



DOUGLAS COLLEGE

2013 Carbon Neutral Action Report Overview

Executive Summary

Douglas College continues to be concerned about the quality of the natural environment and building a sustainable society. As such, the College has a responsibility to enable our 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.

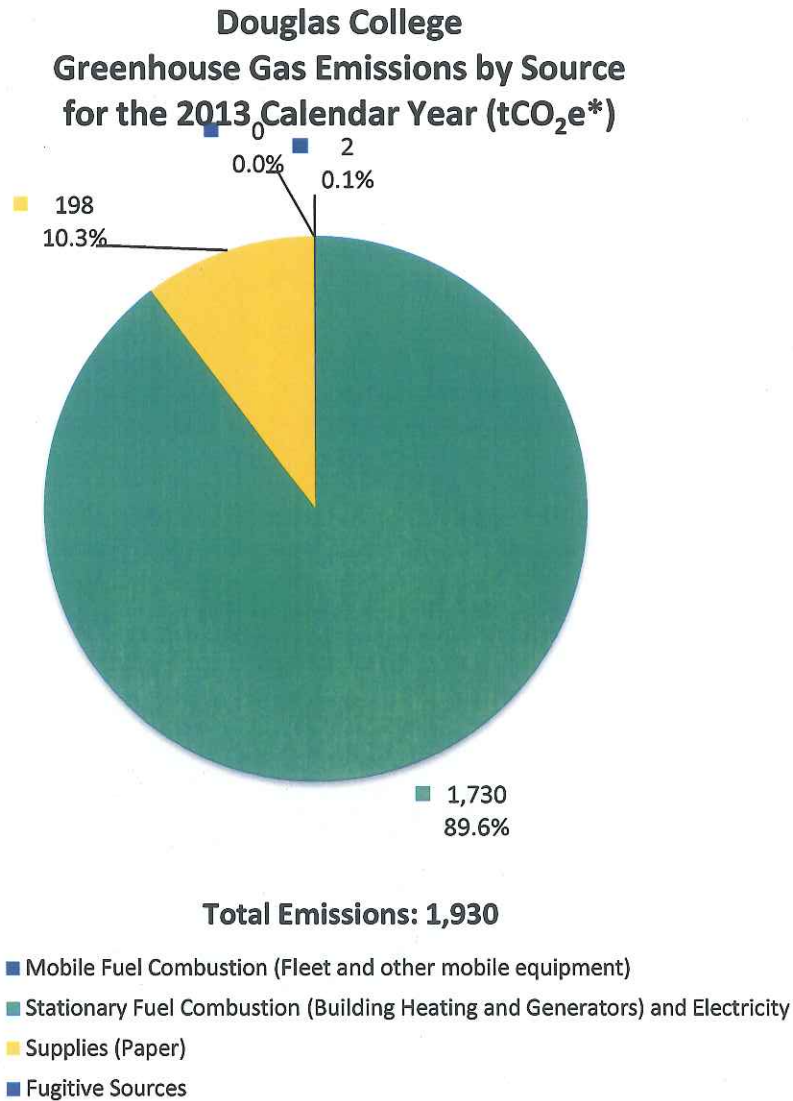
Douglas College continues to investigate opportunities provided by organizations such as BC Hydro's Power Smart programs and initiatives, Public Sector Energy Conservation Agreement (PSECA), Energy Canada (Enercan), and the Ministry of Advanced Education. These relationships provide access to a variety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

Douglas College, via RETScreen, has established an energy usage baseline for measurement of Energy and Greenhouse Gas reduction targets.

Douglas College is committed to educate by example and demonstrate quality environmental stewardship. This work is an on-going process, for 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 will have discussions with our consultants and partners to provide a means for reviewing progress. These actions will provide the opportunity to update procedures based on these reviews and the experience gained.

2013 Greenhouse Gas Emissions

The total 2013 greenhouse gas emissions, from all sources covered by the Greenhouse Gas Reduction Targets Act (as reported in SMARTTool), was 1930 tonnes of CO_{2e}.



Offsets Applied to Become Carbon Neutral in 2013 (Generated March 13, 2014 10:16 AM)
 Total offsets required: 1,930. Total offset investment: \$48,250. Emissions which do not require offsets: 0 **

*Tonnes of carbon dioxide equivalent (tCO_{2e}) 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



Offsets Applied to become Carbon Neutral in 2013

Douglas College recognizes that we are responsible for 100% of the carbon emissions generated by the College. Achieving carbon neutrality involved measuring GHG emissions, reducing emissions where possible, and offsetting the remainder through the purchase of carbon offsets. To become carbon neutral, Douglas College purchased offsets equivalent to 1930 tonnes of CO₂, through the Pacific Carbon Trust.

Emission Reduction Activities

Actions Taken to Reduce Greenhouse Gas Emissions in 2013:

- At the New Westminster campus, added Wattstopper occupancy sensors to deactivate non-emergency lights on 3 & 4 North & 4 South corridors, when there is no pedestrian traffic. This completes the conversion of all New Westminster campus hallway lighting, to occupancy controlled.
- At the New Westminster campus, upgraded 45 pneumatically controlled to DDC controlled (25 dual duct & 20 cooling only) VAV boxes.
- At the New Westminster campus, as part of the roof replacement project, upgraded the single pane roof & curtain wall glazing from single pane to double pane low-e on the curtain walls and to an R-10 Kalwall roof system for the roof. The changes are expected to reduce heat gain in summer and heat loss in winter, thereby reducing energy costs lost through the common concourse space.
- At the Coquitlam campus, completed a number of small changes to lighting. Changes include programming of lighting to reduce usage, reduction of fixtures in over-lamped areas and addition of some emergency fixtures from ON 24/7, to ON during evening or when switched.
- At both campuses, retired 15 physical servers and consolidated six into an existing virtualized Blade Chassis. Expect to save approx. 200 watts per server, for an overall reduction of 3000 watts.
- At both campuses, initiated the process of converging data and voice in our network realm. This will slowly reduce the number of physical IT switches required to service computers and phones. Ten switches were eliminated in 2013. Each switch removal saves approx. 24 watts, for an overall reduction of 240 watts.
- Instituted procurement procedures where paper should contain a minimum of 30% recycled content. Have achieved 76% compliance with this initiative in 2013.



- Plans to Continue Reducing Greenhouse Gas Emissions 2014 – 2015

Douglas College will continue to initiate feasible, short and long term actions to meet Provincially mandated legislation for the reduction of Greenhouse Gas Emissions.

Douglas College will, through Facilities Services, "continue to research and promote short and long term initiatives to promote environmental sustainability".

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

In conjunction with the Marketing & Communications Office and Facilities Services, the College will continue to "enhance sustainability initiatives and continue an awareness campaign to encourage our employees to creatively think and act on reducing consumption and take on the challenge of modeling new personal behaviour around sustainability".

The reduction in the Annual Capital Allowance has had an impact on Douglas College's ability to pursue substantive capital initiatives to reduce Greenhouse Gas Emissions. As the reduction of the Annual Capital Allowance continues for 2014, new Greenhouse Gas reduction initiatives as well, will be impacted.

Executive Approval

A handwritten signature in blue ink that reads "Tracey Ternoway".

Tracey Ternoway

*Vice President, Finance and
Administration*

A handwritten date in blue ink that reads "May 30, 2014".

Date

2013 Carbon Neutral Action Report (CNAR) - Part 2 ACTIONS

Created Tuesday, April 15, 2014

Updated Friday, May 23, 2014

<https://fluidsurveys.com/surveys/cas-z/2013-cnar-form-bps-actions/909879c85801d065af47f701ad695f9a/>

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Please complete the following sections of the 2013 Carbon Neutral Action Report form. Save your work frequently to prevent it from being lost. You can also save a copy for your own use as either a WORD or PDF file using the buttons at the bottom of each page.

This is Part 2 of the Carbon Neutral Action Report form. This section reports on actions taken to reduce emissions during the 2013 calendar year. This information will be included in your final Carbon Neutral Action Report posted on the Ministry of Environment website.

When the form is complete press the submit button on the last page to automatically submit the information to the Climate Action Secretariat (CAS). Do not press submit before you are ready – this may result in a loss of work.

In addition to completing this survey (Part 1 2), you are required to submit your completed Overview (Executive Summary) and Self-Certification Checklist. The 2013 Overview template was included in the email sent and can also be found on the LiveSmart leaders Community.

Please ensure you meet the following reporting deadlines:

A DRAFT 2013 CNAR is due to CAS by March 31, 2014. The draft is comprised of the Overview ONLY (no executive sign-off required).

The FINAL 2013 CNAR is due to CAS by May 30, 2014. The final 2013 CNAR includes Part 1 Part 2 survey form and Overview.

The Self-Certification Checklist is due to CAS by May 15, 2014.

For more information about the Carbon Neutral Government process, please refer to *Becoming Carbon Neutral 2013*, or should you have any questions please contact climateactionsecretariat@gov.bc.ca.

Organization Name

Douglas College

Actions Taken to Reduce Emissions

1) Stationary Fuel Combustion, Electricity (Buildings):

Indicate which actions were taken in 2013:

Performed energy retrofits on existing buildings

Yes

Built or are building new LEED Gold or other "Green" buildings.

No

Undertook an evaluation of overall building energy use.

No

Please list any other actions taken to reduce emissions from Buildings:

While the College has completed energy use evaluations for projects, we have not completed an overall building use evaluation. We have established an energy baseline. The baseline will allow us to review energy use as adjusted by weather and compare performance.

2) Mobile Fleet Combustion (Fleet and other vehicles):

Indicate which actions were taken in 2013:

Do you have a fleet?

No

Replaced existing vehicles with more fuel efficient vehicles (gas/diesel)

No

Replaced existing vehicles with hybrid or electric vehicles

No

Reduced the overall number of fleet vehicles

No

Took steps to drive less than last year

No

Please list any other actions taken to reduce emission from fleet:

(No response)

3) Supplies (Paper):

Indicate which actions were taken in 2013:

Used less paper than previous year

No

Used only 100% recycled paper

No

Used some recycled paper

Yes

Used alternate source paper (Bamboo, hemp, etc.)

No

Please list any other actions taken to reduce emissions from paper use:

Increased quantity of paper with recycled content from approx. 15% in 2012 to 76% in 2013. Our target for 2014 onward is to have 95% of purchased paper containing 30% recycled content.

In 2014, the College will be implementing a College wide initiative to consolidate printers, copiers, fax machines & scanners into common Multi-Function Devices (MFD). This will support our initiative for duplex printing and reduction of energy by removal of devices.

Actions Taken to Reduce Emissions - continued

Explain how you plan to continue minimizing emissions in 2014 and future years:

The College will continue to minimize emissions in 2014 by reviewing HVAC operations to mitigate energy waste due to improper equipment operation & scheduling. In addition, the College will pursue initiatives as funding is available through different capital funding programs (CNC, Routine Capital, Powersmart, etc.). Specific projects under consideration include completing an lighting audit and the installation of more variable speed drives and boiler isolation valves.

If you wish to list any other "sustainability actions" outside of buildings, fleet, paper and travel check "yes". This reporting is optional.

No