



Employee Awareness and the Federal Buildings Initiative

1 Background

The Federal Buildings Initiative, a voluntary program developed and administered by Natural Resources Canada's Office of Energy Efficiency, offers a model framework for updating Federal facilities with energy-saving technologies and practices. The goal of the Federal Buildings Initiative is to help Federal government departments and agencies improve the energy efficiency of their facilities and to reduce greenhouse gas emissions in response to the challenge of climate change.

The main feature of the Federal Buildings Initiative model is an innovative contractual arrangement – the energy performance contract – between a pre-qualified energy management services company and a Federal government department or organization. Through this arrangement, the full cost of energy efficiency improvements can be financed by the guaranteed energy savings resulting from the improvements rather than by using capital budgets.

The lower energy bills that result from the improvements are paid to the utility, and an amount equivalent to the energy savings is paid to the energy management services company until the cost of the energy efficiency improvements is recovered. From then on, the Federal department or organization will benefit from the full amount of the savings.

Under an energy performance contract, an energy management services company provides technical and non-technical assistance to the client organization. This may include project design and engineering, supplying and installing new equipment, providing savings guarantees, organizing project financing (if required), training for building operators, and designing an awareness program for employees or building occupants. Ideally, all measures are implemented to deliver the greatest energy savings in the least amount of time.

Although technical components such as lighting and energy management control systems generate the largest portion of the energy savings, employee awareness initiatives can yield substantial additional savings. The greater the energy savings from all sources, the sooner project costs will be paid back.

2 Employee Awareness

An employee awareness program provides employees and/or building occupants with prompt and precise information on how energy resources are used in the workplace and how employees' actions can directly affect energy consumption. By changing employees' attitudes and behavior, it is possible to significantly reduce energy use and contribute to the savings achieved through technical measures.

Simple actions — such as turning off lights, computers and printers, installing insulation and weather-stripping, keeping the pressures of compressed air systems at their correct settings, ensuring that filters on heating and cooling coils are clean and dust-free, and maintaining expensive equipment at peak efficiency — all contribute to reduced energy use and energy costs in the workplace.

A Federal Buildings Initiative employee awareness program should aim to:

- promote the Federal Buildings Initiative energy efficiency project within the workplace
- encourage employee commitment and participation in the project
- promote the benefits of energy-saving technologies and practices in the workplace, at home and on the road.



Successful employee awareness initiatives are implemented over a period of time. The following have proven effective in generating interest and enthusiasm for improved energy efficiency and additional savings:

- newsletters
- fact sheets
- e-mail messages
- electronic signs
- energy awareness days or weeks
- stickers and buttons
- videos and screen savers
- logos.

Experience has shown that even a stand-alone employee awareness program has the potential to generate significant savings at low cost, provided it is well run. The employee awareness program at Canadian Forces Base Halifax, for example, initially cost \$20,000 per year and was expected to generate savings of \$50,000 per year. In fact, savings due to energy performance contract retrofits and the base's energy awareness program have exceeded original estimates by 20 percent. The current annual savings from all energy efficiency measures at Canadian Forces Base Halifax is now \$1.9 million.

3 Employee Awareness in Action—Success Stories

Many Federal government departments have implemented extensive and successful employee awareness programs as part of their energy efficiency projects.

3.1 Industry Canada's Communications Research Centre, Ottawa

Industry Canada's energy performance contract for the Shirleys Bay Communications Research Centre has resulted in estimated savings of \$600,000 per year, at least a part of which can be attributed to the Centre's employee awareness program. Organizers focused on five strategies to deliver the message: (1) advertising, (2) education, (3) information, (4) employee involvement, and (5) response to employee feedback. The program's main objective was to keep employees constantly updated and informed on the progress of the Centre's energy efficiency improvement project.

One of the more innovative aspects of the Centre's employee awareness program was the presentation of an on-site workshop that allowed staff members to see for themselves how energy savings were being achieved. Energy experts demonstrated how new technologies such as energy-efficient light fixtures and ballasts save energy in comparison to old technologies, such as conventional fluorescent light fixtures.

Other elements of the employee awareness program included posters, energy information and awareness days (as well as newsletters and employee e-mail), all of which were particularly instrumental in keeping employees up to date on the progress of the energy efficiency improvements.

Employee input, an essential component of the program and the Federal Buildings Initiative project, was promoted through open-line communications, a survey, and a contest, to solicit staff suggestions.

Employee participation and response to employee feedback are both required to make an employee awareness program work. According to site project director Jean-Maurice Charron, "Both the savings and awards that were received as a result of their hard work generated much-needed publicity and put the project on the map."



3.2 Canadian Forces Base Halifax, Nova Scotia

One of the most successful employee awareness programs was developed and implemented by Canadian Forces Base Halifax. The information tools used included a travelling project-information booth, fact sheets, project-savings charts, a logo to promote saving energy, refrigerator magnets, posters, newsletters, Base newspaper articles, a video, lunchtime information sessions, an "Energy Ideas" contest, and a telephone hotline to answer employees' questions concerning the energy performance project.

During the construction phase of the retrofit project, employees were constantly updated on changes being made to their buildings. According to Rose Collicott, the Formation Construction Engineering Environmental Officer who managed the awareness program, "you have to bombard employees with information from numerous sources to get the message across."

At Canadian Forces Base Halifax annual events are held to provide everyone an opportunity to learn what individuals can do to help reduce energy and water consumption. For example, each year several events are held during Environment Week to generate awareness of energy- and water-conservation opportunities, including a kickoff luncheon and family-day celebrations, a newsletter that outlines ways to save water at work and at home, and a "Wise Use of Water" contest that awards prizes to individuals who submit the best water-conservation tips.

Canadian Forces Base Halifax's annual Energy Awareness Week is held in November and features several activities to promote saving energy, including information luncheons, energy-saving ideas contests, posters, and a travelling information booth.

3.3 Environment Canada's Canada Centre for Inland Waters, Burlington, Ontario

The Canada Centre for Inland Waters is a research complex run by Environment Canada's National Water Research Institute. Environment Canada's Wastewater Technology Centre and the Department of Fisheries and Oceans also operate out of the complex.

An energy performance contract was used to refit and revamp the heating, ventilation, and air-conditioning systems and to install energy-efficient lights and water-saving measures throughout the facility.

One of the most interesting aspects of this project was the interest generated by employees of the three organizations. In fact, when the first general orientation meeting was held to review the project with Canadian Centre for Inland Waters employees, more than three quarters of the employees showed up, many of them asking questions and making suggestions for increasing energy efficiency in the buildings.

Although the Canadian Centre for Inland Waters coordinated its energy awareness program with an existing "go green" initiative already in place, the employee awareness program developed at Canadian Centre for Inland Waters was at least partly based on Natural Resources Canada's energy awareness publication, *A Manager's Guide to Creating Awareness in Energy Efficiency*. Over the course of several months, the Canadian Centre for Inland Waters used many of the ideas outlined in this publication, including posters, tent cards and calendars.

One of the most innovative ideas of the employee awareness program came from Canadian Centre for Inland Waters itself. To attract attention to the project, a computer was set up in the main lobby area to show employees the current monthly energy savings compared to the energy costs before the energy performance contract and employee awareness program were initiated. The computer was set up to get people to believe in the energy performance contract and back it up. With savings of more than \$900,000 per year, it is clear that this has been achieved with a great deal of success.



3.4 Canadian Forces Base Gagetown, Oromocto, New Brunswick

Canadian Forces Base Gagetown is another base that has successfully implemented an employee awareness program as part of an energy performance contract. Using the slogan “Aiming at Energy Efficiency – Be Part of It!” the program aims to educate all base personnel on the importance of energy efficiency and what they can do to help reduce energy consumption.

Canadian Forces Base Gagetown used a variety of tools, including a billboard announcing the energy efficiency program to all visitors, a calendar with energy tips, and dates for energy awareness activities, and regular e-mail messages to employees. An Energy Awareness Week was also held.