

BC Hydro- 2009 Carbon Neutral Action Report

Executive Summary

BC Hydro is one of Canada's largest electric utilities. Our mandate is to generate, purchase, distribute and sell power in a cost-effective and reliable manner. BC Hydro aims to be an industry leader in environmental sustainability by addressing climate change and by improving our overall environmental performance. To provide a framework for this and demonstrate BC Hydro's continuing commitment to stewardship and environmental responsibility, we established the Environmental Impact Goal in 2004 – to have no net incremental environmental impact by 2024 when compared with 2004 – in order to measure and facilitate decision-making around our most significant environmental impacts on air, land, water and climate change.



BC Hydro is consistently one of the lowest greenhouse gas (GHG) emitters in the North American electricity industry. As economic growth and development continues in B.C., the low GHG intensity of BC Hydro's electricity will support growth and development in a manner that minimizes provincial GHG emissions.

The B.C. government is playing a leadership role in minimizing emissions by ensuring that public service operations are carbon neutral for 2010 and every year thereafter. BC Hydro is supporting this goal by accurately measuring our greenhouse gas emissions, aggressively reducing emissions from our operations and offsetting our remaining emissions from using high-quality and verifiable offsets from the Pacific Carbon Trust.

Toward this end, we have developed a carbon neutral action plan, with input from all business groups. Highlights from 2009 include an increase in the number of hybrids in our fleet, including two line trucks and 2 fully electric vehicles, breaking ground on two new LEED Gold facilities and the expansion of our Green Team program which engages and empowers our employees to be conservation champions.

More information on BC Hydro's performance measures can be found as part of [BC Hydro's Service Plan](#) and our triple-bottom line [Annual Report](#).

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2009

BC Hydro has established a Carbon Neutral Working Group to work across the organization to develop and implement actions to reduce greenhouse gas emissions. In 2009, actions were taken in three areas:

a) Greening the Fleet

BC Hydro's vehicle fleet contains approximately 2,400 vehicles that are used on a daily basis throughout BC Hydro's operations. The vehicle fleet is the largest source of carbon neutral program emissions, accounting for 80% of the total.

From maintaining and repairing power lines to reading meters, from our outreach activities to construction services, vehicles are an important part of the reliable and safe delivery of electricity. Given our high level of activity, particularly in our service vehicle fleet, reducing fuel use and emissions is a challenge, but our Greening the Fleet program is actively working to reduce GHG emissions while improving worker safety and reducing costs. We are focusing on three key areas - reducing engine idling, eco-efficient driving and promoting new vehicle and fuel technologies.

In the fall of 2009, BC Hydro launched Phase 1 of an Idle-Free Campaign to raise awareness about the impact of idling and the opportunities to save money and save the environment. A defensive eco-efficient driver education program was piloted in 2009, which combines safety and environmental impact training for BC Hydro drivers and a full rollout of the program is in development for 2010.

The BC Hydro vehicle fleet now contains one hundred and nineteen hybrid vehicles (including two hybrid line trucks), two fully electric vehicles, 3 plug-in electric hybrids and 8 hydrogen vehicles. We also purchase diesel power train vehicles when possible, which increases fuel efficiency and allows for the use of biodiesel. Emphasis is also placed on ensuring that the right size vehicle is selected for the job, resulting in downsizing of 32 new vehicle purchases.

b) Greening Facilities

BC Hydro has over 100 buildings in more than 60 locations across the Province. From our large sites in Vancouver, Burnaby and Surrey to smaller district offices in communities like Nanaimo, Vernon and Prince George, BC Hydro is working to improve the condition of our facilities across the company while reducing energy use.

As mandated by the BC Government, all new provincial public buildings will be constructed to LEED (Leadership in Energy and Environmental Design) Gold or equivalent standards. BC Hydro is building two new LEED Gold facilities, in Port Alberni and in Burnaby, with many sustainable features, including high-efficiency heating and cooling systems, low flow fixtures, rain water capture, storm water recovery and energy-efficient lighting. The passive design uses the building architecture, including building orientation, window sizing, landscaping and materials, to minimize energy consumption and improve thermal comfort in the new buildings. Additionally, all newly constructed BC Hydro field buildings will use only one quarter of the energy of a standard building built to BC Building Code.

Existing buildings are being retrofitted to make them more energy efficient, climate friendly and healthier for our employees. Improvements range from upgrading, improving and maintaining roofs, HVAC, and lighting systems. At our Smithers District Office, a ground source heat systems has been installed.

At BC Hydro's lower mainland offices, office improvements address end-of-life replacements of building and interior office systems. Floor renovations include auto-dimming and adjustable lighting functions, high efficiency T-8 overhead fluorescent lighting, energy-star rated office equipment, furnishings that are manufactured using lower impact materials and are more easily reused or recycled and lowered cubicle heights, glass panel inserts and other design features which maximize natural light to improve access to light and lower energy costs. The results of our efforts are starting to show - last year, floor and office transformation improvements resulted in 114 MWh of energy savings. This is enough energy for the lighting needs of over 114 homes for one year!

c) Engaging Employees

BC Hydro's Lead by Example department empowers employees to take initiatives to identify and implement conservation actions and ideas throughout the organization and into the community. In 2009, we established Employee Conservation Leadership Awards to recognize individuals or teams who have shown leadership in instilling a conservation ethic within BC Hydro and this highly successful program will continue annually. The workstation tune-up tool was also developed in 2009 and is ready to roll out across the organization in 2010. Our Green Team program has expanded to 28 teams representing over 80% of employees. Workshops were held to help train Green Teams in the principles of social marketing, building capacity and developing campaigns. Sample campaigns include workstation

power-downs (turning off all equipment at night), waste reduction (bring a mug and ugliest plate campaigns) and take the stairs.

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

Over the next three years, BC Hydro will focus on making in-house reductions first where possible to reduce our reliance on purchased offsets. BC Hydro will continue our three-prong program to harness the ideas and efforts of employees to reduce emissions from our facilities and the vehicle fleet.

- a) Greening the Fleet – a 10 year greening the fleet strategy is being developed to identify and act upon opportunities to reduce emissions from the fleet. In the short term, we will increase the number of hybrid and electric vehicles, increase biodiesel consumption and use a higher grade (B20) biodiesel where possible. The defensive eco-efficient driver training will be offered across the organization and Phase 2 of the Idle-free campaign will be implemented, including the creation of idle-free zones at our facilities.
- b) Greening Facilities – a 3 year business case was approved in March 2010 to promote conservation and energy efficiency principles throughout BC Hydro, improve facilities, engage staff and adopt business practices that will demonstrate BC Hydro's leadership in energy efficiency. In addition to activities under the business case, floor renovations will continue in lower mainland facilities and three new facilities, in Prince George, Maple Ridge and Campbell River, will be designed to meet or exceed LEED Gold Standards. Energy-saving renovations will continue to be undertaken including lighting upgrades, HVAC replacements and roofing replacements and upgrades. A hydrofluorocarbon (HFC) management plan will be developed and implemented to better understand the HFCs used in our facilities. Over the next three years, between forty and sixty energy audits are planned to identify energy saving opportunities.
- c) Engaging Employees – The workstation tune-up tool will be launched across the company in 2010, Green Team membership and capacity will be expanded by linking green team participation to performance planning. Fully integrated and easy to implement campaigns will be developed for energy conservation, sustainable transportation and waste reduction. Real-time energy consumption data displays will be piloted in our facilities to support Green Team engagement.

More information on BC Hydro's environmental performance, climate action and conservation commitments can be found as part of [BC Hydro's Service Plan](#) and our triple-bottom line [Annual Report](#) and on the [Sustainability section](#) of our website.

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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			Current Fleet includes 2 Fully electric vehicles (Mitsubishi) in use on a trial basis. 3 Plug-in Electric Vehicles (converted Prius) on a trial basis. 119 Hybrids. (Prius, Escape, Fusion, and 2 International Line trucks) 8 Hydrogen Powered Vehicles. Policy is to purchase diesel power train when possible for better fuel efficiency and to allow Biodiesel use (100 Vehicles purchased as diesel in F10 out of 260 vehicles ordered). 20 Hybrid vehicles ordered in FY10. Out of 260 vehicle orders in F10 46% (100 diesel + 20 hybrids) were more efficient models, not including downsizing captured below.	Possibility of more EV or PHEV pilot trials. Continued evaluation of "right vehicle for the job". Increase Biodiesel consumption and get higher grade bio (B20) where possible. Replace vehicles with Hybrids where appropriate.	2008	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	13	% of vehicles down-sized since start year indicated	32 Vehicles downsized in FY10: represents 13% of 260 vehicle orders in FY10. Some examples, Ford Econoline van downsized to Transit connect, Ford F150 down sized to Ford Ranger, Escape to Focus.	Continue with 'right sizing' vehicles. Actively evaluate for vehicles to downsize during ordering process.	2009	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 are maintained regularly according to manufacturer's standards. Vehicle maintenance tracked through ARI database and notices issued to users when maintenance due.	Continue monitoring vehicle maintenance and ensure vehicles are maintained properly in accordance with OEM specifications.	2008	No End Date (Continuous)
Behaviour change program							
Provide fleet driver training to reduce fuel use	In Development			Driver training program under development, will include 'eco-driver' content. Pilots have been conducted in various locations around province with focus on smooth fuel efficient driving.	Driver training program with Eco Driver content to roll out in 2010.	2010	No End Date (Continuous)
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Ongoing/In Progress			Idle free campaign started in September 2009 to raise awareness and seek feedback from users. Pamphlets and credit card holders, with idle-free logo, distributed.	Parking lot signs to be made and installed in 2010. Phase Two of Idle-free Campaign to be developed and implemented. Anti-idling policy to be developed and implemented.	2009	No End Date (Continuous)
Other Mobile Fuel Combustion Actions							
Tire gauge contest	Complete			Informal competition between Northern and Southern Generation Operations to test vehicle tire pressure. The goal was to increase awareness of importance of correct tire pressure.	Periodically repeat the competition and look towards expanding the competition to other BCH departments, in particular Field Operations.	2009	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Enrol in a building energy benchmarking program (e.g., GREEN UP)	In Development			Participated in the Cascadia Green Building Council (CaGBC) pilot for Green-up program.	Evaluating results of pilot and considering developing a BC Hydro building labelling system or adopting one developed in partnership with CaGBC.	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
Reduce office space (square meters) per employee	Ongoing/In Progress	12	is the current average rentable square meters per employee	Finalized Interior Space Standards have optimized space used per employee in office workstations.	5 floor transformations (conforming to the new Interior Space Standards) totalling 1100 sq m to be completed in 2010-2011.	2006	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	In Development			Monitored developing technology in this area and initiated a PowerSmart Continuous Optimization program for our customers.	Continue to evaluate new technology in this area. Pilot real-time energy consumption displays in facilities in 2010.	2009	No End Date (Continuous)
Owned buildings							
Establish energy performance baseline for owned buildings	Ongoing/In Progress	70	% of owned buildings have an established energy performance baseline	All buildings managed by the Properties Department have baseline established or estimated.	Leased buildings are being included in baseline consumption as well as buildings managed outside of the Properties Department, where data exists. Actuals being used to replace estimates.	2002	2011
Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M)	In Development			Development of framework for building standards based on lifecycle analysis (i.e. construction, operation, decommissioning)	Developing O&M Standards (which will consider LEED Existing Building Operations and Management) alignment as an option) will be initiated this year through development of Service Level Agreements.	2008	2012
Register for performance labelling/certification for commercial interiors of owned buildings (e.g., LEED CI)	Ongoing/In Progress	0	% of commercial interiors in owned buildings have labelling	LEED CI Gold established as standard for all floor transformations (i.e., interior renovations). 100% of floor transformation projects in two office towers (Dunsmuir and Edmonds) LEED-registered in 2009.	All floor transformation projects completed in 2010-12 are planned to be LEED Gold certified.	2006	No End Date (Continuous)
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress			Design of two new buildings (Horne Payne, Burnaby and Pt. Alberni District Office) initiated in 2009 that will meet or exceed LEED Gold.	Three new facilities will be designed to meet or exceed LEED Gold: Prince George, Maple Ridge, Campbell River	2009	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	Integrated design process (IDP) established in 2009 as way of doing business for new designs and major renovations and incorporated into Draft Building Standards for new construction and major renovation.	New building standards that mandate IDP to be finalized and approved in 2010.	2010	No End Date (Continuous)
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	In Development	10	% of facilities with HFC inventory completed.	HFC inventory initiated for all field and corporate offices.	HFC inventory to be completed in 2010 for Properties-administered buildings. Management Plan to follow in 2010-2012.	2009	No End Date (Continuous)
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	29	% of owned buildings have undergone energy retrofits since start year indicated	32 owned buildings have undergone energy-saving renovations (i.e., lighting upgrade, HVAC upgrade/replacement, or roofing upgrade/replacement) in CY2009.	10 buildings planned to undergo energy-saving renovations in CY2010 (i.e., lighting upgrade, HVAC upgrade/replacement, or roofing upgrade/replacement). 40-60+ energy audits planned for CY2010-2012.	2008	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	64	% of retrofits (captured above) had heating, cooling, and ventilation systems upgrades	28 of 44 (64%) building improvement projects performed 2009 involved HVAC replacement/upgrades.	5 to 10 HVAC projects for each year for F11 & F12.	2007	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	100	% of retrofits (captured above) had lighting systems upgrades	100% of building improvement projects and floor transformations involved lighting upgrades.	A minimum of 10 lighting upgrades (either as part of building improvements or floor transformations) will take place 2010-11	2007	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	100	% of retrofits (captured above) had control system upgrades or adjustments	All Lighting retrofits listed above had adjustments. All retrofits involving HVAC upgrades had either adjustments or local Direct Digital Control (DDC) enabled, depending on the size of the building.	DDC retrofits are scheduled for two major office towers (Edmonds, Dunsmuir) in 2010. All HVAC upgrades will involve adjustments to or local DDC activation.	2007	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
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	5	% of retrofits (captured above) had insulation improvements	5 percent of buildings (5 of 109) underwent reroofing, which also improved insulation value. No projects including windows.	Approx. 7% of buildings (7 to 8 out of 109) to undergo reroofing in 2010. End of life roof replacements/reglazing, and envelope updates identified through building audits to continue thereafter.	2008	No End Date (Continuous)
Install an on-site renewable energy demonstration project	In Development			Aggressive energy target for new buildings made solar hot water preheat feasible and incorporated for all design work undertaken in 2009.	2 facilities expected to be completed in 2010/11 with solar hot water preheat and take advantage of solar thermal massing in their structures. (Pt Alberni DO and Horne Payne DO, Burnaby).	2009	No End Date (Continuous)
Leased buildings							
Establish energy performance baseline for leased buildings	In Development			Improved accuracy of inventory of leased buildings. Upgraded Property Information Management system to accommodate leased data, improved Energy Use database to begin to include energy use of leased buildings.	Complete inventory of leased buildings and collect historical and current utility use data in CY2010. Collect monthly utility data going forward.	2009	No End Date (Continuous)
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	Faronics desktop power management software deployed on 100% of computer inventory.	Effectiveness evaluation of software.	2009	2010
Implement server virtualization	Ongoing/In Progress	90	% of servers have been virtualized since start year indicated	All of program rollouts occurred in CY2009.	Project completion and evaluation planned for early CY2010.	2009	2010
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	90	% reduction in printers, copiers, and/or fax machines since start year indicated	Interior Space Standards and IT standards specify shared, multi-functional office equipment.	Continuing replacement of old stock. Full turnover likely by 2012.	2006	2012
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Complete	100	% of devices have auto-sleep settings applied	Virtually all stand alone and multi-functional equipment is set to this setting as default, as part of IT Standard.	Continue using auto-sleep as default setting on office equipment.	2006	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	98	% of computers are ENERGY STAR rated	Ensure computer purchases conform to the top 25% Tier Energy Star computers in terms of their electrical energy efficiency.	Continue deployment of existing policy.	2008	2010
Appliances and electronic devices							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			Interior Space Standards requirement Energy Star refrigerators as minimum performance requirement for kitchen equipment.	Old equipment to be replaced with Energy Star at end of life or during any major renovation.	2009	No End Date (Continuous)
Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			Interior Space Standards specify "Energy Star" appliances to be standard replacement	Old equipment to be replaced with Energy Star-compliant equipment at end of life or during any major renovation.	2009	No End Date (Continuous)
Replace desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs or source more efficient desk lamps for future purchases	In Development			Interior Space Standards finalized, which includes specification for CFL or LED task lighting. Replace existing desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs.	Evaluation of task lamps and addition of LED model to Interior Space Standards.	2009	2010
Behaviour change program							
Help staff reduce personal energy use through "workstation tune-ups"	Ongoing/In Progress	1	% of current staff have completed a workstation tune-up	Program scoped and developed. Rollout initiated.	Rollout in 2010. Soft launch in February and full launch in March 2010. Workstation Tune-Up tool also included in online new employee orientation package	2009	2010
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress			Lead by Example website and newsletter set up for energy conservation tips.	Roll into employee training and workstation tune-ups. SmartBar power-saving powerbar roll-out scheduled for 2010 and 2011.	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
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Lead by Example website set up for energy conservation tips.	Roll into employee training and workstation tune-ups.	2009	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress			Lead by Example website set up for energy conservation tips.	Roll into employee training and workstation tune-ups.	2009	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress			Lead by Example website set up for energy conservation tips.	Roll into employee training and workstation tune-ups.	2009	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress			Lead by Example website set up for energy conservation tips.	Roll into employee training and workstation tune-ups.	2009	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Posters provided to Green Teams for strategic placement. Green Flag/Black Flag workstation power-down campaign initiated at three BCH sites.	Expand workstation power-down campaign to more locations and continue reminders in current locations.	2009	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			Energy use database redesigned to allow for entry of water use by facility. Low flow fixtures specified in Interior Space Standards and in specification for New Buildings. Low flow fixtures installed in washrooms in 2 new buildings and for all renovations.	Water use by some Corporate facilities to be included in Energy Use Database beginning 2010.	2009	No End Date (Continuous)
Other Stationary Fuel Combustion and Electricity Actions							
Ground source heating and/or variable refrigerant flow standard options considered for primary heating/cooling of new buildings or major renovations.	Ongoing/In Progress	1	Number of advanced primary heating/cooling systems installed.	Ground-source heating installed in Smithers District Office.	Port Alberni (expected completion in 2010) and Horne Payne (expected completion in 2011) District Offices will employ ground-source heating and the technology will be considered for the following planned new offices: Prince George (2012), Maple Ridge (2012), and Burns Lake (2012).	2009	No End Date (Continuous)
Energy audit program initiated.	Ongoing/In Progress	16	Audits initiated.	16 energy audits initiated.	Approximately 15 to 20 assessments and 50 formal energy audits planned for 2010-12.	2009	No End Date (Continuous)
The number of Green Teams (electricity and resource conservation employee teams) increased and its mandate re-energized.	Ongoing/In Progress	28	Green Teams active company-wide.	Increased number of Green Teams to 28 BCH sites representing over 80% of staff. Conducted workshops with the teams to help them understand the role of behaviour and develop campaign to launch program. Green Team conservation includes all forms of energy and resource conservation, including reducing waste and sustainable transportation. Developed materials to support their campaigns and a universal incentive program "Green Bucks".	Build on existing programs and capacity for the Green Teams.	2007	No End Date (Continuous)
Specify the use of Eco-smart concrete, where appropriate, for all major concrete pours for new buildings to reduce upstream GHG emissions in the production of cement.	Ongoing/In Progress	100	Percent of new buildings specifying the use of high-flyash concrete for major pours.	Specification added to new BC Hydro Building Standards.	On-going deployment for new field buildings constructed in this period.	2009	No End Date (Continuous)
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Complete	1	% of total paper purchased contains 30% recycled content	100% recycled content is the standard for paper. If 100% recycled content paper is not available to meet a certain requirement (special size, colour, etc), then the alternate of 40% recycled paper is ordered. Six percent of paper purchased was 40% recycled and only 1 per cent 30% content paper has been purchased.	100% recycled content is the standard, paper supplier will continue to provide 40% recycled, only if requested.	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
Purchase 100% post-consumer recycled paper	Complete	93	% of total paper purchased contains 100% recycled content	BC Hydro started to use 100% recycled content paper in 2007 and has continued to do so. Depending on the need, employees order 100% recycled content better than 95% of the time.	100% recycled content is the BC Hydro standard.	2009	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	Double-sided printing set as default.	Double-sided printing continues as default.	2008	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress			Ongoing deployment. Metric not established.	Ongoing deployment.	2008	No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress			Ongoing deployment. Metric not established.	Ongoing deployment.	2007	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Electronic communications considered instead of printing. (Metric not established).	Build on existing programs, consider setting policy and metrics.	2009	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Complete			Electronic payroll notification expanded.		2008	2009
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development			Continued use of FileNet for filesharing. Ability to share desktop rolled out across organization.	Develop campaign for Green Teams to reduce paper use and campaign proposed for HydroShare for paperless office operations.	2009	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	In Development			Printing tips on Lead by Example website to reduce paper usage	Explore options with corporate staff for further paperless operations.	2009	No End Date (Continuous)
Encourage re-use of scrap paper	In Development			Printing tips on Lead by Example website to reduce paper usage	Explore options with corporate staff for further paperless operations.	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 *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							
Virtual meeting technology							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Complete	90	% of computers have web-conferencing software installed	Web based conferencing (Live Meeting) piloted.	Web-based conferencing rolled-out company-wide in CY2010.	2009	No End Date (Continuous)
Make desktop web-cameras available to staff	In Development			Cameras and headsets provided to Live Meeting pilot group.	Live Meeting rolled out company wide. Distribution of headsets and desktop/laptop cameras to be expanded in 2010.	2009	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Complete			Teleconferencing bridge capacity doubled from 15 people simultaneously to 30.	Continuing and expanded use of videoconferencing, especially during the Olympics period.	2009	2010
Behaviour change program							
Train staff in web-conferencing	Ongoing/In Progress			Weekly lunchtime on-line training sessions held.	Live Meeting info cards distributed to office-based staff. Weekly lunchtime on-line training sessions continue to be held.	2009	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress			Training requirements established.	Increase use of videoconferencing for Green Team meetings.	2008	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			Encouraging use of Live Meetings and video conferencing instead of travelling to meetings	Encourage more Green Teams to undertake this campaign. Increase use of Live Meetings for meetings with Green Teams.	2009	No End Date (Continuous)
Encourage carpooling to meetings	In Development			Encouraging carpooling to meetings, no metrics developed	Continued communication as part of simple ways to reduce greenhouse gas emissions	2009	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress			Supported Bike to Work Week at various BCH locations by hosting talks by Vancouver Cycling Coalition and raising awareness for entering teams for the event. Employees who travel between Edmonds, Downtown and Central Park Place are reimbursed only for the price of a Skytrain ticket.	Develop corporate support for policies to incent sustainable transportation measures.	2007	No End Date (Continuous)
Education, Awareness, and Engagement							
Team-building							
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Complete	80	Percentage of staff working at a site with a Green Team	Increased number of Green Teams to 28 BCH sites representing over 80% of staff. Conducted workshops with the teams to help them understand the role of behaviour and develop campaign to launch program. Green Team conservation includes all forms of energy and resource conservation, including reducing waste and sustainable transportation. Developed materials to support their campaigns and a universal incentive program "Green Bucks".	Increase membership and capacity of Green Teams by raising profile with management and Human Resources, demonstrating how Green Team experience develops core competencies as well as conservation results. Hold 2-3 skill building and networking events per year to develop leadership and teambuilding skills with attendance of Executive Team and senior leaders. Develop relationships with key internal groups such as unions, change management managers in different groups, Outreach, employee orientation.	2009	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Complete	2	FTE supporting employee engagement in conservation	Expanded Green Team program, developed support material for Green Teams	Develop fully integrated, easy to implement campaigns for energy conservation, sustainable transportation and waste reduction. Partner with Health & Wellness reps on key campaigns such as biking to work, taking the stairs, eating locally.	2009	No End Date (Continuous)

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Providing behaviour change education/training to teams (e.g., community-based social marketing)	Complete		Powersmart Specialists hosted 5 Climate Cafes with BC Hydro staff.	Provide 2-3 skill building events per year, as well as regional meetings (via teleconference).	2009	No End Date (Continuous)
Awards/Recognition						
Establish a sustainability/green awards or recognition program	Complete		Established annual Employee Conservation Leadership Awards.	Continue Employee Conservation Leadership Awards and raise profile of nominations and award winners.	2009	No End Date (Continuous)
Staff Professional Development						
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress		Capacity-building workshop for Green Teams held in April, 2009. Powersmart Specialists hosted 5 Climate Cafes with BC Hydro staff.	Capacity-building workshop planned for January 19, 2010, expanding upon 2009 workshop.	2009	No End Date (Continuous)
Include green options in employee performance measurement system	In Development		Some green options in performance measurements included on a voluntary basis.	Total Rewards Program developing a Healthy Living Account program, which includes green options such as high efficiency appliances, home energy audits and cycling equipment.	2009	No End Date (Continuous)
Staff awareness/education						
Provide education to staff about the science of climate change	Ongoing/In Progress		Over 40 presentations to groups throughout BC Hydro. Powersmart Specialists hosted 5 Climate Cafes with BC Hydro staff. Seven climate change lunch n learn events held.	Develop presentations that Green Teams can use to make presentations at their sites. Continue to make presentations to staff throughout the organization.	2009	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress		Lunch n Learn session held on waste reduction.	Green Living Fair planned for January 15, 2010. Lunch n Learn program in development for 2010.	2009	2010
Provide green tips on staff website or in newsletters	Ongoing/In Progress		Monthly newsletter provides articles, green tips and resources for reducing environmental impact. Over a dozen articles appeared in corporate-wide publications, both electronic and hard copy.	Continued communication in internal and external electronic and hard copy newsletters. Expand communication to Accenture staff, VP newsletters and business unit newsletters.	2009	No End Date (Continuous)
Provide sustainability education during new staff orientation	Complete		Conservation information provided as part of new staff orientation.	Workstation tune-up information to be added to orientation. Conservation video to be developed for use in employee training.	2009	No End Date (Continuous)
Client/public awareness/education						
Provide education to clients/public about the science of climate change	Ongoing/In Progress		10 presentations to external groups on energy efficiency and climate change. Key communications done by Power Smart for external clients.	Continued presentations to external groups. Revised external web pages with more information about climate change.	2009	No End Date (Continuous)
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress		Power Smart programs provide education and incentives to customers. Outreach "Power the Games" Tour operated from April to December.	Power Smart programs provide education and incentives to customers.	2009	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	Ongoing/In Progress		Conservation and climate action was featured in 7 articles in Bright Ideas, a publication for external stakeholders. Power Smart web pages provide tips and incentive programs for customers.	Power Smart web pages provide tips and incentive programs for customers.	2009	No End Date (Continuous)
Other Sustainability Actions						
Building construction, renovation, and leasing						
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	In Development			Building Standards for Deconstruction (Module 3) scheduled for development in CY2010, will contain guidance for landfill waste diversion for BC Hydro Properties-managed facilities.	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
Incorporate lifecycle costing into new construction or renovations	Complete	100	% of business cases incorporating lifecycle costing since start year indicated	BC Hydro began using Structured Decision Making in all major business cases in 2008. This incorporates lifecycle costing over all three bottom lines - financial, environmental and social.		2008	No End Date (Continuous)
Indoor air quality							
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	In Development			Draft building standards prescribe LEED Gold NC and CI for new construction and major renovations. LEED contains options for low VOC products.	Draft buildings standards for field buildings will likely be finalized in CY2010.	2009	2010
Commuting to and from home							
Introduce telework/work from home policy	Complete			Telework policy established	Increased capacity and training for teleworking, as part of workforce adjustments for Olympic Games period.	2009	2010
Encourage commuting by foot, bicycle, carpool or public transit	Complete			Participant in Translink Discount Pass Program, carpool incentives in place at Edmonds and Dunsmuir locations, free showers and secure bicycle lockup provided at major locations		2008	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Complete			Free showers provided at all major locations		2008	No End Date (Continuous)
Provide secure bicycle storage	Complete			Secure bicycle storage provided at all major locations		2008	No End Date (Continuous)
Other Sustainability Actions							
Encourage cafeteria to pursue sustainability actions	Ongoing/In Progress			<p>Cafeterias at Edmonds and Dunsmuir locations have introduced compostable napkins, wooden stir sticks, refillable dairy condiment containers, sustainable seafood and local produce when available, as well as fair trade and organic coffees.</p> <p>At Glenlyon Cafeteria, initiatives introduced in 2009 include bulk dispensers and jugs for cream and sugar, biodegradable packaging for grab & go items only with chinaware, glasses, mugs and cutlery used otherwise throughout facility, sending waste cooking oil to a rendering plant for recycling, and use of environmentally friendly cleaning products.</p>	Starting in January, 2010, all Styrofoam cups, plates and clamshell containers will no longer be available at the Dunsmuir and Edmonds cafeterias. Alternative packaging made from renewable resources and/or recycled materials will be introduced to food stations. This includes new small and large disposable containers that are 100 per cent compostable and made of molded fibre. Other alternatives are paper bags, foil wraps and clear containers made from corn.	2010	No End Date (Continuous)