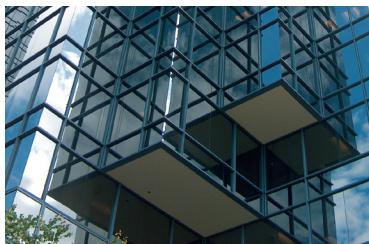


Case Study



Ivanhoe Cambridge is a BC Hydro Power Smart Partner and has received both national and regional recognition for their progressive approach to commercial building management. The Metrotower Office Complex has been awarded both the BOMA B.C. Earth Award and The Office Building of the Year (T.O.B.Y.).



Business tools for sustainability

Commercial Building: **Metrotower Office Complex**

Ivanhoe Cambridge own and manage the Metrotower Office Complex which is the hub of the Metrotown commercial centre in British Columbia. The 600,000 square foot office complex is comprised of two office towers; the 28-storey Metrotower I, which opened in 1989, and the 30-storey Metrotower II, which opened in 1991.

Waste Management

Ivanhoe Cambridge provides an on-line Tenant Information Guide detailing their established environmental programs, which includes the recycling and ride reduction program. A bi-monthly newsletter, Complexities, is also distributed on-line to reduce paper consumption and provide tips on recycling and energy conservation. Ivanhoe Cambridge actively promote their recycling program and supply all their tenants with desk-side containers for office paper and blue boxes for metal, glass and plastic recycling. Each floor is also supplied with recycling bags/racks that are placed at strategic locations, such as the photocopier area.

- Office fiber recycling includes office paper, cardboard, magazines and telephone books. An estimated 1.5 tonnes of mixed office paper and cardboard, materials banned from the regional landfills, is diverted each month. Revenue from the fiber recycling program helps offset the costs for other recycling programs.
- Programs have also been established for recycling all metals, plastics, glass bottles, batteries, styrofoam and shrink wrap.
- The recycling program was expanded in 2004 to include electronic equipment, computers, keyboards, monitors, servers, office equipment and small appliances. An estimated 310 cubic yards of electronic waste was recycled during the very first year of the program.

Tenant lease agreements also include a provision that requires compliance with environmental regulations to dissuade the unlawful disposal or discharge of wastes.

Energy Efficiency

- The initial building design incorporated a number of energy efficiency measures which included computerized (DCC) controls for HVAC and lighting including night set back controls, chilled water closed-loop-systems, automated hot water heating, VAV (Variable Air Volume) air handling systems, efficient motors and variable speed drives.
- The office towers employ low-E (energy) reflective glass and window blinds.
- A comprehensive energy audit of the Metrotower Complex was conducted in 2003. The audit identified a number of energy-saving projects which included a complete lighting retrofit. The audit and a portion of the lighting retrofit were subsidized by BC Hydro.
- The Metrotower Complex completed a \$1.1 million lighting retrofit which included the replacement of all original double tube T12 fluorescents light fixtures with single tube T8 and reflector. Each new fixture uses almost half the energy and provides an equivalent level of light.
- As part of the energy conservation program the hours of operation for lighting of the office complex are computer controlled. Facility lighting is reduced to emergency lighting during non-normal business hours.

SUCCESS STORY

The Earth Award for 2005 was presented to the Metrotower Office Complex. The award is given annually by BOMA B.C. to recognize environmentally conscious buildings in the areas of energy management, indoor air quality, recycling, and tenant awareness programs.



SUCCESS STORY

An estimated saving of 2.8 million kilowatt/hours of electrical energy was realized from the lighting retrofit. This translated to on-going annual savings of \$150,000.



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Sustainable Transportation

- Ivanhoe Cambridge promotes the use of alternate transportation. As a regional town centre, the Metrotower Complex is directly linked by covered walkway to Metrotown Sky Train Station and a 24 hour bus loop.
- Staff representatives have received Translink Employee Transportation Administrator (ETA) training.
- Discount Employer Transit Passes are offered to all Metrotower employees.
- Carpooling is promoted by offering prime reserved parking stalls at a discounted monthly rate. A carpool matching service through the Jack Bell Rideshare program is also promoted.
- Secure bike lock-up together with shower/change room facilities are provided free to tenants to help reduce single occupancy vehicle commuting.

Sustainable Purchasing

- Janitorial services use only environmentally safe, biodegradable cleaning products.

Air Quality

- Indoor air quality testing was conducted to confirm that American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) building ventilation standards are met. Spot testing is done to resolve any tenant air quality concerns which may arise.
- National Clean Air Day is celebrated each year to increase the awareness of Metrotower staff and the 2,800 tenants about regional air quality issues. This is also an opportunity to promote the Ride Reduction Program and highlight the available options for alternative transportation.

Water Conservation

- A closed-loop chiller system circulates chilled water to air conditioning units in the tenant's computer server rooms. Traditional designs use single pass systems in which the cooling water is routed to sewer wasting a valuable regional resource.
- Aerators have been installed on all 200 faucets to reduce flow and conserve water. Low-flush bathroom fixtures are also a standard feature in both towers.
- A programmable irrigation system for landscaping has been optimized to minimize water use.

Biological Pest Control

- Biological control means using natural enemies to keep garden pests in check rather than using potentially toxic chemicals. Lady beetles are an example of a beneficial native species used to control the population of aphids, a common garden pest. Maintenance of the lady beetle population on the grounds surrounding the complex is conducted each spring.

Community Outreach Programs

- For more than a decade, Ivanhoe Cambridge has managed a comprehensive events program to raise funds for a number of local charities which includes the BC Children's Hospital, BC Cancer Society, Burnaby Christmas Bureau, Vancouver Food Bank, Unicef, and the Maywood Interagency for underprivileged families in the Metrotown area.

FACT FILE

An Environment Excellence award was presented to Ivanhoe Cambridge by TRANE Canada for the elimination of chlorofluorocarbon (CFC) refrigerants. All four chillers at the Metrotower Complex were converted to a CFC-free non-ozone depleting refrigerant.

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Business tools for sustainability



Helping business improve efficiency, reduce waste, become more profitable and offer greater value to the community. For no-cost advice or on-site technical assistance, call us at 604-451-6575 or by email at business_services@gvrd.bc.ca.

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