

Carbon Neutral Action Report Douglas College

Executive Summary

Douglas College is concerned about the quality of the natural environment and building a sustainable society. As such, the College has a responsibility to enable the College community to become knowledgeable about the environment, and to become environmentally responsible. To educate by example and to demonstrate good environmental citizenship College operations will make all reasonable efforts to be environmentally sound.

Douglas College continues to investigate opportunities provided by organizations such as BC Hydro's Power Smart programs and initiatives, Public Sector Energy Conservation Agreement (PSECA), Energy Canada (Enercan), and our Ministry of Advanced Education & Labour Market Development. These relationships provide access to a variety of resources which may assist us in developing an environmental sustainable energy management plan which focuses on achievable, sustainable and measurable results.

Douglas College has established criteria in conjunction with a LEED (Leadership in Energy and Environment Design) certified energy consultant for both our New Westminster and David Lam Campuses to establish baseline energy usage for future measurement of Energy and Green House Gas reduction targets.

Douglas College is committed to educate by example and demonstrate quality environmental stewardship. This work is an on-going process, of which both internal and external resources will need to be built up, and the complex concepts underlying environmentally sustainable development will need to be further elaborated and tested. We shall establish consultations between our consultants and partners and provide a means for reviewing progress, and as such will provide us the opportunity to update procedures based on these reviews and the experience gained.

Objectives

Additional objectives on the list for Douglas College include:

- * Engaging & educating our College Community including students and employees
- * Becoming more financially responsible by reducing energy costs through conservation and behaviour changes
- * Being socially responsible & showing leadership to our surrounding communities
- * Improving our building environment and promoting healthier lifestyle to both our internal & external communities

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

Overview

The college has taken the following actions:

- * Creating the "Environmental Sustainability Task Force (ESTF) to bring forward short term and long term initiatives to promote the environmental sustainability of our College.
- * Launched an Eco-Challenge contest for our students and employees to achieve at least 50% of a list of eco-challenges.
- * Encouraged Bike to Work week, the Jack Bell Ride Share and Car Pooling.
- * We have lobbied Municipal and Provincial Governments to have the proposed Evergreen Line terminate at the David Lam Campus in Coquitlam.
- * Implemented the TransLink Employee Pass program at the College.
- * Reduced electrical consumption by conversion to LED fixtures, installation of Variable Speed Drives, Chiller Plant design optimization, adding Energy Mizers to vending machines, replacing T12 tube with T8 tubes and the addition of solar screens to our concourse to reduce our cooling costs.
- * Upgrading the boiler burner controls, addition of additional insulation and on going upgrades to the Computerized HVAC system.
- * Increased paper recycling in classrooms by 50% and bottles by 20%.

1.1 Stationary fuel combustion and electricity

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Undertaken Monitor turn-off challenge	Complete	Increase sustainability awareness	Identify "Turn computer off at the end of the day" as a check point in the latest Eco-challenge contest (Appendix A)
Encouraged staff to use stairs	Complete	None	Posters in Elevators and on bulletin boards
Turned off lights in unused rooms	Complete	Increase awareness to turn off lights	Placed "Leaving? Turn the light off" stickers on all office & classroom light switches.
Replaced standard bulbs with CFLs	In Progress	Replace incandescent bulbs in theatre dressing rooms with CFL's	Converted 153 incandescent bulbs in the theatre dressing rooms to CFL's
Implemented server virtualization	In Progress	Install a Virtual Server Platform at each main campus location	Installed new platforms and slowly migrate stand-alone servers onto Virtual Server. Expect to be complete most by the end of 2009.
Utilized desk-top power management settings on computer	In Progress	Install Power Management software for two test Computer Labs	Converted a test lab, if successful, will implement software in all computer labs.

1.2 Supplies

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Initiated automatic double sided printing	In Progress	Instruct Printshop staff to automatically print	All Printshop material are automatically printed
Used collaborative software to edit on-line	In Progress	None	Ongoing internal education

1.3 Employee Engagement

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Provided climate change education	Complete	Increase Climate Change Education	Create an "Environmental Sustainability Task Force" (ESTF) to promote climate change & energy conservation education.
Provided conservation education	Complete	Increase Conservation Education	Create an "Environmental Sustainability Task Force" (ESTF) to promote climate change & energy conservation education.
Held contests to change behaviour/make pledges	In Progress	Increase awareness	Create Eco-Challenge contests - see Exhibit A
Held contests/support to generate ideas	In Progress	Increase awareness	Create Eco-Challenge contests - see Exhibit A
Developed Green Teams	Complete	Form a Committee that is "charged with bringing forward short term and long term initiatives to promote the environmental sustainability of Douglas College"	Created the "Environmental Sustainability Task Force" (ESTF) Created the ESTF website.
Provided green tips	Complete	Post tips on Website	Create Eco-Challenge contests - see Exhibit A

1.4 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	Reduce water use	Thirty (30) manual flush valves converted to automatic low flush
Ran dishwasher only when full	Complete	Reduce water use	Standard Practice
Reduced/replaced bottled water with filtered or refrigerated water	In Progress	Reduce plastic bottle waste	Initiative under consideration by ESTF
Improved recycling measures	In Progress	Increase paper recycling in classrooms & bottle recycling	Install paper & bottle recycling stations in all classrooms
Used re-usable dishes	Complete	Reduce Styrofoam waste from cafeteria	Food eaten in the cafeteria is served on washable dishes.
Purchased green cleaning products	Complete	Increase use of "Green" cleaning products	Converted bulk of cleaning chemicals to "Green Seal" approved products.
Used green (low-e paints)	Complete	Increase use of "Low-e" paint.	Issued directive to painting contractor to only use "Green Seal Certified" Low-e wall paint in offices, corridors and classrooms.
Enlisted Consultant to establish base line GHG usage	In Progress	Establish baseline GHG use	Issued a Purchase Order for a Consultant to initiate a review of baseline GHG usage

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

Overview

Douglas College will continue to establish short and long term requirements to meet Provincially mandated legislation for the reduction of Greenhouse Gas Emissions.

Douglas College will, through the Environmental Sustainability Task Force (ESTF), "continue to research and promote short and long term initiatives to promote the environmental sustainability".

The College, through the ESTF will "look at how we can begin to model a commitment to the highest values in environmental stewardship and sustainability at Douglas College".

2.1 Stationary Fuel Combustion (including electricity)

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Undertaken Monitor turn-off challenge	In Progress	Reduce energy use	Incorporate Monitor Turn-Off challenge into the next planned ESTF contest.	Dec. 09
Replace # computers with EnergyStar models	Planned	Develop procurement standards that incorporate Energy Star ratings into the selection criteria.	Conduct meetings with the IT department to review Energy Star options and evaluate life cycle costing with reduction of energy use	2010
Replace Refrigerators (EnergyStar rated appliance)	Planned	Review procurement standards	Review & revise procurement Standards to incorporate Energy Star ratings in the selection criteria	2010
Replace other appliances (with EnergyStar rated appliance)	Planned	Review procurement standards	Review & revise procurement Standards to incorporate Energy Star ratings in the selection criteria	2010
Undertake lighting retrofit	Planned	Reduce energy use	Complete a Lighting Assessment to evaluate whether new opportunities are available to reduce electrical power consumption	2011
Implement server virtualization	In Progress	Reduce energy use by migrating servers onto a "Virtual Server Platform"	Migrate three (3) additional stand-alone servers onto the Virtual Server Platform	2010
Utilize desk-top power management settings on computer	In Progress	Reduce energy use by installing Energy Software onto Student PC's	Order power management software and Install onto 1200 Student Computer Lab PC's	Dec. 09
Initiate corporate computer shut-down/wake-up for maintenance	In Progress	Reduce energy use by installing Energy Software onto Employee PC's	Complete feasibility assessment for the installation of power management software onto Employee PC's	2010

2.2 Employee Engagement

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Provide climate change education	In Progress	Increase awareness and conservation measures throughout the College	Revise and develop new, updated goals and objectives for the ESTF Continue improving the ESTF website by providing news updates and new resources for employees and students.	Dec-09
Provide conservation education	In Progress	Increase awareness and conservation measures throughout the College	Develop strategies and plans to provide ongoing awareness seminars.	Dec-09
Hold contests to change behaviour/make pledge	In Progress	Increase awareness and conservation measures throughout the College	Continue with the "Eco-Challenge" program (Appendix B). Update and revise the contest objectives and develop targets	12/1/2009
Hold contests/support to generate ideas	In Progress	Increase awareness and conservation measures throughout the College	To generate more ideas and set goals, "brain storming" sessions will be hosted.	Dec-09
Provide green tips	In Progress	Increase awareness and conservation measures throughout the College	Continue improving the ESTF website by providing new resources and tips for employees and students.	Dec-09

2.3 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	In Progress	Reduce water use	Convert shower heads to low flow units Convert four washrooms to use low flow faucets & toilets.	2010 2011
Reduce/replace bottled water with filtered or refrigerated water	In Progress	Reduce use of plastic bottles	For large events, provide water jugs and cups made with recycled materials in lieu of bottle and Styrofoam cups.	Dec. 2009
Improve recycling measures	In Progress	Add additional recycling stations	Add recycling stations for plastic bottles, glass bottles, metal beverage containers & paper to public areas of the College.	Dec. 2009
Support composting	Planned	Investigate Composting Options	Investigate viability of having compost stations for food service areas	2011
Support sustainable procurement practices	In Progress	Revise procurement standards	Review & revise procurement Standards to incorporate Sustainability practices	Summer of 2010