

Columbia Power Corporation

Carbon Neutral Action Report 2011







Executive Summary

As part of Columbia Power Corporation's environmental policy, sustainability is mandated as the company's core value and Columbia Power is committed to integrating environmental considerations into the various aspects of its business.

It is Columbia Power's goal to develop, operate and maintain commercially viable and environmentally sound electric power projects for the benefit of the Province and the residents of the Columbia Basin.

Columbia Power facilities produced and sold 2,575 GW.hr of green, emission-free electricity in 2011 and offset the need to import electricity that has been generated from sources that may have had emissions associated with them.

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



Jane Bird
President & CEO

May 2012

2011 Greenhouse Gas Emissions

In 2011, Columbia Power's total greenhouse gas (GHG) emissions were 35.0 metric tonnes generated from the company vehicle fleet emissions, paper usage and office building energy consumption. This is an increase of 6.0 metric tonnes compared to Columbia Power's 2010 GHG report. The cause for the rise in GHG emissions in 2011 is due to the increase in fleet vehicle traffic (27%) to the new Waneta Expansion Project construction site and one additional vehicle added to the fleet.

Offsets Applied to Become Carbon Neutral in 2011

Columbia Power's total GHG offsets for 2011 were 34.0 metric tonnes with an offset exemption of 1 metric tonne.

Emissions Reduction Activities

In 2011, Columbia Power encouraged increased participation in alternative and public transportation (e.g. biking, walking, transit, etc.) and carpooling travelling to and from work, office and external meetings.

The efforts employed for a reduction in paper consumption in the office consisted of the placement of a shortcut for the EHS Management System on the desktop of all staff to reduce the amount of hardcopies printed, as well as increased utilization of meeting room monitors and projectors for group viewing of documents to replace individual hard copies. The conservation initiative resulted in a substantial decrease of 29% in paper consumption. This was unfortunately not enough to offset the increase in company fuel consumption.





Actions to Improve Provincial Emissions and Improve Sustainability

As a result of the initial stages of the corporation's encouragement to increase use of virtual conferencing technology, the company has noted a small decrease (~1%) in the amount of staff travel to areas outside of the region for conferences and meetings. The virtual meeting and conferencing initiative will continue with the intent of further reduction in travel by all staff.

Columbia Power's major contribution to provincial sustainability efforts continues to be the construction of the Waneta Expansion Project. This project will add 630 GW.h per year of emission-free electricity. The project is on schedule for completion in 2015.

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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 <i>Greenhouse Gas Reduction Targets Act</i> .							
Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Mobile Fuel Combustion (Fleet and other mobile equipment)							
Vehicle fuel efficiency							
Perform regular fleet maintenance specifically 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 will continue to be maintained to factory recommended schedules to ensure optimization of fuel efficiency.	2008	No End Date (Continuous)
Behaviour change program							
Encourage carpooling in fleet vehicles	Ongoing/In Progress			All staff encouraged to share vehicles when going to site and accessing facilities. A shared pool vehicle calendar has been created to assist in organizing travel and promoting carpooling.	Continue to encourage vehicle sharing through ongoing communications on energy conservation awareness.	2009	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	In Development			All staff encouraged to use alternative transportation when possible through the promotion of health and wellness.	Promote further awareness on alternative forms of transportation (i.e. biking to site offices, walking, carpooling, etc.) and remind staff of the services available within the office (i.e. bike rack, showers, personal lockers).	2010	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
IT power management							
Implement server virtualization	In Development			Planning undertaken to develop virtual server.	Create virtual server.	2011	2012
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress			Energy star equipment is purchased on an as-needed basis during equipment upgrade/replacement phases.	Continue to purchase energy star equipment as required.	2009	No End Date (Continuous)
Behaviour change program							
Encourage use of stairs instead of elevators	Ongoing/In Progress			Staff are encouraged to increase their physical activity by creating awareness around various inspiring co-workers through a "showcase" article published on the internal website.	Continued staff encouragement will be enhanced by a "heart health check", sponsored by the Health and Wellness Committee, that will distribute documentation that promotes the use of stairs over the elevator.	2008	No End Date (Continuous)
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	25	% of total paper purchased contains 30% recycled content	Certain applications (i.e. accounting) required coloured paper that is only available in limited recycled content.	Look for new sources of coloured paper that offers a higher recycled content.	2009	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	75	% of total paper purchased contains 100% recycled content	100% recycled content is preferred choice, where possible	Continue to make 100% recycled paper the preferred choice.	2009	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development			Initial review for feasibility for the creation of SharePoint.	Continue the requirements analysis and if positive then will roll out.	2011	2013

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Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Use electronic document library for filing common documents	Completed in 2011			The library drive was created and all environmental reports were transferred to the drive. Records and Information Management System started to be developed in 2011.	The Library listing will be finalized and preliminary staff training occur and be ongoing as the system progresses.	2011	2013
Post materials online that were previously printed	Ongoing/In Progress			Staff have access to a shared drive where materials are centralized (i.e. meeting agendas, minutes, etc.) to minimize printing. The Environmental, Health and Safety Management System (and associated docs) are available to all staff online to reduce printing.	Continue to promote use of online materials versus printing them.	2011	No End Date (Continuous)
Behaviour change program							
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			Staff are encouraged to use the meeting room monitors/projectors for group viewing of documents versus individual hardcopies (i.e. meeting agendas, subject documentation, etc.).	Continue to encourage staff to share documents electronically through email awareness of the costs and resources associated with printing and encourage the use of electronic document review.	2009	No End Date (Continuous)

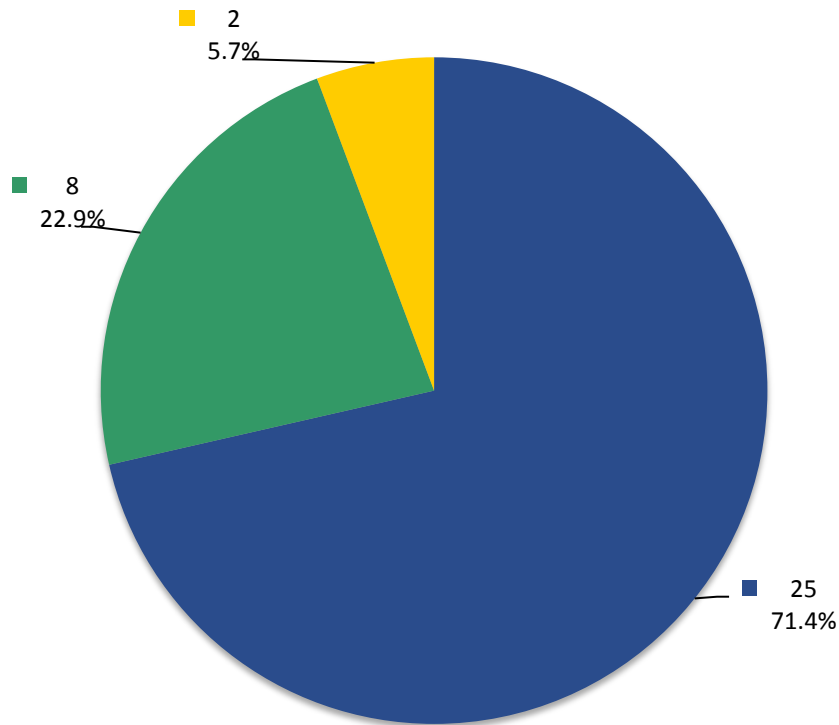
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Actions to Reduce Provincial Emissions and Improve Sustainability							
The actions listed below contribute to a reduction in greenhouse gas emissions from sources that fall outside of the reporting requirements defined in the carbon neutral government regulation of the <i>Greenhouse Gas Reduction Targets Act</i> . 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 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Business Travel							
Virtual meeting technology							
Make desktop web-cameras available to staff	Ongoing/In Progress			Desktop web cameras are available to all staff on as-needed basis.	Continue to make desktop web cameras available to all staff.	2011	No End Date (Continuous)
Behaviour change program							
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress			Staff are trained on an as-needed basis for web-conferencing	Continue to train staff on an as-needed basis	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			Due to limited fleet vehicles, carpooling is encouraged.	Continue to encourage staff to carpool, both to out-of-office meetings and to/from work.	2008	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress			Public transit is encouraged when travelling in larger cities (i.e. Vancouver) but there is no effective public transit from Castlegar to the hydroelectric facilities.	Continue to encourage staff to carpool in the fleet vehicles to meetings outside the office and use public transit in large centers.	2008	No End Date (Continuous)
Education, Awareness, and Engagement							
Staff Professional Development							
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress			Staff participated in the CEA Sustainable Electricity Steering committee meetings and workshops.	Encourage staff to participate in green project development and have staff attend lunch and learn sessions on environmental awareness.	2007	No End Date (Continuous)
Staff awareness/education							
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress			Staff are encouraged to shut down computers and shut off lights at end of day to conserve energy	Continue to encourage staff to conserve energy/water and raw materials.	2011	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress			In the past Green Tips were provided to staff via an environmental section in the staff newsletter. There was no staff newsletter for 2011.	Environmental awareness and tips will be presented to staff via the internal website, staff bulletin board and emails.	2008	No End Date (Continuous)
Provide sustainability education during new staff orientation	In Development			High level overview provided to new employees during the Environmental, Health and Safety Management System training.	Create more detailed orientation on Sustainability for new employees via EHS training sessions and office walk through.	2008	No End Date (Continuous)
Client/public awareness/education							
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress			CPC has provided funding for environmental educational signage and Outdoor Education Programs (i.e. Wild Sight) 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							
Waste reduction/diversion							
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Ongoing/In Progress			Recycling program in place. Pitchers of water with glasses are placed in meeting rooms to reduce bottled water.	Continue to encourage staff to recycle materials (i.e. paper, plastic, etc.) and place in the appropriate bins.	2008	No End Date (Continuous)

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Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress			Fortis BC, operates and maintains the Columbia Power's hydroelectric facilities, follows their own Hazardous Waste Management procedures for all work involving hazardous waste.	Fortis BC will continue to manage hazardous waste in an environmentally responsible manner.	2008	No End Date (Continuous)
Building construction, renovation, and leasing							
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Ongoing/In Progress			The diversion and recycling of key waste products are important on the Waneta Expansion Project. Separate bins for wood waste and metals are readily available on the worksite to ensure that these materials are diverted from the landfill. In office recycling is also in place for cardboard, paper, plastic and glass containers, and metal cans. Recycling bins are a common feature in the individual offices, meeting rooms, and kitchen facilities.	Continue with the current recycling program for the duration of the Waneta Expansion Project	2011	2014
Commuting to and from home							
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress			Carpooling is encouraged for all staff members and Bike to work week is promoted.	Continue to encourage carpooling and other forms of alternative transportation via "Bike to work week" and incentive programs.	2008	No End Date (Continuous)
Other Sustainability Actions							
Increase the procurement of sustainable promotional materials	In Development			Stakeholder Relations and Communications group took steps to buying more sustainable promotional items (i.e. bamboo wear, locally made products, etc.)	Continue to promote awareness around preferred purchasing of sustainable products.	2011	No End Date (Continuous)

**Columbia Power Corporation
Greenhouse Gas Emissions by Source
for the 2011 Calendar Year (tCO₂e*)**



Total Emissions: 35

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2011 (Generated May 18, 2012 10:18 AM)

Total offsets required: **34**. Total offset investment: **\$850**. Emissions which do not require offsets: **1** **

*Tonnes of carbon dioxide equivalent (tCO₂e) is a standard unit of measure in which all types of greenhouse gases are expressed based on their global warming potential relative to carbon dioxide.

** Under the *Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act*, all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.