



HIGH PERFORMANCE
NEW CONSTRUCTION

Retail drug store chain finds winning prescription for **saving energy** in new stores

ENERGY

More stores, more hours, more efficiency

Shoppers Drug Mart is using a portfolio approach to energy efficiency in its new retail outlets – replicating successful electricity saving technologies across 120 new stores and major expansions with support from the Ontario Power Authority’s High Performance New Construction (HPNC) program. The HPNC’s prescriptive program stream makes it easy and simple for retail chains and other building owners with new construction projects to achieve energy savings (and incentives) by choosing from a menu of pre-qualified technologies.

Background

Shoppers Drug Mart is one of Canada’s most trusted names in retailing. With more than 1,240 retail drug stores nationwide, the company is the national leader in the retail pharmacy market. Convenience is a key pillar of the Company’s business strategy. Its stores are strategically located for easy access and many of them stay open to midnight or for 24 hours a day. A large number of these retail drug stores offer postal outlets, digital photo services and food products.

Strong financial results and a healthy balance sheet have made it possible for Shoppers Drug Mart to grow its real estate portfolio across the country. Over the past five years the company has increased its total retail selling space at a compound annual growth rate of 10.7%. In 2009, 90 new stores were added to the chain and additional new stores are planned for 2010.

Challenge

Shoppers Drug Mart’s retail drug stores are operated by a network of licensed pharmacist Associate-owners. Each store functions as a profit centre while the parent company provides facilities management and planning services for stand-alone outlets. Shoppers Drug Mart has put in place a sustainability program for all its stores, old and new, and launched its Green Planet

Initiative in 2008 with the help of their energy management & sustainability planning partner, Sandcastle Energy Systems Alliance.

Shoppers Drug Mart also has a strong commitment to assist Associate-owners in constraining operating costs. With long-term energy prices forecasted to rise combined with a trend to larger stores, longer hours and refrigeration, Shoppers Drug Mart was looking for ways to increase the energy efficiency of its new stores and enhance their sustainability. At the same time the fast pace of store expansion meant that the company needed to employ proven technologies – solutions that could be incorporated quickly and easily for the many new stores already in the planning stages.

Solution

The Ontario Power Authority’s High Performance New Construction (HPNC) program offered a solution. The HPNC’s prescriptive program stream makes it possible for building owners and developers to choose from a menu of proven energy saving technologies and to qualify for incentives when they install these technologies in new building projects or major expansions.

Enbridge Energy Advisors identified Shoppers Drug Mart’s expansion strategy as an ideal fit with the OPA’s demand reduction program. They brought the idea to

Shoppers Drug Mart and the company quickly agreed that the HPNC was an ideal way to add energy efficiency to their retail store designs without delaying the construction schedule.

The HPNC group worked with the Shoppers Drug Mart Design and Construction Team and with Sandcastle Energy Systems Alliance, a firm which partners with Shoppers Drug Mart for energy efficiency and sustainability. The goal was to implement HPNC solutions in as many of the new retail stores as possible. The HPNC’s fast-track prescriptive approach allowed the team to focus on air conditioning and lighting – the two major electricity draws in retail operations – across 120 new build locations.

Air Conditioning

Cooling is a major driver of costly peak electricity demand and of overall energy consumption. In response to this, Shoppers Drug Mart has adopted a high efficiency alternative for their new stores in the Emergence® rooftop units from Lennox. These units operate at a SEER rating exceeding 17.0. They lower electricity use and operating costs through an ultra efficient design and smart controls. A patented dehumidification technology reduces waste by preventing over-cooling.

A typical large-format store is 13,000 square feet and uses around a half dozen

unitary air conditioning units. The peak demand reduction that results from the choice of these high efficiency units rather than standard rooftops is between 4-6 kilowatts (kW) per store. Added benefits of the Emergence® technology include improved indoor air quality, greater comfort and ease of maintenance.

Lighting

For ceiling lighting the new store design features high performance two-lamp T 8 and T 5 fixtures with electronic ballasts and reduced wattage lamps. Pin-socket fixtures with Compact Fluorescent Lamps are used for all highlighting – magazine display and checkout, for example – as well as in post office and cosmetics areas. Infrared coated halogen lamps are used for “washing” special wall displays with lighting.

The result is a more efficient operation that is also better lit. A typical large-format store will see peak demand for lighting reduced by around 13 kW and save around 13,000 kilowatt-hours (kWh) for every thousand hours that the lights are in use.

As an added benefit, the new fixtures provide more lighting output than standard fixtures. This makes for a brighter and more attractive atmosphere in which to work and shop. And the lights last longer, lowering life cycle building costs. Shoppers Drug Mart is also using occupancy sensors to increase the savings impact.

Designing it right. Reaping the rewards.

Shoppers Drug Mart is making energy efficiency a key feature of its expansion strategy. Efficient lighting and air conditioning choices will drive down operating costs for Associate-owners at new or enlarged stores and enhance sustainability of the store network.

Shoppers Drug Mart is one of the earliest participants in the HPNC program and continues to be the most active participant – submitting applications for 120 different new premises through mid 2010.

Savings estimates for the first 50 applications evaluated:

1.4 MW total reduction in monthly peak power (demand) usage

Average savings per store: 27.8 kW

Greenhouse gas reduction of approximately 1,900 tonnes

This early and broad participation is paying off. On average, the 50 openings evaluated to date will see reductions in peak demand of close to 28 kW per store. The use of energy efficient lighting and air conditioning also results in substantial reductions in annual electricity use, with lower operating costs and reduced greenhouse gas emissions.

At 8 cents per kWh of energy and \$9/kW of demand – costs roughly equivalent to those paid under general service arrangements with some of Ontario's local distribution companies – electricity cost savings will be substantial.

Shoppers Drug Mart receives an incentive for each approved building project from the Ontario Power Authority's High Performance New Construction (HPNC) program.

Incentives per store for the 50 applications completed and reviewed as of mid 2010 average over

\$6,900



Shopper Drug Mart, (Woodbridge, ON)

Lessons Learned

An ambitious expansion program like Shoppers' provides a great opportunity to enhance building efficiencies. The OPA's HPNC program helps companies make their new buildings more efficient at an affordable cost. Norm Peck, Director, Premises Services for Shoppers Drug Mart Canada, puts it this way:

The HPNC program dovetails with our design objectives for new buildings. It helps us choose proven, energy efficient technologies and supports these choices. The result is a healthier company that benefits the employee, customer, investor, and most importantly, the planet."



HIGH PERFORMANCE
NEW CONSTRUCTION



OPA's High Performance New Construction (HPNC) Program

The Ontario Power Authority's HPNC program, delivered by Enbridge Gas Distribution and Union Gas, offers incentives to incorporate electricity efficiency in the design and construction phases of new buildings, additions and major renovations.

Incentives are available for both prescriptive projects (where builders choose from the OPA's menu of pre-approved technologies) and custom projects (where building modelling is used to determine the impact of site-specific efficiency upgrades).

Eligible new building projects include: office buildings, industrial buildings, retail spaces, multi-unit residential buildings, affordable housing complexes, colleges, universities, schools, hospitals, long-term care facilities, agricultural buildings, hotels and motels. Single-family dwellings are not eligible.

To qualify for the HPNC Program, a project must be located in Ontario (excluding the 416 area code), conform to Part 3 of the Ontario Building Code (OBC), and be intended for commercial, institutional, industrial or multi-unit residential occupancy. Agricultural buildings may apply. Applications will be accepted for approval through late fall 2010, and projects must be completed, evaluated, and delivering energy savings by December 2012. Buildings that obtained a building permit between August 2007 and March 2008 may also be eligible.

^{OMA} An official mark of the Ontario Power Authority.

Program Highlights

\$250 per verified kW saved in the prescriptive stream

\$200-\$250 available per verified ton for alternative energy measures

Up to \$60 per eligible in-suite appliance in multi-residential new construction

\$250-\$400 per verified kW saved in the custom stream

\$50-\$100 per verified kW saved available to design decision-maker in custom stream

100% of building modelling costs, up to \$10,000



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