A photograph of a modern building at night, featuring a large wooden pergola structure with a tall, abstract sculpture underneath. The building has large glass windows and is illuminated from within. A stone path leads towards the building, and there are trees and shrubs in the foreground.

University of Victoria 2012 Carbon Neutral Action Report



University
of Victoria



Sustainability in action.

Executive Summary

The University of Victoria (UVic) advances its commitment to sustainability through activities within a comprehensive institutional framework guided by a Sustainability Policy and *Sustainability Action Plan for Campus Operations: 2009-14 (the Action Plan)*. The Action Plan continued to set the direction for the wide range of carbon reduction activities and other actions related to sustainability more generally that were undertaken on campus in 2012. The Action Plan contains a detailed series of sustainability goals and actions in operational areas such as, energy conservation, greenhouse gas reduction, waste management, sustainable transportation, purchasing, food and green buildings.

Key actions from the Action Plan, such as an energy strategy, sustainability action teams, a revolving sustainability fund, a campus sustainability reporting system, student and staff sustainability awards and a sustainability advisory committee are well established and are helping UVic make progress on its carbon reduction and sustainability goals. A key objective is the creation of a campus that utilizes renewable energy sources for its energy needs and where facilities are developed and operated to meet current green building standards and to act as physical tools of education for both the campus and the broader community.

Through the combined efforts of facilities management, occupants and users, an eight percent reduction in the university's total greenhouse gas emissions was achieved in 2012. Both natural gas and electricity consumption levels were down compared to 2011, reflective of the success of the university's ongoing energy efficiency and conservation programs.

Two major initiatives, in particular, linked to the implementation of the campus Integrated Energy Master Plan, have assisted in advancing the energy efficiency and low-carbon operations agenda at UVic. The university's active involvement in the BC Hydro Continuous Optimization program resulted in energy efficiencies in six of the largest campus buildings. The collective annual energy savings from these projects is estimated to be over 5 million e-kWhs, and approximately 550 tCO₂e in reductions. These initiatives were complemented by a comprehensive sustainability action team behaviour change program in offices across campus where staff, faculty and students worked together to reduce energy and waste in their workplaces. Secondly, a request for proposals to complete a biomass feasibility study for the campus was initiated. The study will examine the potential to use local biomass as a renewable energy source that could supply up to 70% of the campus heating requirements.

The University of Victoria looks to continue progress on its carbon neutrality goals with the ongoing implementation of the campus Integrated Energy Master Plan, in conjunction with the enthusiasm, dedication and efforts of its students, faculty and staff.



Kristi Simpson

Associate Vice-President, Financial Planning and Operations
University of Victoria



2012 Greenhouse Gas Emissions

The total GHG emissions for the University of Victoria is 14,167.1 tCO₂e for the 2012 calendar year. A breakdown of emissions is provided in Table 1 below.

Reporting Category	2011 tCO ₂ e	2012 tCO ₂ e	Percent Change
University Owned Buildings and Leased Space	14,987.7	13,725.0	-8%
Mobile Combustion/Fleet	271.3	306.5	13%
Paper Supplies	199.1	135.5	-32%
Total	15,458	14,167	-8%

Table 1. Greenhouse gas emissions for the University of Victoria.

The primary source of greenhouse gas emissions for UVic is from the natural gas heating of campus buildings. Natural gas accounts for over 85% of the emissions, while electricity accounts for 12%. Vehicle and paper emissions make up the remainder.

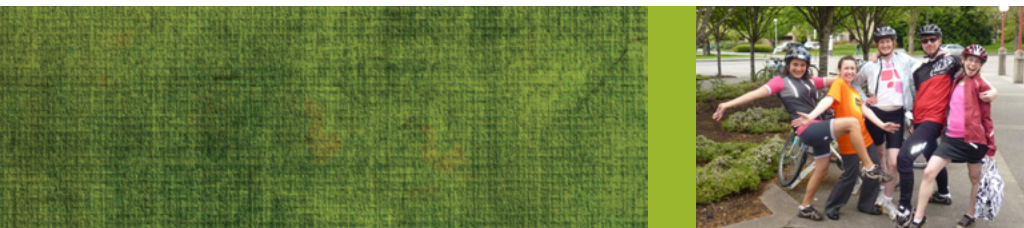
Offsets Applied to Become Carbon Neutral in 2012

The total greenhouse gas emissions for the University of Victoria in the year 2012 is 14,167.1 tCO₂e.

This total excludes fugitive emissions. It was estimated that stationary fugitive emissions from cooling do not comprise more than 1% of the University of Victoria'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 the University of Victoria's total greenhouse gas emissions profile.

Also, as required by section 5 of the Carbon Neutral Government Regulation, 11.3 tCO₂e emissions resulting from the use of bio-fuels were reported as part of our greenhouse gas emissions profile in 2012. However, they were not offset as they are out of scope under section 4(2)(c) of the Carbon Neutral Government Regulation.

Therefore, the total University of Victoria is required to offset is 14,156 tCO₂e for the 2012 calendar year.



Changes to Greenhouse Gas Emissions and Offsets Reporting From 2011

Following the public release of the University of Victoria's 2011 Carbon Neutral Action Report, it was determined that the total emission for the calendar year were over reported by 2 tCO₂e for the 2011 calendar year and offsets required to become carbon neutral in 2011 were over purchased by another 80 tCO₂e.

The surplus of offsets purchased in 2011 has been applied against the 2012 emissions offset purchase.

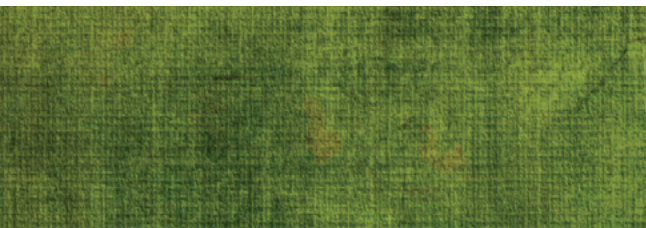
Emission Reduction Activities

UVic's commitment to sustainability and greenhouse gas reduction is comprehensive. We strive to integrate sustainability into teaching, research, campus operations and community partnerships. This approach allows the university to find synergies across disciplines and departments in order to develop strategies to address complex issues such as climate change.

Actions Taken to Reduce Greenhouse Gas Emissions in 2012

- The implementation of phase one of the BC Hydro Continuous Optimization program¹ was undertaken in six of the largest campus buildings. The projects included, but were not limited to, the installation of energy efficient lights, the integration of weather predictors into building HVAC systems, the tightening of occupancy schedules to better match occupants' actual schedules and the installation of a variable speed drive in one building's ventilation system. The result was an estimated energy savings of 3,000,000 kWh of electricity and 2,600,000 e-kWh of natural gas, which translates into almost 550 tCO₂e.
- The revolving sustainability fund, which provides resources for electricity, natural gas and water use reduction projects that demonstrate cost savings to the university with a payback period of five years or less, continued to provide funding for projects that might not have otherwise been undertaken under normal budget scenarios. Three projects were implemented. First, the installation of a carbon monoxide sensing system that turns on only when needed in an underground parkade, eliminated the need to leave the system running 17 hours per day, resulting in savings of approximately 39,000 kWhs and \$2,920 per year. Two additional projects, a water fixture upgrade in two campus buildings, and the replacement of old, water-based aspirators in a chemistry lab with portable electric vacuum pumps, together resulted in savings of approximately 6,603 cubic meters of water per year and \$15,395 in utility costs.
- Detailed energy studies, co-funded by BC Hydro (through the Energy Study Program) and UVic, were completed on the Student Union Building and the University Club. The reports recommend various energy savings initiatives that could result in electrical and natural gas savings of at least 10%. These reports identified many different energy efficiency retrofit opportunities that will be assessed as part of future work projects.
- UVic is also in the process of implementing an Integrated Energy Master Plan, which recommends the investigation of a campus biomass energy plant. An RFP was issued in late 2012 to retain consultants to conduct a feasibility study in 2013. This is the first step towards the possible commissioning of a large scale renewable energy project that could provide up to 70% of the campus' heating requirements.
- The sustainability action team program, with funding from BC Hydro PowerSmart's Workplace Conservation Awareness program, continued with behaviour change programs with staff, students and faculty in four additional campus buildings (six buildings participated in 2011). Building occupants were provided with basic information on how to conserve energy and reduce waste in the work place, and teams competed to see which could show the most improvement over a one month period.

¹ The BC Hydro Continuous Optimization program offer incentives and supports, including funding 100% of the cost for a re-commissioning consultant to study a building and recommend energy efficiency improvements. In return, for BC Hydro's investment, customers must commit to implement, at their cost, electricity and fuel (including natural gas, steam, hot water, propane, etc...) measures that when bundled have a two-year simple payback.



Plans to Continue Reducing Greenhouse Gas Emissions 2013-2014

The University of Victoria has a strong history in sustainability and has established goals for electricity and GHG emissions reductions. UVic employs a range of methods to reach these goals, which extend from sustainable purchasing policies to continuous optimization programs for energy use.

A priority for the university in 2013-2014 will be to implement the recommendations of the Integrated Energy Master Plan. Specifically, a consulting firm will be retained throughout 2013 to conduct the biomass feasibility study. Other important aspects of the master plan being considered for implementation include:

- The installation of control systems on the existing district heating loop, which currently has minimal controls.
- The installation of a heat recovery ventilation system in the increasingly utilized UVic Enterprise Data Centre.
- An assessment of the feasibility of using solar hot water for some of our campus hot water needs, particularly in the summer months.

Other greenhouse gas reduction efforts will focus on:

- Continued implementation of a revolving sustainability fund to provide capital for innovative energy reduction projects. This includes the Enterprise Data Centre2 upgrade project, approved in, December 2012, with estimated savings of over 500 MWhs or ~\$38K, or approximately 12.7 tonnes of CO2e/year.
- Behaviour change initiatives and programs that focus on the main users of the campus, such as the sustainability action team program in offices, labs and student residences.
- Implementation of phases two and three of the BC Hydro Continuous Optimization program.

Additional information on sustainability at the University of Victoria is available at www.uvic.ca/sustainability



University of Victoria - 2012 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	Steps Taken	Steps Planned	Start Year	End Year
Mobile Fuel Combustion (Fleet and other)					
Behaviour change program					
Provide fleet driver training to reduce fuel use	Not Yet Evaluated				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	Introduced anti-idling policy in 2010. Continued to promote anti-idling awareness in 2012.	Continued promotion of anti-idling on campus.	2010	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress	Members of UVic's Facilities Management department are encouraged to use bikes when possible to transport themselves around campus.	UVic Facilities Management will continue to utilize alternative transport when possible.	2008	No End Date (Continuous)
Vehicle fuel efficiency					
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	We have two hybrid vehicles out of 18 motor pool vehicles. One was added in 2012 for a specific department's use, and the other was existing as part of the rental pool. 62 % based on 73 units are considered fuel efficient (FMGT Fleet/ Grounds) with 6 electric "Gators" added in 2012.	Continue to replace aging vehicles with more efficient models	2010	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	No Change 2012	Fleet purchasing decisions include "right-sizing" principles as common practice. Extensive use of electric "gators" for operational activities that previously employed vehicles will be expanded where possible,	2008	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	Continued to perform regular maintenance on all vehicles.	Continue to perform regular maintenance on all vehicles.	2010	No End Date (Continuous)
Stationary Fuel Combustion, Electricity					
Behaviour change program					
Help staff reduce personal energy use through ""workstation tune-ups""	Ongoing/In Progress	Staff participating in the Sustainability Action Team program receive specific information about this. Other staff are encouraged to do so by University Systems, through our Green IT brochure, our Green Guide, Top 20 Sustainability Actions poster, and via our website.	Continue to promote Green IT through Sustainability Action Team program, Green IT brochure, website and through direct contact with University Systems network support staff.	2009	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress	Staff participating in the Sustainability Action Team program receive specific information about this. Other staff are encouraged to do so through our Green IT brochure, our Green Guide, Top 20 Sustainability Actions poster and via our website.	Continue to promote through the Sustainability Action Team program, promotion of our Green Guide, Top 20 Sustainability Actions posterand via our website.	2009	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress	Staff participating in the Sustainability Action Team program receive specific information about this. Other staff are encouraged to do so through our Green IT brochure, our Green Guide, Top 20 Sustainability Actions poster and via our website.	Continue to promote through the Sustainability Action Team program, promotion of our Green Guide, Top 20 Sustainability Actions posterand via our website.	2009	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress	Staff participating in the Sustainability Action Team program receive specific information about this.	Continue to promote through the Sustainability Acton Team program.	2009	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Not Yet				No End Date

University of Victoria - 2012 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	Steps Taken	Steps Planned	Start Year	End Year
	Evaluated				(Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Not Yet Evaluated				No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress	Staff participating in the Sustainability Action Team program receive specific information about this, and encourage staff in their buildings to take the stairs as a way to reduce electricity and promote healthy lifestyles. Sustainability Action Teams continue to promote this behaviour in their buildings.	Sustainability Action Teams continue to promote this behaviour in their buildings.	2009	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress	Sustainability Action Teams promote this behaviour in their buildings with other staff.	Sustainability Action Teams promote this behaviour in their buildings with other staff. Continue to apply stickers and posters where necessary. Put messages on website.	2009	No End Date (Continuous)
Promote hot water conservation	Not Yet Evaluated				No End Date (Continuous)
IT power management					
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	Many of our computer labs in various libraries and buildings either utilize software or manually shut down systems at the end of the day.	Investigate use of power management software for more users on campus	2008	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress	60% of servers have been virtualized to date.	UVic plans to continue to virtualize servers incrementally to take advantage of our new data centre.	2008	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	Sleep settings promoted through office green guide as well as Sustainability Action Teams	Continue to promote green guide and Sustainability Action team program	2010	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices as part of a print management strategy	Ongoing/In Progress	We have an exclusive contract with a office equipment supplier to replace all stand alone office equipment with multifunction machines. Most offices now have one of these units.	Continue to recommend Multi Function printers for all departmental printing.	2008	No End Date (Continuous)
Apply auto-sleep settings on printers, fax machines, and/or multi-function devices	In Development	Our new multifunction machines come pre-programmed to automatically go into sleep mode after a period of inactivity.	On-going.	2009	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	Student Computing Facilities replaced 110 computer stations and 54 monitors with more efficient ENERGY STAR 5.x and EPEAT Gold Certified equipment (38 x Mac Minis with Dell 19" LCD monitors; 24 x iMac 21.5; and 48 x Dell Optiplex 7010 standard desktops; 16 x Dell 19" LCD monitors).	Continue to recommend University standards for technology purchases. All computers purchased through the Technology Solution Centre are EPEAT Gold certified.	2008	No End Date (Continuous)
Leased buildings					
Establish energy performance baseline for leased buildings	Not Yet Evaluated				No End Date (Continuous)
Lease space with operations and maintenance performance labelling/certification (e.g., LEED EB:O&M)	Not Yet Evaluated				No End Date (Continuous)
Lease space with commercial interiors performance labelling/certification (e.g., LEED CI)	Not Yet Evaluated				No End Date (Continuous)
Lease space in buildings with new construction performance labelling/certification (e.g., LEED NC)	Not Yet Evaluated				No End Date (Continuous)

University of Victoria - 2012 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	Steps Taken	Steps Planned	Start Year	End Year
Develop a green lease policy that requires green features to conserve energy be included in all lease negotiations	Not Yet Evaluated				No End Date (Continuous)
Other Stationary Fuel Combustion					
Investigation of energy use in buildings--Energy Retrofit Prep work.	Ongoing/In Progress	Local engineering company completed detailed energy studies co-funded by BC Hydro and UVic in July, on the Student Union Building and the University Club. Initial energy savings estimates are pointing to significant savings of electrical and natural gas use of at least 10%. Funding sources are now being investigated to implement the recommendations.	Seek out funding sources to pay for the energy retrofit work in these two buildings.	2012	No End Date (Continuous)
Owned buildings					
Establish energy performance baseline for owned buildings	Ongoing/In Progress	No change in 2012	For individual buildings over 30,000 square feet, baselines will be programmed into our metering systems to allow quicker more accurate yearly data caparison.	2010	No End Date (Continuous)
Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M)	Not Yet Evaluated				No End Date (Continuous)
Register for performance labelling/certification for commercial interiors of owned buildings (e.g., LEED CI)	Not Yet Evaluated				No End Date (Continuous)
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress	South Tower Residence was completed in 2010 and the LEED submission was made in 2011. LEED Gold certification was achieved by the building as of 2012.	All new buildings will continue to follow UVic's Sustainability Action Plan, which sets LEED Gold as the minimum certification for all new buildings.	2009	No End Date (Continuous)
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress	Phase 1 of continuous optimization program ran through 2012. The Resulting phase 1 yearly optimizations energy savings will be an estimated 3,000,000 kWh of electricity and 2,600,000 e-kWh of natural gas.	Phase 2 Investigation phase planned be completed in April, 2013 Phase 3 Investigation phase started in January 2013	2009	No End Date (Continuous)
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	In Development	Refridgerant management strategy meets or exceeds national Ozone-Depleting Substance (ODS) regulations.	None	2009	No End Date (Continuous)
Planning/management					
Reduce office space (square meters) per employee	Not Yet Evaluated				No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	No change in 2012	Install metering in additional buildings on campus. Upgrade existing meters to improve accuracy of readings at campus accademic buildings.	2010	No End Date (Continuous)
Retrofit details for owned buildings					
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	UVic issued an RFP for a Biomass plant feasibility study in 2012. Several mechanical systems were upgraded through the BC Hydro Continuous Optimization Program, including installation of a variable speed fan in one building's exhaust/heat recovery system. UVic also implemented three projects through our revolving sustainability loan fund. First, the installation of a carbon monoxide sensing system which turns on only when needed in an	A contract will be selected and a feasibility study will be conducted on the possibility of constructing a biomass plant that would supply up to 80% of the thermal requirements at UVic. Other mechanical systems will continue to optimized or altered through the Continuous Optimization or through the implementation of the UVic Integrated Energy Master Plan.	2009	No End Date (Continuous)

University of Victoria - 2012 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	Steps Taken	Steps Planned	Start Year	End Year
		underground parkade, eliminated the need to leave the system running 17 hours per day, resulting in savings of approximately 39,000 kWhs and \$2,920 per year. Secondly, a water fixture upgrade in two campus buildings, and thirdly the replacement of old, water-based aspirators in a chemistry lab with portable electric vacuum pumps, together resulted in savings of approximately 6,603 cubic meters of water per year and \$15,395 in utility costs.			
Upgrade lighting systems during retrofits	Ongoing/In Progress	Phase 1 of the BC Hydro Continuous Optimization Program competed through 2012 (and scheduled for substantial completion by April 2, 2013) involved the installation of 25 watt T8 lamps in place of the 32 watt lamps previously installed.	Lighting upgrades will be performed on a project by project basis when applicable technology come on the market.	2009	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	No changes in 2012.	As part of phase 3 of the Continuous Optimization Program, the Integrated Energy Management Master Plan will be used as a guide to make control system retrofit choices. This may include the implementation of a demand based control system for the large variable speed pumps driving the UVic district heating loop.	2009	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	No changes in 2012	Investigate options for building envelope improvements as an add on to other building improvement projects.	2009	No End Date (Continuous)
Supplies (Paper)					
Behaviour change program					
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	University Systems conducts training sessions with staff on software packages, including ones like these on a demand basis, office by office.	Continue to encourage staff to use online collaboration tools.	2009	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress	Encourage staff to go paperless as much as possible through use of overhead projectors, iPads, and laptop computers in meetings.	Continue to encourage individual departments and faculty to go paperless as much as possible. Promote less use of paper posters to advertise events.	2009	No End Date (Continuous)
Electronic media in place of paper					
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Completed (in Previous Year)				No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress	Continue promoting this technology across campus offices through Sustainability Action Teams, website tips, and UVic Green Guide distribution.	Continue promoting this technology across campus offices through Sustainability Action Teams, website tips, and UVic Green Guide distribution.	2008	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Completed (in Previous Year)				No End Date (Continuous)
Other Paper Supplies Actions					
Promotion of less paper use generally	Ongoing/In Progress	Sustainability Action Teams encourage staff to only print email when absolutely necessary and to go paperless as much as possible by using Sharepoint.	Continue to promote Sustainability Action Teams and thereby encourage reduced paper use.	2011	No End Date (Continuous)
Paper Type					
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	Between Jan 1, 2012 and December 31, 2012 30% post consumer paper purchases accounted for 6.09% of all paper purchases for internal use.	None.	2008	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	Between Jan 1, 2012 and December 31, 2012 100% post consumer paper purchases accounted for 92.75% of all paper purchases for	None	2008	No End Date (Continuous)

University of Victoria - 2012 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	Steps Taken	Steps Planned	Start Year	End Year
		internal use.			
Printer/document settings					
Switch networked printers and photocopiers to automatic double-sided	Completed (in Previous Year)				No End Date (Continuous)

University of Victoria - 2012 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					
Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Business Travel					
Behaviour change program					
Train staff in web-conferencing	Ongoing/In Progress	Staff are offered free training and support on an ongoing/as needed basis.	Continue to train and support staff on technology as required.	2008	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress	Staff are offered this option for some meetings and public lectures.	Continue to promote to promote this technology to meeting and event organizers and advertise options to staff.	2008	No End Date (Continuous)
Encourage carpooling to meetings	Not Yet Evaluated				No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress	Full time staff are offered a free membership in the Victoria Car Share Co-op and there are 3 fleet vehicles parked on campus for convenient access during the day for off campus appointments and meetings. Staff without parking permits can also purchase a monthly bus pass at less than half the normal rate. UVic owns a number of vehicles including a hybrid car, that can be rented by staff for group travel to meetings and other events.	Continue to promote transportation demand management strategies related to travel off campus for meetings and appointments, as well as commuting to work.	2008	No End Date (Continuous)
Policy and budgeting					
Create a low-carbon travel policy or travel reduction goal	Not Yet Evaluated				No End Date (Continuous)
Virtual meeting technology					
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	Software is installed on computers of staff and faculty who require it.	Continue to install software on computers of staff and faculty who require it.	2008	No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress	Most new computers come with cameras. As older computers are replaced, more and more staff will have cameras available, but many staff do not need to access this hardware on a regular basis.	Provide computers with cameras to staff who require it.	2008	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress	Uvic has 3 web-conferencing meeting rooms available for rent to any campus department. Mobile web-conferencing equipment and staff are also available for rent for any event.	Continue to promote use of video-conferencing as an alternative to travel to meetings, interviews, presentations, etc. Provide live webcasting of more and more lectures and seminars.	2009	No End Date (Continuous)
Education, Awareness, and Engagement					
Awards/Recognition					
Establish a sustainability/green awards or recognition program	Ongoing/In Progress	Chose Sustainability Champion Award, from a group of peer nominated staff person for their exceptional contribution towards sustainability on campus. (Award provided in 2013)	Raise the profile of the Sustainability Champion Award on campus and investigate integrating it into other established staff recognition programs. Create a similar annual award for students for 2013s	2011	No End Date (Continuous)
Staff Professional Development					
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress	Sustainability Coordinators participate in regular workshops, seminars and attend conferences related to campus sustainability. Some Facilities Management staff attend workshops such as 'green labs' and participate in professional development webinars and conferences on energy management and waste reduction.	Staff working on sustainability issues on campus are encouraged to take appropriate training to update their skills as required.	2008	No End Date (Continuous)
Include green options in employee performance measurement system	Not Yet Evaluated				No End Date (Continuous)
Staff awareness/education					
Provide education to staff about the science of climate change	Ongoing/In Progress	The university hosts many events related to the science of climate change that are free for staff to attend. We are unlike most other institutions in this regard. The many research centres on campus that work in areas related to climate change also have information on	Continue to provide information through the sustainability website, the UVic Green Guide, stickers, email list serves, and social media.	2008	No End Date (Continuous)

University of Victoria - 2012 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					
Action	Status	Steps Taken	Steps Planned	Start Year	End Year
		their websites. UVic's Pacific Institute for Climate Solutions also created a series of educational videos that are available to staff.			
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress	Information is provided through the sustainability website, the UVic Green Guide, Sustainability Action Team training, posters, stickers, email list serves and social media.	Continue to provide information through the sustainability website, the UVic Green Guide, Sustainability Action Team training, posters, stickers, email list serves and social media.	2008	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress	Information is provided through the sustainability website, the UVic Green Guide, email list serves, and social media.	Continue to provide information through the sustainability website, the UVic Green Guide, stickers, email list serves, and social media.	2008	No End Date (Continuous)
Provide sustainability education during new staff orientation	Ongoing/In Progress	Sustainability Coordinators are asked to participate in new staff orientation workshops on a regular basis. The employee manual was updated to include references to sustainability initiatives on campus and links to sustainability website.	Ensure sustainability is part of new staf orientation workshops and online materials.	2010	No End Date (Continuous)
Team-building					
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress	Continued Sustainability Action Team program with teams in three campus buildings focusing on energy conservation (electricity) and waste reduction and transportation.	Continue with Sustainability Action Team program in more buildings on campus and create ongoing seasonal/quarterly programming to engage green teams. Also continue to host and refine programs in student residences.	2011	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress	Staff teams are supported by the Sustainability Coordinator, with help from the Energy Manager and Waste Reduction Coordinator. Student teams in residences are supported by the same people, plus staff in Residence Services.	Continue support from Sustainability Coordinator, Energy Manager, Waste Reduction Coordinator and Residence Services, as required.	2011	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress	All Sustainability Action Teams are provided with basic training from the Office of Campus Planning & Sustainability and consultants working with BC Hydro Powersmart on social marketing. They are then encouraged to create their own programming for what they think will work best in their particular work environment (which can vary greatly across campus). Student leaders were provided with training from grad students from the Environmental Psychology program.	Continue to support new Sustainability Action Teams with basic social marketing training through presentations and woskshops.	2011	No End Date (Continuous)
Other Sustainability Actions					
Adaptation to Climate Change					
Assessed whether extreme weather events and/or long term changes in climate will affect the organization's business areas	Not Yet Evaluated				No End Date (Continuous)
Integrated considerations of extreme weather events and/or long term changes in climate into the organization's decision making.	Not Yet Evaluated				No End Date (Continuous)
Building construction, renovation					
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Ongoing/In Progress	None. No construction occurred in 2012.	Continue to reuse materials and divert waste from the landfill where possible.	2008	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	Not Yet Evaluated				No End Date (Continuous)
Commuting to and from home					
Introduce telework/work from home policy	Not Yet Evaluated				No End Date (Continuous)
Offer staff a compressed work week	Not Yet Evaluated				No End Date (Continuous)
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In	UVic has a number of transportation demand management initiatives	Continue to promote the many transportation demand management	2008	No End Date

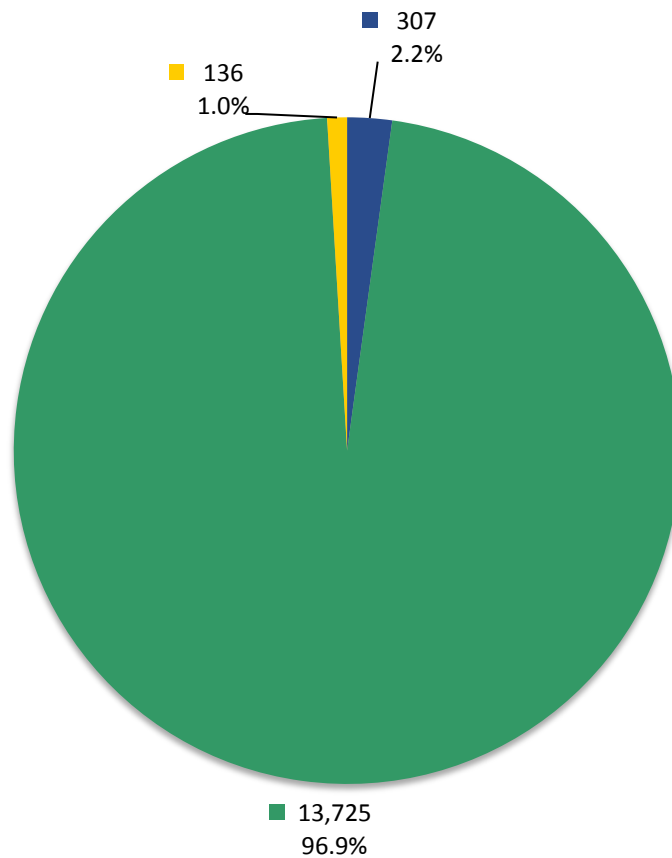
University of Victoria - 2012 Carbon Neutral Action Report

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					
Action	Status	Steps Taken	Steps Planned	Start Year	End Year
	Progress	that strongly encourage the use of alternative transportation by staff and students. These include a student UPass system where every student is given a free bus pass as part of their tuition, a subsidized employee bus pass system where staff and faculty can purchase a monthly bus pass at less than half the normal rate if they do not have a parking permit. UVic also offer employees free membership in the Victoria Car Share Co-op and offers priority parking for car pools. Free refurbished bikes are available for loan from our SPOKES program, we have 96 bike lockers for rent and a 24 Hour outdoor Bike Repair kiosk.	initiatives including expanding sheltered and secure bike parking, working with local governments to improve cycling access to campus, and working with BC Transit to improve transit service. Also investigating the possibility of staggered class start times to ease transit loads at peak times.		(Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress	Free showers and day lockers are offered to all staff and students in our main gym. Approximately 10 buildings have showers and lockers for use by building occupants.	Begin construction on new athletics and recreation facility that will have showers and lockers, plus bike parking in the parkade.	2008	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress	96 individual bike lockers are available for rent by staff and students. There are approximately 2,200 individual bike racks available across campus.	The new athletics building parkade will include at least 50 covered, secure bike parking stalls. UVic is also creating a Campus Bike Centre in the University Centre building which will increase the number of bike lockers. A campus bike plan is being considered which will help determine where to create more covered, secure bike parking on campus.	2008	No End Date (Continuous)
Other Sustainability Actions					
Local purchasing to help support food security in the region	Ongoing/In Progress	UVic food services offer a wide selection of local, organic and sustainably grown foods – roughly half is locally sourced, with 20 of 24 of our food suppliers being from Vancouver Island or Vancouver. One hundred per cent of baked goods originate on the Island, from well-known sources. Over half the vegetables are grown on the Island and supplied in season as is almost 40 per cent of the meat, including up to 1,200 chicken portions every day. Specialty cheeses come from Little Qualicum Cheeseworks Ltd, or Natural Pastures in the Comox Valley. We serve 100 per cent BC wild caught salmon. Our emphasis on buying local has helped UVic reduce its carbon footprint by decreasing transportation and delivery needs. UVic also hosted a Community Market in the fall of 2012 that featured local food producers and artisans, and which was attended by members of the UVic community as well as the broader community.	UVic plans to continue to use its institutional purchasing power to support food security in the region and continue to host community markets on a annual or biannual basis.	2008	No End Date (Continuous)
Procurement (non-paper supplies)					
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	Not Yet Evaluated				No End Date (Continuous)
Establish green standards for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	Ongoing/In Progress	UVic purchasing policy and practice incorporates a quadruple bottomline decision-making framework for requests-for-proposals and supplier contracts. The overall sustainability of a product is a	Continue to promote green purchasing policies and practices for all purchasing and supplier contracts. Work with our suppliers to assist them to green their businesses and the supply chain.	2008	No End Date (Continuous)

University of Victoria - 2012 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					
Action	Status	Steps Taken	Steps Planned	Start Year	End Year
		factor for office furniture, electronics, appliances, etc.			
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress	UVic's green cleaning program was launched as a pilot in 2000 and now covers approximately 85% of campus. The program utilizes cleaning products that meet or exceed Green Seal GS37 or Environmental Choice ECP 33 certification programs. The program also employs a microfibre cleaning system that reduces the need to use some chemicals altogether. The 2011 Green Cleaning pilot program in residence services was successful and the maintenance of residences is now performed with nearly 100% green products.	Implement the green cleaning program to 100% of campus.	2008	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	Ongoing/In Progress	Waste reduction policy and practices continue to be refined through standardization of signage, bin designs and increasing the number of recycling and composting collection options across campus. Paper recycling and garbage bins were removed from most classrooms and lecture theatres and replaced them with 3-bin sorting stations in hallways. Increased awareness of composting system (in particular for paper coffee cups and paper towels) and increased number of voluntary office composting programs and other in-building bins. Promoted waste reduction with annual Love-A-Mug coffee cup campaign and upgrading water fountains across campus for easy refilling of reusable water bottles. UVic's waste diversion goal is 75% and in 2012 academic year we achieved 64.8%, which was up from 61.3% in the 2011 academic year.	Continue to promote successful recycling and composting systems and efficiencies in collection systems. Also implement a waste pilot program that enforces a office sorting program at conveniently located, but more centralized three bin system.	2008	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress	UVic has a "zero waste down the drain" policy policy and provides yearly educational training for new and continuing staff about hazardous waste policy and practices. All hazardous waste is measured and disposed of using the strictest safety standards, including auditing of all 3rd party contractors.	Continue to implement and refine policies and partices to do with hazardous waste usage and disposal.	2008	No End Date (Continuous)
Water conservation					
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress	The first phase of the water fixture upgrade program will take place during the summer of 2012. Low-flow toilets, urinals, and taps were installed in a number of buildings.	Further phases completed in subsequent years.	2009	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	Ongoing/In Progress	New buildings on campus currently use treated waste water for flushing toilets and utilize water efficient fixtures. The first phase of the water fixture upgrade program will take place during the summer of 2012. Toilet were replaced in on building and tap fixtures were replaced in another.	Further phases completed in subsequent years.	2009	No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Ongoing/In Progress	Continued use of the Integrated Stormwater Management Plan (2004), Campus Sustainable Development Guidelines and LEED Gold commitments make sure all new development has integrated stormwater management	Continued implementation of stormwater plan for natural areas on campus to prevent erosion and land degradation. Participation in regional watershed planning initiatives.	2008	No End Date (Continuous)

University of Victoria Greenhouse Gas Emissions by Source for the 2012 Calendar Year (tCO₂e*)



Total Emissions: 14,167

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2012 (Generated May 27, 2013 11:52 AM)

Total offsets required: **14,156**. Total offset investment: **\$353,900**. Emissions which do not require offsets: **11** **

*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.