



GREENSmart Handbook



Achieving Sustainability through Environmental Practices

Overview

In 2004, Exhibition Place adopted an official Environmental Plan, recently named the Exhibition Place **GREENSmart** program. The program lays the groundwork for Exhibition Place to serve as a model for other organizations to operate successfully while being environmentally friendly.

Exhibition Place, located on Toronto's waterfront, hosts over 5.3 million visitors each year and through its 126-year history has been the showcase for innovation and leading edge green technologies and practices.

Exhibition Place facilities include:

- 🌿 Direct Energy Centre
- 🌿 Allstream Centre
- 🌿 Better Living Centre
- 🌿 Queen Elizabeth Building
- 🌿 Bandshell Park
- 🌿 Various tenants

Exhibition Place is an award winning entertainment venue and has produced two of the industry's most environmentally responsible buildings. Allstream Centre is targeting LEED Silver designation, and sits just south of Direct Energy Centre which showcases multiple Initiatives such as, lighting retrofits, tri-generation plant, a compostable food packaging program and a 4-stream waste diversion program. SCA Tissue, Green Seal, GreenGuard and EcoLogo products are used throughout the facilities.

Corporate Responsibility

Exhibition Place is committed to educating employees, clients and the general public:

- 🌱 City Council and Senior management level buy in for the approved Environmental Plan.
- 🌱 The GREENSmart Team is an employee based committee comprising of members from every department across Exhibition Place.
- 🌱 Proud participants in Earth Hour and Earth Day global Initiatives.
- 🌱 SMART Movement program encourages employees to cycle, use transit, walk or carpool to work
- 🌱 Use of FSC (Forestry Stewardship Council) paper products.
- 🌱 Direct Energy Innovation Centre is a permanent educational exhibit providing interactive displays showcasing methods of energy conservation to the general public.
- 🌱 Exhibition Place earmarked \$7M of Venue Naming Rights fees for the 10-year sponsorship of Direct Energy Centre for environmental initiatives.

LEED Silver Certified Conference Facility

Leadership in Energy and Environmental Design, or LEED® is a green building rating system that has become a nationally-accepted benchmark for the design, construction and operation of high performance green buildings. Green buildings refer to high-performance, environmentally responsible buildings that also promote the health and well-being of the occupants.

Allstream Centre is targeting LEED Silver designation to be Canada's first LEED Silver Conference Centre. Allstream Centre has secured a 100% green power purchase agreement through Direct Energy Business for the next two years making Allstream Centre the first building at Exhibition Place to be fully powered by renewable energy. In addition Allstream Centre has improved air quality through CO2 sensors; rainwater harvesting to reduce water consumption; Low VOC paints, carpets and adhesives and organic recycling programs.

Energy Conservation

Exhibition Place offers initiatives on all levels to encourage environmental responsibility through the conservation of energy.

- Exhibition Place offers designated parking spots for hybrid cars and carpool groups across the grounds.
- Exhibition Place created an **urban forestry program**, which preserves and renews the urban forest. The 2,750 trees across the site, the Sakura Tree Project and the naturalized garden are watered using lake-water irrigation piped from nearby Lake Ontario.
- In Direct Energy Centre and Allstream Centre classroom set-ups feature **linen-free table sets** as a standard set, helping to eliminate toxic dry-cleaning solvents from entering our ecosystem.
- Allstream Centre has its own **Cistern**, which allows rainwater harvesting from the roof to flush all of the water closets in the conference centre. Washrooms feature, 100% PCW hand towels, and touchless taps and soap dispensers. These water saving plumbing fixtures reduce water & conserve natural resources in order for the site to become better stewards of land, air & water.

GREENSmart Fact

Allstream Centre will be powered with 100% Green Power. Energy savings are equivalent to removing 168 cars off the road and this green energy initiative will offset the same amount of carbon dioxide as 422 acres of planted trees annually.

Building Temperature

From mid-October to mid-May heated spaces are kept as close to 68°F/20°C as possible during normal operating hours. From May to October air conditioned spaces are kept as close to 25°C. To help **save energy**, the building temperatures may be changed from normal operating set points during expected unoccupied hours and may also change during smog days.

Lighting

Lighting constitutes one of the major energy consumption factors and therefore building lighting systems levels are optimized. Indoor lighting will be reduced wherever is possible, to provide for the minimum but adequate lighting levels consistent with the efficient and effective use of the space. Exhibition Place's Integrated Lighting Control System ensures conservation across the grounds.

- Direct Energy Centre **retrofit fixtures** and lamps in the main exhibit halls and public Galleria areas with energy efficient, 400 watt, high light output energy efficient, ceramic arch tube" metal halide lamps. This retrofit reduced energy consumption by 2.3million kWh annually and is estimated to provide an annual savings of 38.7% in the overall lighting costs at Direct Energy Centre.
- An **Energy Control System (ECS)** by Encilium Technologies Inc. was installed to help offset the energy costs of the 600 fixtures in the Direct Energy Centre underground parking lot. Over 130 motion sensors controlling the lighting zones power required zones only when necessary and detected through motion.
- Allstream Centre uses **natural light** and lighting levels are independently controlled in each room. Dimmable energy efficient lighting with motion sensors are used throughout.
- Better Living Centre along with Direct Energy Centre has received **lighting upgrades** by installing energy efficient ballasts and lamps in main Exhibit Halls and public spaces. This will result in an annual reduction of over 2.3 million kilowatt hours of energy use.
- LED-technology** was utilized in exterior building naming signage for Direct Energy Centre and Allstream Centre offering superior energy efficiency.

Energy Creation

Through the GREENSmart program Exhibition Place positions itself as a leader in green technology and innovative thinking. Exhibition Place is targeting energy self sufficiency by 2010 and proudly presents various methods of energy creation.

Power

- The first permanent **wind turbine** in the City of Toronto. The turbine is capable of generating 1 million kilowatt hours of power per year. The turbine also helps to displace some of the harmful chemicals that are responsible for smog and acid rain, moving up to 1,800 tonnes of carbon dioxide annually.
- The "**Keeping it Green**" program was launched at Exhibition Place to assist our clients in organizing more environmentally friendly shows and events. Clients can purchase Renewable Energy Attributes from Direct Energy Business to offset their energy use. The power is sourced from EcoLogo certified generation facilities. The clean, renewable energy sources include wind, solar, low impact hydro, biomass, biodiesel or geothermal power.

- The Direct Energy Centre uses a major **Trigeneration project** that will use a natural gas fired generator to satisfy approximately 30% of the Complex's electricity, heating and cooling needs. An energy reduction of 7,400 tonnes of equivalent CO₂ emissions occurs through this project.
- The Horse Palace located on the north end of Exhibition Place uses its 130,000-square-foot flat roof to collect solar energy through a **photovoltaic plant**. Once completed, this 1 to 2-megawatt photovoltaic generation plant would be the largest in Canada and one of the largest in the world. The plant would reduce CO₂ emissions annually by 1,906 tonnes.
- The Press Building is powered using a **Geothermal Plant** and is expected to save 110,000 kilowatts-hours per year of electricity and over 15,000 cubic meters of natural gas. The Geothermal Plant will reduce the annual carbon dioxide (CO₂) emissions of the Press Building by approximately 125 tonnes per year and is expected to be 100% efficient.

GREENSmart Fact

Direct Energy Centre is the first convention centre in North America to offer Compostable Disposable Dishware.

Waste Management Program

Exhibition Place is a part of the City of Toronto Waste Diversion Task Force and has set aggressive waste diversion targets. Exhibition Place is committed to initiatives that focus on diversion, recycling and reduction of waste and has a met its goal to be 80% waste free by 2010.

Initiatives:

- 4-stream recycling** to separate and recycle waste materials (including glass, paper, wood, plastic and organic compost) at Direct Energy Centre, Allstream Centre and Better Living Centre.
- 3-stream recycling** to separate and recycle waste materials (glass, plastic, paper, waste) on the exterior grounds of Exhibition Place
- BMO Field now operates with 2 stream recyclers (plastics and organic compost) offering **Zero Waste Events**.
- Direct Energy Centre and Allstream Centre uses and recycles **100% PCW hand towels** for all public washrooms. Used hand towels are composted.
- Direct Energy Centre uses recycling and **safe disposal programs** for special items such as batteries, fluorescent lamps, paint and toner cartridges. To date, the facility is already diverting over 72% of its overall waste.

- Our Food & Beverage department works with local agencies to **donate perishable foods** to shelters and food banks in the City of Toronto. Food waste is donated to local farmers.
- A unique **compostable food packaging recycling program** which offers disposable dishware for all retail concession stands. Disposable dishware includes compostable hot and cold cups, lids and straws, plates, napkins, utensils, salad packaging & dressing containers, wrap & sandwich packaging.
- Cerise Fine Catering operates with **china service** in Allstream Centre. If disposable dishware is requested the compostable packaging recycling program is provided.

New Green Technologies

Exhibition Place is positioned to be a world leader in emerging technologies through the introduction of green energy projects.

- Exterior streetlamps, flanking Allstream Centre, and exterior building signage to energy efficient LED lighting.
- Creating Canada's first 100 kilowatt Photovoltaic Power Generation plant , and a smaller combination solar PV/thermal plant
- Installation of a geothermal HVAC system within the century-old Press Building
- Requiring the renovation of the former Automotive Building (Allstream Centre) to target LEED Silver certification.
- Introduction of an intelligent lighting program for our underground parking facility.
- Participation in a Hydrogen Fuel Cell demonstration project with a hydrogen refueling station at our Wind Turbine and a power hydrogen fuel powered bus.
- Implementation of a Green Roof pilot project
- Construction of the first urban Wind Turbine in Canada
- Creation of an urban reforestation project including a naturalized garden, and lake-water irrigation
- Implementation of rainwater harvesting program through the construction of a Cistern at Allstream Centre.

Exhibition Place Awards

Direct Energy Centre and Exhibition Place have been honoured with industry and environmental awards for our contribution to energy conservation and sustainability.

Name of Award	Presenting Organization	Year Awarded
2011 BOMA Certificate of Building & Management Excellence 2011 Office Building of the Year (TOBY) Award, Public Assembly Facility category	The Building Owners and Managers Association (BOMA)	2011
Platinum Facility Management	Recycling Council of Ontario	2010
UFI Operations Award	UFI The Global Association of the Exhibition Industry	2010
Pollution Prevention Award Greenhouse Gas category	Canadian Council of Ministers of the Environment	2009
Platinum Facility Management	Recycling Council of Ontario	2008
Ontario's Environmental Leaders Program (Membership)	Ministry of the Environment	2008
Commitment to the Environment	Morgan Scott – SCA Tissue	2008
Recycling & Diverting from Landfill Award	Aevitas Inc.	2008

Questions?

If you have questions about GREENSmart or want to learn how you can make your meeting or event environmentally friendly, please email us at greensmart@explace.on.ca