Implementing an
ENERGY EFFICIENCY
AWARENESS PROGRAM

Office of Energy Efficiency
ecoENERGY Efficiency for Buildings
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Web site links
Throughout this guide, you will find links to Web sites that offer useful information about energy efficiency awareness programs for commercial, institutional and federal government buildings. Web addresses are shown in **bold italics**. Although some of these sites sell goods or services, Natural Resources Canada (NRCan) lists them solely for their educational content.

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Implementing an ENERGY EFFICIENCY AWARENESS PROGRAM

Why energy efficiency?
Energy efficiency is a proven strategy to lower emissions and reduce energy use and costs. Energy-efficient technologies, know-how and processes available today provide a significant opportunity to:

- reduce costs
- improve operating performance
- extend the lifespan of the building and its equipment
- increase occupant comfort while contributing to a cleaner environment

Optimizing energy use is a smart business practice and demonstrates corporate responsibility.

These reasons are why the Government of Canada and its provincial and territorial counterparts promote and support energy efficiency as a key strategy in national efforts to reduce greenhouse gas (GHG) emissions that contribute to climate change. This effort applies to all sectors, including buildings, industry, housing, transportation and agriculture.

In broad terms, energy efficiency promotes economic and environmental sustainability for Canada and all Canadians.

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2. Canada is committed to reducing its GHG emissions by 17 percent over 2005 levels by 2020.
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Energy use and the buildings sector
The buildings sector is a key component of the Canadian economy and can make a significant contribution to the reduction of Canada’s GHGs. Nearly half a million commercial, institutional and federal establishments in Canada provide space for our education, health care, government and business services.

In keeping with economic growth, population growth and a shift to a service-oriented and knowledge-based economy, the buildings sector is growing and so are its energy demands. Employment in the sector grew from 9 million in 1990 to 13 million in 2008. The opportunity for and expectation of energy savings are also growing. Coinciding with this, the role of the sector in achieving national goals related to climate change is becoming more critical.

In 2008, the buildings sector accounted for 14 percent of energy use in Canada and produced 13 percent of associated GHG emissions. Between 1990 and 2008, the sector was the fastest growing in Canada in energy use and GHG emissions. Energy use in the sector grew by 39 percent, floor space by 37 percent and gross domestic product by 73 percent.

Energy efficiency and the buildings sector
The Canadian buildings sector represents an enormous opportunity — building by building, from small corner store to office tower — to improve the performance of individual enterprises, raise the competitive profile of the sector as a whole and contribute significantly to national goals on energy and environmental sustainability.

Despite this, many Canadian building owners and managers have not taken advantage of the gains to be made by becoming more energy-efficient. Energy efficiency practices and technologies are not being taken up in the sector at the same rate as energy use. The sector is complex, not only because of the wide range of building owners but also in terms of building types and stakeholder groups, from investors and builders to engineers, architects, real estate agents, tenants and building operators, as well as all levels of government.

Although improving the energy efficiency in buildings usually involves up-front costs, the evidence is clear that the energy cost savings — typically more than 20 percent — usually pay for the improvements.

However, there are barriers to implementing an energy efficiency strategy. These include issues of risk management, information gaps, complexities in the building value chain, and financial costs related to being the first mover in the market.

Despite these barriers, you can undertake an energy efficiency initiative that will benefit the building, your organization, the occupants and the environment.

Natural Resources Canada’s (NRCan’s) ecoENERGY Efficiency for Buildings provides the information and resources you need to become more energy-efficient. Our key program activities include capacity building tools to promote awareness in support of your energy efficiency initiatives.

For more information
NRCan is dedicated to promoting energy efficiency, energy conservation and alternative fuels. For information, publications and training opportunities, visit the Office of Energy Efficiency (OEE) Web site at oee.nrcan.gc.ca.

THE PROGRAM

THE SUCCESS OF AN ENERGY EFFICIENCY INITIATIVE depends on people as much as or even more than technology. To maximize the energy savings potential of your building, make the effort to raise the awareness of everyone involved, including staff, managers, executives, tenants and suppliers through an Energy Efficiency Awareness Program.

A comprehensive awareness program supports and reinforces your organization’s overall energy efficiency objectives. By engaging your employees and changing workplace behaviours, you can improve your organization’s energy efficiency and lower costs. You can reinvest these savings into areas such as research and development (R&D), training or building improvements.

Simply put, investing in your employees pays off. Creating an energy savings culture in your workplace will identify conservation opportunities and goals that sustain energy efficiency over the long term.

An awareness program is a key component of a successful energy management plan that can help identify cost-saving opportunities in places you may not have considered. If you need help developing a plan, NRCan’s OEE’s Dollars to $ense program offers energy management workshops that help you:

- lower operating and production costs
- improve your competitive position
- reduce GHG emissions
- increase operational efficiency
- create a better work environment
- assemble an energy management team
- build a strategic framework for energy management
- make your organization a leader in energy efficiency

More information on Dollars to $ense can be found in Appendix A: Energy efficiency training resources.
This guide describes a step-by-step approach for developing an effective Energy Efficiency Awareness Program. You can implement the guide in its entirety or implement only certain concepts, practices or elements. Whether you undertake this approach in-house or hire an energy consultant to assist you, this guide will help you implement a program tailored to the needs of your organization, regardless of size or type.

Benefits of an Energy Efficiency Awareness Program
In addition to reducing energy consumption and saving money, a well-planned Energy Efficiency Awareness Program can yield other benefits, including:

- increased productivity
- enhanced employee morale as a result of working together to achieve a common goal
- an improved environment through lowered GHG emissions and air pollutants
- increased stakeholder understanding of the benefits of energy efficiency
- changed behaviours of how building users consume energy
- improved understanding of how an individual’s energy use is related to potential savings
- improved workplace comfort
- the enhanced reputation of your organization as a leader in environmental stewardship in the community, i.e. “good corporate citizen”
- behaviours learned in the workplace transferred to the home and community
- an energy management philosophy integrated in the organizational structure, with delegated responsibilities clearly outlined, leading to a solid foundation for future initiatives

To become truly energy-efficient, your organization must make basic changes in the way your employees behave, in the technologies you adopt and in internal policies and procedures. These changes do not have to be drastic or costly, but no single change can deliver maximum savings. Benefits are maximized when a combination of technological, behavioural and organizational changes are implemented simultaneously with support from senior management.

To achieve these changes, your program should become part of your organization’s management best practices. As such, it will become an integrated, company-wide effort that involves making business decisions about equipment, establishing procedures that ensure greater energy and process efficiency, and encouraging behaviours that save energy and money.

Figure 1 Keys to success

Technology alone cannot achieve optimal savings, but when coupled with operations and maintenance practices, as well as management systems, it can lead to significant savings. Figure 1 illustrates how integrating organizational, technological and behavioural change is a continuous, dynamic process. Integrating an energy management culture with operational and technological actions is required for optimal results. Employee behaviour is also crucial because it puts people in the “feedback loop” and is supported by celebration and recognition of results.
When you launch your program, it is important to obtain commitment from senior management and to organize a team composed of key players. Assign responsibility for implementing the program to team members.

The overall success of the initiative depends on the cooperation, acceptance and involvement of everyone who uses the facilities – whether staff and students in a school, college or university; staff, patients and visitors in a health care facility; customers or patrons of a store or restaurant; employees in an office building; and, of course, maintenance and operations personnel.

1.1 Obtain senior management commitment
Early and ongoing support from senior management is key to the success of your program. Management should already have developed a comprehensive energy management plan that includes training and awareness. When management leads the program and requests support from employees, the credibility of the program is enhanced. Communication from senior management promoting the program is one way of demonstrating commitment.

1.2 Recruit an energy efficiency champion
Recruiting a “champion” to represent your program is crucial to achieving your objectives. 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 spokesperson for the program – someone who is recognized and publicly associated with energy initiatives in the organization and the community.
1.3 Designate a program leader
Management should publicly identify an individual to initiate and oversee planning and implementing the program. This individual must have the resources and authority to carry out the program. The leader role could be combined with the energy champion role.

1.4 Appoint a “Green Team”
When you assemble your “Green Team,” be sure to include individuals who have a wide range of skills, interests and knowledge from various areas of the organization. This practice will ensure a solid understanding of the diverse energy-consuming activities throughout the organization and provide spokespeople who represent a range of programs and departments.

Members of your team should include representatives from groups such as:
- front-line staff, including nurses in a hospital, teachers and students in an academic institution, customer service representatives or servers in a restaurant
- administration and support staff
- engineering or operations staff
- cleaning, housekeeping and maintenance staff
- management
- personnel from public relations, marketing or special events planning
- volunteers
- clients

As team members are chosen from various areas and functions within your organization, identifying roles and assigning tasks will come naturally. For example, public relations personnel could work on developing promotional material. Developing projects, allocating funds and training staff would be better managed by employees with these job skills. The organization will benefit from forming a small group within the team, or a core Green Team, as a strategic, sustainable decision-making team.

Your Green Team will now be given a corporate mandate that will involve energy management, water conservation and waste/recycling issues and lead the organization toward new best practice initiatives.
**STEP 2: Establish baselines**

2.1 Establish a baseline of energy consumption
If you know how and where energy is used and by whom, it is easier to focus on the activities that will generate the best results. Information about how your organization consumes energy establishes an energy consumption baseline for setting objectives for your program. It also helps establish some of the indicators against which the program can be evaluated.

An energy use analysis or energy audit highlights energy savings opportunities through low- or no-cost measures that building users can easily implement.

2.2 Establish a baseline of energy efficiency awareness
You will measure the success of your program by how it facilitates energy reduction initiatives and by the increased level of energy efficiency awareness in your workplace.

To evaluate the success at a later stage, you must determine a baseline of energy efficiency awareness before the program begins. To develop this baseline, distribute a brief questionnaire to determine the general level of knowledge of energy issues and efficiency measures within your organization. Administer the questionnaire again after you implement the program and compare the results to help determine the overall success of your program.

**Tips on conducting surveys**
- Make the questionnaire short — one to two pages at most.
- Format most questions as multiple-choice: “Yes or No” or “True or False,” with only a few open-ended questions.
- To encourage survey completion, consider offering an incentive such as a prize draw for returning the questionnaire.

Your objective is to get a reasonably accurate portrait of your organization’s population. The more people surveyed, the more accurate the findings are likely to be, but you do not have to survey everyone; it is more important to get a sample that represents different operating areas.

Consider the following questions for your questionnaire:
- Do you think energy management is an important issue at [state your organization’s name]?
- On a scale of 1 to 10, with 10 being the most important, how important do you think energy management is at [state your organization’s name]?
- Have you heard about the Energy Management Program at [state your organization’s name]?
- Are you aware of any energy-saving projects that have been completed or are ongoing at [state your organization’s name]? If yes, what are they?
- Do you feel that individual employees affect energy use at [state your organization’s name]? If yes, what actions can you take to save energy?
- Turning off 10 computers every night and on weekends for one year would save $250, $750 or $1,500? ($750 is the correct answer)
- Do you turn off electronic equipment that you use or for which you are responsible (computer, printer, lights, photocopier, etc.) at the end of the day?
- What energy-efficient actions do you take at work?
- What energy-efficient actions do you take at home?
- Can you list any way(s) that [state your organization’s name] could become more energy-efficient?
STEP 3: Formulate objectives

3.1 Support energy savings objectives

It is important that your program supports the energy savings objectives in your energy management plan (e.g. to reduce energy use by a specific amount or percentage over a specified period).

So how does awareness support these objectives? In many cases, it will be difficult to determine exactly if, or how, specific awareness activities are responsible for the energy savings, but the Green Team and senior management can agree to a set of indicators. For example, having a specific number of employees take training in each quarter can be accepted as an indicator of an improvement in building operations and occupant behaviours.

3.2 Establish awareness and communications objectives

Setting objectives to change the level of awareness and alter employee behaviour is essential to the long-term success of your program. You can measure the change against the awareness baseline that you established with your questionnaire (see Step 2.2).

Specific objectives will vary depending on the size, type and location of your organization and a range of other variables. Your Green Team, in conjunction with senior management, determines what constitutes realistic and obtainable goals. Establishing objectives that are too high can have a demoralizing effect if you cannot reach the targets. It is also important that the objectives are measurable. Setting a time frame for energy savings can make the objectives easier to evaluate.

Consider including the following objectives in the program:

- Secure employee support for and participation in energy efficiency initiatives.
- Initiate and maintain specific changes in employee behaviour that will lead to an energy-efficient workplace.
- Reward employees with improved benefits or awards for energy-efficient actions.
- Help building occupants understand the importance of energy efficiency in terms of reduced operating costs and an improved working environment.
- Promote the idea that the actions of individuals can make a difference.

Your program will benefit not only your organization but also your local community, Canada and beyond.
**STEP 4: Develop a communications plan**

A WELL-THOUGHT-OUT AND EXECUTED COMMUNICATIONS PLAN is an effective tool for implementing an energy efficiency awareness program.

Make use of internal resources. Form a team comprised of employees who are experienced in communications to help you develop a plan. Encourage buy-in by assigning specific tasks to team members and by ensuring that roles and responsibilities are understood and accepted by all.

There are many resources that you can consider to support and enhance your communications efforts. For example, partnering with a local high school or college by involving media arts students in developing posters and other materials could reduce costs while also involving the local community. Use the Internet to research communications plans developed by other organizations.

A strong, easily identifiable brand reinforced with a logo, tagline, style or colour will help your audience identify with your program and its various components. Consider connecting your message with easily identifiable brands such as ENERGY STAR® to lend credibility to your message.
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4.1 Identify communications tools
Select communications tools that will deliver your message in the most effective way. While it is convenient and practical to use your organization’s existing lines of communication, consider new and innovative ways to reach your target audience. (See Appendix C for more information on communications tools).

Consider the following suggestions:

- **printed materials**
  - newsletters
  - memos
  - pamphlets/brochures
  - bulletins
  - posters
  - pay envelope notices
  - tent cards
  - information packages for new employees
  - press releases

- **Internet-based products**
  - “news tickers” on your homepage
  - e-newsletter
  - e-mail
  - your organization’s intranet
  - blogs
  - social media such as Facebook and Twitter
    (see Appendix C for more information)

- **public channels**
  - displays and booths
  - public address system or intercom announcements
  - committees
  - bulletin boards
  - word of mouth

- **promotional items**
  - T-shirts
  - buttons
  - coffee mugs
  - stickers
  - hats

4.2 Confirm target audiences
It is important to confirm who the target audience is for your program because your message and delivery mechanisms will differ according to your intended audience. It is equally important to recognize and consider the varying circumstances, needs and concerns that each group may have if you will be targeting different groups. Clearly defining your audiences will allow you to develop effective messages, activities and plans that will address the needs of each group.

Consider the following audiences:

- employees
- non-company building occupants
- students
- service providers/suppliers
- customers
- potential customers
- general public and the local community
- visitors
- media
4.3 Develop messages
Now that you have confirmed your target audiences, develop your messages. Messages are the most significant ideas you will want to convey. Your messages are a call to action. Your key messages are what you want your audiences to remember and react to. Identify what your audiences need to know, and then develop powerful messages that address these specific requirements.

Consider the following approach to developing key messages:

- Decide what you need to communicate.
- Identify three or four of the most important messages you want to convey (key messages).
- Develop supporting messages for each key message.
- Customize your key messages and supporting messages to different target audiences.

Make the messages:
- simple
- easy to understand and remember
- repeated frequently
- consistent
- relevant
- focused on one idea

Consider including the following communications messages in the program:

- **Save energy at work.**
- **Saving energy improves workplace comfort.** Assure employees that they will not “freeze in the dark.”
- **Individuals can make a difference.** Everyone has a role to play. The success of the program depends on everybody’s contribution and participation.
- **Contribute to improving the environment.** Improving energy efficiency reduces GHG emissions that contribute to climate change.
- **Contribute to economic, energy and environmental security.**

Make your messages “real” by providing context for the information that you want to convey. For example, if lighting represents 5 to 10 percent of your organization’s energy bill, your messages could communicate that a 10 percent savings from turning off lights when not in use could save a specific dollar amount every year. You could then relate these savings to an equivalent such as teaching supplies, an upgraded lobby in a hotel, an investment in medical programs, staff positions or new equipment.

Individuals are more likely to “buy into” energy efficiency when potential cost savings are translated into concrete benefits that they can relate to and that are relevant to your organization’s line of business.

Successful buy-in is more likely when the
- issue is understood on a personal level
- impacts associated with individual energy use are known
- audience understands that what they do makes a difference
- activities will not inconvenience people

When energy-related changes are being made to equipment, processes or workspaces, it is important to keep everyone informed and involved. Let employees know about the nature of the changes and the reasons behind them. For employees to give their support, they need to know how they will be affected. Remember that you are asking people to change their behaviour. To do this, you will have to communicate with your audience regularly, repeat the message and vary the presentation of your message so they do not lose interest.
STEP 5: Recognize

5.1 Activities
Activities such as competitions, challenges and contests combined with awards programs can encourage and motivate staff to participate in your program.

Consider the following ideas for competitions and challenges:

- Organize interdepartmental competitions.
- Determine which department, program or employee can reduce energy use the most effectively.
- Encourage and reward creative suggestions for energy efficiency improvements.
- Ask employees to design and produce an energy efficiency poster, a poem, a song or a jingle, a mascot or an energy efficiency awareness character.
- Promote energy-efficient transportation by rewarding departments that have the highest number of people who carpool or take public transit.
- Reduce peak electricity use by issuing challenges to employees in various buildings within your organization.
- Organize a competition where an energy efficiency auditor checks various parts of the organization 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 practices.

5.2 Awards
Awards programs help build momentum, generate interest and motivate behavioural change. You can give awards as prizes for contests, as incentives for participating in activities or to recognize significant contributions. You can also solicit support from local sponsors to obtain awards. Awards can range from small items such as compact fluorescent lamps, T-shirts, setback thermostats and low-flow aerators to larger items such as energy-efficient appliances such as microwaves or dishwashers.
STEP 6: Implement

AFTER YOU FINALIZE YOUR COMMUNICATIONS PLAN, the next step is to get the message out. Implementing your program takes commitment, energy, time, enthusiasm and imagination.

Promote your program launch at least two to four weeks in advance by using posters, newsletters and other communications tools.

6.1 Getting started: Issues to consider
To help you get started, consider the following issues.

WHEN will program activities take place?
After you determine your key messages, delivery tools, activities and events, you must develop a detailed schedule for the timing and delivery.

Build interest by putting on a day- or week-long event or by organizing numerous activities over the course of a year. Whatever you choose, it is important to book a date for your program launch and to schedule reminders ahead of time.

Link an Energy Efficiency Awareness Week or Earth Day activities with the launch of your program. You could host or coordinate with local firms or agencies or other green teams to further your awareness initiatives.

WHERE will you hold the activities and events?
Decide on venues. Will they be on- or off-site? Inside or outside? Consider the following activities:

- Present awards in auditoriums, in cafeterias or at picnics.
- Set up displays, booths and bulletin boards in high-traffic areas such as the cafeteria.
- Participate in regular staff and departmental meetings.
- Hold information sessions, special workshops and presentations.

HOW MUCH will your program rollout cost?
Establish a budget. Break it down into separate elements, such as

- communications (e.g. newsletters, posters)
- promotional materials (e.g. T-shirts, buttons)
- refreshments and food
- awards and prizes
- facilitators and speakers
- entertainment
- equipment rentals

Consider seeking outside funding if your plans are beyond your organization’s means. It may be worth approaching community foundations, local service clubs with an environmental mandate and various levels of government and utility companies. Do not overlook the possibility of product and other donations (e.g. prizes, refreshments) from suppliers and customers who share similar objectives.
STEP 7: Evaluate your program, track the results and follow through

EVALUATING YOUR PROGRAM AGAINST ITS ORIGINAL OBJECTIVES will help determine if it is effective, identify what works and what does not work and find out which tools and activities best encourage changes in behaviour.

Frequent evaluations throughout the roll-out of your program will provide the information needed to adapt your program and plan future activities to achieve the desired results.

7.1 Evaluate the approaches
Comparing variables about the new level of awareness, now that your program is underway, against the baseline of energy efficiency awareness (established in Step 2) will provide insight into whether the program is on course:

- Compare your energy bills before, during and after your program. Ask your energy service consultant or the operations department of your organization 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, weather, a shutdown of part of the organization or the installation of new equipment.

- Distribute a follow-up awareness questionnaire (see Step 2) to determine whether staff experienced a change in their energy efficiency knowledge and awareness. An increase in knowledge and awareness will demonstrate the effectiveness of your program. Distribute questionnaires as a pay envelope insert, via e-mail or by conducting telephone surveys. You can also ask questions during meetings, to encourage comment and discussion.

7.2 Track and report the results
Your evaluation of the program will provide data on the energy use patterns of your organization over time. Illustrate the progress with easy-to-read bar graphs and pie charts and provide concrete examples.

Reporting publicly on the progress of your program enhances its effectiveness. This lets participants know that their efforts really do make a difference.

Determine whether additional employees want to become involved in the Green Team initiatives, and what suggestions and comments they may have on the program.
7.3 Reinforce your message
Building awareness is ongoing work. To maintain interest in the program, continue to reinforce the Green Team’s messaging by providing regular updates to your staff and building users through newsletter articles, displays and management meetings. These updates will sustain the momentum of your program, reinforce new behaviours and lead to the continuous improvement of your overall program.

7.4 Adapt your approach
Throughout the implementation, the team will adapt elements of the program to respond to your organization’s changing needs. As the awareness level changes, so should the messaging. Learn from experience and adapt the program as you go. Use the information from your evaluations and observations to redirect your program.

For example, if you used newsletter articles to promote energy efficiency awareness and your tracking shows that awareness has not increased, consider using another tool or redefining your message:

- What tools worked well?
- What can you improve?
- Are there new ways to spread information about the program?
- How can you keep the message fresh?

7.5 Celebrate and share successes
Provide internal and external audiences with an update of the success of the program. Celebrate your team’s achievements and recognize the important role that your employees and other building users have played in reducing energy use.

To learn how other organizations have implemented effective awareness programs, see Appendix B: Case studies.
CONGRATULATIONS! You are now on your way to implementing your Energy Efficiency Awareness Program.

The Canadian buildings sector represents an enormous opportunity to improve the performance of individual enterprises, raise the competitive profile of the sector and contribute significantly to national goals on energy and environmental sustainability. A comprehensive awareness program supports and reinforces the overall objectives of your organization’s energy efficiency initiatives.

By involving employees and motivating a change in workplace behaviours, energy consumption can be reduced and operating costs can be lowered. These savings can be reinvested into your organization in a variety of ways. R&D, training and new building enhancements are only a few examples of how savings could be reinvested.

Aside from reaping financial benefits, you will be contributing to a healthier work environment for your employees as well as a healthier environment for Canada by reducing harmful emissions and pollutants. Employee morale will be strengthened, and behaviours learned in the workplace will be transferred to the home and community, enhancing your organization’s reputation.

Developing and implementing a customized Energy Efficiency Awareness Program is an opportunity your organization should explore.

For more information
NRCan works to strengthen and expand Canada’s commitment to energy efficiency at home, at work and on the road. Whether you own, manage or operate a new, existing or federal building, you can integrate energy efficiency into your operations. ecoENERGY Efficiency for Buildings provides tools and information to improve your energy performance.

For more information, contact us
Buildings Division
Office of Energy Efficiency
Natural Resources Canada
930 Carling Avenue, Building 3
Ottawa ON K1A 0Y3
E-mail: info.services@nrcan-rncan.gc.ca
oee.nrcan.gc.ca/industrial/training-awareness/2442

Natural Resources Canada’s Office of Energy Efficiency
Leading Canadians to Energy Efficiency at Home, at Work and on the Road

The Buildings Division’s mission is to improve the energy performance of commercial and institutional buildings in Canada. We work with stakeholders to exchange information and provide tools, policies and programs that build awareness and lead to action.
APPENDIX A: Energy efficiency training resources

WHILE AN AWARENESS PROGRAM IS A CRITICAL ELEMENT OF A SUCCESSFUL ENERGY EFFICIENCY INITIATIVE, training is a necessary complementary strategy. NRCan and various other stakeholder associations across Canada offer energy efficiency training programs. See our Web site at oee.nrcan.gc.ca for the latest training, workshops, seminars and courses available.

You can learn more about energy training by consulting the list of resources and Web links below.

NRCan’s Dollars to $ense Energy Management workshops
NRCan offers workshops on such topics as energy management planning, spot the energy savings opportunities, energy monitoring, energy efficiency financing, recommissioning and energy management information systems. Customized and specialized sector-specific workshops are also available, including hospitality, long-term care or nursing home, hospital/acute care, municipal, college/university, school board, retail store and grocery store.

oee.nrcan.gc.ca/commercial/networking/6951

RETScreen® International Clean Energy Decision Support Centre
Under the leadership and support of NRCan’s CanmetENERGY Research Centre, RETScreen® develops decision-making tools (i.e. RETScreen® Clean Energy Project Analysis Software), disseminates knowledge to facilitate decisions and provides training to better analyse the technical and financial viability of possible projects.

retscreen.net
Implementing an ENERGY EFFICIENCY AWARENESS PROGRAM

L’Association québécoise pour la maîtrise de l’énergie (AQME)
AQME offers training and certification associated with energy efficiency projects through le Centre de formation en maîtrise de l’énergie.
aqme.org/cfme.aspx (in French only)

Centennial College: Industrial and Building Energy Expertise (IBEX)
Centennial College’s online Training for Energy Efficiency program offers energy management training programs, supplemented by workshops and mentored audits.

Office of Energy Efficiency (OEE)
NRCan’s OEE Web site provides links to other sources of training as well as a calendar of events.
oee.nrcan.gc.ca/commercial/training-awareness
oee.nrcan.gc.ca/commercial/networking/6951

Remember to subscribe to NRCan’s electronic newsletter Heads Up Energy Efficiency, written to keep you informed about energy efficiency issues and initiatives in commercial, institutional and federal government buildings. We are always looking for success stories to share. To learn more, subscribe or contact us, visit oee.nrcan.gc.ca/commercial/technical-info/4647.

Building Environmental Systems (BES) program
Seneca College (Toronto, Ontario) offers this diploma program to building managers as well as operating and maintenance staff through distance learning. The BES program looks at a building as a system in which heating, air conditioning, refrigeration, ventilation, electrical power, lighting, water and air supply are connected and interdependent. The program encourages solutions for organizations that will improve overall energy efficiency and environmental management while maintaining competitiveness. The program is also delivered by a national network of technical colleges.
bes.senecac.on.ca

Building Owners and Managers Association (BOMA)
BOMA offers e-seminars and webinars for building operations. For example, Energy Training for Building Operations is an online training tool to help manage energy use. BOMA also offers accelerated studies leading to designations or certifications.
boma.org/TrainingAndEducation

Canadian Mechanical Contracting Education Foundation (CMCEF)
CMCEF offers education programs for mechanical contractors.
cmcef.org

Building Commissioning Association (BCA)
BCA offers webinars for commissioning providers.
Implementing an ENERGY EFFICIENCY AWARENESS PROGRAM

APPENDIX B: Case studies

WE WANT TO PRESENT STORIES OF ORGANIZATIONS that have used an Energy Efficiency Awareness Program successfully. Although the tools and methods vary, these stories may provide some insight and inspiration for implementing your own program.

WE WANT TO HEAR ABOUT YOUR SUCCESSES. Contact us at info.services@nrcan.gc.ca if you have a story that you would like to share in our newsletter or case studies.

EDUCATIONAL INSTITUTIONS

UNIVERSITY OF OTTAWA (Ottawa, Ontario)

The University of Ottawa believes that it has a leadership role to play in the education, research and policy setting necessary to ensure the sustainable development of our planet, our nation and our community.

Consequently, the university has been creating energy awareness among its staff and students since 1994. In 2006, the university created its Office of Campus Sustainability. The office is responsible for coordinating, promoting and implementing the university’s sustainable development activities and has a clearly established mission, targets, objectives and goals. The office manages the university’s sustainability Web site, administers the university’s sustainability awareness campaign and hosts campus sustainability events such as fairs and conferences.

The office has a network of EcoChampions located all over the campus. One of its goals is to raise awareness by sharing information in individual faculties, services and departments. Awareness initiatives are on-going, with special events held during Earth Day and Earth Hour. Green Week strives to address sustainable development themes as well as possible solutions. The Student Federation, along with multiple partners, presents a week filled with workshops, games, panels and speakers with the purpose of raising awareness and action in sustainability. The university uses social media as a tool to promote awareness initiatives on a regular basis.

7 These case studies were updated in December 2011.
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HOSPITALS AND HEALTH CARE CENTRES

LOWER MAINLAND HEALTH AUTHORITIES (British Columbia)

Covering sites from Vancouver to Pemberton and Powell River, up the coast to Bella Bella as well as Kelowna, Prince George and Vancouver Island, the Lower Mainland Health Authorities (LMHA) includes four health organizations — Fraser Health, Providence Health Care, Provincial Health Services Authority and Vancouver Coastal Health. These organizations provide a variety of health care services ranging from community to specialized acute care services. LMHA owns approximately 1.9 million square metres (m²) (20 million square feet [sq. ft.]) of space, leases another 0.5 million m² (5 million sq. ft.) and employs approximately 50 000 full-time staff.

The LMHA created an Environmental Sustainability Policy that applies to all employees, volunteers, physicians and contract workers. The Energy and Environmental Sustainability (EES) Team, housed in the Facilities Management Department, is responsible for rolling out a strategy to implement the policy.

Under the “GreenCare” umbrella, the strategy includes a variety of initiatives including the Green+Leaders program (see the sidebar). Since the program’s inception, Green+Leaders has implemented several successful energy reduction campaigns to encourage staff to turn off equipment. Some departments have reported up to an 80 percent improvement in “turn-it-off” behaviour. Furthermore, Green+Leaders also identified other opportunities to reduce energy use, such as decommissioning and consolidating office and medical equipment no longer in use as well as facilitating the installation of motion sensors in their units.

The EES team has a designated group of Energy Managers and Energy Specialists who work specifically on infrastructure upgrades to ensure facilities are maximizing opportunities to reduce energy.

Staff can make energy saving commitments through the Cut the Carbon Community (C3), an online social marketing Web site, designed to get staff thinking about how to act more sustainably in both their homes and workplaces. C3 allows staff to post ideas, discussions and solutions about carbon saving actions. The site’s goal is to show that individual actions can have a significant cumulative impact against climate change.

For more information on the initiatives of the LMHA, visit its Environmental Sustainability Web site at www.phsa.ca/AboutPHSA/Environmental-Sustainability.

GREEN+LEADERS

The Green+Leaders program is a staff engagement program that capitalizes on the enthusiasm and ideas of staff by offering volunteer opportunities to those who want to act on their sustainability values in the workplace.

Volunteers work two to four hours per month, during work time, with the support of their health authority and its supervisors. They carry out easy, predetermined steps in their units to encourage colleagues to become more sustainable, including turning off lights and equipment when not in use, making sure recycling is being done correctly, reducing paper use, and using alternative transportation.

Green+Leaders members model sustainable behaviours and offer tools to make tasks easier. Members also have opportunities to initiate unique projects for their departments.

For more information, visit www.phsa.ca/green.
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UNIVERSITY HEALTH NETWORK (Ontario)

The University Health Network (UHN) comprises three hospitals: Toronto General Hospital, Princess Margaret Hospital and Toronto Western Hospital. Greening health care is no small matter at UHN. Led by the Energy and Environment Department, UHN has been breathing life into the motto UHN: Committed to Patient and Planet Centered Care since adopting an environmental management system in 2000. The department is involved at all levels – working with staff to implement individual actions or being involved with policy discussions. With TLC – Care to Conserve, UHN’s comprehensive integrated energy management program, the health network is simultaneously addressing the human and the technology potential for saving energy. Through retrofit and retro-commissioning programs to optimize building energy use, combined with social marketing to influence staff behaviour and perceptions around energy conservation, TLC recognizes that combining people and technology results in greater efficiencies than if each of these areas were dealt with individually. With an annual utility bill of approximately $20 million, UNH estimates that its TLC good “lights off” habits could save the hospitals $1 million annually.

CHESTER NETWORK (Ontario)

Built by hospitals for hospitals, the Chester Network is a dynamic and holistic approach to maximizing energy-related operational performance with the Canadian health care sector. Building on nine years of experience, the Chester Network’s growing list of members includes the London Health Sciences Centre, St. Josephs Health Care Centre London, Alexander Marine and General Hospital, Huron Perth HealthCare Alliance, and Alberta Health Services.

Driven by hospital staff committed to energy stewardship, the network was created to establish a culture of energy efficiency within hospitals. Engaging staff in helping to reduce energy costs is the primary and sole function of the network. The program operates year round and creates engagement through the use of specific behavioural change strategies and activities such as department energy challenges, an energy hero’s reward and recognition program, prompt engagement, and display booth engagement. Education and awareness is provided through a variety of communication mediums. Employee value is provided through the tools and resources portion of the program outlining incentives, rebates and saving coupons, etc.

The Chester Network estimates that through various program initiatives, it is responsible for a cumulative 10 percent reduction in overall electricity consumption.

For more information on the network, visit the Web site at www.chesternetwork.com or find it on Facebook and LinkedIn.

For more information, visit the UHN Environmental Initiatives Web page at wwwuhn.ca/About_UHN/greening_UHN/index.asp.
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Since the success of its first employee awareness program in 1995, CFB Halifax has continued to promote efficient energy use by organizing annual events for base personnel. Most recent awareness efforts have coincided with the implementation of a multi-year energy performance contract. The awareness efforts culminate in an annual Energy Awareness Week that educates building occupants about energy efficiency and helps to motivate them to reduce their energy use. Regular updates about the retrofit project are available on the Energy Matters Web site, in the base newspaper and at Energy Awareness booths erected at key buildings throughout the base.

According to Meena Forsythe, Environmental Specialist, CFB Halifax, “Energy Awareness Week is part of the Department of National Defence [DND] Climate Change Management Plan. We put a lot of effort into this five-day event to make sure that we expose as many people as possible to this event and that they receive information on energy conservation to implement at home, at work and on the road.”

CANADIAN FORCES BASE/AREA SUPPORT UNIT EDMONTON (Edmonton, Alberta)

Canadian Forces Base/Area Support Unit Edmonton (CFB/ASU Edmonton) has been developing and expanding its awareness initiatives since 2006. The purpose of its Energy Awareness program is to assist DND in reducing the amount of money spent on utilities without affecting operations. DND has improved the energy efficiency of its equipment over the years and learned that technological upgrades combined with behavioural changes significantly improve its overall savings.

To capitalize on this lesson, the base holds annual energy awareness activities throughout the year, including science curriculum support for Guthrie School, Energy Awareness Week, an Energy Challenge and Energy Monitoring.

Science curriculum support includes topics for junior high school students about heat and temperature, water conservation, and electricity. Students have enjoyed field trips on the base to look at ways to improve infrastructure. They have also conducted research for the base on renewable energy initiatives and have presented their findings to the base Commanding Officer and senior staff for implementation. As the students learn and share their experiences with their parents, base personnel get informed from both sides of life – work and home.

Energy Awareness Week usually takes place in September and focuses on encouraging base personnel to save energy at work and at home. Activities focus on four conservation themes: water, natural gas, electricity and behaviour. Presentations, static displays and one-on-one conversations help to encourage behavioural changes and implementation of energy-efficient technologies (both are needed for a successful program).

The Energy Challenge, typically held in March, is extremely popular among base personnel because of its fitness and competitive components. The challenge was initiated to bring greater awareness to the amount of effort needed to generate electricity and provide power for everyday work tasks. Teams of eight participants compete by generating “electricity” by exercising on an elliptical trainer or stationary bike. The winning team is the one that generates the most watt-hours (converted calories) over the four-hour competition period.
Implementing an ENERGY EFFICIENCY AWARENESS PROGRAM

The Vancouver Aquarium’s Green Team assists in creating a culture of conservation by promoting environmental awareness and effecting change both at home and at work. “Green team challenges” and quarterly events are held to promote a green workplace. In the past, challenges have included waste-free lunches, green commuting, paper conservation and reducing energy over the holidays. In 2009, the Green Team won the Workplace Conservation Excellence Award from BC Hydro’s Power Smart program for its Employee Energy Conservation Awareness Campaign.

CBF/ASU Edmonton is embracing the old adage that you cannot manage what you do not measure. Energy Monitoring started in 2005 near the end of Phase I of the Energy Performance Contract (EPC) initiated through Engineer Services, when the utility budget for the garrison was $8.4 million. Today the budget is just $6.9 million, even though the infrastructure on the base has grown by three percent (11 100 m²) since 2005. This increase in footprint represents 1.3-million kilowatt hours of additional power consumption in 2010. The decrease in the utility budget and consumption is the result of the EPC in conjunction with the Energy Awareness Initiatives on the garrison.

Reinforcing the programs and contests held throughout the year, energy-saving messages are communicated regularly through energy-related updates in the monthly, base-wide circular e-mail, Energy Tips, and articles in The Western Sentinel newspaper. The base hopes to incorporate more Sustainable Energy Initiatives each year on the garrison as well as continue with the Energy Awareness Program.

NON-PROFIT ORGANIZATIONS

VANCOUVER AQUARIUM (Vancouver, British Columbia)

The Vancouver Aquarium is committed to the highest standards of sustainability and was the first aquarium in Canada to receive both Leadership in Energy and Environmental Design® (LEED) Gold and ISO 14001 certifications in 2009 – an international standard for environmental management systems (EMS). In 2010, the Vancouver Aquarium was named one of Canada’s Top 100 Greenest Employers, demonstrating its dedication to conservation and encouraging its employees and volunteers to be part of the solution. In 2011, it was awarded a Gold placement for Green Tourism by Green Tourism Canada.

At the Vancouver Aquarium, energy conservation is promoted through the aquarium’s EMS and its Green Team. The EMS has seven environmental management programs, including one on energy conservation. Energy efficiency workshops are held to teach staff how to be energy-efficient at work. As well, the energy management team posts energy efficiency tips through e-mail and on the aquarium’s intranet. Aquarium staff and volunteers are key components to the success of the EMS program.
APPENDIX C: Communications tools

**Newsletters**
Newsletters are a low-cost approach that can be used regularly to reinforce your message. They can inform staff and other building occupants about the program, success stories and areas that need improvement. A series of newsletter articles can serve as reminders and help build momentum. You can use newsletters at various stages of your Energy Efficiency Awareness Program by distributing them electronically at very low cost or in a hard copy format.

**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. You can produce your own or get them free of charge from a variety of sources. These 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 and building occupants. Bulletins can be produced in hard copy format or distributed via e-mail. They can be posted on bulletin boards or placed in areas of high visibility.

**Posters**
Posters attract attention and raise awareness. You can use them 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 and elevators, posters present an idea or message that is simple and direct.

**Pay envelope notices**
You can include reminders and other useful information in the envelopes of employee paycheques.

**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. You can display the cards in waiting areas and on cafeteria tabletops, lobby tables, cash registers and computer monitors.

**Information packages for new employees**
To engage new employees in the energy efficiency activities of your organization, include energy efficiency information as part of orientation for new employees.

**Press releases**
Press releases issued to local media can announce your awareness program, publicize special events and promote results. Media coverage will encourage staff members to become involved in your organization’s energy management program.

**Displays and booths**
Displays, booths or bulletin boards placed in high-traffic areas such as cafeterias, work areas and lobbies can promote the program and convey detailed and comprehensive messages. They should be simple, clear, visually appealing and creative and have strong visual content in terms of colour and graphics.
Promotional items
Promotional items such as buttons, T-shirts, coffee mugs, stickers and hats help build enthusiasm among staff and act as reminders. You can also use promotional items to help brand your message. A strong, easily identifiable brand, reinforced with a logo, tagline, style or colour, as well as a consistent look, will help your audience identify with your program and its various components.

Instead of the typical promotional items, you can give away energy-saving devices such as energy-efficient light bulbs, faucet aerators and setback thermostats as prizes or as awards for participating in special activities or events.

Did you know?
Another way to capture the attention of your audience is through the use of a “Did you know?” These are small, easily digestible facts that can be included in documents such as newsletters, memos and Web pages. They are a great way to reinforce the energy efficiency messaging of your program. Here are some examples of facts that could be organized into a “Did you know?”

- Every computer turned off when not in use can save up to $75 in annual energy costs. Multiplied by the number of computers in your organization, 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 40 tonnes annually.
- Each light bulb turned off when not required could save up to $30 annually. In addition to reducing the number of replacement bulbs needed each year, this reduction in energy use could represent significant energy cost savings for your organization. (Estimates are based on Canadian averages for energy costs and account for regional differences in energy sources.)

Pay it forward
You can motivate employees to reduce their energy consumption if you donate a portion of the money earned from energy savings to a charity. This “pay it forward” practice is a great way to generate interest and motivate behavioural change while simultaneously giving back to the community. You could donate to a broadly focused charity like the United Way (unitedway.ca). Alternatively, your charitable donations could have a more specific focus directly related to your organization’s goals and values. For example, an option for schools that have saved money through energy efficiency would be to donate a portion of these funds to an organization that promotes literacy or assists disadvantaged students.

Social media tools
Our world is rapidly changing and people are now connecting and sharing information at speeds never witnessed before. Increasingly, online media sites such as Facebook, Twitter, YouTube and blogs are forums where people spend significant amounts of time, both looking for and sharing information. Social media is a phenomenon that cannot be ignored – however, it is not without pitfalls.

The degree to which an organization makes use of these platforms will undoubtedly vary depending on comfort level, privacy issues and internal use regulations. Used carefully, social media tools can be an effective way of extending the reach of your organization’s awareness messaging.

TRADITIONAL MEDIA VERSUS SOCIAL MEDIA
Both traditional media and social media can reach small or large audiences. Their differences are outlined below:

- Traditional media typically use a centralized framework for organization, production and dissemination, whereas social media are decentralized, less hierarchical and distinguished by multiple points of production and utility.
- Social media tools are generally available at little or no cost.
- Most social media production does not require specialized skills and training.
- Social media is capable of virtually instantaneous responses.
- Traditional media, once created, cannot be altered whereas social media can be altered almost instantaneously by comments or editing.
Implementing an ENERGY EFFICIENCY AWARENESS PROGRAM

Although privacy settings can be established to control access to some extent, not all organizations are comfortable with YouTube, and some have expressed concerns regarding employee productivity when access at work is granted.

It is worth noting, however, that an internal blog can also embed video content. This allows an organization to mimic the feel of short YouTube videos, but without the distractions. This is a method that NRCan has adopted with the creation of NRTube. The downside of using this modified version of YouTube is the reduced, although more targeted, reach. Visit www.youtube.com.

Facebook

Probably the most well-known social media platform today and unquestionably a game changer when it emerged on the scene, Facebook now boasts 750 million users worldwide. When considering the use of Facebook as a communications tool, it is important to remember that privacy concerns are an issue. Make sure to do your research before adopting this tool. For more information, visit blog.facebook.com.

Twitter

Twitter is a real-time information network that allows communication in brief 140-character messages. Businesses can use Twitter to quickly share information, gather real-time market intelligence and feedback and build relationships. Twitter is ideal for sharing links and may be used to direct traffic to your blog. It can help users get information by “following” experts in a given area of expertise and collaborate with peers. NRCan encourages the use of Twitter for collaboration and also uses it to disseminate information. For more information, visit business.twitter.com.

Blogs

Blogs are a fun and affordable way to get information onto the Web and can be used either internally only and/or externally. For organizations that have serious privacy concerns, an internal-only blog may be preferable because content can be moderated and controlled. Many free blogging tools are available, such as WordPress (wordpress.org) and Blogger (www.blogger.com), to help you get started.

YouTube

YouTube allows billions of people to discover, watch and share originally created videos. It provides a forum for people to connect, inform and inspire others across the globe and acts as a distribution platform for original content creators and advertisers large and small. Most of you are now familiar with stories of marketing campaigns that have gone “viral.” The marketing potential and reach of this platform is undeniable. Organizations are also using YouTube in a variety of ways to inform, educate and make people aware of energy efficiency techniques, practices and opportunities. Several examples follow:

- BC Hydro is using YouTube to distribute educational material, advertise, and promote initiatives (www.youtube.com/bchydro).
- The Canada Green Building Council, a leading national industry organization advancing green building practices, has a video Web series called Seriously Green to promote green building strategies and technologies and showcase Canadian projects. Seriously Green can be viewed at www.youtube.com/watch?v=zy8TLg0orbA.
- The U.S. Environmental Protection Agency ENERGY STAR Program uses a variety of social media, including its ENERGY STAR Video Challenge (www.youtube.com/user/EPAENERGYSTAR) to promote themes and programs and get the word out about how building owners and operators can become more energy-efficient.