
THE WINNIPEG
HUMANE SOCIETY

Using our resources wisely through responsible stewardship and prudent energy management has been a part of Manitoba Hydro's philosophy well before the formal introduction of Power Smart programs in 1991. It's estimated that Manitobans have prevented over 965 000 tonnes of carbon equivalents from being released into the atmosphere and have saved about $275 million on their energy bills through their participation in Power Smart programs.

Winnipeg Humane Society receives Power Smart designation

The new home for the Winnipeg Humane Society opened its doors in September 2007 and received a Power Smart Design Standard designation. The building is projected to have an energy performance that is at least 37 per cent higher than the Model National Energy Code of Canada, which was achieved by: installing higher insulation levels in walls and roof; energy-efficient windows and lighting; and parking lot controllers.

Enhancements to Residential Earth Power Loan

In April 2007 Manitoba Hydro increased the maximum for the popular Residential Earth Power Loan from $15 000 to $20 000 and reduced the interest rate from 6.5 per cent to 4.9 per cent for the first five years. The 15-year loan, offered through the Earth Power Program, provides convenient financing to homeowners installing geothermal heat pump systems in their residences.

The initial cost of installing a geothermal heat pump is more than a conventional system but can reduce annual home heating costs by 50 to 70 per cent. The technology can also greatly reduce household greenhouse gas emissions, making it an environmentally-friendly home heating system.

In 2007 Manitobans installed over 920 geothermal heat pump systems, a 40 per cent increase over 2006. Since 2000, geothermal heat pump sales in Manitoba have increased 350 per cent. The increase in installations represents 20 to 30 per cent of all Canadian activity, making Manitoba the per capita leader in the adoption of geothermal heat pump technology.

New Commercial Earth Power Program launched

The Commercial Earth Power Program was launched in June 2007 to provide financial incentives to customers to offset conventional electric space heating with geothermal heat pump systems for their commercial buildings. In total, over 43 commercial project applications were received in the fiscal year, requesting over $500 000 in project incentives.

Manitoba Hydro has supported the installation of geothermal heat pump systems in commercial businesses since 1996. Since then, both local and national geothermal industries have experienced exponential growth.

Dr. Erika Anseeuw and "Cedar" in front of the new Winnipeg Humane Society, which received a Power Smart Design Standard designation in 2007.

Natural gas improvements at Diageo Canada Inc.

Diageo Canada Inc.—one of the world's leading premium drink companies—applied Power Smart technologies at its Gimli plant to improve efficiency and lower its energy bills. The plant, which produces enough Crown Royal whiskey to fill 1 000 barrels a day, has acted on the results of a feasibility study by the utility's natural gas efficiency experts. The plant's old boilers have been replaced with energy-efficient versions, complete with improved control systems.

Food services take advantage of Commercial Kitchen Appliance Program

Energy use in food service businesses are extremely energy intensive, with up to 30 per cent of the annual energy bill consumed by food preparation appliances. The Commercial Kitchen Appliance Program is designed to encourage customers to replace their less efficient kitchen appliances with ENERGY STAR® qualified appliances. Appliances eligible for rebates are open deep-fat fryers (gas only) and steamers (electric and gas).

ING Real Estate

When ING Real Estate moved into their new headquarters in Winnipeg in 2007 they benefited substantially from Manitoba Hydro's recommendations for energy-saving improvements. ING replaced their T12 fluorescent lights with T8s and also used T5 and pulse-start lights in their showroom. In addition, ING took Manitoba Hydro's advice and rebuilt their roof to R25 insulation levels. It's expected that the insulation improvements alone will help save the company almost $44 000 annually.

Niverville Credit Union

The Niverville Credit Union and Heritage Centre Atrium was designated a Power Smart facility in May 2007. The building's energy performance is estimated to be 45 per cent more efficient than a building designed to meet the Model National Energy Code of Canada. It received the designation by incorporating a geothermal heating and cooling system, energy-efficient windows, higher insulation levels in walls and roof, and compact fluorescent lights (CFLs) in the hallways and atrium.

Lower Income Energy Efficiency Program

In December 2007 the Power Smart Lower Income Energy Efficiency Program was announced to provide financial assistance for lower income households to access energy efficiency programs.

Qualifying lower income households are eligible for energy retrofits ranging from basic energy saving devices such as CFLs, to adding insulation, to upgrading from a standard efficiency natural gas furnace to a high efficiency natural gas furnace. It's estimated that approximately 1 200 households will participate each year—saving approximately $250 annually on their energy bills.

Improved Home Audit Program

Manitobans can now access both Power Smart incentives and new federal ecoENERGY grants through a low-cost home audit service. Also announced in April 2007, the federal government's ecoENERGY Retrofit Program provides financial assistance to Canadians for energy-efficient retrofits to their homes.

Federal grants of up to $5 000 are available to homeowners depending on what energy improvements are made to their homes. The cost of the pre-retrofit evaluation is $280, but with the province of Manitoba and Manitoba Hydro paying $100 of this fee, homeowners only pay $180, plus GST. Under the previous federal program, 22 000 energy evaluations were performed in Manitoba.

Natural gas efficiency improvements were made at the Diageo beverage plant in Gimli. Standing left to right are Kevin Rogers, Neil Kostick (Manitoba Hydro), Tom Ostapovitch, and Doug Weedon.

Efficient florescents add safety and productivity at INCO and Manitoba Hydro

When International Nickel Company's (INCO) plant in Thompson wanted to save energy and improve visibility in its mechanical shops, Manitoba Hydro's lighting experts recommended a switch to energy efficient T8 fluorescents. T8s provide a more visible white light compared with the greenish hue of the old mercury-vapour lights in the shops. The new fluorescents also cast fewer shadows, turn on instantly, and have cut lighting consumption in half at INCO.

Some of Manitoba Hydro's facilities are benefiting from the same technology. At the Great Falls Generating Station on the Winnipeg River, the station has upgraded its lighting in the high-voltage switchyard. The white light of the T8s helps with equipment inspection and eliminates cable colour recognition issues.

Improved power factor at Water Pollution Control plant

The installation of a new power factor correction system at Portage la Prairie's Water Pollution Control plant has reduced the facility's electric bills by 15 per cent—equalling savings of $50 000 in the first year of operation.

Power factor is a measure of how effectively electrical power is being used. The new system boosted the plant's average power factor from 82 to 98 per cent.

CPR finds smaller is better

At its Weston Yards in Winnipeg, the Canadian Pacific Railway downsized a large, centralized compressed air system in favour of using three smaller and more efficient systems. The smaller 300 horsepower systems take advantage of variable speed drives to reduce electricity consumption and create better heat recovery to reduce natural gas use.

SMART Ideas a smart idea

Manitoba Hydro partnered with CTV-TV for a third season on a series of 60-second information spots on Power Smart tips and other public safety topics. In place since 2005, a total of 36 separate segments have aired, covering a variety of residential energy savings tips and important home and farm safety topics.

Awards and recognition

Best Practices Award for Commercial Refrigeration Program

The Commercial Refrigeration Program received the second place award in Chartwell's Best Practices Award Competition in the category of Fostering Relationships with Mid-size Businesses in April 2007. The program was singled-out for improving the energy efficiency of refrigeration technologies, which can often be 40 to 60 per cent of food retail and restaurant energy bills.

Natural Resources Canada Award for Corporate Stewardship

With the assistance of Manitoba Hydro's Power Smart programs, MJ Roofing of Winnipeg won Natural Resources Canada's Award for Corporate Stewardship in 2007. MJ Roofing won the Canadian Industry Program for Energy Conservation Award by installing energy-efficient T5 fluorescent fixtures, new high performance windows, and insulation upgrades.

Energy improvements at Asessippi

Energy enhancements at the Asessippi ski resort near Russell, Manitoba have greatly reduced the uncertainties of running a downhill ski operation. Manitoba Hydro's energy experts convinced the resort to switch from conventional energy-intensive snow-making equipment to a newer version that uses water rather than compressed air.

Other cost-saving measures incorporated at Asessippi include energy-efficient lighting, automated electrical load management, and power factor corrections, which have slashed the popular resort's electrical bills by more than 30 per cent.