

Ideas at Work

Brandon RHA Recognized for Energy Efficiency

Kent Waddington with Gordon Neal

In a recent national competition recognizing leadership in energy efficiency and greenhouse gas reduction, Brandon Regional Health Authority (Brandon RHA) was recognized for conscientious use of resources. Brandon RHA is a fully integrated regional health authority offering a wide range of health services and program to over 180,000 citizens through a network of hospitals and facilities. There are 13 sites in total, including the Child and Adolescent Treatment Centre (CATC), long-term care homes, mental health, community/public health facilities and a large campus comprising the Brandon Regional Health Centre (Hospital, University of Manitoba School of Nursing, Regional Laundry, Regional Laboratory, etc.).

Since the early 1990s when Brandon General Hospital received an award for Successful Energy Management from the Task Force on Energy Management in Health Care Facilities in Canada and Energy, Mines and Resources Canada facility management staff have been conscious of energy usage reduction and the financial benefits to increased energy savings. A revitalizing of the Energy Efficiency Committee (EEC) occurred late in 2000 after Chief Power Engineer Gordon Neal took over as Chairman. The new focus of the Committee became living up to the general expectation that, as a powerful symbol of health in the community, the Health Authority must be an obvious leader in environmental responsibility. It also became painfully obvious that the Committee was going to have to do battle with the rapidly rising costs of utilities, which had escalated from \$1.2 million to \$1.6 million in one year. With these issues firmly in mind, the executive management team at Brandon RHA empowered the EEC to swiftly take on the challenges that faced them.

The success of any EEC lies in its credibility in the eyes of staff and other members of management. In this case there was executive-level buy-in from the beginning, making the EEC a high-profile committee within the institution, lending both public and private support for their initiatives and affording members a sense of ownership and accomplishment. From a financial perspective, it was crucial that management be supportive; otherwise funding for the many initiatives could have halted any possible progress.

One of Gordon Neal's first duties was to bring the hospital, and in fact the entire Brandon RHA, into the Energy Innovators Initiative. "Innovators" is a voluntary federal program of Natural Resources Canada (NRCan) designed to help institutions explore energy efficiency options and strategies and attempts to overcome some of the barriers to developing and implementing energy savings projects in part through financial incentive programs. Under the guidance of the EEC, which is made up of representatives from all levels of management and staff from the various facilities within the Regional Health Authority, dramatic achievements were accomplished in energy reduction. According to Neal, "We are, for example, saving around \$2,000 on average every month on our Hydro bill due simply to power factor correction and employee awareness, which is reducing the kWhrs consumed." Power factor correction involves the use of electronic devices such as capacitors to help reduce the apparent demand for electricity at peak times, thereby reducing the electricity supplier's billing. Other huge savings have come as a result of an upgrade to the computerized building automation system. "We now have the capability of constantly monitoring the temperature and flow of utilities to air conditioning equip-

ment and reducing their requirements while maintaining patient comfort,” claims Neal. “This has shown savings of \$50,000 to \$70,000 per year.”

Changing the way the chillers operate during the summer months has also produced significant savings. With their Square D Power Logic computer system, operators have the ability to monitor the hospital’s electrical demand, and during short periods of high usage the chillers are programmed to automatically reduce their energy consumption. Peak-demand power use can be controlled through the system. This, according to Neal, “gives us the opportunity to make decisions based upon both patient comfort and anticipated electrical billing considerations.”

Many of the changes initiated were operational changes and had little if any costs directly associated with them: tightening the parameters on temperature setbacks and fan schedules, reducing the overcooling and overheating in air handling units, operating chillers according to electrical demand rather than outside air temperature, and raising awareness. Other projects were approved based upon both their financial (payback) merits and their reduced impact upon the environment.

“The ideas to reduce energy usage and save money and the environment are absolutely endless.”

– Gordon Neal, Chief Power Engineer

Just prior to becoming a member of the Energy Innovators Initiative, Neal attended one of NRCan’s healthcare-specific Dollars to Sense energy management workshops. He left armed with a new level of knowledge about what his Committee could hope to accomplish at Brandon RHA. He also left knowing that NRCan had a wide range of educational/technical documents and services to assist them, including the availability of an Innovators Officer who would help Brandon RHA through the months to come.

The EEC has also been extremely proactive in the area of raising energy awareness among staff and clients.

Posters, energy awareness brochures and pamphlets are made available to the public and staff on a continual basis in high-traffic areas as part of ongoing awareness training. A very successful contest was also held last year where the department with the best energy-saving idea received not only a number of energy efficient prizes but also a pizza luncheon served by executive management. As Neal claims, “It costs practically nothing to implement an awareness campaign, and the savings that can accrue are substantial.”

Not happy with simply spreading the energy awareness message in-house, Brandon RHA combined with the media to share their successes with a much larger audience. At the recent Manitoba Provincial Health Conference in Winnipeg,

Brandon RHA participated in a major booth display showcasing their energy savings accomplishments alongside the achievements of Winnipeg Health Sciences Centre (WHSC). Winnipeg’s Fred Douglas Society also participated with Brandon and WHSC in this provincial awareness raising/recruitment exercise.

The “Energy Elf,” an energy efficiency mascot that roams the halls turning off lights and unnecessary equipment, has been borrowed from WHSC and has become a familiar sight around Brandon’s medical facilities. When the Elf shuts off a light or coffee maker for example, he attaches a Post-it® note that states: “The Energy Elf was here ... I turned this off – hope you don’t mind. Let’s save energy together! EE.” He also has his own email address so staff can surrender energy saving suggestions or get feedback on energy-related questions, and he gives away energy efficient prizes as a way of engaging staff in the program.

In 2001 Brandon RHA became only the fourth hospital/authority in Canada to be recognized as a Gold Champion Level Reporter by Canada’s Climate Change Voluntary Challenge and Registry Inc. (www.vcr-mvr.ca and follow the links to Brandon Regional Health Authority). This

award recognizes the highest level of achievement in the reporting system for the Energy Management Action Plan, as prepared by Lilian Turabian, Engineer in Training, Gordon Neal and Ken Martinook, Manager, Facility Engineering Services. In recognition of these and Brandon RHA’s many other voluntary initiatives to reduce their energy consumption and harmful greenhouse gas emissions, they were recently awarded VCR’s 2001 Leadership Award for Canada’s health services sector. They joined with other national and international firms such as Honda of Canada, Exxon-Mobil, Stelco Inc., Suncor Energy and General Motors of Canada in leading the way through energy conservation, greenhouse gas reduction and sustainable economic growth in Canada.

Accepting the honour, and braving the spotlight with Canada’s Environment Minister, the Honourable David Anderson, was Gerald Zoner, Director of Property Management Services for Brandon RHA. Also present at the awards ceremony held March 5, 2002, at the Museum of Civilization in Hull, Quebec, were Ken Martinook and Gordon Neal.

“The biggest and actually the only hurdle in all of this,” says Neal, “was trying to find the time to write the Energy Management Action




(L-R)
Gordon Neal, Ken Martinook,
Hon. David Anderson
(Environment Minister) and
Gerald Zoner.

PHOTO by Kent Waddington

Plan.” Thanks to his affiliation with the Energy Innovators Initiative, he learned about a federal program called “ON-SITE” and was, for a small administrative fee, able to acquire a qualified engineering graduate who helped prepare the award-winning energy plan. (For more information on ON-SITE, a federal job creation program, visit www.epi.ca.)

Brandon RHA’s intensity of energy used, measured in gigajoules per square metre of floor space, has dropped nearly 15% between 1997/98 and 2000/01. CO₂ and other GHG emissions have been reduced by 1.3 kilotonnes of CO₂ equivalent, and a further 21.6% reduction in energy consumption has been targeted through planned investments in education, lighting and heating upgrades by 2007/08. CEO Earl Backman is “absolutely thrilled that the incredible job done by Gord Neal, Ken Martinook and Gerry Zoner was rewarded with this national award.” A proponent of allowing and encouraging staff to excel, Backman has very proudly been featuring the successes of this RHA group of staff at board meetings and via media and Minister of Health visits. “Recognizing staff excellence is an important human resource developmental strategy of the Brandon RHA,” Backman points out.

Brandon RHA has proven that the challenges facing today’s

healthcare facility managers can be met head on with creativity, and workable solutions can be found to benefit not only patients and staff but also the environment for which we are all stewards. To learn more about how you can help meet our climate-change challenge and bring about lasting change in energy-use attitudes, not only at your facility but within your community, contact Natural Resources Canada at 1-613-947-0647 or visit their website at: <http://oe.nrcan.gc.ca>. 

About the Authors

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Gordon Neal is the Supervisor of Facility Engineering Services, Chief Power Engineer and Chairman of the Energy Efficiency Committee for the Brandon Regional Health Authority. He is also a long-time advocate of greenhouse gas reduction through energy efficiency and has championed the fight for improved environmental responsibility among his peers and colleagues in Manitoba’s healthcare sector. He can be reached at 1-204-726-2199 or nealg@brandonrha.mb.ca.

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