

Carbon Neutral Action Report | 2010



Executive Summary

On behalf of BC Transit, I am pleased to submit our 2010 Carbon Neutral Action Report.

Bus fleets are powered largely by internal combustion engines burning fossil fuels. Even so, transit has the capacity to create a net negative carbon footprint by displacing emissions that would otherwise have occurred from private car trips, by reducing congestion, by influencing transit oriented land use development and by making walking and bicycling easier.

BC Transit's environmental actions in the calendar year 2010 were framed by the overall intent of the *Provincial Transit Plan* and the goals of our organization's corresponding long term corporate strategic plan, *Shaping our Future*.

The *Provincial Transit Plan* calls for significant expansion of transit in communities across the province and to double transit ridership by 2020. Transportation accounts for almost 40 per cent of the greenhouse gas emissions in the province, with passenger vehicles accounting for 13 per cent. Attracting more riders to transit by implementing the *Provincial Transit Plan* aims to reduce BC's transportation related GHG emissions by 4.7 million tonnes cumulatively by 2020.

Meeting the *Provincial Transit Plan* target requires significant investment in transit infrastructure and services, new emission-reducing initiatives and the use of new technologies to reduce fuel consumption.

With the support of the provincial government and our local government partners, BC Transit initiated service expansions, expanded bus fleets, added new routes and lengthened service hours in 2010.

Older, more polluting and less energy efficient buses were retired from service and replaced by buses with the latest emissions regulations, significantly reducing particulate matter and other air emissions. Older conventional buses continuing in service were upgraded through an air emissions reduction retrofit program.

New vehicles were assessed for service, including North America's first double-deck hybrid bus and the smaller, more fuel efficient Vicinity bus. We introduced the world's largest fleet of zero emission hydrogen fuel cell buses into service in the Resort Municipality of

Whistler and launched a new RapidBus service, connecting downtown Kelowna with the University of British Columbia, Okanagan.

Under our strategic plan, *Shaping our Future*, BC Transit's vision of success is to be a leader of integrated transportation solutions connecting people and communities to a more sustainable future. By encouraging integrated, transit supportive community planning and development it becomes easier to get around by walking, cycling and transit.

BC Transit is working with local government partners in setting greenhouse gas emissions targets, to ensure Official Community Plans promote complete communities and afford transit choice, and to develop 25 year Transit Master Plans.

Community outreach is critical to attract riders and support and shape livable communities. In April 2010 BC Transit launched a province-wide sustainability campaign featuring "Be a Hero" radio commercials and "Be Part of the Solution" print campaigns in support of sustainable transportation.

In addition, as a way to attract more people to learn and provide more input on the future of their local transit system, BC Transit launched the "Transit Future" public consultation campaign. The campaign includes a 40 foot bus outfitted as a mobile open house (designed for customers to walk through to learn more about local transit) and an interactive online game. More than 5,000 British Columbians passed through the bus in 2010 and the road tour continues in 2011.

BC Transit has fostered significant ridership growth in our transit systems across the province in 2010. Additional service, infrastructure projects, increased public consultation, and new fleet technology helped BC Transit increase ridership and contribute to a net reduction in provincial greenhouse gas emissions.

The provincial government's continued financial support for transit—the highest level of provincial support in Canada—is a key reason for that success, as is the support and collaboration of our local government partners.

Mike Davis

Vice President & Chief Operating Officer BC Transit



Whistler Transit Facility

2010 Greenhouse Gas Emissions

Most greenhouse gases produced from BC Transit's operations comes from the combustion of fossil fuels in our vehicle fleet and the energy used to heat and cool the buildings we own or lease.

CDEENILOUGE

EMISSIONS SOURCE	GASES IN TONNES
Mobile Combustion: Vehicle Fleet – Diesel & Gasoline	60,003.96
Mobile Combustion: Vehicle Fleet – Biomass	1,642.55
Stationary Combustion: Facilities	1,286.01
Office Paper	15.03
TOTAL	61,304.99

It was estimated that fugitive emissions from vehicle fleet air conditioning do not comprise more than one per cent of BC Transit's total emissions and an ongoing effort to collect or estimate emissions from this source would be disproportionately onerous. For this reason emissions from this source have been deemed out of scope and have not been included in BC Transit's total greenhouse gas emissions profile.



Hydrogen Fuel Cell Bus

Offsets Applied to Become Carbon Neutral in 2010

BC Transit measures and is accountable for its

environmental results. BC Transit measures and reports its greenhouse gas emissions under carbon accounting protocols consistent with the Carbon Neutral Government Regulation using the web-based application known as SMARTTool, and offsets those regulated greenhouse gas emissions it cannot avoid through payments to the Pacific Carbon Trust. In 2010 BC Transit offset 1,384.59 tonnes of regulated emissions.

As required by section 5 of the Carbon Neutral Government Regulation, 59,920.41 tonnes of $\mathrm{CO}_2\mathrm{e}$ of emissions resulting from the operation of transit buses were reported as part of our greenhouse gas emissions profile in 2010. However, they were not offset as they are out of scope under section 4 (2) (c) of the Carbon Neutral Government Regulation.

Operational Changes in 2010

BC Transit initiated service expansions and increased ridership across the province to promote

higher travel mode share for transit, reduce reliance on automobiles and lower overall greenhouse gas emissions. As a result, BC Transit greenhouse gas emissions increased by 1,400 tonnes over 2009 totals.

However, more service hours were provided (an increase of 78,522 to 2,152,643 hours) and the overall emissions intensity of service declined by 0.44 kilograms CO_2e / hour to 28.47 kilograms CO_2e / hour.



Transit Supervisor Hybrid Vehicle

Emissions Reduction Activities

Highlighted Actions Taken to Reduce Greenhouse Gas Emissions in 2010

- Developed a greenhouse gas management plan for BC Transit's Victoria Regional Transit System facilities that includes recommended actions to further advance organizational greenhouse gas objectives.
- Implemented the world's largest fleet of hydrogen fuel cell buses, avoiding more than 1,000 tonnes of greenhouse gas emissions in the Resort Municipality of Whistler in 2010.
- Completed a program to convert the Victoria Regional Transit Operations Supervisor vehicle fleet to an all hybrid fleet, resulting in a 20 per cent reduction in non revenue fleet emissions.
- Tested the first hybrid double decker bus in North America, in the Victoria Regional Transit System
- Tested the smaller, more fuel-efficient new Vicinity bus in Prince George, Quesnel, the Cowichan Valley and the Sea to Sky region
- Tested a hydrogen hybrid battery-dominant fuel cell bus in the Victoria Regional Transit System
- Introduced a province-wide standardization program for bus shelters and rapid transit shelters, with up to 65% renewable content using locally grown and milled in BC wood products.



Vicinity Bus

Plans to Continue Reducing Greenhouse Gas Emissions 2011–2013

- Continue to monitor and reduce our organization's emissions intensity, the amount of greenhouse gas emissions generated for every hour of transit service delivered
- Implement transit facility energy audit recommendations
- Continue to implement the bus shelter standardization program, with up to 65% renewable content using locally grown and milled in BC wood products
- Explore new fleet propulsion alternatives, particularly battery dominant and natural gas propulsion systems and evaluate for implementation
- Ensure business case and purchasing procedures adopt lifecycle accounting with monetized values for human, environmental and climate impacts



Hybrid Double Decker

Resources

Strategic Plan

http://www.transitbc.com/2030/

2011/12-2013/14 Service Plan

http://www.bctransit.com/corporate/general_info/pdf/BCT_2011_ Service_Plan.pdf

2009–2010 Annual Report

http://www.bctransit.com/corporate/general_info/pdf/BC_Transit_200910_Annual_Report_Final_WEB.pdf

BC Transit Celebrates A Year of Expanded Service and Improvements Across The Province

http://transitbc.com/corporate/general_info/media_resources/pdf/corp-nr1471.pdf

BC Transit Launches Province-Wide Sustainability Campaign

http://transitbc.com/corporate/general_info/media_resources/pdf/corp-nr1308.pdf

U-PASS BC to Save Students on Transit Fares

 $http://www.transitbc.com/corporate/general_info/media_resources/pdf/corp-nr1356.pdf$

Hydrogen Hybrid Bus Brings Alternative Fuel Demonstration to Victoria, British Columbia

http://www.transitbc.com/corporate/general_info/media_resources/pdf/corp-nr1316.pdf





Battery Dominant Fuel Cell Hybrid Electric Bus (*left*) Transit Shelter (*right*)

Modern, European Inspired Community Test Bus, Vicinity, Undergoes Thorough Testing in BC Transit Systems

http://www.transitbc.com/corporate/general_info/media_resources/pdf/corp-nr1318.pdf

BC Transit Launches Province-Wide Sustainability Campaign With Help of Award Winning Slam Poet, Shane Koyczan

 $http://www.transitbc.com/corporate/general_info/media_resources/pdf/corp-nr1308.pdf$

BC Transit Seeking Input on the Future of Transit and Victoria Regional Rapid Transit Project

http://www.transitbc.com/regions/vic/news/newsreleases/pdf/vic-nr1354.pdf

RapidBus Service Highlights Kelowna Service Expansion

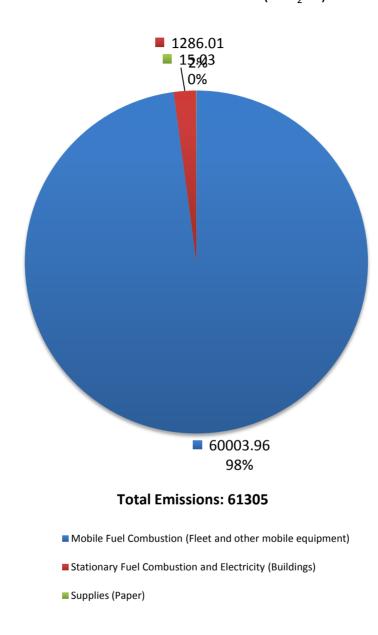
http://www.transitbc.com/regions/kel/news/newsreleases/pdf/kel-nr1399.pdf

Kamloops North Shore Transit Exchange Celebrates Official Grand Opening

http://www.transitbc.com/regions/kam/news/newsreleases/pdf/kam-nr1451.pdf



BC Transit
Greenhouse Gas Emissions by Source
for the 2010 Calendar Year (tCO₂e*)



Offsets Applied to Become Carbon Neutral in 2010

Total offsets purchased: 1384.59. Total offset investment: \$34,614.75. Emissions which do not require offsets: 59920.41 **

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

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

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			
Mobile Fuel Combustion (Fleet and other mobile equipment)									
Vehicle fuel efficiency									
Replace vehicles with more fuel-efficient models	Ongoing/In Progress		Approximately 12% of the 2009 conventional revenue vehicle fleet - 1990 older, more polluting and less energy efficient buses - were retired from service in 2010. These were replaced by buses with the latest emission regulations which drastically reduce particulate matter and other emissions. In addition the fleet was expanded by 53 new conventional buses.	Deployment of the additional 53 expansion conventional buses is expected to occur by end of 2011.	Started before 1995	No End Date (Continuous)			
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress		The Vicinity, a 27.5 foot European-inspired and Canadian-designed community bus was demonstrated for six months in 2010 in various communities throughout B.C. The test results with the Vicinity showed substantial long-term cost savings in fuel efficiency due to its compact size and versatility.	A Notice of Intent was posted in November 2010 to purchase 15 Vicinity Buses. The buses are currently being validated for EPA 2010 compliance. The plan is to implement these buses into Community Bus service and monitor their performance and relaibility in community bus duty cycles	2009	2012			
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	% of vehicles are subject to 100 regular maintenance for fuel efficiency	100% of vehicles are subject to regular maintenance for fuel efficiency. Preventative maintenance and scheduled maintenance on buses are as required, e.g. daily or at refueling checks for lubricant, cooling levels etc; oil & filter change 500 hours / 6 months / 12,000 kms; system check 250 hours / 6,000 kms / 3 months; spark plug change 1500 hrs, 36,000 kms etc.	All vehicle are maintained and serviced as per the manufacturers recommended service interval or BC Transit's Preventative Maintenenace program requirements - whichever is the most frequent. Ongoing periodic fuel efficiency monitoring and investigations into any vehicle that reports above average fuel usage compared to sample.	Started before 1995	No End Date (Continuous)			
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress		100% of Victoria Regional Transit System Transit Supervisor vehicle fleet converted to hybrid vehicles. BC Transit's pool car fleet also consists of hybrid only vehicles.	Replacement of older non fuel efficient maintenace and parts vehicles planned. 2011 will see the deployment of a European designed, fuel efficient Mercedes Sprinter Parts van. Planned replacement of the maintenance facilty truck late 2011. Feasibility study into the possibility of a battery powered third parts van investigated 2011.	2009	2013			
Behaviour change program									
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	100 % of current drivers are trained	BC Transit has renewed its Smart Driver training program. The course is designed to refresh drivers on the reasons to drive in a fuel efficient and envrionmentally sound manner.	BC Transit will renew its Smart Driver Training in 2011.	2001	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		BC Transit trained 42 new bus operators in the Victoria Regional Transit System on the anti-idling policy. In addition BC Transit worked with 82 trainers at a Train the Trainer Retreat in Kamloops in November 2010 on this issue. The 82 trainers represented over 75% of BC Transit's operator training staff.	BC Transit will continue to provide anti-idling training to new operator trasiners.	2007	No End Date (Continuous)			
Encourage carpooling in fleet vehicles	Ongoing/In Progress	100 % hybrid pool car fleet available for use	All BC Transit employees have bus passes. Pool cars (hybrids) are available when meeting logisitics prevent transit use.	Continued use of hybrid pool cars when meeting logistics prevent transit use.	2006	No End Date (Continuous)			

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
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress		BC Transit worked with partners to implement our vision to be a leader of integrated transportation solutions connecting people and communities to a more sustainable future. A Strategic Plan "Shaping Our Future" was released in 2010 detailing our actions to 2030 to encourage sustainable travel by better linking land use and transportation decisions.	BC Transit will continue to work with its strategic partners and stakeholders to promote transit and sustainable transportation solutions.	2009	No End Date (Continuous)
Other Mobile Fuel Combustion Actions						
BC Transit continued to implement its environmental fuel strategy.	Ongoing/In Progress	tonnes of greenhouse gas emissions from the use of biomass reported under SMARTTool for 2010	Continued implementation of BC Transit's environmental fuel strategy in line with the Renewable and Low Carbon Fuel Regulation requirements for diesel fuel established January 1, 2010.	Continue to implement BC Transit's environmental fuel strategy in line with the Renewable and Low Carbon Fuel Regulation requirements for diesel fuel established January 1, 2010. BC Transit will continue to explore alternative, low carbon fuel solutions.	2008	No End Date (Continuous)
Increased fuel efficiency of non-revenue service vehicles	Ongoing/In Progress	% reduction in non revenue fleet emissions. Emissions declined from 102.64 tonnes of CO2e in 2009 to 81.79 tonnes of CO2e in 2010	BC Transit incorporated 5 hybrid vehicles for Transit Supervisors in the Victoria Regional Transit system. Hybridization will result in a reduction of at least 50 t/CO2 emissions compared with the former incumbent technology combustion engine vehicles over the life of the vehicle.	Continued implementation of BC Transit's fleet renewal program for non-revenue fleet vehicles. The program incorporates full life cycle accounting of energy efficiency and air emissions in the business case process.	2008	No End Date (Continuous)
Low Emission Vehicle Pilot Programs	Ongoing/In Progress	% reduction in CO2e emissions reduction annually for hybrid double decker against standard double decker (target).	A battery dominant fuel cell hybrid electric bus was demonstrated between February and March 2010. The double deck diesel electric hybrid was demonstrated through 2010. Additional low emission vehicle pilot programs were launched in 2010.	Hybrid Double Deck Hybrid bus purchased in 2010	2007	No End Date (Continuous)
Diesel Engine Emissions Reduction Retrofit Program	Completed in 2010	buses underwent retrofits in 120 2010	BC Transit worked with Ministry of Environment under the BC Air Action Plan to reduce emissions from diesel buses for cleaner air. BC Transit is retrofitting diesel particulate filters or diesel oxidation catalysts to engine emissions exhaust systems. Over 100 buses completed in the calendar year. Air emission reductions from full implementation will be: Hydrocarbons 16 tonnes per year; Carbon Monoxide 222 tonnes per year and 9,106 kgs of Particulate Matter on a lifetime basis.	169 buses will be upgraded in total by March 2011 (26% of current fleet) This includes the following breakdown, 37 passive DPF 's and 132 DOC's	2009	2011
"Hydrogen Fuel Cell Demonstration Fleet"	Ongoing/In Progress	Demonstration of the fleet avoided more than 1,000 tonnes of greenhouse gas emissions in the Resort Municipality of Whistler in 2010	Demonstration fleet of 20 fuel cell buses was deployed in Whistler in January 2010. First buses were delivered and hydrogen fueling station established during 2009. Zero emission buses at the point of use. 62% reduction in life-cycle GHG emissions compared with incumbent technology combustion engine buses.	Hydrogen fuel cell buses were showcased in the Resort Municipality of Whistler before, during and after the 2010 Olympic and Paralympic Winter Games. The demonstration hydrogen bus fleet will be tested for operational service effectiveness with Whistler Transit to 2014.	2010	No End Date (Continuous)

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
BC Scrap It Program	Ongoing/In Progress	5445	tonnes of CO2e were reduced through the BC Scrap It Program.493 Vehicles were scrapped in 2010 for BC Transit incentives. 110 cases chose the 2 year transit pass and 383 chose the combination of 1 year of transit plus bicycle incentive. The calculation is assuming scrapped vehicle use of 16,000 km/y was completely replaced by transit for one year for the combo cases and for 3 years for transit cases. Other emission reductions from the 493 cases in tonnes are: HC-13 ,CO-226 and NOx-18. The CO2 reduction benefit is equivalent to saving 2.27 million litres of gasoline.	BC Transit is a program partner in the BC Scrap It Program. This is a voluntary early retirement vehicle program that provides incentives to help British Columbians replace higher polluting vehicles with cleaner forms of transportation. The program is designed to reduce greenhouse gas emissions and to lower exhaust pollutants across the province. All scrapped vehicles and their components are permanently and properly recycled. BC Transit offers a monthly pass incentive for vehicle owners to scrap there older vehicles and adopt transit. As of 2009 residents of Victoria could trade in their 1995 or older vhicle in exchange for up to two years of free rides on the bus.	BC Transit intends to continue as a program partner in the BC Scrap It program	2009	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Em	nissions (Buildings)					
Planning/management							
Reduce office space (square meters) per employee	Ongoing/In Progress	12	is the current average rentable square meters per employee	Developed a 2010 greenhouse gas management plan that included actions to further advance organizational GHG objectives.	BC Transit is working with Fortis BC and with BC Hydro on energy efficiency upgrades to its Victoria and Langford Transit Centres.	2010	2012
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	16	% of buildings have a real time metering system installed	Developed a 2010 greenhouse gas management plan that included actions to further advance organizational GHG objectives.	Implementation of mechanical and electrical utility savings measures to improve overall efficency at baselined buildings.	2010	2012
Owned buildings							
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	No new facilities were constructed in 2010.	100% of new construction will be designed and constructed by LEED accredited professionals utilizing best practices and sustainable and energy efficient materials where practical and feasible.	2009	No End Date (Continuous)
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress			Major lighting updates, reducing lighting energy consumption by up to 60% in some applications.	Lighting upgrades to continue on additional buildings.	2010	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress			Additional controls added to reduce occurances of heat loss through open maintenance doors.	FORTIS energy review scheduled for high consumption buildings. Use of real time metering systems to optimise improvements.	2010	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress			Expected 60% reduction in energy consumption from upgrades of 2 major facilities.	Additional lighting retrofits on other buildings, to reduce comsumption.	2010	2012

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
Upgrade/adjust control systems during retrofits	Ongoing/In Progress		Audits regularly performed to achieve balance between occupant comfort and energy consumption.	Additional control zones added.	2010	2012
Improve building insulation (including windows) during retrofits	Ongoing/In Progress		Steps taken to improve building envelope air tightness.	Future roofing replacements will include significant insulation added to roof deck.	2011	No End Date (Continuous)
IT power management						
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	% of computers shut down 50 automatically outside of regular business hours	Emails have been sent out to remind staff to turn off their computer before they leave for the day. IT is looking at implementing a proceedure on the server side that will automatically shut down desktop computers that are accidentally left on at the end of the work day.	BC Transit is reviewing its business processes, information systems, and its enabling technologies to identify and prioritize further investments needed to deliver greater value to its customers and partners.	2009	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress	% of servers have been 95 virtualized since start year indicated	Most servers that can be virtualized, have been. The potential to virtualize remaining servers will be assessed as upgrades occur.	The potential to virtualize remaining servers will be assessed as upgrades occur.	2009	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	% of computers have auto-sleep settings applied	Group policy will be implemented that puts monitors and CPUs into sleep mode after 20 minutes of inactivity.	BC Transit is reviewing its business processes, information systems, and its enabling technologies to identify and prioritize further investments needed to deliver greater value to its customers and partners.	2009	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	% reduction in printers, copiers, 100 and/or fax machines since start year indicated	All units are multi-function devices except in special situations.	BC Transit is reviewing its business processes, information systems, and its enabling technologies to identify and prioritize further investments needed to deliver greater value to its customers and partners.	2009	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	% of devices have auto-sleep settings applied	All multi-function devices have auto-sleep settings applied.	BC Transit is reviewing its business processes, information systems, and its enabling technologies to identify and prioritize further investments needed to deliver greater value to its customers and partners.	2009	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	% of computers are ENERGY STAR rated	All new computers will meet these standards. Remaining computers are being phased out.	All new computers will meet these standards. Remaining computers are being phased out.	2009	No End Date (Continuous)
Appliances and electronic devices						
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress	% of fridges are ENERGY STAR rated	Two refrigerators were replaced in 2010. Energy Star models were chosen.	Most appliances in house are ENERGY STAR complient. All future replacements will aim to reduce consumption within the ENERGY STAR grouping.	2008	No End Date (Continuous)
Behaviour change program						
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress		Regular updates through administrative and facilities maintenance bulletins.	Maintain performance level	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		Regular updates through administrative and facilities maintenance bulletins.	Maintain performance level	2010	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress		Regular updates through administrative and facilities maintenance bulletins.	Maintain performance level	2010	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress		Regular updates through administrative and facilities maintenance bulletins.	Maintain performance level	2010	No End Date (Continuous)
Supplies (Paper)						

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
Paper Type						
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	% of total paper purchased contains 30% recycled content	Maintained 30% reccycled content performance level.	Maintain performance level.	2010	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	% of total paper purchased contains 100% recycled content	Maintained 100% recycled content performance level.	Review opportunities to further increase post-consumer content in purchassed paper.	2010	No End Date (Continuous)
Printer/document settings						
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	% of network printers or photocopiers are set to automatic double-sided	All network printers and photocopiers are now defaulted to double-sided printing. Eveluating setting the colour printer to a default 'print and hold' setting to limit unclaimed print jobs.	Maintain performance level.	2010	No End Date (Continuous)
Electronic media in place of paper						
Post materials online that were previously printed	Ongoing/In Progress		BC Transit employees are encouraged to scan printed materials and post reference material online when deemed appropriate.	BC Transit is reviewing its business processes, information systems, and its enabling technologies to identify and prioritize the investments needed to deliver greater value to its customers and partners.	2010	No End Date (Continuous)

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
Business Travel							
Virtual meeting technology							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	100	% of computers have web- conferencing software installed	MS Net Meeting is installed on all computers. Conference calling is used extensively.	Proof of concept regarding expansion of toolset to include more user-friendly and collaborative software such as WebEx.	2010	No End Date (Continuous)
Make desktop web-cameras available to staff	In Development	2	% of staff have access to a desktop web-camera	New laptops have built-in cameras.	Proof of concept regarding utilization of USB cameras for web conferencing software.	2010	No End Date (Continuous)
Behaviour change program							
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			Conference calling is encouraged and used extensively.	Proof of concept regarding expansion of toolset to include more user-friendly and collaborative software such as WebEx.	2010	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			All BC Transit employees have bus passes. Pool cars (hybrids) are available when meeting logisitics prevent transit use.	BC Transit will continue to issue employees bus passes and will continue to encourage staff to use the Hybrid pool cars when meeting logitstics prevent transit use.	2009	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress			All BC Transit employees have bus passes.	BC Transit will continue to issue employees bus passes and encourage staff to use the Hybrid pool cars when meeting logitstics prevent transit use.	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			The BC Transit Green Team is committed to developing strategies that will reduce our impact on the environment both collectively and individually, while moving toward a more sustainable and healthy working environment.	Challenges for the Green Team going forward include retaining employee enthusiasm and securing corporate budget support for initatives in the next fiscal year in constrained economic times. Initiatives will be presented on a business case basis.	2009	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	In Development			Efforts to date have been resourced by staff donated resources and time.	Budgeted resources have been allocated for Green Team actions in 2011.	2010	No End Date (Continuous)
Staff Professional Development							
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress			BC Transit staff participated in a number of workshops, conferences and training programs in support of green professional development. For example development of sustainable transportation modeling through attendance at EV 2010 Conference.	Challenges for the Green Team going forward include retaining employee enthusiasm and securing corporate budget support for initatives in the next fiscal year in constrained economic times.	2009	No End Date (Continuous)
Staff awareness/education							
Provide education to staff about the science of climate change	Ongoing/In Progress			The BC Transit Green Team was committed to developing strategies that reduced our impact on the environment both collectively and individually, while moving toward a more sustainable and healthy working environment.	Challenges for the Green Team going forward include retaining employee enthusiasm and securing corporate budget support for initatives in the next fiscal year in constrained economic times. Initiatives will be presented on a business case basis.	2009	No End Date (Continuous)

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
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress		The BC Transit Green Team was committed to developing strategies that reduced our impact on the environment both collectively and individually, while moving toward a more sustainable and healthy working environment.	Challenges for the Green Team going forward include retaining employee enthusiasm and securing corporate budget support for initatives in the next fiscal year in constrained economic times. Initiatives will be presented on a business case basis.	2009	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress		The BC Transit Green Team is committed to developing strategies that will reduce our impact on the environment both collectively and individually, while moving toward a more sustainable and healthy working environment.	Challenges for the Green Team going forward include retaining employee enthusiasm and securing corporate budget support for initatives in the next fiscal year in constrained economic times. Initiatives will be presented on a business case basis.	2009	No End Date (Continuous)
Provide sustainability education during new staff orientation	Ongoing/In Progress		BC Transit revised its policy manuals and employee orientation manuals and updated information on climate action and sustainability.	Sustainability education is a part of new staff orientation.	2009	No End Date (Continuous)
Client/public awareness/education						
Provide education to clients/public about the science of climate change	Ongoing/In Progress		In April 2010 BC Transit released Shaping Our Future, our long term strategic plan. The plan established BC Transit's vision to be a leader in integrated transportation solutions connecting people and communities to a more sustanable future. The plan determines our long term direction and priorities and will target development of sustainable transportation networks that will shift the balance to greener travel and a healthier province.	BC Transit will continue to include advice and information on the science of climate change while communicating about transit services and technologies. The linkage between transit service and environmental and climate change objectives informs BC Transit's Service Plans.	2009	No End Date (Continuous)
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress		BC Transit included advice and information on energy, water and material use when communicationg with suppliers for teh procurement of transit services and technologies. The linkage between transit service and energy efficiency and broader conservation informs BC Transit's Service Plans.	BC Transit's business case templates and procurement evaluations include appropriate evaluation of financial, environmental and social impacts.	2009	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	Ongoing/In Progress		BC Transit provided green tips and environmental advice through all of its marketing channels in 2010. BC Transit continually enganged in marketing outreach to demonstrate the advantages of transit, walking and cyclng as financially, socially and environmentally wise transportation choices. Key marketing campaigns were "Be a Hero" and "Be Part of the Solution" and the key outreach activity was the "Transit Future" campaign that engaged directly with more than 5,000 British Columbians.	BC Transit continually engages in marketing outreach to demonstrate the advantages of transit, walking and cycling as financially, socially and environmentally wise transportation choices. A key initiative for 2011 is the continuation of the "Transit Future" campaign.	2009	No End Date (Continuous)
Other Sustainability Actions						
Indoor air quality						
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Ongoing/In Progress		BC Transit continued to enforce a scent-free policy in 2010.	BC Transit will continue to enforce a scent-free policy.	2000	No End Date (Continuous)
Commuting to and from home						
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		BC Transit encourages transit staff to use greener types of travel through employee engagement strategies (including commuting surveys) and education. All BC Transit employees have bus passes.	Where feasible encourage transit staff to use greener types of travel by implementing transportation demand management policies and incentives, and by continuing to include showers, lockers, and bicycle parking areas in plans for new transit operations centres	2009	No End Date (Continuous)

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
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress		BC Transit has shower and locker room facilities at its main facilities.	Where feasible encourage transit staff to use greener types of travel by implementing transportation demand management policies and incentives, and by continuing to include showers, lockers, and bicycle parking areas in plans for new transit operations centres	2009	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress		BC Transit has secure bicycle storage at its main facilities.	Where feasible encourage transit staff to use greener types of travel by implementing transportation demand management policies and incentives, and by continuing to include showers, lockers, and bicycle parking areas in plans for new transit operations centres.	2009	No End Date (Continuous)
Modify parking fees or parking availability for staff/students	In Development		BC Transit is currently reviewing parking in general at all of its facilities.	BC Transit intends to implement a transportation demand management plan that will result in a priority based restriction on the number of cars that can be parked at its head office location.	2010	No End Date (Continuous)