



PROVINCIAL CAPITAL COMMISSION

## Provincial Capital Commission - 2009 Carbon Neutral Action Report

### Executive Summary

The Provincial Capital Commission (PCC) is committed to achieving the Shareholder's Climate Action goals, and has included targets for reduction in greenhouse gas emissions (GHG's) and electricity consumption in its Service Plan so that PCC performance is publicly reported and transparent .

Energy use is primarily generated from the PCC property inventory. This inventory, located within the Capital region, includes commercial revenue properties occupied by tenants. It also includes parks and green space. Commercial revenue properties include heritage buildings, inner harbour ferry terminals and development sites currently utilized as parking lots and special events venues. Annual revenues from PCC properties are approximately \$3.1 million, which fund PCC outreach programs and business operations on a self sustaining basis. Common operating expenses, including utilities, incurred by the PCC at its commercial properties are recovered from tenants under lease agreements. The PCC owns the building that is its corporate head office at 613 Pandora Avenue, Victoria, as well as St. Ann's Academy that is leased to the Province for use as government office space.

PCC energy consumption is primarily driven by tenant operations at the Crystal Garden, Visitor Information Centre, and the CPR Steamship Terminal building. St. Ann's Academy energy use is not included in PCC base consumption and is reported by government. For the base reporting year of 2007, the PCC's CO2 omissions were approximately 312 tons from natural gas and heating oil, and 14 tons from electricity.

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

Since the announcement of the Climate Action Plan in 2007, the PCC and its tenants have implemented some significant infrastructure and technology investments to reduce CO2 emissions and build long term sustainability into business operations. Highlights include:

- **Crystal Garden** – 23% reduction in CO2 emissions through reduction in natural gas consumption for the glass roofed heritage building through replacement of the primary heating system from hot water radiant coils to modern heat pump technology in space occupied by the Victoria Conference Centre and Old Spaghetti Factory restaurant.
- **Visitor Information Centre** – a reduction of over 90% in CO2 emissions from natural gas consumption through elimination of public shower and laundromat facilities, and tenant renovations to restaurant facilities.
- **Corporate operations** - The PCC has enhanced procurement practices to incorporate environmental responsibility into the way products, services and business relationships are managed. PCC employees continue to demonstrate leadership and initiative in seeking innovative and creative ways to make environmental responsibility part of office culture.

In addition to the above highlights, other actions implemented to date include:

- Initiated energy audits of five PCC core properties to identify efficiency opportunities.
- Implemented government's Smartool to establish emission reduction targets, track GHG reduction progress and calculate expected offset purchase requirements.
- Assessed potential financial exposure to achieve carbon neutrality in 2010 through the Pacific Carbon Trust.
- Educated the PCC Board, staff and tenants on government's climate action plans, goals and targets.
- Changed to 30% post-consumer recycled fibre content in office paper.
- Strong executive leadership and support of "paperless" initiatives.

**In summary, total CO2 emissions from all PCC properties have decreased from 2007 to 2009 by 30% (93 tons).**

In achieving reductions in natural gas consumption, there has been a net increase in electricity consumption of 2%. While the reported initiatives implemented at the Visitor Information Centre achieved an 18% reduction in electricity use, tenant driven electricity use at the Crystal Garden has increased 37% due to Victoria Conference Centre operations commencing in November 2008, and additional electrical demands from heating and cooling equipment. The overall net increase of 2% in electricity use for all PCC properties equates to only 0.3 tons of CO2 emissions. Based on the substantive savings from natural gas use realized to date, the minor increase in electricity consumption from 2007 to 2009 is offset by the overall reduction in CO2 emissions.

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

The PCC will continue to identify and implement opportunities to reduce electricity use from its property holdings to achieve government's goal of a 5% reduction against base consumption. Key strategies planned for 2010 include:

- CPR Steamship Terminal – seismic upgrade and rehabilitation project to be completed by March 31, 2011 is based on \$3 million contribution from the Province of BC and Government of Canada under the Infrastructure Stimulus Fund. Planned scope of work will include mechanical, electrical and lighting upgrades.
- Completion of energy audits at PCC core properties, and develop strategies based on identified opportunities and cost/benefit analysis.

The PCC will implement identified opportunities on a business case approach, and will seek financial support from tenants where appropriate linked to cost/ benefit analysis.

In addition to the above strategies, over the next three years the PCC will pursue the following actions:

- Increase employee awareness and accountability for environmental objectives
- Continue to monitor actual GHG emissions and electrical consumption by property to ensure plans to achieve annual forecast are being met
- Continue to identify and adopt best practices in energy management from other property management organizations with the Capital, the Province and other jurisdictions
- Refine outreach programs delivery to incorporate climate action plan goals
- Continue replacement of information technology and office equipment with energy efficient models.

## **Parks and greenspace**

Although the PCC holds an extensive inventory of parks and green space, these properties are not permitted to be counted towards carbon credits. The most effective business case for achieving carbon neutrality will be for the PCC to purchase credits through the Pacific Carbon Trust in 2011.

## **Conclusion**

The Provincial Capital Commission is proud of its accomplishments to date and the transparency in public reporting of results in achieving net energy use reductions from its diverse property inventory that includes tenant occupied heritage buildings. The PCC is already close to achieving the goal of a 33% reduction in GHG emissions by 2020, and is currently focusing on strategies in 2010 that will produce savings in electrical consumption of 5% by 2011.

In the coming years, the PCC will continue to build on its accomplishments and invest in new infrastructure in partnership with tenants that will support the PCC's commitment to sustainability.

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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>							
This section is not applicable to this organization							
<b>Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)</b>							
<b>Planning/management</b>							
Reduce office space (square meters) per employee	In Development			Plan to reduce office space at PCC headquarters currently being reviewed. Plan to fully utilize unused common space also being reviewed at headquarters offices.	2010	2012	
<b>Owned buildings</b>							
Establish energy performance baseline for owned buildings	Complete		100%		2007	No End Date (Continuous)	
Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M)	In Development			PCC to highlight and register building operations and maintenance that may eligible for certifications such as LEED standard in 2010/11.	2010	2011	
Register for performance labelling/certification for commercial interiors of owned buildings (e.g., LEED CI)	In Development			PCC to highlight and register commercial interior buildings that may eligible for certifications such as LEED standard in 2010/11.	2010	2011	
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	20	% of owned buildings have undergone energy retrofits since start year indicated	From 2005 to 2008, the Crystal Garden building has undergone two major restorations in addition to numerous tenant improvements. The 80-year-old heritage building was brought up to modern seismic and snowload standards and its iconic glass roof was replaced. Retrofits also included upgrades to the mechanical systems, lighting systems, control systems and insulation.	Energy audits have been conducted for including the CP Steamship Terminal, Belleville Port Facility, Tourist Information Centre and 613 Pandora Avenue have been provided and outline energy retrofit options for each building. In 2010/11, the CP Steamship Terminal will be next to be retrofit. The remaining three buildings will be retrofit over the next two years.	2005	2012
<b>Retrofitting owned buildings</b>							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	20	% of retrofits (captured above) had heating, cooling, and ventilation systems upgrades	Crystal Garden HVAC system upgraded during building renovations between 2005 to 2008.	Determine possible HVAC retrofits in PCC owned buildings.	2010	2011
Upgrade lighting systems during retrofits	Ongoing/In Progress	80	% of retrofits (captured above) had lighting systems upgrades	Crsystal Garden, 613 Pandora Avenue, Tourist Information Centre and St. Ann's Academy have all received upgraded lighting.	Lighting retrofits are planned for the CP building in 2010/11 as part of the structural and seismic work being completed on the building.	2010	2011
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	20	% of retrofits (captured above) had control system upgrades or adjustments	Crystal Garden control systems updated during building renovation.	Review control system in all PCC buildings and determine schedule for upgrades or adjustments.	2010	2011
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	20	% of retrofits (captured above) had insulation improvements	Crystal Garden insulation improvements completed during building renovation.	Insulation improvements scheduled for CP building in 2010/11 as part of renovation to the building. Insulation improvements to remaining PCC buildings to be scheduled over next five years.	2007	2012
<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
Install power management software which shuts down computers outside of regular business hours	In Development				PCC to install power management software on all computeres in 2010/11.	2010	2011
Implement server virtualization	In Development				PCC to further research the implementation of a virtual server in 2010/11.	2010	2011
Apply auto-sleep settings on computer monitors and CPUs	Complete	100	% of computers have auto-sleep settings applied	All staff have applied auto-sleep setting to desktop computers.		2009	2010
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Complete	100	% of devices have auto-sleep settings applied	All PCC devices have auto sleep settings applied.		2009	2010
Replace computers with ENERGY STAR models during regular computer upgrades	Complete	100	% of computers are ENERGY STAR rated	All PCC computeres are Energy Star rated.		2007	2010
<b>Appliances and electronic devices</b>							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	In Development				Energy Star refridgerator to be installed at PCC headquarters in 2010/11.	2010	2011
Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases	Complete			Energy Star dishwasher installed at PCC headquarters in 2009.		2009	2009
Replace desk lamp incandescent bulbs with compact fluourescent (CFL) bulbs or source more efficient desk lamps for future purchases	Complete			All PCC desk lamps replaced with CFL bulbs.		2009	2010
<b>Behaviour change program</b>							
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress			Staff encouraged to turn off power bars and unplug equipment when not in use.	Continue to encourage staff to turn off power bards and unplug equipment when not in use.	2007	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Staff encouraged to close blinds at the end of work days.	Continue to encourage staff to close blinds at the end of work days.	2007	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress			Staff encouraged to use dry setting on dishwasher.	Continue to encourage staff to use dry setting on dishwasher.	2007	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress			Referred staff to BC Hydro Power Smart website for tips on how the organization can conserve energy and reduce impact on environment.	Continue training on conserving energy and PCC staff meetings.	2009	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress			PCC headquarters does not have an elevator.	Continue to use stairs.	2002	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Reminders sent to staff on an on-going basis to ensure lights are turned off when office space not occupied.	Continue to send reminders and post signs over light switches.	2009	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			Operate automatic dishwahr only when it is fully loaded.	PCC to install instant water heater on sinks to avoid running water until it heats up. Ensure all water pipes are properly insulated.	2010	2010
<b>Supplies (Paper)</b>							
<b>Paper Type</b>							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	100	% of total paper purchased contains 30% recycled content	Recyled paper purchases at PCC headquarters for everyday use.	Continue to purchase 30% recyled paper.	2009	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
<b>Printer/document settings</b>							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	100	% of network printers or photocopiers are set to automatic double-sided	All PCC printeres are set to automatic double-sided setting.	Continue to print double-sided copies.	2009	No End Date (Continuous)
<b>Electronic media in place of paper</b>							
Post materials online that were previously printed	Ongoing/In Progress			All PCC corporate reports posted on www.bcpc.com.	All corporate reports to be posted online along with secured director meeting information on secured portion of website.	2010	2010
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress			50% of PCC staff have shifted to electronic payroll notification.	Encourage remainder of PCC to shift to electronic payroll notification system.	2010	2010
<b>Behaviour change program</b>							
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			PCC staff meetings have been paperless since 2007.	Continue paperless PCC staff meetings.	2007	2010

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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	50	% of computers have web-conferencing software installed	50% of staff have installed web-conferencing software.	Install web-conferencing software to remaining staff who require Live Meeting.	2009	2011
<b>Behaviour change program</b>							
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			All PCC staff encouraged to use virtual attendance such as live meeting whenever possible.	Continue to encourage virtual attendance.	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			All PCC staff encouraged to carpool to meetings whenever possible.	Continue to encourage carpooling to meetings when possible.	2009	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress			All PCC staff encouraged to bicycle, bus or walk to meetings whenever possible.	Continue to encourage staff to bicycle, bus or walk to meetings when possible.	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)	Ongoing/In Progress			The PCC has supported green professional development conferences and training sessions throughout the year.	Continue to support green professional development and training sessions.	2010	2012
<b>Staff awareness/education</b>							
Provide education to staff about the science of climate change	Ongoing/In Progress			Several PCC staff have participated in workshops focused on the science of climate change.	Provide staff information regarding the science of climate change at staff meetings.	2010	2010
<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			Efficient water fixtures installed at Crystal Garden and Tourist Information Centre properties.	Continue to outfit properties including the CPR Building with efficient water fixtures.	2010	2010
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	In Development			Strategy implemented at St. Ann's Academy.	Continue to implement stormwater management strategies at PCC properties.	2009	2010
<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.)	In Development				Procurement policy to be revised in 2010 to reflect minimum recycleable content standards.	2010	2010
Establish green standards for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	In Development				Draft policy to establish green standards for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	2010	2010
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	In Development				Develop sustainable purchasing program for cleaning products, disposable paper products and trash bags	2010	2010

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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
<b>Commuting to and from home</b>						
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		Encourage staff to commute by foot, bike, carpool and bus.	Continue to encourage staff to commute by foot, bike, carpool and bus.	2007	No End Date (Continuous)