

# **St. Joseph's General Hospital - 2009 Carbon Neutral Action Report**

## **Executive Summary**

St. Joseph's General Hospital (Board & Executive) supports the reduction of GHG emissions and as such has taken significant steps over the years in policy, operations, capital construction, materials management and I.T. services to reduce our carbon footprint. In partnership with the BC Government, VIHA and other provincial organizations (such as BC Hydro Power Smart) we have realized a decrease our own carbon footprint and reliance on GHG emission sources. Our organization recognises that the environment belongs to all of us and St. Joseph's General Hospital is committed to proven effective stewardship that minimizes the impact of GHG and its effect on climate change.

In keeping with our sense of stewardship, the executive of the hospital continues to support initiatives to reduce, reuse and recycle in every area of the organization. Our organization policy supports improvement and the implementation whenever possible of proven strategies, behaviours, systems, materials and equipment toward reduction of our carbon footprint.

## **Overviews**

### **Actions Taken to Reduce Greenhouse Gas Emissions in 2009**

Following a comprehensive Energy Audit conducted in 2008 St. Joseph's, with support from provincial organizations PESECA and BC Hydro Power Smart, was able to implement a major energy upgrade project that will see significant reductions in GHG emissions through reduction in electricity and natural gas consumption. In addition, the positive impact on the operating budget resulting from these savings will allow for continued investment in further GHG reduction strategies. We are committed to ongoing development of opportunities to further reduce our carbon footprint.

### **Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012**

In 2010 we will see the full implementation of the Energy Upgrade Project begun in 2008. We are installing a high efficiency heating plant for the hospital, upgraded lighting in specific buildings and installing a state of the art direct digital control system for the mechanical systems operating in the hospital. Each of these improvements will reduce our reliance on GHG sources (thus reducing our carbon footprint) and assist in enabling us to pursue our goal of continuous improvement through significant utility cost savings. In the years 2011 and 2012 we will continue to explore opportunities with the health authority and Ministry of Health for the effective stewardship of the resources directed to us. From state of the art LED Operating Room Lights to energy efficient equipment and building materials, Lean and LEED design principles and staff awareness and behaviour change, our goal is to become an efficient and effective member of the carbon neutral community.

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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
<b>Mobile Fuel Combustion (Fleet and other mobile equipment)</b>							
<b>Vehicle fuel efficiency</b>							
Replace vehicles with more fuel-efficient models	Complete	100	% of vehicles are fuel- efficient models	none to report		1995	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Complete	100	% of vehicles down-sized since start year indicated	all vehicles are fuel efficient		1995	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Complete	100	% of vehicles are subject to regular maintenance for fuel efficiency	Our single hospital vehicle is maintained as per manufactureres recommended schedule to optimize fuel efficiency		2009	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress	100	% of small maintenance vehicles are fuel-efficient	ongoing maintenace as per manufactures recommendations to optimize fuel efficiency	ongoing maintenace	1995	No End Date (Continuous)
<b>Behaviour change program</b>							
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	In Development				signage program for hospital vehicle and loading dock to reduce GHG	2010	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress			In 2009 the hospital recommended carpooling wherever possible to reduce costs	We will continue to encourage carpooling whenever possible	2010	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	In Development				The hospital will increase its bicycle storage capacity by 100% and make available showers for those wanting them.	2010	No End Date (Continuous)
<b>Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)</b>							
<b>Owned buildings</b>							
Establish energy performance baseline for owned buildings	Ongoing/In Progress	100	% of owned buildings have an established energy performance baseline	Energy audit of 2008 combined with period invoice analysis	ongoing comparative	2010	No End Date (Continuous)
Incorporate integrated design process into new construction or during renovations of owned buildings	Ongoing/In Progress	100	% of buildings built or renovated since start year indicated used the integrated design process	Our functional design process is carried out by a team including members of staff who will occupy and utilize the finished product	ongoing	1990	No End Date (Continuous)
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	In Development				audit source materials/equipment	2010	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	Implimentation of results of our 2008 energy audit	completion of the energy upgrade project	2008	2010
<b>IT power management</b>							

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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
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress			installed on laptops from vendor	evaluating	2003	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress			replacing printers and faxes with multi function devices	ongoing evaluation and replacement	2008	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress			upgraded at replacement	ongoing upgrading at replacement	2008	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress			ongoing when replaced	ongoing when replaced	2009	No End Date (Continuous)
<b>Appliances and electronic devices</b>							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress	25	% of fridges are ENERGY STAR rated	ensure new purchases meet or exceed rating	ongoing	2005	No End Date (Continuous)
Replace desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs or source more efficient desk lamps for future purchases	Complete			lighting upgrade		1995	No End Date (Continuous)
<b>Behaviour change program</b>							
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			part of the recommendations of the energy audit from 2008 - for implementation	purchase stickers and apply them throughout the organization. Planned e-mail notification for this and other energy awareness program.	2010	2011
Promote hot water conservation	In Development				continue to impliment replacement of mechanical handle driven tapsets with hands free tapsets	2005	No End Date (Continuous)
<b>Supplies (Paper)</b>							
<b>Paper Type</b>							
Purchase 30% post-consumer recycled paper	Complete	100	% of total paper purchased contains 30% recycled content	ensure all paper purchases are at least 30% recycled		2008	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	In Development				explore with the HA the quality and functionality of 100% recycled paper	2010	No End Date (Continuous)
<b>Printer/document settings</b>							
Switch networked printers and photocopiers to automatic double-sided	Complete			duplexing enabled on all capable printers		2005	No End Date (Continuous)
<b>Electronic media in place of paper</b>							
Use electronic document library for filing common documents	Complete			ER forms scanned		2008	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			P&P's online	electronic reader boards	2010	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Complete			researched and rejected		2009	2009
<b>Behaviour change program</b>							

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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
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress		staff were encouraged as a cost saving measure to hold meetings with overheads	encourage growing use of overheads	2010	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress		continuos going back more than 10 years	ongoing	1990	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
<b>Business Travel</b>							
<b>Virtual meeting technology</b>							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	20	% of computers have web-conferencing software installed	ongoing enterprise	ongoing	2006	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress	50	% of meeting rooms have access to video-conferencing equipment	n/a	n/a	2006	No End Date (Continuous)
<b>Behaviour change program</b>							
Train staff in web-conferencing	Ongoing/In Progress			train as required	ongoing training as required	2006	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Complete			train as required		2006	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Complete			ongoing awareness through electronic memo		2008	No End Date (Continuous)
Encourage carpooling to meetings	Complete			all staff encouraged to car pool when offsite for meetings		2009	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Complete			all staff encouraged to car pool when offsite for meetings		2009	No End Date (Continuous)
<b>Education, Awareness, and Engagement</b>							
<b>Staff Professional Development</b>							
Support green professional development (e.g., workshops, conferences, training)	Complete			education support for Engineering Team		2005	No End Date (Continuous)
<b>Other Sustainability Actions</b>							
<b>Water conservation</b>							
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress			all renovation projects have specifications for most energy efficient equipment	ongoing	2008	No End Date (Continuous)
Put in place a potable water management strategy to reduce potable water demand of building-level uses such as cooling tower equipment, toilet fixtures, etc. and landscape features	Ongoing/In Progress			all replacement fixtures are specified as most energy efficient	ongoing	2007	No End Date (Continuous)
<b>Waste reduction/diversion</b>							
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Complete			ongoing from 2005		1990	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
Implement a hazardous waste reduction and disposal strategy	Complete			ongoing from 1990		1990	No End Date (Continuous)
<b>Procurement (non-paper supplies)</b>							
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	Complete			ongoing from health authority		1990	No End Date (Continuous)
<b>Building construction, renovation, and leasing</b>							
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Complete			all construction projects have re-use specification		1990	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	Ongoing/In Progress	100	% of business cases incorporating lifecycle costing since start year indicated	each project incorporates life cycle costing principles	ongoing	1990	No End Date (Continuous)
<b>Indoor air quality</b>							
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Complete			ongoing		2000	No End Date (Continuous)
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Complete			ongoing		1995	No End Date (Continuous)
<b>Commuting to and from home</b>							
Encourage commuting by foot, bicycle, carpool or public transit	Complete			increase capacity of bike rack storage by 100%, provide shower facilities		2010	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Complete			provide shower facilities		2009	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress			increase bike rack storage	investigate the need for storage lockers	2010	No End Date (Continuous)
Modify parking fees or parking availability for staff/students	Complete			staff pay parking studied (implimented in 2010)		2008	No End Date (Continuous)