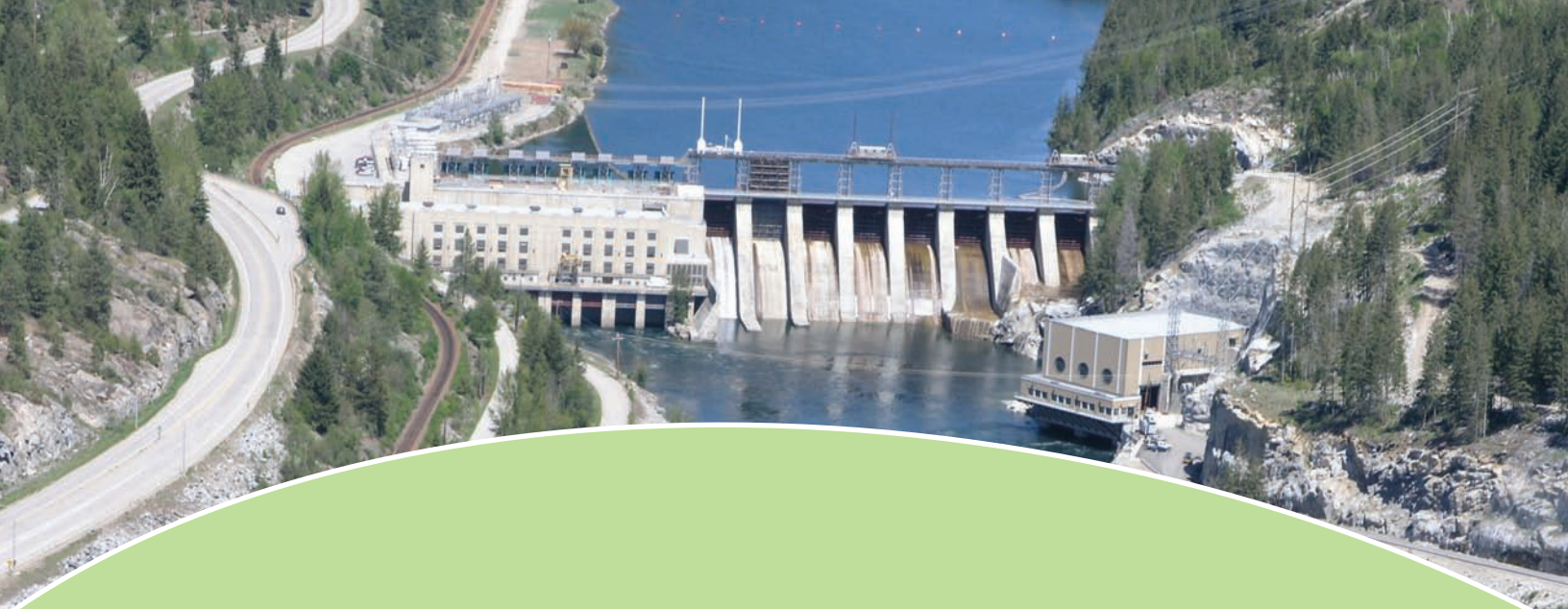


Columbia Power Corporation

2009

Carbon Neutral Action Report





Executive Summary

Columbia Power Corporation (CPC) is a small Crown Corporation based in Castlegar, British Columbia with a mandate to construct and operate hydro-electric projects in the Columbia River Basin. With a staff of only 36 and a fleet of five vehicles, the company has been able to implement carbon neutral policies and actions for its corporate office functions quickly and effectively. In 2009, we saw the completion of our LEED Gold standard office renovations and we are awaiting final approval. We also saw the replacement of one of our fleet vehicles to a more efficient vehicle, the complete switch to 100% post-consumer print paper and 77% of our staff trained in climate change and carbon neutral actions.

CPC is a producer of sustainable power. All of our projects contribute directly to the sustainable development goals of the Province and the Clean Energy Plan. Although our operations, hydro-electric generating facilities and transmission lines, are outside the scope of the carbon neutral reporting structure, they contribute directly to generating emission free electricity for the BC electricity grid and offset the need to import electricity that may be generated from sources that may have emissions associated with them.

As a member of the **Canadian Electricity Association**, CPC subscribes to the *Sustainable Electricity Program* and is continually identifying ways to incorporate the principles of Sustainability in our day-to-day business.





Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2009

In 2009, CPC completed the LEED Gold Standard office renovations and applied for certification. During the renovation, CPC changed out over 200 light bulbs to energy efficient models, installed many motion activated lights that automatically turn off when no one is in the room, changed out over 50 computers with Energy-Star models, changed out the HVAC system to a more energy efficient model and maximised the availability of natural light throughout the office.

CPC has made strides to reduce the impact of paper use by switching all copy and print paper to 100% post-consumer recycled paper and

purchases all other paper products as recycled wherever possible. In addition, CPC has optimised meeting rooms with network access and large screens to facilitate paperless meetings. All printers are set to double-side print and electronic copies of documents are provided instead of hard copies, as a rule.

Our new travel policy has provided staff with guidelines for reducing business travel and utilising web conferencing and teleconferencing whenever possible. Our vehicle fleet is small but efficient and is now optimised for the business requirements.





Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

Although CPC is nearly optimised we will continue to seek ways to reduce greenhouse gas emissions by exploring commuting options, educating and challenging staff to reduce their business and personal use of resources including paper and by contributing to community initiatives.

CPC continues to work towards commencing the Waneta Expansion Project in 2010. This project involves the construction of a new 335 megawatt hydro-electric generating station on the Pend d'Oreille River. When commissioned, the facility would generate approximately 630 gigawatt hours of emission-free electricity for the BC grid.

Luís Ambrose

Vice President, Projects and Operations
April 30, 2010



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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)							
Vehicle fuel efficiency							
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	75	% of vehicles are fuel- efficient models	One older, less efficient Ford truck was replaced with a newer, more efficient Toyota RAV.	Vehicles are accessed and replaced with more fuel efficient models as required.	2008	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	20	% of vehicles down-sized since start year indicated	Consideration was given to size of vehicles and it was determined that the fleet is nearly optimised. There is little room for improvement.	Vehicles are accessed and replaced with optimly sized vehicles as required.	2008	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	All vehicles in the fleet are maintained to factory recommended schedules which ensures fuel efficiency is optimized.	All vehicles in the fleet are maintained to factory recommended schedules which ensures fuel efficiency is optimized.	2008	No End Date (Continuous)
Behaviour change program							
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	In Development	0		The message was included in staff carbon neutral awareness training.	Will be added to pool vehicle policy.	2010	2012
Encourage carpooling in fleet vehicles	Ongoing/In Progress	96	% of current drivers are trained	CPC has a very limited number of pool vehicles, so staff must carpool out of necessity. There is verbal encouragement to carpool.	This will be written into the pool vehicle policy and become part of the driver training.	2009	2012
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress			Fleet vehicle use is currently minimized and there are no practical alternatives for accessing the facilities.	Public transit is encouraged when visiting major urban centres.	2009	2012
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Reduce office space (square meters) per employee	Complete			Major renovations were completed in 2009 which reduced the square meters per employee.		2008	2009
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Complete			HVAC operation is programmed to maximize efficiency. Newly renovated lighting system saves 77,685 Kwh annually and the system is optimized to take advantage of natural daylight during working hours and "sleeps" during non-working hours. Further, the lighting system will turn off after 20 minutes of no motion entry into boardrooms etc. Lights will automatically turn on when someone walks into the room.		2008	2009
Leased buildings							
Lease space with operations and maintenance performance labelling/certification (e.g., LEED EB:O&M)	Ongoing/In Progress	0	% of leased buildings have operations and maintenance labelling/certification	Application has been made for LEED Gold status after major renovations in 2009- application is waiting for review.	Application has been made for LEED Gold status after major renovations in 2009- application is waiting for review.	2007	2012
Lease space with commercial interiors performance labelling/certification (e.g., LEED CI)	Ongoing/In Progress	0	% of leased buildings have commercial interiors labelling/certification	Application has been made for LEED Gold status after major renovations in 2009- application is waiting for review.	Application has been made for LEED Gold status after major renovations in 2009- application is waiting for review.	2007	2012

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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
IT power management							
Install power management software which shuts down computers outside of regular business hours	Complete	100	% of computers shut down automatically outside of regular business hours	computers are shut-down every night		2008	2009
Apply auto-sleep settings on computer monitors and CPUs	Complete	100	% of computers have auto-sleep settings applied	5 minutes time frame		2008	2009
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Complete	80	% reduction in printers, copiers, and/or fax machines since start year indicated	Large reduction in desk top printers		2008	2009
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Complete	80	% of devices have auto-sleep settings applied	Multi-function devices have sleep settings		2008	2009
Replace computers with ENERGY STAR models during regular computer upgrades	Complete	100	% of computers are ENERGY STAR rated	All computers were replaced with energy star models every 5 years		2008	2009
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	None. This was completed in 2008		2008	2009
Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases	Complete	100	% of other appliances replaced with ENERGY STAR models.	Older inefficient models were replaced during the renovation 2008/2009		2008	2009
Replace desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs or source more efficient desk lamps for future purchases	Complete	100	% of desk lamps were replaced	All lighting is high efficiency and task lighting is available at all stations and are available for individual use. All desk lights were eliminated.		2008	2009
Behaviour change program							
Help staff reduce personal energy use through "workstation tune-ups"	Ongoing/In Progress	100	% of current staff have completed a workstation tune-up	Each work station has a recycling bin, use of the energy efficient task lighting, screens will shut off after 5 minutes of inactivity.	IT department to review options available for 2010 to 2012	2008	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress	78	% of staff trained in Climate change and Carbon Neutrality	78% of staff were trained in Climate Change and Carbon Neutrality which included information on saving energy while at home. A "Kill-a-Watt" meter is available for staff to take home to assess the efficiency of their appliances.	Continue to offer the "Kill-a-Watt" meter to staff and continue to train new staff as deemed necessary.	2009	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress			CPC has a very active staff and the stairs are used frequently. Posters have been displayed for health and wellness purposes to encourage the use of stairs.	Continue to challenge staff to use stairs during Earth Week and Health and Wellness events.	2008	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Complete	78	% of staff trained in Climate change and Carbon Neutrality	This is completed automatically after 20 minutes of non motion in a room. Further, staff have been educated to turn off lights if a room is not in use prior to the 20 minute timeframe.		2008	2009
Promote hot water conservation	Complete			Low flow tap sets have been installed		2008	2009
Supplies (Paper)							
Paper Type							

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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
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	90	% of total paper purchased contains 100% recycled content	All paper was switched from 30% recycled content to 100% post-consumer recycled content in 2009.	As coloured and other paper becomes available as recycled paper, CPC will purchase this product.	2008	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	Complete	100	% of network printers or photocopiers are set to automatic double-sided	Default setting for all of the multi use stations		2008	2009
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	Complete	100	% of network printers have 'print and hold' settings applied	Default setting for all of the multi use stations		2008	2009
Electronic media in place of paper							
Use electronic document library for filing common documents	Ongoing/In Progress			CPC is working toward a 'paperless office'. The records management system is currently being reworked to improve the ability for interdepartmental file access and thus the ability to link to a common usable library. Significant progress was made in 2009 to realising this objective.	Continue to work toward is well established records management system interdepartmental file access until the .	2008	2011
Post materials online that were previously printed	Ongoing/In Progress	100	% of employees have access to the CPC Intranet	Revamped the intranet so that it is an effective communication tool for staff. All common notices, communications, policies and administrative documents are available through the intranet.	Continue to maintain and populate the intranet site.	2007	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Complete	100	% of staff are on the electronic payroll system	Switched to ADP electronic paystubs		2008	No End Date (Continuous)
Behaviour change program							
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			All meeting rooms have been equipped with laptop computers that are connected to the network and large screen or projectors. A paperless meeting protocol was drafted.	Finalize paperless meeting protocol and train all staff.	2008	2011

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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							
Policy and budgeting							
Create a low-carbon travel policy or travel reduction goal	Ongoing/In Progress			Guidelines regarding travel reduction have been sent-out to staff	Reduce travel to meetings and participate in conference calls and web conferences as much as possible.	2008	No End Date (Continuous)
Virtual meeting technology							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Complete	14	% of computers have web-conferencing software installed	There are 5 accounts set-up for web-conferencing, LIVE MEETING, which are used frequently to reduce travel. Further computers will not be loaded with the software unless need develops.		2008	2009
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Complete	33	% of meeting rooms have access to video-conferencing equipment	The largest boardroom has video-conferencing capabilities and is used to reduce travel.		2008	2009
Behaviour change program							
Train staff in web-conferencing	Complete	50	% of staff are trained web-conferencing	All administrative support staff have been trained in LIVE MEETING and set up meetings as needed.		2008	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Complete	100	% of staff are trained in video-conferencing or have access to technical support	Training was provided by the IT department		2008	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Complete	100	% of staff required to follow travel guidelines	This is a component of the travel guidelines submitted to all staff at the beginning of 2009.		2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			CPC has a very limited number of pool vehicles, so staff must carpool out of necessity. There is verbal encouragement to carpool and staff are not paid mileage.	This will be written into the pool vehicle policy and become part of the driver training and paperless meeting guidelines.	2009	2011
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress			Travel policy encourages the use of public transit when travelling to meetings in Vancouver. There is no effective public transit in Castlegar.	This will be written into the pool vehicle policy and become part of the driver training and paperless meeting guidelines.	2009	2011
Education, Awareness, and Engagement							
Staff Professional Development							
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress			Staff have participated in the CEA Sustainable Electricity Steering committee meetings and workshops.	Staff will continue to participate in the CEA Sustainable Electricity Steering committee meetings and workshops.	2007	No End Date (Continuous)
Staff awareness/education							
Provide education to staff about the science of climate change	Complete	77	% of staff trained	CPC provided a mandatory training session on climate change and Carbon Neutral commitments.		2009	2009
Provide education to staff about the conservation of water, energy, and raw materials	In Development			CPC provided a mandatory training session on climate change and Carbon Neutral commitments.	CPC will provide a more general training session for staff on Sustainability that will include resource conservation.	2010	2011

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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
Provide green tips on staff website or in newsletters	Ongoing/In Progress	100	% of staff have access to the staff newsletters.	CPC issues a staff newsletter with a section on various environmental issues being managed by CPC environmental staff.	CPC environmental staff will structure the article so that it includes conservation tips and research other options for communicating this knowledge to staff.	2010	No End Date (Continuous)
Provide sustainability education during new staff orientation	Ongoing/In Progress	88	% of staff trained in EHS-MS	CPC provides safety and environmental management system training to all new staff as part of the orientation package.	CPC will review the orientation package to determine how sustainability can be incorporated into the orientation package.	2010	2012
Client/public awareness/education							
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress			CPC runs regular energy efficiency newspaper adds and has provided funds for environmentally educational signage and Outdoor Education Programs through our Sponsorship Program.	CPC will continue to provide funding to qualifying programs through the Sponsorship Program.	2009	No End Date (Continuous)
Other Sustainability Actions							
Water conservation							
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Complete			LEED Gold Standard Renovations were completed and fixtures were replaced.		2008	2009
Waste reduction/diversion							
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Complete			Recycling program is in place.		2007	No End Date (Continuous)
Procurement (non-paper supplies)							
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	Complete			CPC orders 100% post-consumer paper from a local supplier		2008	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Complete			CPC requires cleaning contractor to purchase green cleaning products as part of their contract.		2008	No End Date (Continuous)
Indoor air quality							
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Complete			Allergies in the workplace necessitate a scent-free policy		2007	2009
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Complete			LEED Gold Standard Renovation incorporated low VOC standards.		2008	2009
Commuting to and from home							
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress			CPC promoted the Bike to Work Week. Many staff carpool.	Promote the Bike to Work Week. Consider other challenges to encourage commuting to work.	2007	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Complete	100	% of staff with access to showers	Showers and locker room was renovated		2008	No End Date (Continuous)
Provide secure bicycle storage	Complete	100	% of staff with access to secure bike storage	None. Secure bike storage is offered in the garage.		2006	No End Date (Continuous)