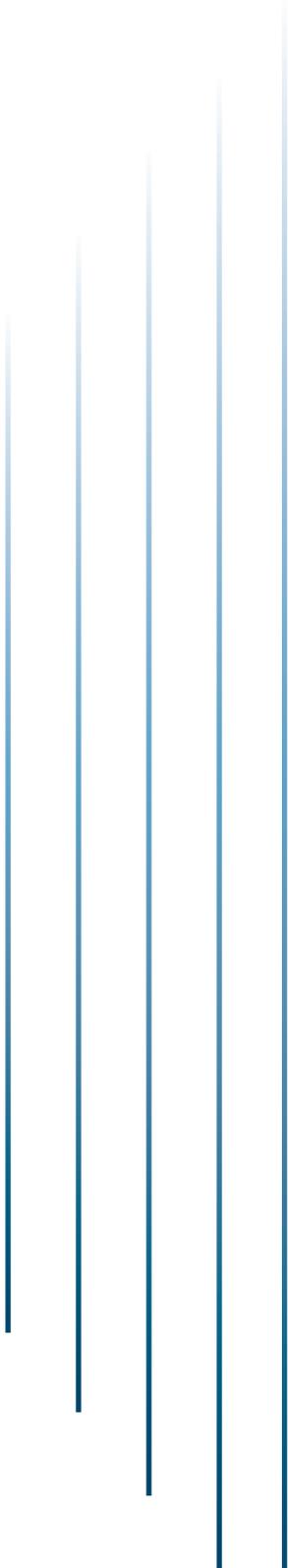


# Carbon Neutral Action Report, 2009

April 30, 2010



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## EXECUTIVE SUMMARY

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This is the first Carbon Neutral Action Report prepared and submitted by the BC Oil and Gas Commission (Commission), the provincial regulator of oil and gas activity and a service delivery Crown corporation. The report was prepared in accordance with the *Greenhouse Gas Reduction Targets Act* adopted in November, 2007 and the reporting guidelines released by the Ministry of Environment's Climate Action Secretariat. It adequately reflects the Commission's commitment to continual environmental improvement and tangible climate change action. It also includes specific steps completed or underway to reduce greenhouse gas emissions and sustain our quality of life and that of future generations. This report defines the actions that the Commission's leadership and employees will undertake during 2010 and going forward.

The very mission of the organization invariably supports fostering a culture of conservation, sustainable business practices and environment-conscious living. Briefly discussed in the report is how corporate values and goals set the stage for the organization's participation in government's efforts to reduce emissions and promote behaviour change towards a greener and healthier workspace. The Message from the Commissioner attests to the fact that carbon neutrality and green living initiatives will persevere and the positive results from them will soon be evident and measurable in terms of both financial benefit and employee satisfaction.

The Commission has a diverse workforce operating out of four locations, Fort St. John, Victoria, Fort Nelson and Dawson Creek, each location varying significantly in climate conditions, infrastructure, and regional green living opportunities. In the summer of 2009, the Victoria office moved into two floors in the Dockside Green development, a development that achieved LEED® Platinum CI Certification. This report provides further details on the carbon neutral significance of the certification and describes additional initiatives to reduce CO<sub>2</sub> emissions from vehicle fleet, facilities usage, and information technology.

The Commission is not required by legislation to report on and offset its emissions related to travel. Notwithstanding, the Commission is voluntarily making efforts to minimize travel and has implemented telephone and video conferencing for all its offices as an alternative to travel, increasing work efficiency and reducing costs and emissions.

The following accounts of carbon neutral actions taken and contemplated are supplemented by data sheets providing detail on specific areas and steps toward carbon neutrality identified and monitored by the Climate Action Secretariat.



## MESSAGE FROM THE COMMISSIONER

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At the Commission, we are increasing our green initiatives as we develop as a transparent, proactive and responsive organization. Over its decade-long history, the Commission established itself as the provincial authority in sustainably regulating oil and gas activities, and as a great place to work. An inseparable part of who we are is our commitment to live up to the challenges of our times as a modern and responsible organization. It is with pleasure and a promise that I submit the Commission's first annual Climate Neutral Action Report depicting our 2009 efforts to reduce climate changing emissions and outlining plans for the next two years to support the B.C. government's pledge to carbon neutrality starting in 2010.

The *Greenhouse Gas Reduction Targets Act*, the steps that we have taken to increase awareness amongst employees, and this report are just the beginning. The Commission's senior management hold a clear realization that carbon reporting is here to stay and that it is becoming an integral element of corporate operations and our accountability system. Foreseeing the importance of tracking, analyzing and reducing greenhouse gas emissions related to the Commission's activities, the executive of the Commission relentlessly support carbon neutrality and will lead by example to encourage the needed shift in behaviour, values and attitudes.

In 2009, the Commission took definitive action toward reducing its carbon footprint by consolidating the Victoria operations into a new building at Dockside Green, the best known green development in the provincial capital and among few of its standard in Canada. With the experience gained in achieving LEED® Platinum Commercial Interiors Certification for the Victoria office, we are determined to

pursue the best environmental options for the Commission's head office in Fort St. John within economic means and the extreme climate conditions in northeast B.C. A sincere thank you goes out to our facilities managers, information technology professionals, and all other staff involved in ensuring coordinated, sustainable and safe operations for employees in all four locations.

The work ahead of us relating to understanding, measuring and managing greenhouse gas emissions attributable to the Commission is significant. We know what kind of actions will produce results, but how those results will be measured, if actions taken or planned lead to the goal in the most efficient and effective way and what process improvements are warranted are all questions we will carefully consider when developing a Carbon Neutrality Strategy and a Carbon Neutrality Plan for the Commission. This process will not be a single exercise, but rather will be integrated into the strategic corporate initiative of advancing an organizational measurement and reporting framework. One of the objectives this initiative will target is a comprehensive analysis of all data collected and managed by the Commission, which will include design and implementation of a carbon information system.

I am confident that our facilities and information technology planning, as well as our new health and wellness and employee orientation programs, will create best practices for minimizing our carbon emissions and associated carbon offsetting costs without compromising the quality of services by the Commission and the well-being of its employees. Results will not be late to transpire when we do the right things right!



Alex Ferguson  
Commissioner and CEO

# ACTIONS TAKEN TO REDUCE GHG EMISSIONS IN 2009

## OVERVIEW

This is the first report the Commission will submit in accordance with the *Greenhouse Gas Reduction Targets Act* and in response to the comprehensive Climate Action Plan implemented on behalf of the provincial government by the Climate Action Secretariat. Summarized here are the practices in place and the actions taken to manage the Commission's assets and operations in a way that minimizes the organizational carbon footprint. Conservation, waste reduction and recycling efforts are ongoing throughout the organization. More still remains to be done, however, in terms of collecting, managing and analyzing data related to greenhouse gas emissions associated with corporate operations.

Emission reduction efforts are reviewed for the corporate vehicle fleet, building facilities, information technology, paper usage and other office materials. Recognizing the importance of communication to raise awareness and continuous education regarding environmentally-conscious options, a discussion is provided on the work by the Commission's Human Resources department to change employees' behaviour toward energy and paper saving practices.

## VEHICLE FLEET

The Commission's fleet consists of 34 vehicles, two in Victoria, four in Dawson Creek, three in Fort Nelson and the remaining in Fort St. John. The majority of fleet vehicles are used for field inspections and their technical characteristics need to be compatible with the climate conditions in areas where oil and gas exploration and development is concentrated in B.C. In extreme weather conditions, fuel efficiency is an important, but secondary consideration. Four small hybrid vehicles have been added to the fleet, two in Victoria and two in Fort St. John. A viability assessment for acquiring more fuel-efficient vehicles continues.

Due to cautious capital spending during the recession period, vehicle replacements were limited in 2009. One very large vehicle that was deemed unnecessary was sold in Fort St. John. The principles of right-sizing and optimal fuel efficiency for road and weather conditions in which vehicles are operated will govern future acquisitions. An analysis of vehicle needs is underway and looks at usage by various groups of employees according to their



responsibilities and field status. There is an opportunity to reduce the size of non-inspection pool vehicles used by Commission staff for business travel.

Vehicle fleet information is collected monthly and used for preventative maintenance purposes to ensure all vehicles are serviced based on mileage. During 2009, a new Motor Vehicle Policy was developed and adopted by the Commission. It further ensures regular maintenance of fleet vehicles and fuelling and usage best practices.

A synergy between road safety and fuel economy has been achieved by installing GPS satellite locator systems in Commission vehicles operated in northeast B.C. Primarily targeting employee safety and time efficiency, the GPS systems are expected to cause a tangible reduction in fuel use by optimizing travel distances to well sites and preventing drivers from getting lost in the field.

Carpooling in fleet vehicles is administered through a centralized resource scheduling system. All vehicle requests are analyzed and travel in the same direction and around similar time is optimized between employees.

## FACILITIES

The most significant step toward emissions reduction in 2009 was realized with the completion of tenant improvements at the Dockside Green building in Victoria. A new, modern and environmentally-conscious office space was set up for all Commission staff in this location. The Commission, in

## ACTIONS TAKEN TO REDUCE GHG EMISSIONS IN 2009

cooperation with the developer and an expert consulting team, achieved LEED® Platinum certification for commercial interiors by the Canada Green Building Council. This certification is the highest standard of green building and is currently held by only a handful of buildings in Canada. The features that minimize the environmental footprint of the building relate to heating and ventilation, material choice, reduced energy usage, water conservation, cradle to cradle furniture, and accessibility for recycling and composting programs. Last but not least, the building is part of a residential and business community committed to a healthy and safe environment, nurturing a conservation and physical activity culture among its occupants.

The Commission's headquarters in Fort St. John is housed in a legacy building that does not correspond to contemporary design and government smart living specifications. Despite the old infrastructure, and considering the extreme weather conditions in northeast B.C., the headquarters office in Fort St. John and the satellite offices in Dawson Creek and Fort Nelson have been making conservation efforts, as will be noted under appropriate themes below.

The office space in all four locations is analyzed every quarter for workspace availability and efficiency by looking at ratios between vacant and occupied space, and between common areas, cubicles, meeting rooms and offices. For energy efficiency, workflow and communications considerations, current trends in office space design call for utilizing the largest windowed space along external walls for cubicles where the largest number of employees spend the majority of their time. This concept has been adopted for the Victoria office in the Dockside Green building where offices and meetings rooms are located in the middle of the floor plan, providing cubicle space with the greatest exposure to daylight, reducing energy consumption and costs.

### **HVAC requirements in the Victoria office lease include:**

- In-floor heating for office areas.
- Operable windows must remain in an operable state.
- Specified heat pump efficiency, with all HVAC and refrigeration equipment containing no Hydro chlorofluorocarbons (HCFC's) known as potent greenhouse gases.
- High standard for natural ventilation.
- CO<sub>2</sub> monitoring sensors must be installed with a minimum of one (1) CO<sub>2</sub> sensor per tenant or one (1) sensor per 500 m<sup>2</sup>, whichever is greater and not less than one (1) sensor per floor.

### **Heating, Ventilating And Air Conditioning (HVAC)**

The Dockside Green building is heated by a biomass plant located in close proximity to the building. When completely operational, the centralized heat plant will use waste wood biomass to produce a clean gas that provides heating for the office and hot water. This eliminates the need for boilers in individual buildings, saving on maintenance and replacement costs and associated CO<sub>2</sub> emissions. The biomass system is backed up by central boilers in the event the primary plant is shut down for any reason. The greenhouse gas neutral heating system in Victoria will significantly reduce the carbon offsetting cost that the Commission will incur following 2010, as well as operating costs for the building.

The green office space in Victoria features a 100 per cent fresh air system with a heat recovery ventilator, which saves energy by pre-warming incoming air. All windows open for natural ventilation and air quality inside the building is superior to any other commercial premises constructed to regular specifications. Airflow patterns between windows are important for achieving effective cross ventilation, therefore work space design has been chosen to allow unobstructed air flow.

Although an increase in productivity has not been statistically measured yet, the Commission's management and employees strongly believe that their hours of work inside this building will be more productive compared to previous periods due to improved working conditions with clean air, consistent room temperature, and use of environmentally-friendly materials. Appreciating these improvements naturally leads to greater sensitivity to environmental issues and a shift in behaviour, which is key to achieving results with conservation initiatives. Targeted actions to influence employees' behaviour are discussed later in this report.

# ACTIONS TAKEN TO REDUCE GHG EMISSIONS IN 2009

## Energy Conservation

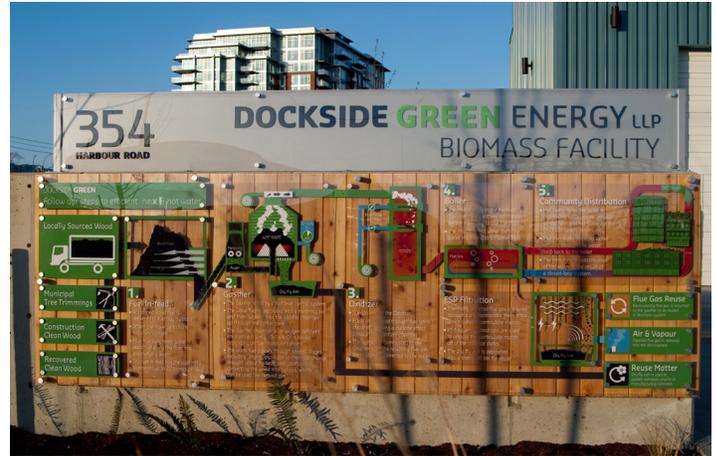
Facilities managers responsible for all Commission offices are knowledgeable in energy conservation practices. They systematically implement improvements in building operations leading to a reduction in energy consumption. For effectiveness and cross-organizational support, these improvements are brought to reality as a result of a close collaboration between managers overseeing facilities, information systems, and human resources. For ease of reviewing actions undertaken to reduce GHG emissions, energy conservation practices are discussed under each functional area where carbon reduction actions are possible.

The lease agreement with the Dockside Green developer for the Commission's Victoria office contains conservation clauses related to maximizing use of natural light in the interior of the building. Use of shutters and other window coverings reducing the day light into the interior is not permitted. Energy-use savings are also realized from heat exchange efficiencies. A carefully designed system of low-emissivity, double-glazed, thermally isolated aluminum windows retain the indoor heat during the winter and cool during the summer by blocking radiant infrared energy. Additionally, external shadings are installed on most south facing windows preventing sun heat during the summer while allowing daylight into the building.

One of the most quoted and visible features of the Dockside Green building is the three small wind turbines on the south side of its roof. Although wind generation is insufficient for the building to be energy self-sufficient, they are making a clean, green contribution to the energy requirements of occupants, reducing GHG emissions from fossil fuel generation elsewhere.

Victoria office lease requirements for electrical lighting include:

- Lighting loads not exceeding 8.5 watts per m<sup>2</sup> of office space.
- Occupancy sensors must be installed in bathrooms, storage rooms and centrally within the space.
- There must be one lighting control zone per 18.5 metres for all occupied space.
- Real time metering by Reliable Controls, a Victoria company providing instrumentation capable of measuring the amount of electricity used daily, monthly or yearly for heating or hot water.



## Water Conservation

Victoria lease requirements for plumbing fixture include:

- Low Flow Urinals (.5 gpf).
- Dual flush toilets (1.6 gpm full/0.9 gpm half).
- Lavatories (.5 gpm).
- Kitchen/janitor sinks (.9 gpm).
- Showerheads (1.25 gpm).
- Use of on-site treated wastewater for server room air conditioning unit.

Sewage is treated on site and treated water is re-used for flushing toilets and irrigation. Rainwater is collected in onsite naturalized creek and ponds, and potable water is not used for landscaping and water features.

## Materials and Furnishings

All materials used for interior construction and fixtures in the Victoria office have extremely low or no volatile organic compound and contain only eco-friendly paints, sealants and adhesives. Urea formaldehyde emitting composite wood and agrifibre products have also been avoided. Carpets are made of 100 per cent recycled materials, and all furniture is made of high recycled content. Preference has been given to regionally sourced and manufactured materials.

## INFORMATION TECHNOLOGY

The most significant step taken towards emissions reduction in 2009 was implementation of video conferencing equipment in all

## ACTIONS TAKEN TO REDUCE GHG EMISSIONS IN 2009

Commission offices. The Polycom system offers state-of-the-art technology permitting live meetings between several offices with video and presentation capabilities available to all participants. Reduced travel and a rise in efficiency are already noticeable and the current year is expected to yield more specific statistics on costs and emissions avoided because of video conferencing.

The server virtualization project was another critical step toward energy use reduction by the information technology team in 2009. Seven physical servers have been eliminated to date with potential existing to migrate several more servers into a virtual environment.

A replacement of more energy intensive LCD monitors has been completed for all corporate offices and all monitors and computers are Energy Star rated. A power management scheme has been enabled to reduce power consumption during non-business hours when all network backup and updates are taking place.

With the assistance of IKON Office Solutions Inc., a detailed analysis on the benefits and costs of replacing individual printers, photocopiers and fax machines with networked multi functional devices has been performed. Implementation of this project in April 2010 will not only guarantee measurable energy savings (estimated 42 percent or 3,000 kWh for existing office space),

but will provide the tools to measure and compare energy and paper consumption over periods of time and between locations. The proposed project will see the replacement of 77 currently operational single-function machines with 37 multi-function devices running in three modes, active, standby and sleep, according to usage. Automatic double-sided printing will be easily performed with these devices, as well as a high level of unnecessary printing control through a PIN that each employee will be required to enter in order to execute a print job.

Progress is being made on a four-year migration project for electronic acceptance of new oil and gas activities applications. Along with reduction in paper usage, this advanced application will improve productivity and the quality of service provided by the Commission.

### BEHAVIOUR CHANGE

The Commission team responsible for steering carbon reduction initiatives recognizes the critical role played by employee morale, motivation and behaviour patterns in realizing tangible results and converting a government directive into a living culture. It is with great satisfaction that the Commission has registered a decreased voluntary staff turnover and a visible improvement in work environment over the last two years. The organization



### DOCKSIDE GREEN WASTEWATER TREATMENT PLANT

## ACTIONS TAKEN TO REDUCE GHG EMISSIONS IN 2009



is continuously seeking internal stability, has built a strong IT group and infrastructure, and is constantly looking for ways to improve employee satisfaction. These organizational strengths open up opportunities for consistent and meaningful employee engagement and effective implementation of green initiatives, such as recycling, composting, power and paper saving, among others.

Paper recycling, shredding and document destruction programs have been implemented in all four Commission offices. A more extensive recycling and composting program is possible and successfully run in the Victoria office where space has been specifically designed to accommodate it. In Fort St. John, however, office space is extremely limited and insufficient to organize an adequate composting program. It will be included in planning for a future Commission head office space.

In 2009, the Commission launched a Health and Wellness Program, combining environmental and health awareness with financial incentives to strike a better work/life balance and boost performance through improved health and an appealing work environment. The program's weekly newsletters with lively and friendly content are distributed electronically reaching out to all employees in an engaging and welcoming way. Along with plenty of health information, the newsletters in 2009 circulated helpful green tips on bicycle maintenance and repairs, fall and winter

composting and environmental product labelling. The program incorporates measuring results through a Workplace Engagement Survey and a Workplace Environment Survey. This is now an established practice that provides invaluable feedback on what works and what does not work to promote behaviour trends within the organization.

In addition to raising awareness and engaging employees, the Health and Wellness Program complements the benefits package by adding \$500 per employee each year, to reimburse expenses related to active living, support by a registered naturopath or dietician, or green living lifestyle changes. The green living aspect of the program provides a financial incentive for employees to participate in recycling, composting or other sustainability services in their neighbourhood. BC Hydro offers a rebate for purchases of Energy Star appliances and the Commission's program matches that rebate, subject to the employee's maximum available health and wellness dollars.

The Health and Wellness Program strongly encourages alternatives to motor vehicle travel, such as bicycling, walking, and public transit. Unfortunately, such alternatives are impractical or unsafe for a large part of the year in the northern corporate locations. In Victoria, bicycling is the main transportation mode for a large group of employees, greatly facilitated by the office location on a cross-city bicycle trail.

# CARBON NEUTRAL ACTIONS PLAN 2010 – 2012

## STRATEGIC PLANNING

Planning for, focusing and providing a corporate-wide perspective for carbon neutral actions will be paramount in 2010 and the following two years. Given that the initiative of public sector carbon neutrality and carbon reporting is new, there are no proven prescriptions for best practices in achieving results and measuring them. Communication and collaboration with other Crown agencies and ministries to share knowledge, concrete tools and ideas will be crucial. Internal communications and staff education on the principles, objectives and targets of the carbon neutral legislation and regulations is an ongoing task requiring strong support from the Commission's leadership.

Planning for carbon neutral actions needs to be placed in the context of the Commission's strategic planning, strategic initiatives, and organizational goals. During 2010, the Commission's mission, vision, values and the organizational goals streaming from them will be reviewed and updated to high standards corresponding to the status, authority and societal

responsibility carried by the Commission. Carbon neutrality objectives will be considered as part of this process and will be assigned deliverables and resources in the Commission's Service and Business Plans.

A Carbon Neutrality Strategy will be developed, reviewed and adopted to guide the Commission's planning, measuring and evaluating of carbon neutral actions to provide a basis for consultation with employees and stakeholders, and to define the parameters of future actions. Specific actions, including those identified below and any additional actions that may be deemed desirable, will be described and assigned timelines, resources, and effectiveness targets in a Carbon Neutrality Plan.

## CARBON DATA COLLECTION AND MANAGEMENT

Having four Commission locations in the province adds a certain complexity to collecting, analyzing and managing carbon data. The type of data collected and its analysis and conversion to a CO<sub>2</sub> equivalent estimate will be driven by the requirements and



## CARBON NEUTRAL ACTIONS PLAN 2010 – 2012

capabilities of the SMARTTool emissions estimator program developed and operated by the Climate Action Secretariat and Shared Services BC. Data verification and integrity, however, remains responsibility of the Commission, as will the opportunity to use data for identifying trends and making strategic decisions about our business operations. In 2010, the Commission carbon database and carbon information system will be developed. Regular and comprehensive collection of carbon data, and estimation of outstanding carbon emissions, will help anticipate the cost for purchasing 2010 carbon offsets from the Pacific Carbon Trust.

### VEHICLE FLEET

Specific actions that have been identified with respect to the vehicle fleet include:

- Incorporate DriveSmart Training in the Commission Motor Vehicle Use Training delivered to all vehicle operators.
- Incorporate fuel efficiency and anti-idling terms as feasible in the Commission's Motor Vehicle Policy.
- Implement a "right-sizing" plan for pool vehicles in Fort St. John.
- Establish fuel use and mileage baseline for comparability purposes and benchmarking.

Many of the actions taken in 2009, such as vehicle fleet carpooling, preventative maintenance for fuel efficiency and increasing awareness for need to change driving habits, will continue as established practices in 2010 and onward.

### FACILITIES

Planning for a new office building in Fort St. John will advance in 2010, taking into consideration regional and fiscal constraints, as well as aspirations to achieve the highest green building rating possible for climate conditions in northeast B.C. Eco-features that will be sought and required for LEED certification include real time metering, lighting sensors, water conservation devices, daylight maximization and air quality-friendly materials among others. As an interim measure, desk light replacement is planned for the Fort St. John office.

The benefits of participating in the GREEN UP benchmarking



program of the Canada Green Building Council will be evaluated for all office locations.

The transition to electronic records management is expected to occur by 2011. Extensive planning for the transition is ongoing and an evaluation of the costs and benefits associated with the change is forthcoming. The project will afford tangible savings in office space, significant reduction in paper use, efficiency in retrieving and searching records, and reduced risk of records loss or improper use.

### INFORMATION TECHNOLOGY

The server virtualization project continues during 2010. Other power-saving improvements will be considered and implemented as part of regular work station tune-ups.

The "DOCativity" Project aiming at replacing 77 individual printers, faxes, and copiers with 37 networked multi-function devices will proceed in 2010.

Other information technology initiatives contributing to carbon neutrality include:

- Consideration of installing collaborative software for electronic editing of documents (e.g. Groove).
- Continued effort to improve accessibility to company documents through the Commission's website and Intranet.
- Consideration of options for shutting down computers outside of regular business hours.

## BEHAVIOUR CHANGE

The Health and Wellness Program newsletters and bulletin boards will periodically include reminders on:

- Turning lights off when not in use.
- Energy saving when working outside of regular office hours.
- Using the air dry setting on dishwashers.
- Taking stairs instead of elevators.
- Water conservation habits.
- Paper conservation through paperless meetings, elimination of unnecessary printing, etc.

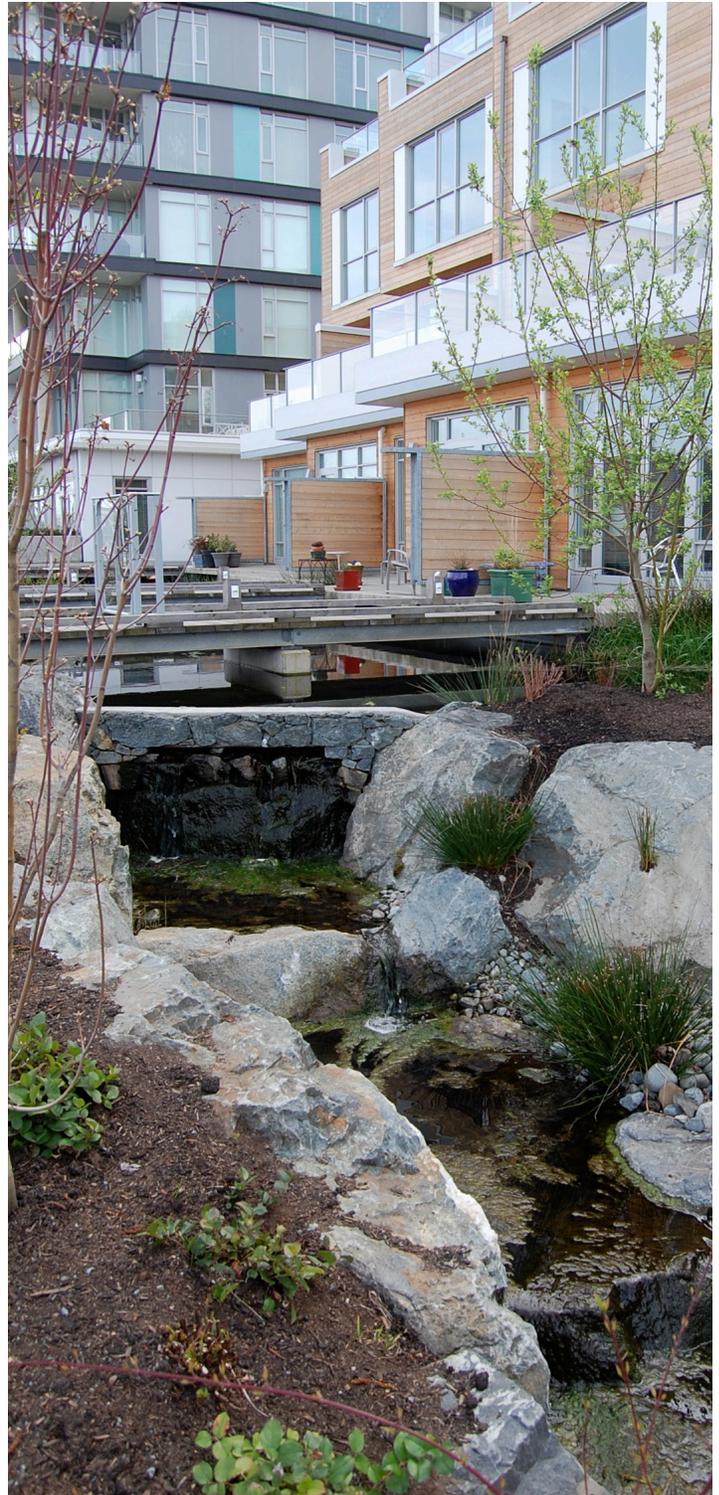
Promotions on bicycle and transit travel will be offered at least twice a year as an opportunity for employees to use their health and wellness dollars. Additionally, alternative travel means will be encouraged through employee orientations.

A well-designed Employee Orientation Program has potential to introduce new employees and those who have changed functions within the organization to the Commission's carbon neutrality strategy and objectives. More specifically, employee orientations starting in 2010 will encourage opting for electronic payroll notification in place of paper pay stubs; re-use of scrap paper and participation in green living initiatives.

## CONCLUSION

As the first Carbon Neutral Actions Report by the Commission, this document affirms the Commission's commitment to sustainable operations and plausible climate change actions. It recognizes the importance of incorporating carbon actions planning into the organization's strategic planning process, and establishing consumption baselines to facilitate emissions reductions measurement and targets.

Specific actions taken and planned are summarized in this report but are also listed in table format on the appended data sheets.



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# BC Oil and Gas Commission - 2009 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 <i>Greenhouse Gas Reduction Targets Act</i> .							
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
<b>Mobile Fuel Combustion (Fleet and other mobile equipment)</b>							
<b>Vehicle fuel efficiency</b>							
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	12	% of vehicles are fuel- efficient models	Two hybrids have been purchased in Victoria and two in Fort St. John. Nature of work and weather conditions in Northeast B.C. prevent greater usage of diesel or hybrid vehicles.	Fuel-efficiency options will continue to be evaluated and capital spending projects will be planned to acquire more efficient models as feasible.	2009	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	In Development			One large vehicle was sold in Fort St. John.	Well site inspector vehicles require to be of larger size, normally 1T . Planning is underway for replacing pool vehicles in Fort St. John with smaller 0.5T trucks.	2010	2012
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	Most vehicles are used for oil and gas site inspections and have to comply with a high degree of safety. All vehicles are subject to a preventative maintenance program.	Continue monitoring fuel use and mileage and benchmark to previous years.	2010	No End Date (Continuous)
<b>Behaviour change program</b>							
Provide fleet driver training to reduce fuel use	In Development				Effectiveness of training will be evaluated in 2010 in light of work conditions in North-Eastern BC. Opportunity to include driver training in safety training and in new employees orientation, as applicable.	2010	2011
Encourage carpooling in fleet vehicles	Ongoing/In Progress			Pool vehicles are booked through a centralized Resource Scheduler which monitors requests and optimizes travel ensuring carpooling where possible.	Continue carpooling practice for fleet vehicles.	2009	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress			The OGC health and wellness program frequently encourages employees to use alternative travel means as a way for keeping active. All offices are equipped with bike lockers. Monthly promotions as part of the health and wellness incentive program allow for reimbursement of eligible employee expenses related to bicycle equipment.	Include promotion of transit and bicycle travel to work as part of new employees orientation. Hold at least three "Bike to Work" promotions as part of the Health and Wellness Program.	2010	No End Date (Continuous)
<b>Other Mobile Fuel Combustion Actions</b>							
Install GPS satellite locator units in field vehicles to minimize driving time looking for well sites	Complete			Primarily used for safety purposes, the new satellite locator systems in field inspection vehicles are expected to cause a tangible reduction in fuel use by reducing travel time to well sites.		2009	2009
<b>Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)</b>							
<b>Planning/management</b>							
Enrol in a building energy benchmarking program (e.g., GREEN UP)	In Development			The Victoria Office is LEED Platinum certified and it may be impractical to benchmark against non-certified buildings.	The benefits of participating in the GREEN UP program will be evaluated in 2010 for each office location.	2010	2010
Reduce office space (square meters) per employee	Ongoing/In Progress			Office space statistics are being taken and analyzed every quarter. Currently OGC is within government's standard for space per employee. Insufficient space is an issue for the Fort St. John office.	Planning for new building in Fort St. John will take into consideration latest trends in workspace configuration.	2009	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress			The Victoria office is equipped with Reliable Controls for real time metering.	Planning for new office building in Fort St. John will incorporate real time metering.	2010	No End Date (Continuous)
<b>Leased buildings</b>							
Establish energy performance baseline for leased buildings	In Development				Begin energy performance monitoring and establish a baseline for all office locations.	2010	2012
Lease space with commercial interiors performance labelling/certification (e.g., LEED CI)	Ongoing/In Progress			The Victoria Office is LEED Platinum CI certified.	To the extent possible, green features will be included in planning for new office space in Fort St. John.	2009	No End Date (Continuous)
Lease space in buildings with new construction performance labelling/certification (e.g., LEED NC)	Ongoing/In Progress			The Victoria Office is located in the Dockside Green development targeting LEED Platinum NC Certification	To the extent possible, green features will be included in planning for new office space in Fort St. John.	2009	No End Date (Continuous)
Develop a green lease policy that requires green features to conserve energy be included in all lease negotiations	Ongoing/In Progress			Green features are entrenched in the building itself and in the Lease Agreement for the Dockside Green building where the Victoria office is located.	To the extent possible, green features will be included in planning for new office space in Fort St. John.	2009	No End Date (Continuous)
<b>IT power management</b>							

## BC Oil and Gas Commission - 2009 Carbon Neutral Action Report

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
Install power management software which shuts down computers outside of regular business hours	In Development			Although computers do not completely shut down outside hours, a power management scheme has been enabled to reduce energy consumption.	Options of shutting down computers outside regular business hours will be considered, without compromising the daily back-up and update procedures.	2009	2010
Implement server virtualization	Ongoing/In Progress	70	% of servers have been virtualized since start year indicated	Migration from physical infrastructure to virtual infrastructure has begun by reducing the number of servers by seven.	There may be an opportunity to further reduce the number of servers by three or four in 2010.	2009	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress			Green switches have been installed on some computers in Fort St. John.	More energy saving options will be evaluated in 2010/11.	2009	2011
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	In Development			A feasibility analysis and a design of the network of multi-function devices has been undertaken with IKON Office Solutions Inc.	Decision on the new multi-funtion device network expected in 2010. If approved, implementation will follow.	2009	2010
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	In Development			Where possible, auto-sleep settings have been implemented.	The proposed new configuration of multi-function devices will employ three modes: active, standby and sleep according to usage.	2009	2010
Replace computers with ENERGY STAR models during regular computer upgrades	Complete	100	% of computers are ENERGY STAR rated	All computers and monitors are ENERGY STAR rated.		2008	2009
<b>Appliances and electronic devices</b>							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			All refrigerators in Victoria are ENERGY STAR rated.	All new procurement in Fort St. John will be ENERGY STAR rated.	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			All appliances in Victoria are ENERGY STAR rated.	All new procurement in Fort St. John will be ENERGY STAR rated.	2009	No End Date (Continuous)
Replace desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs or source more efficient desk lamps for future purchases	Ongoing/In Progress			All desk lamps in Victoria are LED (light-emitting diodes).	Desk light replacements are planned for the Fort St. John office.	2009	No End Date (Continuous)
<b>Behaviour change program</b>							
Help staff reduce personal energy use through "workstation tune-ups"	In Development				Work station tune-ups will be undertaken in 2010 with respect to ergonomics, daylight maximization for energy consumption and other improvements to reduce energy use.	2010	2010
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			External shadings are used in the Victoria office to prevent over-heating in summer.	Planning for new office space in Fort St. John will include consideration of shutters to ease cooling and heating as appropriate.	2009	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	In Development				Reminders to staff to be included periodically in the staff newsletter.	2010	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	In Development				Reminders to staff to be included periodically in the staff newsletter.	2010	No End Date (Continuous)
Encourage use of stairs instead of elevators	In Development				Reminders to staff to be included periodically in the staff newsletter.	2010	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Victoria office and common areas are equipped with motion sensors. Lights turn off automatically when motion is not detected.	Reminders to staff in Fort St. John will be included in newsletter, bulletin boards, during meetings as appropriate.	2009	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			Water conservation features are included in the lease for the Victoria office.	Further options for hot water conservation will be discussed and implemented in 2010.	2009	No End Date (Continuous)
<b>Supplies (Paper)</b>							
<b>Paper Type</b>							
Purchase 30% post-consumer recycled paper	Complete	100	% of total paper purchased contains 30% recycled content	The Victoria office purchases 30% recycles paper.		2008	2009
Purchase 100% post-consumer recycled paper	Complete	100	% of total paper purchased contains 100% recycled content	The Fort St. John office procures 100% recycled paper.		2007	2009
<b>Printer/document settings</b>							
Switch networked printers and photocopiers to automatic double-sided	Complete			Implemented for both Victoria and Fort St. John offices.		2009	2009

## BC Oil and Gas Commission - 2009 Carbon Neutral Action Report

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
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	In Development			The proposed new multi-function devices will require users to enter a PIN before completing a print job.	2010	No End Date (Continuous)
Reduce default margin size in standard document templates (e.g., letters, briefing notes, forms, etc.)	In Development			New communications templates to be developed with reduced default margins to reduce amount of paper used when printing.	2010	2010
<b>Electronic media in place of paper</b>						
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development			Collaborative software options will be considered in 2010.	2010	2010
Use electronic document library for filing common documents	In Development			Conversion to an electronic records management system is being planned and implementation is expected in 2010.	2010	2010
Post materials online that were previously printed	Ongoing/In Progress		The OGC Intranet houses numerous policy, how to, training, and other documents, as well as templates for reports, briefing notes, letters, presentations, etc. The OGC website contains all official reports. Service plans, annual reports and other regularly issued company documents are no longer distributed in print.	Both the website and the Intranet will be made more user-friendly and will offer a wide range of company documentation that can be accessed from any location.	2009	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress		Electronic payroll notification has been an option and a number of employees have elected it.	Employee orientation program to include encouragement to sign up for electronic payroll notification.	2010	No End Date (Continuous)
<b>Behaviour change program</b>						
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development			If collaborative document editing software is implemented, training will be provided.	2010	2011
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	In Development			Reminders to use paperless meetings and presentations to be included in newsletters and employee orientations.	2010	No End Date (Continuous)
Encourage re-use of scrap paper	In Development			Encouragement to re-use scrap paper to be included in newsletter and employee orientation.	2010	No End Date (Continuous)
<b>Other Paper Supplies Actions</b>						
Document shredding, destruction and recycling programs	Complete		Document shredding/recycling programs implemented in all office locations.		2009	2009