

Louis Brier Home and Hospital - 2009 Carbon Neutral Action Report

Executive Summary



The Louis Brier Home and Hospital is a 218 Intermediate and Extended Care facility located at 41st and Oak street in Vancouver. The 9,676 square meter (104,152 square feet) was constructed in 1963 with an addition added in 1977 and the addition of a second level in 1991. It is the only Jewish long-term care facility west of Winnipeg. Special holiday observances and other special programs and services provide the kind of Home our residents and their families could never find anywhere else in British Columbia .

Our vision is to be leaders in the provision of seniors care to the Jewish elderly of the 21st century through developing and achieving standards of excellence in service, clinical practice, education, research, and community outreach.

We are committed to develop the best possible practices and policies for the health and safety of our residents, our staff, their communities and our environmental health and to implement recycling, reduce waste and pollution, implement energy efficiency measures other sustainable building initiatives and practices and develop collaborative partnerships with external agencies and service providers to reduce our Green House Gas (GHG) emissions and our Carbon Footprint in preparation for carbon neutrality in 2010.

Overview:

Actions Taken to Reduce Greenhouse Gas Emissions 2007-2009

Louis Brier has been proactive since 2007 and prior to implement a number of sustainable initiatives and practices through waste and pollution management, recycling initiatives, efficient preventative maintenance practices, energy retrofits, other sustainability measures, and partnership with third party service providers to lower our energy consumptions and reduce Green House Gas (GHG) emissions and our Carbon Footprint and to meet our commitment to our community, our environment and in preparation for carbon neutrality in 2010. These initiatives include:

- A total lighting retrofit of our facility in 2007 to replace the old and inefficient T12 fluorescent, magnetic ballasts and incandescent lighting with new T8 fluorescent lighting, electronic ballasts and CFL lighting and installation of timer-controlled external lighting , and replacement of exit signs with efficient LED lighting. (A.2)

- Our aging and inefficient boilers were replaced in 2008 with newer and higher efficiency boilers that resulted in natural gas savings of approximately 10-15%. (A.2)
- Implemented an Energy Management Plan in 2008 through partnership with a contracted service provider for real time on-line monitoring of our HVAC energy utilities consumptions and adjustment through an energy server. Monthly energy consumption reports are provided, showing monthly savings on costs, GHG emissions and energy use. (A.2)
- Waste management practices including. (B.6)
 1. recycling programme for paper, plastics, glass, metal and cardboard
 2. monitoring and minimizing wastage
 3. encouraging reuse of materials
 4. selling or donating obsolete or surplus items
- Water conservation by converting to air cooled condensers for refrigeration and timer controlled sprinklers. (B.6)
- Safe disposal of hazardous materials and waste. (B.12)
- Regular inspection and maintenance of the HVAC system and computer controlled boilers to promote maximum efficiency and control emissions. (B.6)
- Dishwashing and laundry washing machines are regularly serviced and checked for their consumption of cleaning agents, water, and electricity. (B.6)
- Laundry uses phosphate- free chemicals & products that use less water (B.6)
- Dual pane windows are inspected regularly for leaks . (A.2)
- Water pipes and bathroom plumbing are inspected regularly for leaks (B.6)
- New medication dispensing system reduces paper and plastic waste. (B.6)

While no key initiatives have been implemented in 2009, we have focused on the maintenance of the initiatives that were implemented since 2007 and earlier as identified above and in the CNAR Carbon Neutral Action Report

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

While we have not made any plans for 2010-2012, we are committed, within our available funding and resources, to:

- Continue and enhance waste management and reduction practices
- Continue to promote and implement sustainability initiatives
- Continue to seek ways and opportunities to implement energy conservation measures
- Continue to Investigate and introduce other actions that will contribute to our goal of reducing Greenhouse Gas Emissions (GHG) and reduce our Carbon Footprint

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Actions Towards Carbon Neutrality

The actions listed below contribute to a reduction in greenhouse gas emissions from sources for which public sector organizations are responsible under the carbon neutral government regulation of the *Greenhouse Gas Reduction Targets Act*.

Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Mobile Fuel Combustion (Fleet and other mobile equipment)						
Behaviour change program						
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Complete	100 City of Vancouver has had an Anti-idling by-law since 2006. Anti-idling signage is in place at all buildings air intake areas and in receiving dock areas. Delivery vehicles drivers and taxi drivers are requested to shut off engines at all public entrances	Anti-idling signage has been posted for delivery trucks. Ongoing enforcement of anti-idling for delivery vehicles and taxis at public entrances	Maintain current practice	2006	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)						
Planning/management						
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Complete	100 % of buildings have a real time metering system installed	Real time monitoring set up by Sempa Power in 2008 as part of an Energy Management Plan to monitor on-line energy consumption on a daily basis is on-going. The Sempa Hybrid Heating System uses real time intelligent controls to track and manage heating demand. The energy server provides up to the minute analysis of electricity, natural gas, oil, and propane rates and can, based on demand, instruct customer HVAC controls to automatically switch between fossil fuel based energy sources and electricity to minimize energy costs, decrease GHG emissions and increase efficiencies. Monthly Energy Management Reports are provided showing monthly savongs on costs, GHG emissions, and energy use	Maintain current Sempa Power Energy Management Plan monitoring and utilities consumption optimization	2008	No End Date (Continuous)
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	100 % of owned buildings have undergone energy retrofits since start year indicated	1) Total lighting retrofit and interior and exterior lighting to more energy efficient lighting was completed in 2007. 2) The Sempa Power Energy Management Plan was implemented in 2008 including the replacement of boilers and the on-line monitoring and reporting on energy consumptions on a monthly basis to reduce energy consumptions, increase energy efficiency and reduce energy costs. All energy retrofit measures were maintained in 2009	1) Maintain current Sempa Power Energy Management Plan monitoring and utilities consumption optimization 2) Identify and implement other energy retrofit building measures within available funding and resources	2007	No End Date (Continuous)
Retrofitting owned buildings						

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Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)		Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Complete	100	% of retrofits (captured above) had heating, cooling, and ventilation systems upgrades	Replacement of boilers in 2008 included an energy management plan setup by Sempa Power to monitor and report on energy consumptions on a monthly basis to reduce energy consumptions, increase energy efficiency and reduce energy costs	1) Continue energy monitoring and reporting by Sempa Power to reduce utilities consumption 2) Implement additional energy savings measures should funding become available.	2008	No End Date (Continuous)
Upgrade lighting systems during retrofits	Complete	100	% of retrofits (captured above) had lighting systems upgrades	1) All interior lighting was upgraded in 2007 from inefficient T12 fluorescent lighting and magnetic ballasts to T8 lighting with Electronic ballasts. HID and incandescent lighting were replaced with CFL energy efficient lamps 2) Other lighting retrofits included timer controlled external lighting and replacement of exit signs with LED lighting		2007	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Complete	100	% of retrofits (captured above) had control system upgrades or adjustments	A new DDC system installed in 2008 as part of the energy management plan set up by Sempa Power	Maintain DDC system optimization for peak efficiency and to maximize utilities consumptions and savings	2008	No End Date (Continuous)
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress			Planning initiated in 2009 to implement Desktop Power Management for all applicable desktops	Implement Desktop Power Management, should funding become available	2009	2011
Apply auto-sleep settings on computer monitors and CPUs	Complete	100	% of computers have auto-sleep settings applied	All current desktops have auto-sleep settings applied		2005	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Complete	100	% of devices have auto-sleep settings applied	All current printing and photocopying devices are set up with auto-sleep	Main current practices and implement for future multi-function devices	2005	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Complete	100	% of computers are ENERGY STAR rated	All computer replacements are Energy Star models	Maintain current replacement practices		No End Date (Continuous)
Appliances and electronic devices							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Complete	100	% of fridges are ENERGY STAR rated	All current refrigerators in use are Energy Star models	All refrigerators purchased will be Energy Star models		No End Date (Continuous)
Behaviour change program							
Ask staff to unplug electrical equipment or switch off power bars when not in use	Complete			Except for 24/7 Resident care areas, staff turn off all electric and electronic equipment after hours except on one (1) day per week for desktop computers servicing by IT personnel.	Maintain practice		No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Complete			Staff are requested to minimize their use of electric and electronic equipment in their work offices to the essential need equipment while working outside of regular business hours. Unnecessary energy using equipment are requested to be turned off.			No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress			All staff are encouraged to use stairs instead of elevators where practical and when they are not assisting elderly residents or delivering supplies	Maintain practice		No End Date (Continuous)
Supplies (Paper)							
Electronic media in place of paper							
Use electronic document library for filing common documents	Complete			Electronic document library for filing common documents is currently in place for authorized staff		2007	No End Date (Continuous)

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Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Post materials online that were previously printed	Complete		Various manuals and policies and procedures are currently available on-line			No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	In Development		The implementation of electronic payroll notification system in place of paper pay stubs is currently under planning	Implement an electronic payroll notification system for all staff pending available funding	2010	2011
Behaviour change program						
Encourage re-use of scrap paper	Ongoing/In Progress		The re-use of scrap paper by staff has always been encouraged	Maintain Practice		No End Date (Continuous)

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Actions to Reduce Provincial Emissions and Improve Sustainability

The actions listed below contribute to a reduction in greenhouse gas emissions from sources that fall outside of the reporting requirements defined in the carbon neutral government regulation of the *Greenhouse Gas Reduction Targets Act*. Public sector organizations can optionally use this section to report on actions that will help British Columbia meet its provincial greenhouse gas reduction targets, engage the public, and improve environmental sustainability across all aspects of their organization.

Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Business Travel						
Behaviour change program						
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress		Staff are encouraged to use alternate travel to off-site meetings where feasible	Maintain Practice		No End Date (Continuous)
Other Sustainability Actions						
Waste reduction/diversion						
Implement a hazardous waste reduction and disposal strategy	Complete		Compliance levels for the safe disposal of all hazardous waste, including Mercury containing lamps are maintained	Maintain current practice and compliance for the safe disposal of all hazardous waste	1992	No End Date (Continuous)
Procurement (non-paper supplies)						
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress		Laundry detergents and kitchen cleaning supplies are "Green" and phosphate-free biodegradable products that use less water	Practice to continue with additional Green products to be implemented pending approval for use in health care facilities and by infection control authorities	2009	No End Date (Continuous)
Indoor air quality						
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Complete		A scent free policy has been in place at Louis Brier for 5 years and includes scented flowers		2005	No End Date (Continuous)
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Ongoing/In Progress		Procurement policy incorporating low volatile organic compounds (VOCs) standards for paints is in place	Maintain policy and incorporate other products where applicable	2005	No End Date (Continuous)
Commuting to and from home						
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress		Shower facilities, change rooms, and locker facilities have been available to staff since the construction of the facility in 1963 and subsequent renovations in 1977 and 1992.	Maintain Practice	1992	No End Date (Continuous)
Provide secure bicycle storage	Complete		Bicycle racks for secure storage for hospital staff are available	Increase bicycle storage should the need increase and within available funding		No End Date (Continuous)
Other Sustainability Actions						
Waste recycling programs in place	Ongoing/In Progress		Recycling at Louis Brier includes paper, plastics, soft drink cans, cardboard, metal, electronics, and fluorescent lighting. Obsolete and surplus items are donated and/or sold.	Maintain recycling initiatives, encourage reuse of functional materials, monitor and minimize waste and increase awareness to divert recyclable waste from landfills.		No End Date (Continuous)
Dishwashing and laundry washing machines regularly serviced	Ongoing/In Progress		Service maintained	Practice to be maintained		No End Date (Continuous)
New Medication dispensing system implemented	Complete		System is in use	System to be maintained		No End Date (Continuous)
Preventative maintenance of building systems in place	Ongoing/In Progress		Practice is maintained	Practice to be maintained		No End Date (Continuous)