

Columbia Power Corporation

2010

Carbon Neutral  
Action Report





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Power projects  
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## **Executive Summary**

Columbia Power Corporation (Columbia Power) takes pride in being a green organization, producing “clean, green” power for the benefit of the Province and residents of the Columbia Basin. Columbia Power projects produced 2,195 gigawatt hours (GWh) of green, emission-free electricity in 2010 which was sold to BC Hydro, FortisBC and Powerex.

## **2010 Greenhouse Gas Emissions**

Columbia Power had already completed most of its carbon neutral actions prior to 2010, such as an office renovation to the LEED Gold standard, switching to 100% recycled paper and maintaining a minimal fleet. As a result, actions in 2010 were primarily oriented towards continuing the actions that had been started in previous years.

## **Offsets Applied to Become Carbon Neutral in 2010**

Total greenhouse gas emissions from office activities for calendar year 2010 were 28.93 metric tonnes (1st year as reported in SMARTTool). Offset Exempt totals were 0.59 metric tonnes. Columbia Power’s total for Offsets was 28.34 metric tonnes.

## Emissions Reduction Activities

The primary 2010 achievement by Columbia Power to support the Province's goal of carbon neutrality was the start of construction for the Waneta Expansion Project. The Project is a 335 MW hydroelectric plant being built adjacent to the existing Waneta Dam on the Pend d'Oreille River near Trail. It a limited partnership between Columbia Power, Columbia Basin Trust and Fortis Inc.; Columbia Power is acting as the Owner's Representative and will manage project construction. Once operational, the Waneta Expansion is expected to provide an average of 630 GWh per year of emission-free electricity, which will be sold to BC Hydro.

However, the increase in Columbia Power's activities as the Owner's Representative during project construction will result in a temporary increase in Columbia Power's direct carbon emissions for the period 2011 - 2014.



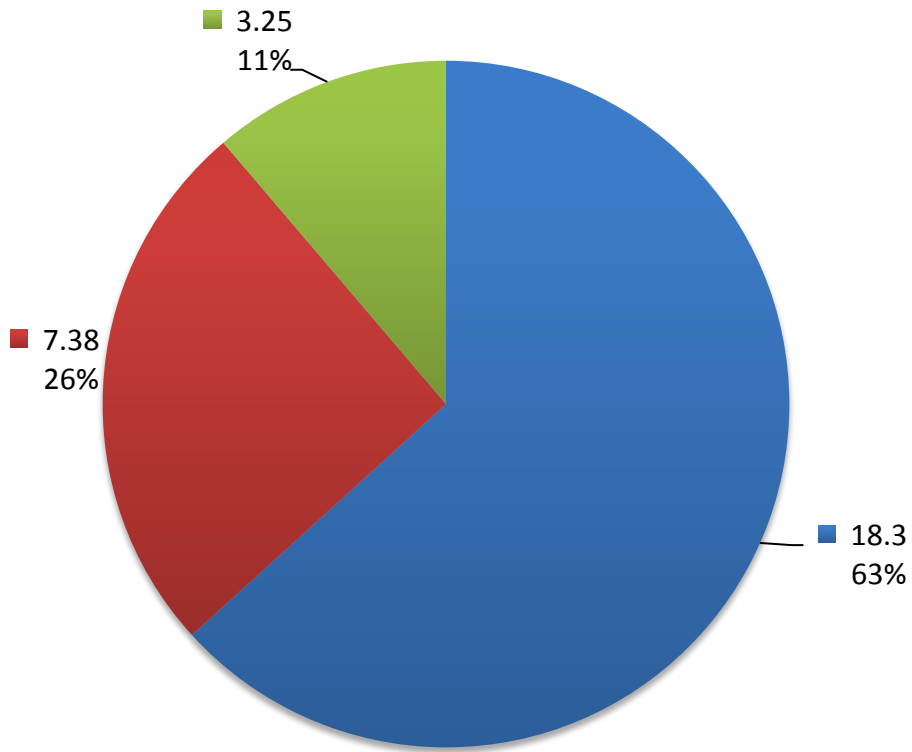
Jane Bird  
President and CEO

*“...the Waneta Expansion is expected to provide an average of 630 GWh per year of emission-free electricity.”*

Waneta Expansion Project



# Columbia Power Corporation Greenhouse Gas Emissions by Source for the 2010 Calendar Year (tCO<sub>2</sub>e\*)



**Total Emissions: 28.93**

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion and Electricity (Buildings)
- Supplies (Paper)

## Offsets Applied to Become Carbon Neutral in 2010

Total offsets purchased: **28.34**. Total offset investment: **\$708.50**. Emissions which do not require offsets: **0.59** \*\*

\*Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) 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.

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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 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	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	Ongoing/In Progress	60	% of vehicles are fuel- efficient models	n/a	1 additional fuel efficient vehicles are being added to the fleet	2009	2011
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	All the 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)
<b>Behaviour change program</b>							
Encourage carpooling in fleet vehicles	Ongoing/In Progress	100	% of staff are encouraged to carpool	encourage staff to share vehicles when going to site and/or accessing the facilities	continue to encourage vehicle sharing	2009	No End Date (Continuous)
<b>Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)</b>							
<b>Leased buildings</b>							
Lease space with commercial interiors performance labelling/certification (e.g., LEED CI)	Completed in 2010	100	% of leased buildings have commercial interiors labelling/certification	renovations have been completed to LEED Gold standards		2009	2010
<b>IT power management</b>							
Implement server virtualization	In Development	0	% of servers have been virtualized since start year indicated	currently under review with new server implementation plan	currently under review tih new server implementation plan	2010	2012
<b>Behaviour change program</b>							
Encourage use of stairs instead of elevators	Ongoing/In Progress			encourage staff to take stairs rather than elevator	continue to encourage staff through Wellness Committee	2008	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			encourage staff to turn off lights (i.e. workstation task lights, privacy rooms, meeting rooms)	common areas have motion sensitive lighting	2008	No End Date (Continuous)
<b>Supplies (Paper)</b>							
<b>Paper Type</b>							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	90	% of total paper purchased contains 30% recycled content	all paper purchased was purchased to 100% recycled content where possible	continue to encourage 100% recycled content paper purchases	2008	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	75	% of total paper purchased contains 100% recycled content	all paper purchased was purchased to 100% recycled content where possible	continue to encourage 100% recycled content paper purchases	2008	No End Date (Continuous)
<b>Electronic media in place of paper</b>							

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Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Use electronic document library for filing common documents	In Development			staff to be educated on the newly developing electronic file structure.	2010	2012
Post materials online that were previously printed	Ongoing/In Progress		post to the internal intranet documents accessed by several staff. For example, the staff newsletter.	continue to use the internal intranet to post documents accessed by several staff	2009	No End Date (Continuous)
<b>Behaviour change program</b>						
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress		staff encouraged to view documents electronically rather than in hard-copy	continue to encourage staff to share documents electronically	2008	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress		staff encouraged to use clean backs of paper	continue to encourage staff to use clean backs of paper	2008	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 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
<b>Business Travel</b>						
<b>Behaviour change program</b>						
Train staff in web-conferencing	Ongoing/In Progress		staff are trained on an as-need basis for web-conferencing	continue to train staff on an as-need basis	2009	2011
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 in Castlegar to the facilities.	Continue to encourage staff to carpool in the fleet vehicles to meetings outside of the office.	2008	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		Staff have participated in the CEA Sustainable Electricity Steering committee meetings and workshops.	Encourage staff to participate in green project development.	2007	No End Date (Continuous)
<b>Staff awareness/education</b>						
Provide education to staff about the conservation of water, energy, and raw materials	In Development			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		Green tips provided to staff via an environmental section in the staff newsletter.	An environmental section providing green tips to educate staff will continue to be included in the staff newsletter.	2008	No End Date (Continuous)
Provide sustainability education during new staff orientation	Ongoing/In Progress		Part of the new employee orientation includes Environmental, Health & Safety Awareness training.	Continue with Environmental, Health & Safety Awareness training.	2008	No End Date (Continuous)
<b>Client/public awareness/education</b>						
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 through our Sponsorship Program.	CPC will continue to provide funding to qualifying programs through the Sponsorship Program.	2009	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	Ongoing/In Progress		The staff newsletter has an environmental section providing green tips.	Continue to publish the staff newsletter with an environmental section.	2009	No End Date (Continuous)
<b>Other Sustainability Actions</b>						
<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	Ongoing/In Progress		Recycling program is in place.	Continue to encourage staff to recycle materials (i.e. paper, organic material, plastic) in the appropriate bins.	2008	No End Date (Continuous)
<b>Commuting to and from home</b>						
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		CPC promoted a "Bike to Work" week and many staff carpool to work.	Continue to promote carpooling to/from work.	2008	No End Date (Continuous)