

## Carbon Neutral Action Report University of the Fraser Valley

### Executive Summary

In November 2008, on behalf of the University, President Skip Bassford joined as a signatory to the University and College Presidents' Climate Change Statement of Action, committing the institution to a position of environmental leadership, "by sharing knowledge, research and best practices about climate change with our students and the public..." Signatories further committed their organizations to the pursuit of "responsible solutions to address the climate change challenge as set forth in the University and College Presidents' Climate Change Statement of Action." This timely declaration formalized both our longstanding organizational commitment and our practice of sustainability, in four key areas, operations, capital projects, curriculum, and community outreach.

A key achievement for UFV in future "scope 3" carbon reductions was made in 2008, after a long campaign, with the students voting for compulsory funding for a public transit U-pass system. The majority of students agreed to incorporate a bus pass fee into their student fees, expressing both their confidence in public transit and their commuting intentions. The plan will be implemented in the fall, 2009.

### Objectives

The University of the Fraser Valley is committed to energy management as a key element in the overall efficiency of our operations. Energy conservation is not just an ongoing financial imperative in ensuring the overall efficiency of our operations, it is also the most important factor in GHG reduction. Energy conservation is therefore a key objective in facilities management at UFV. In 2008, the University undertook an Energy Management Assessment (EMA) in collaboration with B.C. Hydro. This study by Hatch Energy, provided a key diagnostic and benchmarking of our present performance. The EMA has equipped UFV with a system action plan, now underway to secure continuous improvements in energy utilization.

## Part 1: Actions Taken to Reduce Greenhouse Gas Emissions in 2008

### Overview:

In 2008, UFV continued with a longstanding organizational commitment to and practice of sustainability. Our "four pillars" of institutional sustainability are: operations, capital projects, curriculum, and community outreach. Energy management and energy efficiency are key elements in our operations goal to reduce our carbon emissions. Our approach and commitment is for continuous improvement, disciplined by economically sound investment principles, and informed overall by the University Master Plan. The second pillar, our capital projects are committed to achieve LEED gold standard. This standard was applied to the new construction component of the C building project. Highlighting the third pillar of curriculum in 2008 was the "Fraser Valley Initiative on Environment, Learning, and Developing Sustainability (FIELDS)" proposal. This proposal challenges the teaching community to both curriculum development and integration of sustainability concepts into existing curriculum across the institution. The final pillar of community outreach was supported by an active agenda of engagement with various communities in topic area of sustainability ranging from global warming to solid waste management.

## 1.2. Stationary fuel combustion and electricity:

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Installed multi-function devices (and removed stand-alone printers/faxes)	In progress		Replacement of three units (fax, printer and copier) with one multifunction device; completed in 2009
Implemented server virtualization	In progress		Core IT services are continuing an aggressive migration to virtualization technologies with a significant power -saving dividend.
Initiated or completed a building energy retrofit	In progress		UFV has built a new IT Data Centre designed to produce significant savings in operating costs associated with equipment cooling; completed in 2009

## 1.3 Supplies

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Committed to use 30% recycled paper	in progress		requires photocopier machine upgrade underway in 2008
Initiated automatic double sided printing	in progress		requires photocopier machine upgrade underway in 2008
Restructured a process to use less paper	in progress		Printshop upgrade commissioned to enable in-house production and e-transmission of certain materials, significantly reducing materials handling and carbon footprint; completed in 2009
<b>Actions on non-paper related supplies:</b>			
Encouraged re-use of furniture and equipment	in progress		

## 1.5 Employee Engagement

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Provided climate change education	in progress		Physics Professor Tim Cooper engaged with many university and community groups in 2008 with talks about global warming and what people can do at the local level to drastically cut the amount of carbon dioxide entering the atmosphere. His community work, which continues, was recognized with the UCFV Outstanding Initiatives Award in 2007.

Provided conservation education	in progress	In partnership with the Fraser Valley Regional District (FVRD), UFV hosted a public forum in June, 2008, to share information with local residents about proposed waste-to-energy gasification plants proposed to handle GVRD solid waste.
Developed Green Teams		An institutional sustainability committee was established in 2008 to inform the President's climate action commitment and to provide a forum for the incubation and exchange of sustainability ideas.
Student Engagement:	in progress	UFV students, successfully campaigned to launch a public transit U-Pass for UFV students to be implemented September, 2009.
	in progress	UFV Students for Sustainability is a student-led group which aims to bridge education with action to work towards creating a more environmentally sustainable future. In 2008, they planned to host the 2009 BC Sustainable Campuses conference at UFV (Feb 6-8th, 2009 - very successful). This student group is supported by UFV management and Student Life department

**1.6 Sustainability Actions (others)**

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Took water conservation measures – low flow showers or toilets, fix leaks	in progress		retrofit of washrooms with water-saving faucets and flush units
Purchased green cleaning products	complete		ongoing commitment to green products where available for application; use premix for optimized use

## Part 2: Plans to Continue Reducing Greenhouse Gas Emissions 2009 -- 2011

### Overview:

Energy consumption represents the largest component of UFV's carbon footprint consequently energy conservation and management represents the most important element in UFV's 2009-2011 plan to reduce greenhouse gas emissions. During this period ahead, it is anticipated that a comprehensive energy study, currently being commissioned, will inform significant energy saving investment. In addition to the already planned retirement of outdated chillers, it is expected that the energy study will identify significant energy savings (and GHG reductions) in the replacement of other energy inefficient HVAC equipment. Also, 2009 will mark the beginning point for the University "U-pass" implementation which provides a significant incentive for students to increase utilization of public transit, with a salutary impact on overall GHG reduction, albeit Scope 3. The recently formed President's Institutional Sustainability Committee will provide a forum for the incubation of other initiatives among the four pillars of sustainability.

### 2.1. Mobile Fuel Combustion:

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Establish anti-idling behaviour change program (e.g. signs, stickers, messages)	planned			2009
Encourage use of public transit/active transportation	planned			2009 and ongoing

### 2.2 Stationary Fuel Combustion (including electricity)

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Undertake building energy audit at LOCATION(s)	planned		For Abbotsford Campus	2009
Building Energy Optimization Study	planned		For TTC at CEP Campus	2009

### 2.3. Supplies:

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Encourage re-use of furniture and equipment	Complete		this longstanding practice will continue where feasible and efficient	

### 2.4 Employee Engagement

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Develop Green Teams				2009
Support professional development	Planned		ISO 14064-1 staff training to understand underlying concepts of CO2e accounting	2009

## 2.5 Sustainability Actions (others)

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Take water conservation measures – low flow showers or toilets, fix leaks	planned		retrofit of washrooms with water-saving faucets and flush units	2009-2010
Reduce/replace bottled water with filtered or refrigerated water	planned		requires installation of fill stations	2009-2010
Improve recycling measures	planned		planning for better bottle and can recycling, and to undertake feasibility study for other product recycling such as alkaline batteries.	2009
Support composting	planned		initiate feasibility study in 2009	
Use re-usable dishes	planned		initiate feasibility study in 2009	
Purchase green cleaning products	planned		ongoing evaluation of products	
Use green (low-e paints)	planned		ongoing evaluation of products	