



2015 Carbon Neutral Action Report



COLLEGE OF
THE ROCKIES

2015 CARBON NEUTRAL ACTION REPORT

COLLEGE OF THE ROCKIES

This *Carbon Neutral Action Report* for the period January 1st to December 31st, 2015 summarizes our emissions profile, the amount of offsets purchased to reach net zero emissions, the actions we have taken in 2015 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2016 and beyond.

By June 30, 2016 COLLEGE OF THE ROCKIES' (The College) final *Carbon Neutral Action Report* will be posted to our website at www.the College.bc.ca.

ACTIONS TAKEN TO REDUCE GREENHOUSE GAS EMISSIONS IN 2015

Stationary Fuel Combustion, Electricity (Buildings)

Cranbrook Campus

- Dual Technology Solar Thermal System at Residence
- Summit Hall Parking Lot - Replace light fixtures
- Photovoltaic Solar system installed on Kootenay Centre

Mobile Fleet Combustion (Fleet & Other Vehicles)

- Cranbrook Campus – Facilities Department purchased 215 John Deere Z799R mower.

Supplies (Paper)

Financial Services

- Financial Services department has implemented a strategy to pay vendors via electronic funds transfer rather than by cheque, beginning in summer of 2015. To date, this has reduced the number of cheques printed by approximately 20%, reducing paper use and energy required for printing. Financial Services intends to expand the program to include any and all vendors who are willing to accept payment via this method.

International Department

- The International Department stopped issuing hard copies of Letters of Acceptance in 2015. Letters are sent via email (PDF) only. A larger impact than the paper use is that these letters are no longer sent by courier around the world. The same is true for our Agent Agreement sent to our partners around the world. Only signed, scanned copies are now required so there is carbon savings in not physically sending these documents around the world via land and air.

Other

College of the Rockies has reinvented the Environmental Committee as the Sustainability Committee, with new terms of reference. The Sustainability Committee supports the College community in education and awareness-building activities related to sustainability. The committee supports the ongoing development of library resources, experiential learning opportunities, communication materials, grant applications, and classroom learning materials related to sustainability. The committee is an idea generator and sounding board for projects that enable the College to meet

sustainability objectives, and may recommend such projects for consideration by the College.

Staff and Faculty participated in BC Bike to Work Week 2015.

Cranbrook Campus - Battery recycling collection bin implemented. Facilities Department staff then bring the batteries to the local collection depot for recycling.

Fernie Campus – Installed 20 single wall vertical bike racks.

Golden Campus – 2015 Xeriscaping the campus front lawn to reduce mowing and using human capital to maintain its growth and appearance.

Carpooling is mandatory whenever the President, Board of Governors and the President's Council are involved in common meetings off site. Exceptions to this are approved by the President or Board Chair under exceptional circumstances only.

Meetings are piggybacked for efficiency of travel. Dean's meetings are scheduled consecutively as many have multiple portfolios.

All Campuses deliver documents and packages by way of already planned travel so as to not schedule deliveries unless necessary.

Student Services/Registration: All Education Advisors, Disability Service Coordinators, Learning Assistance staff and Aboriginal Coordinator desks have cameras and Lync access, making meetings with students at regional Campuses possible without having to travel.

Faculty members use Skype to conference with students rather than travel to placement sites. All regional Campuses further than 50km from Cranbrook have been equipped with full video conferencing suites. Video-recorded assignments for practicum students cut down on faculty travel for site visits. YouTube is used for posting video assignments.

The College encourages electronic submissions from our students.

Staff and faculty are encouraged to attend meetings virtually via teleconference, webinars and web conferencing whenever possible ie: BlueJeans, Lync, Bridget, Skype, LiveMeeting, etc.

Staff and students are encouraged to print only when necessary and all printer settings are defaulted to print double-sided.

All computers and printers utilize sleep functions to reduce energy costs.

Window blinds are utilized to reduce heating and cooling costs, as well as energy costs.

All campuses provide courses to staff and the community on various topics related to climate change and conservation.

College staff/student online message portal posts information about upcoming "Green" workshops and conferences.

All toner is ordered in a larger size to reduce waste. All cartridges are recycled where facilities are available.

Moodle:

- The Production Support Centre staff is trained in supporting faculty in moving toward more online instruction through Moodle.
- Student Services/Registration and Institutional Research - Stores training documentation on Moodle as of 2013.
- Faculty emails or posts handouts on Moodle rather than make copies for class distribution.
- Learning Research Centre uses electronic document library.
- Faculty requests that students upload their assignments to Moodle sites. Faculty then marks the assignments virtually rather than making paper copies.

AssetPlanner:

All faculty and staff requests to the Production Support Centre, IT Technology Department, and Facilities Maintenance Department are now made electronically through the AssetPlanner (formerly FAME) system, eliminating all paper requests.

SharePoint:

- Student Services/Registration and Institutional Research - Created a SharePoint site.
- All media monitoring/clipping done and filed electronically in SharePoint, replacing weekly photocopy circulation.
- Use SharePoint for Nursing Program to jointly edit and create accreditation documents.
- Learning Research Centre uses SharePoint technology for electronic editing.



- HR/Payroll uses SharePoint for all payroll handout documents. Most of this department's information is now electronic.
- Electronic records of training (ROT) have been set up on SharePoint so that faculty from Directed Studies Programs (Adult Basic Education and Office Administration) can enter grades electronically rather than on paper copies, saving many reams of paper.

The Deans Department circulates agendas and minutes electronically and encourages use of e-readers rather than printed documents.

Marketing Department:

- Distribute a monthly emailed newsletter rather than a printed version.
- Dramatically reduced the amount of printed material (i.e. posters, brochures) that we produce, and have moved the majority of information online.
- When producing printed marketing material, we always ask for 30% or greater recycled content, and use Forestry Stewardship Certified paper and vegetable dyes whenever possible.

The Bookstore has implemented an online Text Request System for faculty to order textbooks. This has eliminated all paper requests.

The Student Services and Registration Departments implemented the following initiatives that reduced the amount a paper we use:

- Application email: All applicants to Cranbrook programs receive an email acknowledging their application as soon the application is entered into our Student Information System. This new business practice not only reduces paper (acknowledgement letters were sent by mail previously), it reduces staff time to produce individual letters and more importantly, it provides applicants with a more timely response.
- Committee Meeting Handouts: The Committees attended and/or chaired by the Registrar are using the SharePoint site for the document repository (e.g. Education Council, Student Affairs Policy Committee, Diversity Committee, Department meetings). This allows members to access the documents from one source rather than store them on their individual computers. Committee members are encouraged to bring their laptops to meetings rather than print hard-copies of the documents.
- Instant Enrolment: Online registration for Continuing Education. This allows students to view all the Continuing Education courses offered at all College of the Rockies campuses and to register online. Not only is this more convenient for students but they can do this from anywhere web access is available and at any time of day. Students who previously registered in person can save time and gas money by using this method of registration.

- ApplyBC now has functionality that allows applicants to pay their application fee at the same time as they enter their application online. Previously, applicants had to either mail in their application fee, phone in their credit card number or come in person to pay it. With the institution's obligation to implement credit card security standards, this functionality brings us in line with PCI guidelines. It also saves applications paper, money for postage or gas money
- Student exit surveys and instructor evaluations are compiled electronically.

College of the Rockies Bachelor of Business Administration student project helped a local Cranbrook business go paperless.

<http://www.cotr.bc.ca/press/fullhdLine.asp?ID=772>

CARBON NEUTRAL GOVERNMENT 2015 SUCCESS STORY

SOLAR VOLTAIC PANELS – KOOTENAY CENTRE

The solar photovoltaic panels installed on the building's roof will allow the College to produce electricity year-round which they will then sell back to BC Hydro.

“As a facility, we want to be leaders in alternative energies and reduce our reliance on fossil fuels and hydroelectricity,” says College Facilities Manager, Allan Knibbs. “There are a few other installs in the province but our area has the biggest potential for solar due to the number of sunny days we experience.”

The solar technology, which is expected to be complete by mid-November, will produce 109,000 kilowatt-hours per year of electricity - enough electricity to operate 14



houses for a year - while reducing the College's greenhouse gas emissions by 12,000 kilograms of CO₂e (carbon dioxide equivalent). It also provides a teaching tool for College of the Rockies students both during construction and once the system is up and running.

“We are able to provide our students with the opportunity to learn and see first-hand how alternative energies work in the construction phase and, once the

system is functional, to be able to see how it is performing through our real-time monitoring system,” adds Knibbs.

The latest solar project comes on the heels of the installation of two types of solar technology at the College's residence building, providing a renewable energy source for heating the building. A solar wall was also mounted at the Cranbrook campus' Pinnacle Hall building which helps to draw heat into the building, improving air quality and reducing heating and operating costs. Knibbs hopes to be able to expand the program to the Cranbrook campus' Summit Hall building as well as to some of the regional campuses.

“The Ministry of Advanced Education has been supportive of our solar initiatives through funding programs and I hope we are able to continue to expand our use of solar technologies throughout our regional campuses as well as here in Cranbrook,” Knibbs concludes.

Media Release, Submitted: Thursday, October 8, 2015

PLANS TO CONTINUE TO REDUCE GREENHOUSE GAS EMISSIONS IN 2016 AND BEYOND

Finance Department

- Working with the Province in considering a transition to a coordinated online requisition and invoicing system so that we will not be required to print invoices or purchase orders in the future. However this is in its very early stages and it is unclear if the College will participate, let alone an implementation date.

Install solar-powered signage outside all College of the Rockies Campuses. Cranbrook and Kimberley Campuses to receive first signs.

Cranbrook Campus


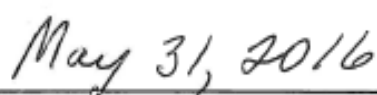
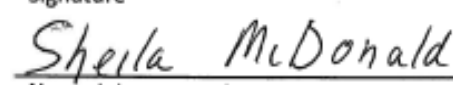
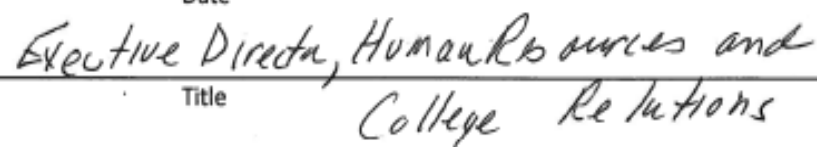
- Atrium Lighting - Supply and replace 3 lamps. Library Lighting - Install and connect 4 LED light fixtures to local circuits – Daylight harvesting ability
- Convert hallway light fixtures to LED
- Continue to replace traditional motors with VPDs (variable frequency drive)
- Add an additional covered bike rack at Summit Hall
- New LED lights in Cranbrook Campus gymnasium
- New skylights in Cranbrook Campus gymnasium

Emissions and Offsets Summary:

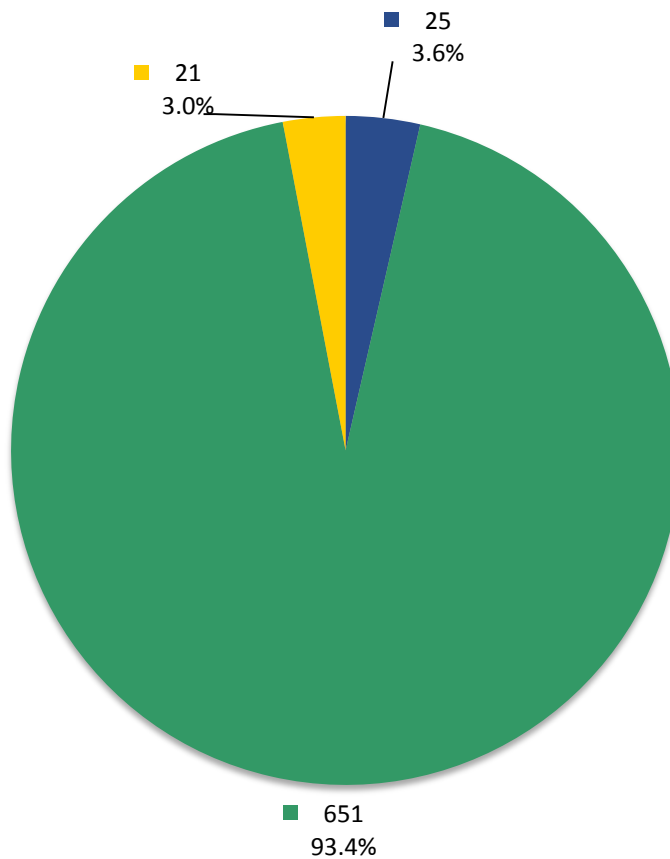
COLLEGE OF THE ROCKIES' GHG Emissions and Offsets for 2015 (TCO2E)	
GHG Emissions created in calendar year 2015 (from SMARTTool Homepage)	
Total Emissions (TCO2E)	697
Total Offsets (TCO2E)	687
Adjustments to GHG Emissions Reported in Previous Years (from SMARTTool Homepage)	
Total Emissions (TCO2E)	0
Total Emissions for Offsets (TCO2E)	0
Total Emissions for Offset for the 2015 Reporting Year (from SMARTTool Homepage)	
Total Offsets (TCO2E)	687

Retirement of Offsets:

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, COLLEGE OF THE ROCKIES is responsible for the retirement of the offsets obligation reported above for the 2015 calendar year, together with any adjustments reported for the past calendar years. The Organization hereby agrees that, in exchange for the Ministry of Environment ensuring that these offsets are retired on the Organization's behalf, the Organization will pay the associated invoice to be issued by the Ministry in an amount equal to \$25 per tonne of offsets retired on its behalf plus GST.

	
Signature	Date
	
Name (please print)	Title

**College of the Rockies
Greenhouse Gas Emissions by Source
for the 2015 Calendar Year (tCO₂e*)**



Total Emissions: 697

- 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 2015 (Generated May 26, 2016 9:17 AM)

Total offsets required: **687**. Total offset investment: **\$17,175**. Emissions which do not require offsets: **10** **

*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.

2015 Carbon Neutral Action Report Survey

Organization Name:

College of the Rockies

Please select your sector:

- Post-Secondary Institution

1) Stationary Sources (Buildings, Power Generators, Ext. Lighting) Fuel Combustion, Electricity use, Fugitive Emissions:

Please indicate which actions your PSO took in 2015:

Have developed an overall strategy/plan to reduce energy use in your organization's buildings inventory:

No

If Yes, please describe:

....

Undertook evaluations of building energy use:

No

Performed energy retrofits on existing buildings:

Yes

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

Yes

Please list any other actions, programs or initiatives that your organization has introduced that support emissions reductions from buildings:

Cranbrook Campus

- *Dual Technology Solar Thermal System at Residence*
- *Summit Hall Parking Lot - Replace light fixtures*
- *Photovoltaic Solar system installed on Kootenay Centre*

All computers and printers utilize sleep functions to reduce energy costs.

Window blinds are utilized to reduce heating and cooling costs, as well as energy costs.

2) Mobile Sources (Fleet, Off-road/Portable Equipment) Fuel Combustion:

Indicate which actions your PSO took in 2015:

Have put in place an operations policy/program to support systematic reductions in fleet related emissions:

(e.g., program to convert fleet to renewable fuels)

No

If Yes, please describe:

....

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

Yes

Replaced existing vehicles with hybrid or electric vehicles:

No

Took steps to drive less than previous years:

Yes

Please list any other actions, programs or initiatives that your organization has introduced that support emissions reductions from fleet combustion:

All Campuses deliver documents and packages by way of already planned travel so as to not schedule deliveries unless necessary.

3) Supplies (Paper):

Indicate which actions your PSO took in 2015:

Have put in place an operations policy/program to facilitate a systematic reduction in paper-related emissions:

(e.g., policy to purchase 100% Recycled Content; default to double-sided printing)

No

If yes, please describe:

(No response)

Have put in place an operations policy/program to facilitate behavioural changes from paper use:

(e.g. awareness campaign to reduce paper use):

No

If yes, please describe:

...

Used only 100% recycled paper:

No

Used some recycled paper:

Yes

Used alternate source paper:

(e.g., bamboo, hemp, wheat etc.)

No

Please list any other actions, programs or initiatives that your organization has introduced that support emissions reductions from paper supplies:

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Page 4

4) Other Sustainability Actions:

Please note that this section is optional

Business Travel

Created a low-carbon travel policy or travel reduction goal:

(low-carbon = lowest emission of greenhouse gas per kilometer per passenger)

No

Encouraged alternative travel for business:

(e.g. bicycles, public transit, walking)

Yes

Encouraged or allow telework/working from home:

No

Other:

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Education Awareness

Have a Green/Sustainability/Climate Action Team:

Yes

Supported green professional development:

(e.g. workshops, conferences, training)

Yes

Supported or provided education to staff about the science of climate change, conservation of water, energy and/or raw materials:

Yes

Other:

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Adaptation Planning for Climate Risks

Have assessed whether increased frequency of extreme weather events and/or long term changes in climate will affect your organization's infrastructure, its employees and/or its clients:

No

Have incorporated these anticipated changes in climate into your organization's planning and decision making:

No

Other:

(No response)

Other Sustainability Actions

Established a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models:

Yes

Have put in place an operations policy/program to facilitate the reduction and diversion of building occupant waste stream from landfills or incineration facilities:

(e.g., composting, collection of plastics, batteries)

Yes

Established green standards for goods that are replaced infrequently and/or may require capital funds to purchase:

(e.g., office furniture, carpeting, etc.)

Yes

Incorporated lifecycle costing into new construction or renovations:

Yes

Please list any other sustainability actions your organization has taken not listed above:

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