



BC HYDRO 2011 CARBON NEUTRAL ACTION REPORT

SUBMITTED UNDER THE
CARBON NEUTRAL GOVERNMENT REGULATION
OF THE *GREENHOUSE GAS REDUCTION TARGETS ACT*



Charles Reid, President & CEO (Acting)

Executive Summary

BC Hydro is pleased to present the *2011 Carbon Neutral Action Report*, our fourth annual report outlining actions we are taking to reduce greenhouse gas emissions from our building energy use, vehicle fleet and paper use. By taking steps to decrease our emissions and by purchasing offsets for our residual emissions through the Pacific Carbon Trust, BC Hydro is proud to contribute to a carbon-neutral public sector in British Columbia.

Almost 50 years ago, the Province of B.C. created one unified utility to plan, build and bring clean and reliable electricity to homes and businesses throughout the province. Today, BC Hydro is one of the largest electric utilities in Canada serving 95 per cent of B.C.'s population, delivering electricity safely and reliably at competitive rates to approximately 1.8 million customers. With approximately 5,800 employees stationed throughout the province, we operate 31 hydroelectric facilities and three thermal generating plants, capable of generating approximately 12,000 MW of power. These activities are supported by a vehicle fleet of 2,500 heavy- and light-duty vehicles and over 200 buildings and facilities, which comprise the majority of our carbon neutral program emissions.

BC Hydro's vision is to power B.C. with clean, reliable electricity for generations. Our six strategic objectives are to safely keep the lights on, succeed through relationships, mind our footprint, foster economic development, maintain competitive rates and engage a safe and empowered team.

Over the next three years and beyond, we are undertaking a number of initiatives to ensure we achieve the efficiencies necessary to keep rates affordable including continuing to examine all areas for cost reductions and following up on the 56 recommendations that were outlined in the Government Review report in August 2011. BC Hydro anticipates a longer than planned implementation timeline for facilities retrofits designed to improve energy efficiency and reduce greenhouse gas emissions. Also, fleet greening initiatives, the majority of which are implemented with the acquisition of new vehicles, have been reduced for fiscal 2013 and 2014 in order to keep rates low.

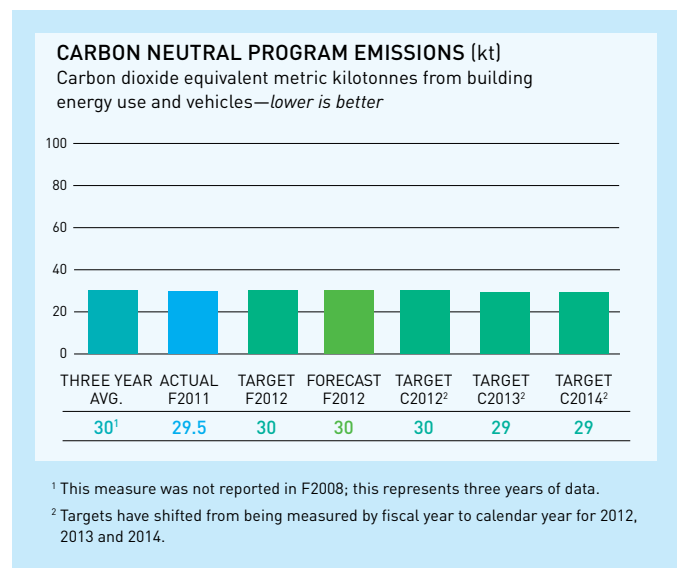


MIND OUR FOOTPRINT

Create a sustainable energy future in B.C. by carefully managing our impacts on the environment and fostering an energy efficiency and conservation culture.

Becoming carbon neutral is an important part of reducing our impact on climate change. To address carbon neutral program emissions, BC Hydro is accurately measuring our greenhouse gas emissions, actively reducing emissions from our operations and offsetting our remaining emissions using high-quality, verifiable offsets from the Pacific Carbon Trust. BC Hydro has set targets for carbon neutral program emissions and publicly reports on those targets through our *Service Plan* and *Annual Report* (see Figure One).

Figure One
Carbon Neutral Program Emissions Performance Measure





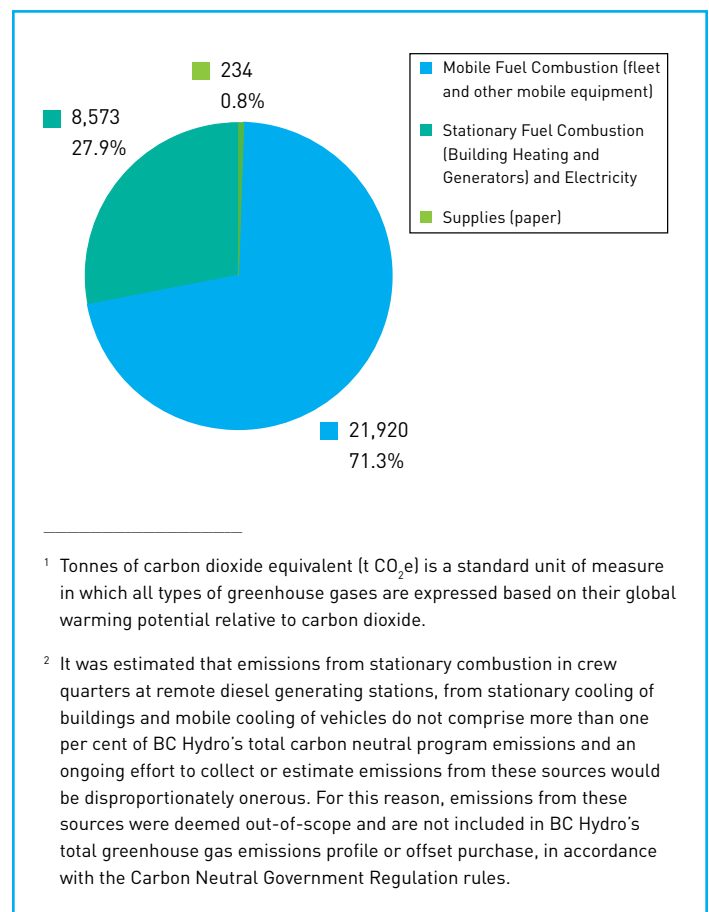
One of the new EV charging stations in downtown Vancouver – a partnership with the City of Vancouver.

2011 GREENHOUSE GAS EMISSIONS

In calendar year 2011, BC Hydro emitted 30,728 tonnes of carbon dioxide equivalent (CO₂e) from sources covered under the Carbon Neutral Government Regulation (see Figure Two). Of these emissions, 71.3 per cent came from the vehicle fleet, 27.9 per cent from heating, cooling and lighting buildings and less than one per cent from paper use.

In 2011, 765 tonnes of carbon dioxide emissions resulted from the combustion of biogenic fuels. As stated in the regulatory requirements, these emissions must be reported but do not require offsets. Emissions requiring offsets totalled 29,963 tonnes in 2011.

Figure Two
BC Hydro Greenhouse Gas Emissions by Source for the 2011 Calendar Year (t CO₂e)



Toward this end, we have developed a carbon neutral action plan, with input from across the organization. Highlights from 2011 actions include:

- greening our fleet by investing in state-of-the-art electric vehicles and piloting electric vehicle charging infrastructure in collaboration with the City of Vancouver;
- continuing to aim for 100 per cent recycled paper as our corporate standard;
- completing a new energy-efficient building at the Horne Payne substation and commencing construction of another energy-efficient district office in Maple Ridge;
- expanding our Green Team to 400 members, including management, leaders and employees from across the organization; and
- contracting with a new facilities management company to manage 41 of our largest buildings, with a performance target to reduce overall energy consumption by two per cent annually for the next five years.

OFFSETS APPLIED TO BECOME CARBON NEUTRAL IN 2011

BC Hydro had a surplus of 27 offsets purchased in 2010 that were applied against our 2011 emissions. BC Hydro purchased an additional 30,832 offsets from the Pacific Carbon Trust to achieve carbon neutrality in 2011, as required by the *Greenhouse Gas Reduction Targets Act*. The surplus in offsets purchased in 2011 will be applied to our 2012 emissions.

EMISSION REDUCTION ACTIVITIES

VEHICLE FLEET

BC Hydro's vehicle fleet contains approximately 2,500 vehicles that are used daily throughout BC Hydro's operations to maintain a safe and secure supply of electricity. In 2011, these vehicles emitted 21,920 tonnes of greenhouse gas emissions, which represents 71.3 per cent of BC Hydro's carbon neutral program emissions.

BC Hydro follows a three-pronged approach of avoiding, minimizing and offsetting emissions, while at the same time working to ensure reliability and safety in the fleet, to lead in the testing and adoption of new vehicle technology, to meet the needs of vehicle operators, and to protect ratepayers and reduce risk by choosing cost-effective options.



Nissan LEAF arrives at BC Hydro Fleet Services



To avoid emissions, BC Hydro provides programs to promote environmentally friendly vehicle use. In 2011, we launched Driving Habits and Techniques, an online driver training module, which includes fuel-efficient driving techniques. To reduce vehicle idling time, we equipped 19 trucks and vans with cab heaters and expanded our information campaign to raise awareness of idle-free vehicle operation.

To minimize emissions, fleet efficiency is being improved through regularly replacing vehicles with newer, more efficient models and actively right-sizing wherever possible. In 2011, our fleet became the first in Canada to integrate electric power take-off technology in three new aerial trucks. We replaced older, less efficient vehicles with four electric sedans and eight hybrid compact SUVs as part of our effort to progressively green the overall fleet.

BC Hydro continues to participate in pilot projects to evaluate emerging technologies that can help us reduce greenhouse gas emissions. In one such project, BC Hydro partnered with the City of Vancouver through the Conservation Collaborative to install 15 public electric vehicle charging stations at EasyPark lots throughout Vancouver. This project will assess the viability of commercially available electric vehicle charging solutions and enhance the local electric vehicle charging network.

Finally, BC Hydro will offset the remaining vehicle emissions through the purchase of offsets from the Pacific Carbon Trust.

BUILDINGS

BC Hydro has over 200 buildings in more than 60 municipalities across the province. Whether building new facilities or renovating existing space, BC Hydro is working to reduce the environmental impact of our operations, conserve energy and improve worker health.

In 2011, we completed construction of a new energy-efficient facility at the Horne Payne substation in Burnaby and started

construction of a new energy-efficient district office in Maple Ridge. As well, a new regional office in Prince George is being designed with energy efficiency as a core objective. Our Lead by Example team conducted occupant training at the new buildings to ensure that employees adopt behaviours that maximize the energy savings from the new sustainable features, which include high efficiency heating and cooling systems, low-flow water fixtures, energy-efficient appliances and energy-efficient lighting systems.

We are also continuing efforts to make our existing buildings more energy efficient. By renovating and redesigning floors at our Dunsmuir and Edmonds head office buildings, we aim to reduce energy use between 30 and 40 per cent. Four floor transformation projects were completed in 2011, all incorporating a range of environmentally friendly and energy-efficient features and downsizing cubicles to better utilize space.

Upgrades to enhance the efficiency of building operations continued in 2011. We contracted with a new facilities management company to manage 41 of our largest buildings, with a performance target to reduce overall energy consumption by two per cent annually for the next five years. In addition, BC Hydro completed projects to upgrade heating, cooling and ventilation systems in three buildings, implemented one roof upgrade and started work on another. We commenced upgrades to the direct digital control system in our Dunsmuir head office building, which will yield significant reductions in energy consumption through increased operational control. Since 2007, 47 per cent of managed buildings have undergone projects to improve energy efficiency.

In a continuing effort to reduce the need for new equipment purchases, 101 physical servers were decommissioned and 16 new virtual host servers were installed in 2011. This avoided the installation of 70 new physical servers and will save 143,473 kilowatt hours of electricity annually.

PAPER

As a large Crown corporation, BC Hydro recognizes that we can significantly reduce our greenhouse gas emissions footprint by greening our paper use. Two areas of focus are converting to recycled paper and transitioning to paperless work practices.

One hundred per cent recycled paper continues to be the standard that BC Hydro strives to meet. In 2011, 88 per cent of the paper we purchased contained 100 per cent recycled content.

We continued to promote the use of SharePoint, our collaborative tool that allows employees to share information and materials through paperless communication. In 2011, 195 new collaboration sites were created and 500 SharePoint users were trained. As well, to encourage British Columbians to reduce their collective environmental impact, we have been promoting online bill payment. By the end of 2011, 12 per cent of our customers were receiving paperless bills; our goal is 45 per cent by the end of fiscal 2014.

LEADING BY EXAMPLE

BC Hydro encourages employees to identify and implement conservation actions and ideas throughout the organization and into the community. We now have Green Teams established at 36 sites, which collectively have over 300 members, 50 management sponsors who support the teams and 50 leaders who champion conservation initiatives on their floors or sites. Our annual awards event, the Employee Conservation Leadership Awards, recognize, reward and celebrate BC Hydro employees who go above and beyond to create a culture of conservation within the organization.

In January 2011, our second annual Green Living Fair attracted 500 attendees, engaging employees in conservation and environmental initiatives at work and at home.

And in October, Lead by Example provided Power Smart Month campaign materials to 17 locations, reaching over 75 per cent of staff.



The Green Team at Edmonds, our largest employee site, initiated a composting program that will not only divert waste from the landfill but also produce fertilizer to keep the Edmonds campus beautiful and sustainable. To date, seven Green Team sites across B.C. have added composting to their waste reduction and recycling programs.

Over the next three years, BC Hydro will continue to support and engage employees through our Green Teams, promote sustainability campaigns and assist our customers in conserving energy through our Power Smart program, thereby saving energy costs and reducing environmental impact.

BC Hydro—2011 Carbon Neutral Action Report

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 12/31/11)	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

Replace vehicles with more fuel-efficient models	Ongoing/In Progress		<p>For F12, the following new vehicles incorporated technology aimed at improving fuel-efficiency:</p> <ul style="list-style-type: none"> - Over 140 diesel powertrains trucks (3/4 tonne and up) instead of gasoline were ordered to take advantage of better fuel efficiency and enable the use of biodiesel. - Four electric sedans were ordered. - Three aerial trucks were ordered with electric power take-off systems installed to reduce engine running time at the work site. - Eight half-tonne pickups were ordered with fuel efficient six cylinder turbocharged engines opposed to traditional eight cylinder engines. - Nineteen trucks and vans were ordered with cab heaters installed. - Eight hybrid compact SUVs were ordered. 	When ordering vehicles, the New Vehicle team works with users to identify opportunities to correctly select engine type and size and to appropriately place hybrid and electric vehicles in the fleet. New technology vehicles will be incorporated as part of the regular vehicle replacement cycle as appropriate, depending on suitable replacement spots, vehicle pricing and availability.	2008	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress		Seventeen vehicles replaced in F12 were replaced with smaller or down-sized vehicles. Most of BC Hydro's fleet consists of 'working' trucks which require a heavy payload.	Fleet Services is developing a new integrated planning process that will entail performing an annual detailed analysis of each Business Group's allocation of vehicles. This will allow Fleet Services and the Business Groups to determine the correct size, type and number of vehicles required in each area.	2009	No End Date (Continuous)

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	
Perform regular fleet maintenance specifically to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	The Heavy Duty (HD) fleet is inspected and Preventative Maintenance (PM) performed three times per year. In 2011, 93 per cent of HD PM's were completed within 14 days of the scheduled date. All light- and medium-duty vehicles are tracked for PM according to manufacturer's specifications. Tracking of the light- and medium-duty PM's began in March 2011. Managers of vehicles which are overdue for a PM are notified for follow up on a monthly basis.	Continue to track and report on preventative maintenance compliance for all of BC Hydro's vehicles.	2008	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress			Three out of 17 forklifts ordered in F12 were ordered with electric powertrains.	When ordering vehicles, the New Vehicle team works with users to identify opportunities to correctly select engine type and size.	2011	No End Date (Continuous)
Behaviour Change Program							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress			Driving Habits and Techniques, the online driver training module, was activated in July 2011 and includes fuel-efficient driving techniques for all personnel who drive at BC Hydro. The hands-on driver training course Collision Avoidance Driving also includes a component for fuel-efficient driving techniques intended for all new hires and those who are new to a role that requires driving.	Monitor and provide ongoing support for driver training modules.	2010	No End Date (Continuous)
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	In Development			Idle-free Zone signs have been posted at facilities across the province. Information on reducing idling is provided on the Green Smart Intranet page. Awareness-raising materials such as information cards, biodegradable vehicle garbage bags and vehicle card holders have been distributed. Idle-free messaging has been incorporated into the Safe Work Observation Program environmental checklist used many times a year by over 120 field managers.	Plans to further the development of idle-free awareness are on hold. The intent is to incorporate information and data from a potential telematics system.	2009	No End Date (Continuous)
Other Mobile Fuel Combustion Actions							
Demonstrating telematics equipment	In Development			Fleet Services is reviewing options to select and demonstrate telematics equipment throughout the fleet.	Fleet Services is working with other groups in BC Hydro to evaluate the best method for implementing telematics. This will provide valuable vehicle performance feedback and allow for evaluation of other options such as cab heaters and new engine technologies in some pick-up trucks.	2009	No End Date (Continuous)

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
--------	----------------------------	---	---------------------	-----------------------------	------------	----------

Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)

Planning/Management

Enrol in a building energy benchmarking program (e.g., GREEN UP)	Ongoing/In Progress			Participated in benchmarking programs through the International Facility Management Association.	Continue to participate in annual benchmarking through the International Facility Management Association.	2009	No End Date (Continuous)
Reduce office space (square meters) per employee	Ongoing/In Progress			Interior Space Standards have optimized space used per employee in office workstations. Standard cubicle size has been reduced to 5.9 square metres from a range of 5.9 to 14 square metres in 2007.	Continue to implement floor transformations using Interior Space Standards.	2007	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	3	% of buildings have a real time metering system installed	No additional real-time metering systems were installed in 2011.	Real-time energy tracking is planned for all new buildings.	2009	No End Date (Continuous)

Owned Buildings

Register for performance labelling/certification for commercial interiors of owned buildings (e.g., LEED CI)	Ongoing/In Progress	51	% of commercial interiors in owned buildings have labelling	All head office floor transformation projects are completed consistent with provincial energy efficiency guidance.	Continue to complete all floor transformation projects consistent with provincial energy efficiency guidance.	2006	No End Date (Continuous)
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress	0	% of owned buildings are certified LEED NC Gold or LEED NC Platinum	Two buildings (Port Alberni and Horne Payne) are awaiting certification. Another building (Maple Ridge) is under construction and another (Prince George) is in the design phase.	Complete the Maple Ridge building in 2012 and commence construction in Prince George.	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	Established an Integrated Design Process (IDP) in 2009 for new designs and major renovations and incorporated it into our draft building standards for new construction and major renovations.	New building standards that mandate IDP to be finalized and approved.	2010	No End Date (Continuous)
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	In Development			Hired a new facilities management company that utilizes best management practices for HVAC inspection and maintenance.	Explore the development of a refrigerant inventory and management system.	2011	No End Date (Continuous)

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	
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress	47	% of owned buildings have undergone energy retrofits since start year indicated	Three HVAC projects and one roof were completed in 2011. Work commenced on a Digital Direct Control (DDC) upgrade to the Dunsmuir office tower, which will result in significant reductions in energy consumption.	Complete the installation and commissioning of DDC upgrades to the Dunsmuir and Edmonds office towers, a new cooling tower at Edmonds, a new HVAC system in Terrace and a new roof in Fort St John.	2007	No End Date (Continuous)
Retrofitting Owned Buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	87	% of retrofits since start year indicated had heating, cooling, and ventilation systems upgrades	Three HVAC projects were completed in 2011 (Dunsmuir, Edmonds and Powerserv).	Continue to perform strategic upgrades of HVAC systems.	2007	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	11	% of retrofits since start year indicated had lighting systems upgrades	All floor transformations involved lighting upgrades, and one lighting-specific upgrade was completed in 2011.	Lighting upgrades will be performed as part of building improvements and floor transformations.	2007	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	89	% of retrofits since start year indicated had control system upgrades or adjustments	All HVAC and lighting retrofits involved upgrades to the control systems. DDC retrofits are in progress for two major office towers (Edmonds and Dunsmuir).	Where possible, HVAC upgrades will involve adjustments to or activation of local DDC systems.	2007	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	26	% of retrofits since start year indicated had insulation improvements	One re-roofing project was completed and one is underway. No projects included windows.	Continue to implement end-of-life roof replacements, reglazing and envelope updates that are identified through building audits.	2007	No End Date (Continuous)
Leased Buildings							
Lease space with commercial interiors performance labelling/certification (e.g., LEED CI)	Ongoing/In Progress	0	% of leased buildings have commercial interiors labelling/certification	Renovated leased interiors are consistent with the level and quality of finish of owned interiors. Certification will not be sought due to cost.	No firm plans.	2007	No End Date (Continuous)

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
IT Power Management						
Implement server virtualization	Ongoing/In Progress	58	% of servers have been virtualized since start year indicated	In 2011, 101 physical servers were decommissioned and 16 new ESX virtual host servers were installed. The installation of 70 new physical servers was avoided. This resulted in estimated electricity savings of 143,473 kWh in 2011.	BC Hydro plans to continue its efforts to virtualize its server environment.	2007 No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Completed in 2011	90	% of computers have auto-sleep settings applied	Auto-sleep settings are applied by default to all monitors and CPUs.		2010 2011
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Completed in 2011			Auto-sleep settings are set as the default on all multi-function devices.		2010 2011
Replace computers with ENERGY STAR® models during regular computer upgrades	Completed in 2011	99	% of computers are ENERGY STAR rated	All new computers are ENERGY STAR models.	All new computers will continue to be ENERGY STAR models.	2010 2011
Appliances and Electronic Devices						
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			All new refrigerators are ENERGY STAR models.	All new refrigerators will continue to be ENERGY STAR models.	2010 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			All new appliances are ENERGY STAR models.	All new appliances will continue to be ENERGY STAR models.	2010 No End Date (Continuous)

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
Behaviour Change Program							
Help staff reduce personal energy use through “workstation tune-ups”	Ongoing/In Progress	20	% of current staff have completed a workstation tune-up	Use of the Workstation Tune-Up Tool is encouraged through the website, articles, presentations, occupant training, and the Green Team SharePoint site.	Revise and streamline the Workstation Tune-Up Tool and launch additional campaigns.	2010	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress			Power Smart Month campaign in October provided “turn if off” stickers and reminders.	Provide desk-top power bars as needed to make it easier to turn off devices and launch campaigns to support the actions.	2008	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Power Smart Month campaign in October provided “close the blinds” magnets for people sitting next to windows.	Explore the possibility of using janitorial staff to check and close blinds as necessary.	2008	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress			Power Smart Month campaign provided signs to run dishwashers only when full and outside peak hours.	Continue to provide articles and reminders.	2010	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress			Occupant training provided to 1,000 staff in new and renovated office spaces on how to save energy when working after hours.	Direct Digital Control (DDC) system upgrades will enable greater measures for after-hours energy savings (zonal heating/lighting) and will provide occupants with communications on these measures.	2008	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress			Occupant training provided to 1,000 staff in new and renovated office spaces to encourage the use of stairs. The spring Commuter Challenge campaign reinforced the message. Stickers were placed in front of elevators to remind people to take the stairs between floors at the three largest sites where 75% of staff work.	Continue to implement campaigns coordinated with Health and Wellness efforts.	2010	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Power Smart Month campaign in October provided magnets, stickers, articles and campaigns to reinforce energy saving messages and actions.	Provide campaign ideas for use of materials produced in 2011.	2008	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			Power Smart tips were provided on internal and external websites and in articles aimed at staff.	Provide tips to decrease the use of hot water use for dishwashers, laundry and showers.	2008	No End Date (Continuous)

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
--------	----------------------------	---	---------------------	-----------------------------	------------	----------

Supplies (Paper)

Paper Type

Purchase 30% post-consumer recycled paper	Ongoing/In Progress	3	% of total paper purchased contains 30% recycled content	One hundred per cent recycled paper is the standard for BC Hydro. If 100 per cent recycled paper is not available to meet a certain requirement (e.g., colour, size), paper with a lower recycled content is ordered. In 2011, seven per cent of total paper purchased contained 30 per cent recycled content.	One hundred per cent recycled paper continues to be the standard for BC Hydro.	2009	No End Date (Continuous)
Purchase 40% post-consumer recycled paper	Ongoing/In Progress	5	% of total paper purchased contains 40% recycled content	One hundred per cent recycled paper is the standard for BC Hydro. If 100 per cent recycled paper is not available to meet a certain requirement (e.g., colour, size), paper with a lower recycled content is ordered. In 2011, three per cent of total paper purchased contained 40 per cent recycled content.	One hundred per cent recycled paper continues to be the standard for BC Hydro.	2009	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	91	% of total paper purchased contains 100% recycled content	One hundred per cent recycled paper is the standard for BC Hydro. If 100 per cent recycled paper is not available to meet a certain requirement (e.g., colour, size), paper with a lower recycled content is ordered. In 2011, 88 per cent of total paper purchased contained 100 per cent recycled content.	One hundred per cent recycled paper continues to be the standard for BC Hydro.	2009	No End Date (Continuous)

Behaviour Change Program

Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	12	% of staff currently have received collaborative software training	Approximately 500 SharePoint users were trained in 2011 and 195 new SharePoint collaboration sites were created. We introduced an extranet to BC Hydro employees whereby they can collaborate with external SharePoint users. We implemented the SharePoint 2010 infrastructure to ensure that it is highly available and scalable to suit BC Hydro's future requirements.	Refresh, rebrand and redesign BC Hydro's HydroShare collaboration portal and migrate all content to SharePoint 2010. Redesign and move BC Hydro's HydroWeb intranet site to the SharePoint 2010 platform. Develop a training plan.	2010	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			Paper reduction messaging and tips are included in BC Hydro's Workstation Tune-Up Tool, Lead By Example webpages and Green Team campaigns.	Continue to communicate paper reduction messaging and tips through BC Hydro's Workstation Tune-Up Tool, Lead By Example webpages and Green Team campaigns.	2009	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			Messaging to encourage paper reduction, including the re-use of scrap paper, is included in BC Hydro's Workstation Tune-Up Tool, Lead By Example webpages and Green Team campaigns.	Continue to communicate messaging to encourage paper reduction, including the re-use of scrap paper, through BC Hydro's Workstation Tune-Up Tool, Lead By Example webpages and Green Team campaigns.	2009	No End Date (Continuous)

BC Hydro—2011 Carbon Neutral Action Report

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 12/31/11)	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	50	% of staff have access to a desktop web-camera	2,500 laptops have web-cameras, and web-cameras are included in the specifications for all new laptops.	Continue to include web-cameras in the specifications for all new laptops.	2009	No End Date (Continuous)
---	---------------------	----	--	---	--	------	--------------------------

Behaviour Change Program

Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress	100	% of staff are trained in video-conferencing or have access to technical support	Live Meeting support is available through BC Hydro's IT Help Desk.	Continue to make Live Meeting support available through BC Hydro's IT Help Desk.	2010	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			Virtual attendance at meetings is encouraged in BC Hydro's Workstation Tune-Up Tool and conservation video.	Continue to promote virtual attendance via BC Hydro's Lead By Example program.	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			Commuter Challenge was held at all BC Hydro sites in the Lower Mainland.	Continue to promote carpooling via BC Hydro's Lead by Example program.	2009	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress			Held Commuter Challenge at all BC Hydro sites in the Lower Mainland. Corporate travel policy reimburses staff travelling between sites in Lower Mainland only the price of a transit ticket. Bike lock-ups and showers are offered at most BC Hydro sites and in all new building designs.	Continue to promote alternative travel via BC Hydro's Lead By Example program.	2009	No End Date (Continuous)

Education, Awareness, and Engagement

Team-building

Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress	85	Percentage of staff working at a site with a Green Team	Green Team membership increased by 100 members to a total of 400 members and was strengthened with more on-site managerial support.	Continue Green Team programs for coming years, and add learning from customers by engaging a consultant who delivers programs for over 40 commercial clients.	2009	No End Date (Continuous)
---	---------------------	----	---	---	---	------	--------------------------

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
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress		Green Teams were supported by two full-time employees in BC Hydro's Lead by Example group, plus resources in Corporate Safety, Health and Environment, Fleet Services and operational environment groups.	Continue to support Green Teams by one full-time employee and consulting resources.	2009	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress		A full-day training event featured sustainability leaders from the Natural Step, community-based social marketing experts, and in-house conservation marketing specialists.	A full-day training session and additional training for specific groups and specific topics is planned in 2012.	2009	No End Date (Continuous)
Awards/Recognition						
Establish a sustainability/green awards or recognition program	Ongoing/In Progress		Seven Employee Conservation Leadership Awards were selected from nearly 30 nominations. Over 1,000 employees voted for the "Conservation Idol" winner from the finalists.	Employee Conservation Leadership Awards are planned on an annual basis.	2009	No End Date (Continuous)
Staff Professional Development						
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress		Recruited 50 Management Sponsors, on-site senior managers, to coach Green Team Leaders. BC Hydro's Lead by Example team provided on-going support. An event was held that featured international speakers on sustainability, best practices, lessons learned and networking.	A full-day training session and additional training for specific groups and specific topics is planned in 2012.	2009	No End Date (Continuous)
Include green options in employee performance measurement system	Ongoing/In Progress		Green Team participation is recognized by Human Resources as a career development opportunity, and conservation targets are encouraged as part of employee performance goals.	Continue to support using Green Team membership and conservation initiatives as part of personal performance metrics.	2009	No End Date (Continuous)
Staff Awareness/Education						
Provide education to staff about the science of climate change	Ongoing/In Progress		Offered two BC Hydro-wide climate change seminars in 2011 and held a Green Living Fair with booths on climate change.	Continue to focus on climate change in 2012-2014 communications plans and to outline specific actions that can be taken to mitigate the impacts.	2007	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress		Held 20 Green Team-sponsored lunch seminars on conservation and zero waste. Published 75 articles on conservation in internal publications. A conservation video was shown to over 1,000 employees.	Develop a training plan to include conservation in centralized training sessions for all business units.	2007	No End Date (Continuous)

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
Provide green tips on staff website or in newsletters	Ongoing/In Progress			Green Teams provided green tips to their staff through emails, campaigns, posters and reminders (post-it notes, magnets). Information is also available on BC Hydro's Green Team SharePoint site and Lead by Example website.	Continually update and provide Green Tips on BC Hydro's Lead by Example website, in internal publications and emails.	2009	No End Date (Continuous)
Provide sustainability education during new staff orientation	Ongoing/In Progress			Conservation presentations were made as part of new employee orientation for full-time staff, co-op students, Outreach students and Engineers in Training.	Continue to offer presentations on Lead by Example and conservation resources and initiatives in new staff orientations.	2007	No End Date (Continuous)
Client/Public Awareness/Education							
Provide education to clients/public about the science of climate change	Ongoing/In Progress			BC Hydro participated in Earth Hour for 2011 and in National Sweater Day to support action on climate change and energy conservation. BC Hydro hosted the 2011 Power Smart Forum, which attracted a record number of delegates to discuss resilience and adaptation to climate change. The keynote speaker, Gwynne Dyer, addressed the "Geopolitics of a Warming World" and the plenary session addressed "Adjusting to a Changing Climate in B.C".	Continue to participate in Earth Hour and in National Sweater Day to support action on climate change and energy conservation.	2009	No End Date (Continuous)
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress			BC Hydro's Power Smart program is responsible for leading conservation and energy efficiency efforts. Power Smart assists customers in conserving energy, thereby saving energy costs and reducing environmental impact.	The Power Smart program will continue to work with all clients in the province on conservation objectives.	Started before 1995	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	Ongoing/In Progress			Green tips are provided on BC Hydro's website, on BC Hydro's Facebook page, in Team Power Smart newsletters, and in Power Smart advertisements and campaigns.	Continue to provide green tips on BC Hydro's website, on BC Hydro's Facebook page, in Team Power Smart newsletters, and in Power Smart advertisements and campaigns.	Started before 1995	No End Date (Continuous)
Other Education, Awareness, and Engagement Actions							
Provide an optional Health and Sustainability Account as an employee benefit	Completed in 2010			BC Hydro offered an optional Health and Sustainability Account for Management and Professional staff that can be used to reimburse expenses for items and activities that encourage employees to be physically active, use sustainable transport more often, reduce electricity consumption and reduce waste. Eligible expenses include transit passes; bicycles, bicycle equipment and bike maintenance fees; running, walking and cycling shoes; home energy audits; home composters and rainbarrels; Energy Star appliances and carbon offsets.	Evaluate uptake of the optional Health and Sustainability Account.	2010	No End Date (Continuous)

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
--------	----------------------------	---	---------------------	-----------------------------	------------	----------

Other Sustainability Actions

Water Conservation

Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress			Water-efficient fixtures and appliances are installed in new buildings and major renovations.	Continue to install water-efficient fixtures and appliances in new buildings and major renovations.	2010	No End Date (Continuous)
Put in place a potable water management strategy to reduce potable water demand of building-level uses such as cooling tower equipment, toilet fixtures, etc. and landscape features	In Development			The new Horne Payne building features grey water use in toilets.	Grey water use in toilets will be considered for new buildings, and other water-efficiency measures will be considered.	2011	No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	In Development				Water efficiency measures will be considered for new buildings.	2011	No End Date (Continuous)

Waste reduction/diversion

Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	In Development			Implemented an expanded recycling collection program at BC Hydro's Edmonds office location (2,000 occupants).	Explore the development of a waste management program in concert with the new facility management contractor.	2011	No End Date (Continuous)
--	----------------	--	--	---	---	------	--------------------------

Procurement (non-paper supplies)

Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	In Development				The use of Green Seal-certified cleaning products is required by facility service providers.	2010	No End Date (Continuous)
--	----------------	--	--	--	--	------	--------------------------

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
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		During floor renovations, 90 per cent of wood fibre was recycled or reclaimed. New district offices diverted waste from landfill as part of LEED requirements.	As part of LEED requirements, construction and demolition debris will be diverted from landfills where possible.	2009	No End Date (Continuous)
Commuting To and From Home						
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		BC Hydro participates in the Translink Employer Pass Program. Carpool incentives are in place at BC Hydro's Edmonds and Dunsmuir offices and an on-line carpool website is available to help staff find a carpool. Free showers and secure bicycle lock-ups are provided at all major locations. The 2011 Commuter Challenge campaign had participation from all major BC Hydro sites and a conservation video featuring sustainable commuting was shown to over 1,000 employees.	BC Hydro will continue its participation in the Translink Employer Pass Program and will continue to offer carpooling incentives. A sustainable commuting campaign will be offered each year to encourage alternatives to single-occupant vehicles.	2009	No End Date (Continuous)



More information on BC Hydro's performance measures and sustainability initiatives can be found as part of BC Hydro's Service Plan and our triple-bottom line Annual Report.

bchydro.com