has its own e-mail address so that staff can offer comments or suggestions. The following is an e-mail received by the Energy Elf in response to a note left on a light that was not turned off:

*Dear Energy Elf,*

Last week I came upon a note that you left in my area. Evidently, not one but two lights were left on in an examination room. I don't know who you are or where you came from, but I certainly took notice of your presence. I promise to be more careful! Whoever contracted you had a brilliant idea. I was hoping to spread your word to my children at home. Although they are usually very conscientious about saving energy and turning things off, sometimes they forget. I am wondering if I could purchase some of your little notes so that my babes could be cleverly reminded to save energy too.

*P.S. Keep up the good work!*

The Energy Elf in person also makes live appearances at energy or environmental displays and special events to increase awareness of the importance of energy efficiency at the facility. Staff can even make special requests to have the Energy Elf attend specific events.

# step 5

## Implement your awareness program

When you have planned and prepared your awareness program, the next step is to get the message out. Implementing your awareness program takes energy, enthusiasm and imagination.

How you implement your program is up to you. You can choose various tools and activities and incorporate them into your program. Your awareness program doesn't have to be complicated to be successful. You may simply decide to have a few meetings with key energy consumers, provide them with actions and ask for suggestions. Or you might publish a few articles in your facility's newsletter. Even the simplest plan can help get you started and have an impact.

### 5.1 Getting started

Kick off your awareness program with a special event, presentation or workshop to build excitement. To mark the kickoff, organize a challenge to see how many staff can get to work using the fewest vehicles. You could also have a contest to see who can come up with the best idea to save energy at the facility.

### What they did...



The awareness team at Sudbury Regional Hospital, which includes a representative from Ontario Hydro, launched its program by visiting all departments to discuss the importance of energy efficiency and to identify various opportunities to reduce lighting costs.

## *Tips*

- Promote your program's launch at least two weeks in advance using posters, newsletters and other tools.
- Start by using a few of the communications tools that you think will give you the biggest "bang for your buck."
- Learn from experience and adapt your program as you go. For example, if posters do not generate interest, it may be more effective to make a presentation at a meeting to promote your message.
- Awareness is a "work in progress." Maintain momentum by repeating your message frequently, using different tools over a sustained period of time.
- Awareness programs are more effective when linked to changes that staff can see. If you are planning energy retrofits in your facility, kick off your awareness programs at the beginning of the retrofits and continue the programs throughout.

# step 6

## Evaluate your program

Evaluating your awareness program against original goals and objectives will help determine if it is effective – what works, what doesn't and which tools and activities best encourage changes in behaviour. Ongoing evaluations throughout your campaign provide the information needed to adapt your program and plan future activities to achieve the desired results.

### 6.1 Evaluation approaches

Comparing variables documented in Step 2 against new information gathered after your program is underway will provide insight into whether your program is on course. Depending on your approach, you can conduct different types of evaluations. Most approaches can be categorized as either quantitative or qualitative.

#### *Tip*

Use the approach that you feel will give you the most accurate information or use a combination of methods to get a more complete assessment of your program.

#### *Quantitative evaluations*

Quantitative evaluations deal with objectives, measurable facts and numbers – they ask “what?” and “how much?” rather than “why?”

#### **Options for quantitative evaluations**

- Compare your energy bills before, during and after your awareness program. Ask your energy service consultant or your facility's operations department to provide you with this information regularly.



- A decrease in your energy costs could suggest that your program is working. Consider whether other factors could have influenced energy use, including technical retrofits, a shutdown of part of the facility or the installation of new equipment.
- As suggested in Step 2, distribute awareness questionnaires before and after your campaign to determine whether staff experienced a change in their energy efficiency knowledge and awareness. An increase in awareness will demonstrate how effective your program has been. Questionnaires can be distributed as a payroll insert or be completed by specific individuals or departments.

### *Tip*

Ask your energy consultant about energy use and how to factor in variables such as changes in weather and building use over time.

### *Qualitative evaluations*

Qualitative evaluations are flexible because respondents can give a number of answers to questions that are often open-ended. They also provide in-depth information as they allow the interviewer to probe more deeply by asking questions such as “what do you think?,” “why do you think that?” and “what do you suggest?”

Qualitative evaluations sometimes involve personal interaction, such as individual surveys or interviews, or can be conducted on a more impersonal basis. Depending on the size of your facility, you can target a certain group of people or randomly select representative staff.

### Options for qualitative evaluations

- Prepare a short questionnaire and distribute copies to participants through senior managers or to specific individuals. Ask respondents to return completed surveys within a specific time period.
- Distribute questionnaires at a booth during an energy efficiency event or at lunchtime. Have sufficient room for respondents to fill out the questionnaire on the spot so that it can be returned immediately.
- Conduct face-to-face surveys with visitors.
- Ask a set of questions at a meeting and encourage comments.

Qualitative analysis can also be undertaken informally by asking building occupants what they think about energy efficiency and the awareness program in general. From the results of these informal surveys, you will be able to assess the overall level of energy efficiency awareness of your group.

### *Tips*

- Increase your evaluation response rate by offering incentives for participating. These could include low-cost promotional giveaways or coupons from sponsors.
- Enlist the assistance of local high school or college students to administer the questionnaires. The “third party” approach may bring a better response rate.

## What they did...



The Health Sciences Centre of Winnipeg, Manitoba, launched its awareness program in April 2001. The hospital acknowledges that it is difficult to quantify results from its awareness campaign, but it has identified some approaches for measuring the program's effectiveness:

- regular meter readings in a sample of buildings occupied primarily during regular office hours
- an analysis of the number of Post-it® notes distributed over time to determine whether the number of reminders needed has decreased since the program's launch
- tracking the number of e-mail questions and comments directed to the Centre's Energy Elf
- telephone surveys with staff at the program launch and one year later
- pre- and post-campaign surveys to measure changes in awareness levels among staff

# step 7

## Track and report results

Your evaluation will provide you with some quantitative data on your facility's energy use patterns over time. Reporting publicly on your awareness program's progress will enhance the program's effectiveness by communicating that participants can and do make a difference.

To reinforce your message, provide regular updates to staff and users of your health care facility through newsletter articles, displays and management meetings. Updates will help illustrate the importance of individual cooperation and participation.

### *Tips*

- Show progress with easy-to-read bar graphs, pie charts and concrete examples.
- Include information on how much energy and money your campaign has saved and explain the positive impact to the environment.
- Present the information in a way that your audience can relate to. For example, report on the amount of money saved over a year and compare it with salary costs or the costs of new equipment.
- Display the information widely and regularly using bulletin boards, Web sites and newsletters.
- Send regular progress reports to senior management to keep them informed and to maintain their support. Reports should be brief, list awareness activities, highlight any savings achieved and present any other positive outcomes that are related to the campaign.





## What they are doing...



Facility managers of the Peninsulas Health Care Corporation meet regularly with senior management to discuss and review issues regarding plant operations. Managers provide updates on energy efficiency programs implemented in each facility, including awareness activities, and report on the energy savings achieved. These updates help maintain senior management support for energy efficiency initiatives.

The University of Alberta Hospital has been monitoring its energy usage since 1991. Information is compiled using a database that allows the operations department to report on utility usage and costs by building. This allows the hospital to track results of its energy management measures and compare energy reductions with targets.

# step 8

## Follow through

- *Sub-steps*
- *8.1 Reinforce your message*
- *8.2 Adapt your approach*
- *8.3 Share successes*

### 8.1 Reinforce your message

Once your awareness program is in full swing, you can move toward your goal of reducing energy consumption. Remember that awareness is a work in progress – to maintain interest and momentum, continue to reinforce your message frequently by using a variety of tools such as articles in your facility’s newsletter and updates on bulletin board displays and in meetings.

### 8.2 Adapt your approach

During the course of your campaign, you can adapt elements of your program to better respond to the needs of your facility. Use the information from your evaluations and observations to redirect your campaign, if required. If a second phase will be implemented or if a follow-up campaign is planned, be sure to use information from your evaluations. What tools worked well? What can you improve? Are there any new ways to spread information about the program? How can you keep the message fresh? For example, if you have used articles in the newsletter to promote energy awareness and your tracking shows that awareness has not increased, you might consider using another tool or redefining your message.

It is important to reinforce the message of energy efficiency as often as possible. This will help sustain the impact of your program, reinforce new behaviour and lead to the continuous improvement of your overall program.



### 8.3 Share successes

As part of the follow-up, it is essential to provide internal and external audiences with an update of the program's success. Celebrate your achievements and recognize the important role that your employees and other facility users have played in reducing energy use. Your health care facility may decide to use some of the money saved to buy new equipment or fund a pizza party or other event that participants would enjoy.

#### What they did...



Kingston General Hospital delivered a very successful lighting retrofit program in 1998, saving \$90,000 per year and thousands of kilograms of GHG emissions. The hospital decided to report its success not only to its own staff but also to the community. Local media covered the initiative, and local papers reported on the financial benefits achieved. The message was emphasized that everyone has a role to play in energy savings and that this does make a difference.

# *learn more*

Additional resources are available from Natural Resources Canada's Office of Energy Efficiency and the Canadian College of Health Service Executives to help you develop and implement your facility's awareness program. A wealth of information is available to help you become more energy efficient at home, at work and on the road.

## *For more information, contact*

### **Energy Innovators Initiative**

Office of Energy Efficiency  
Natural Resources Canada  
580 Booth Street  
Ottawa ON K1A 0E4  
Tel.: (613) 992-3245  
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Web site: [oee.nrcan.gc.ca/eii](http://oee.nrcan.gc.ca/eii)

### **Canadian College of Health Service Executives**

350 Sparks Street, Suite 402  
Ottawa ON K1R 7S8  
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Fax: (613) 235-5451  
Web site: [www.cchse.org](http://www.cchse.org)

# appendix

## Case studies

### Health Sciences Centre



#### *Background*

The Health Sciences Centre, located in Winnipeg, Manitoba, is one of Canada's largest health care facilities. With over 780 beds and an annual patient volume of over 367 000, the Centre employs more than 6000 people. Comprising 25 buildings and occupying 373 254 m<sup>2</sup>, the hospital is the major trauma referral centre and tertiary centre for Manitoba, northwestern Ontario, eastern Saskatchewan and Nunavut.

To reduce operating costs and to show environmental leadership, the Centre developed a corporate energy management plan that identified a number of energy-saving objectives:

- improve energy efficiency by performing economically feasible retrofits and upgrades
- reduce energy costs
- improve energy efficiency through employee training and staff awareness
- maintain staff commitment to energy management
- reduce greenhouse gas emissions that contribute to climate change



This case study examines how the Centre helped achieve its energy efficiency objectives by implementing an energy efficiency awareness program.

#### *Awareness program overview and activities*

A planning team was established to oversee the Centre's energy efficiency awareness program. The team was composed of individuals from several departments, including biomedical communications, the central energy plant and facility management. They held several planning sessions and decided early on that they wanted not only to raise awareness, but also to motivate staff to use energy more efficiently. The team came up with a number of activities to support their objectives:

- distribution of on-line questionnaires that prompted staff to think about how they use energy and how equipment is operated in their respective departments

- production of a display that focuses on energy efficiency for use in the facility's mall area, presentations and booths and for other events
- development of the "Energy Elf" mascot that people would recognize and associate with energy efficiency. The Energy Elf is used
  - on energy efficiency promotional material, including posters and Web pages
  - on Post-it® notes to remind users to turn off unused equipment
  - to receive suggestions and other input from staff via e-mail and the hospital's suggestion boxes
  - to make appearances at special events
  - on computer screen savers to remind employees to be energy efficient
  - in energy efficiency literature
  - in the hospital's newsletter as part of a regular column that includes tips and suggestions about using energy efficiently
  - on awareness recognition awards



To ensure momentum, the team decided to implement the program in stages, beginning with a program launch and training and information sessions. These initial activities were followed up with other events.

### *Program evaluation*

Although the planning team recognizes the difficulty in quantifying results from an awareness program, it plans to use a number of approaches to evaluate the overall effectiveness of its campaign. They include the following:

- Telephone surveys of a minimum of 50 employees will be conducted to evaluate the awareness level at the beginning of the program and one year later.
- Meter readings from four buildings will be collected regularly. Three of the buildings are occupied during normal office hours, and the fourth is used minimally. Readings will be analysed 6 and 12 months after the campaign's launch.
- The team will monitor the number of Energy Elf Post-it® notes distributed over time. Team members expect that a greater number of notes will be required initially but that as the impact of the program is felt over time and behaviour is gradually affected, fewer reminders will be required.
- The number of e-mail questions and comments received by the Energy Elf and the number of requests to have the mascot appear around the facility will also be monitored.

## *Lessons learned and critical factors*

Before implementing the program, the planning team reviewed awareness programs at other facilities and observed several successful elements that they incorporated into their own program, including

- a well-planned strategy
- adequate human and financial resources to deliver the program
- engaging and interactive activities to encourage employees to change their behaviour and keep energy efficiency in mind

## *Contact information*

### **Energy Innovators Initiative**

Office of Energy Efficiency  
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### **Health Sciences Centre**

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## Peninsulas Health Care Corporation



### *Background*

The Peninsulas Health Care Corporation provides acute and long-term care for the Bonavista Peninsula, the Burin Peninsula and the Clarenville area of Newfoundland and Labrador. Its seven facilities and eight medical clinics employ more than 950 people and service a population of 57 000 throughout 161 communities.



U.S. Memorial Health Centre is one of the PHCC's seven health care facilities.

### *Initiating the energy efficiency awareness program*

An acute care facility with 54 beds, the Corporation's Burin Peninsula Health Care Centre initiated an ambitious energy management program in 1991, spearheaded by its facility manager, Craig Grandy. This initiative was prompted in part by Newfoundland Power's Curtailable Service Option, which provides financial incentives for reducing energy consumption.

In 1999, the Centre's energy management program was expanded regionally to include all of the Corporation's facilities. Recognizing that employee buy-in and participation were critical in achieving program objectives, the expanded program combined energy efficiency measures with an awareness program for employees and volunteers. Led by Grandy, facility management employees worked together to champion the awareness initiative with the full support of senior management.

### *Awareness program overview and activities*

The overall objective of the corporate awareness program was to motivate staff and volunteers to use energy more efficiently. The awareness program had several goals, including the following:

- create awareness among facility users of general energy efficiency practices (i.e., turning off unused equipment, lowering heating temperatures and keeping the lights off when not needed)
- inform employees about the energy costs associated with operating facility equipment
- provide regular updates on energy awareness activities and progress



## *Program implementation*

Before beginning the program, in-house staff analysed energy consumption patterns of all the Centre's facilities to identify the best opportunities for reducing energy consumption through low-cost or no-cost measures. As a result, combined with information provided by staff, several energy-saving measures were successfully implemented at relatively low cost. Examples of these are:

- Laundry – Rather than using all laundry equipment at the same time for four to five hours per day, staff staggered operating times to decrease peak demand. As well, the energy use assessment indicated that the ironer was turned on for 12 hours a day but used only intermittently. Following discussions with staff, the ironer's operating schedule was changed so that all ironing could be done at once.
- Kitchen – Kitchen staff were encouraged to use equipment such as ovens, steamers, food warmers and grills only when needed and to turn them off when they were not in use. Employees were cooperative and changed the times when they used equipment in order to spread the energy load.
- Other areas – Following discussions with staff in the central stabilizing room, the operating schedule for equipment was changed. Staff started to use some pieces of equipment only during non-peak hours and arranged to use other pieces of equipment individually as demand permitted.

Communication was critical to achieving the facility's awareness objectives. Methods used included the following:

- A memo on the awareness program was distributed to all employees to launch the program.
- Presentations by facility managers were held at various sites during staff meetings. Facility managers promoted energy awareness and encouraged employees to contribute their own ideas about energy efficiency.
- Energy efficiency pamphlets were developed that focused on the importance of working together to achieve common goals. The pamphlets also detailed the amount of energy consumed by specific equipment.

Other tools used by facility managers to sustain momentum included the following:

- Bulletin board displays – These provide information on the Newfoundland Power Curtailment Program, energy efficiency measures undertaken and progress made in energy and cost savings. They also offer energy management tips. Displays are located in high-traffic areas and can be viewed by employees and the general public.

- Newsletter articles – An internal newsletter provides information on the energy management program, updates on energy savings and energy efficiency tips for work and home.
- Signs and posters – Posted next to boardrooms, lounges and other rooms, signs and posters are used to remind occupants to turn off lights and other equipment when the room is not in use.
- Technical training programs – A technical training program on energy-efficient lighting, night set-back of thermostats and variable speed drive motors and dampers was offered to maintenance staff.

Because the awareness program used existing communications vehicles and relied heavily on personal contact, it was implemented at minimal cost and consequently required almost no additional funding.

### Results

Staff response to the energy management program has been excellent. In fact, staff now contact facility managers if they know that they will require more energy than usual, allowing the energy optimization of facility equipment.

The program has been a resounding success, with an average overall energy reduction of about 10 percent (see Table 1).

**Table 1. Energy savings at the Peninsulas Health Care Corporation**

	Year	Electricity consumption (kWh)	Electricity costs
<b>Burin Peninsula Health Care Centre</b>	1991	4 341 000	\$315,612
	2000	3 503 000	\$242,938
<b>Peninsulas Health Care Corporation (all facilities combined)</b>	1997	13 528 388	\$976,232
	2000	12 258 385	\$879,457

The Centre’s energy savings represent efficiencies that result from a combination of technical measures and its awareness program. Technical measures included a lighting retrofit of all night lights, exit lights and recessed lights, and the installation of demand-limiting equipment. As a result of the reduced energy consumption, the corporation also received \$30,000 in rebates from Newfoundland Power in 2000.

## *Lessons learned*

The Centre learned the following lessons as it implemented its awareness program:

- Messages must be clear and relevant to the target audience.
- It is vital to communicate the reasons for an energy management program and to provide specific information about how it relates to the facility and to employees. For example, report on progress by communicating monthly energy or dollar savings as a result of energy efficiency activities.
- Teamwork is important. Working together to achieve a common goal increases the chances of success.
- Low-cost and no-cost energy efficiency activities can make a difference.
- Staff support is critical in successfully implementing energy efficiency measures and in generating ideas for decreasing energy use.
- Ongoing communication about the program and its progress is important.

## *Contact information*

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# University of Alberta Hospital



## Background

The University of Alberta Hospital is a primary tertiary care centre located on the university campus in Edmonton, Alberta. With a total of 650 beds and an annual patient volume of 61 206, the hospital employs 2430 full-time and 1211 part-time staff. The facility's eight buildings occupy a total of 350 782 m<sup>2</sup>.

The hospital has made energy management a priority for more than a decade. In 1992, the hospital hired an energy manager to act as a champion of its new energy management initiative. In 1997, the hospital's Facilities Department Strategic Plan established a goal to reduce energy use by 18 percent below 1996 levels by 2000. A subsequent target to reduce energy use by 15 percent below 1999 levels by 2002 was set.

The hospital's Energy Management Program outlines the following four key objectives related to energy management:

- Improve energy efficiency through economically feasible initiatives.
- Reduce energy costs.
- Maintain staff commitment to energy management.
- Reduce greenhouse gas (GHG) emissions that contribute to climate change.

In working toward these objectives, the hospital's Energy Management Program planned to undertake the following:

- install enhanced utility tracking software
- conduct ongoing tracking of financial and GHG-reduction benefits related to energy efficiency
- identify new measures and activities to reduce energy consumption
- encourage staff participation and commitment
- incorporate energy-efficient designs into all new facility additions and renovations
- join the Energy Innovators Initiative of Natural Resources Canada's Office of Energy Efficiency
- implement a range of energy-efficient retrofits, including lighting conversions and other upgrades



## Awareness program overview and activities

Initiated in 1993, the program was championed by Doug Dunn, Manager of Building Operations. He recognized the necessity of incorporating training and awareness components into the facility's energy management planning to encourage the participation and support of all staff.



One of the program's earliest activities was to affix stickers to light switches to remind staff to turn off lights when a room was not in use. This was a good starting point because it required only a small capital expenditure and could yield significant savings because lighting represented almost 50 percent of the facility's energy bill. Over a 12-month period, approximately 3000 stickers were used, initially with switches in public areas. The program was promoted in facility newsletters and included information on estimated savings.<sup>1</sup>

Staff were also encouraged to turn off computers at night. This has become less of an issue over time as more computers are now equipped with energy-efficient monitors and hard drives that have automatic shutdown or "sleep" modes.

To sustain momentum for the hospital's awareness program, activities are implemented continuously. Articles on the Energy Management Program appear periodically in the hospital newsletter, and energy management is a regular agenda item at operations and maintenance staff meetings, where employees are encouraged to identify and suggest new energy efficiency initiatives.

Press releases announce recent successes and accomplishments. Articles about the hospital's Energy Management Program have appeared in both local and national papers and on local television. Information and reports are posted on bulletin boards to provide positive feedback to staff.

The hospital estimates that it spent about \$15,000 on its awareness program in 1992, principally for the light switch sticker campaign. It now spends an estimated \$8,000 each year to sustain its Energy Management Program.

## Results

The Energy Management Program is now well established within the hospital. The facility has evaluated the cost, energy and carbon dioxide equivalent (CO<sub>2</sub>e) emissions reductions resulting from implementation. These savings are summarized in Table 2.

<sup>1</sup> The campaign has since been phased out as the hospital has installed more lights with motion sensors and instituted computer-based time scheduling that automatically turns off lights in unoccupied spaces.

*Table 2. University of Alberta Hospital's employee awareness program*

Activity	Dates	Capital invested	Annual cost savings	Annual energy consumption savings (kWh)	Annual CO <sub>2</sub> savings (kt CO <sub>2</sub> e)
Light switch labels	1993–1994	\$15,000 (includes installation costs)	\$7,000	150 000	134.7
Awareness program activities (information and support)	1994	\$10,000	\$2,500	50 000	44.9
Awareness program activities (information and support)	1995	Not available	\$8,000	100 000	89.0
Awareness program activities (results of turning off lights and equipment not in use)	Ongoing	\$8,000 (estimated)	\$12,000 (estimated potential)	150 000 (estimated potential)	135.0 (estimated potential)

Current estimates suggest that the hospital can potentially save about 150 000 kWh each year from the reduction in energy use that has been achieved by turning off lights and equipment when not in use. Assuming an average electricity cost of approximately \$0.08/kWh, this translates into potential financial savings of \$12,000 per year.

### *Lessons learned*

The hospital's energy program was successful because operations and maintenance staff were aware of the program and believed in it. It is important to demonstrate the significance of the program to all staff and to encourage participation and support. At the University of Alberta Hospital, messages were communicated by relating the achieved energy savings to the additional health care dollars or staff positions represented.

Teamwork is a key element of a successful awareness program. The awareness committee worked hard to foster a sense of teamwork by making staff feel proud of energy-efficient behaviour and of what they could accomplish with the savings. In communicating energy efficiency benefits and acknowledging achievements, the hospital's newsletter was used as a vehicle to promote teamwork and buy-in at all levels. In addition, staff successes in the area of energy efficiency were recognized through the public display of awards.

To maintain energy-efficient behaviour, an awareness program should be implemented continuously. A one-time campaign will not achieve the desired results; staff need to be reminded constantly about the importance of energy efficiency and how it can be achieved.

### *Contact information*

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