



# 2014 Carbon Neutral Action Report

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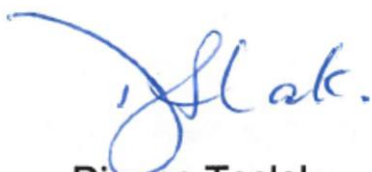
## COLLEGE OF THE ROCKIES

This *Carbon Neutral Action Report* for the period January 1<sup>st</sup> to December 31<sup>st</sup>, 2014 summarizes our emissions profile, the amount of offsets purchased to reach net zero emissions, the actions we have taken in 2014 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2015 and beyond.

By June 30, 2015 COLLEGE OF THE ROCKIES' (COTR) final *Carbon Neutral Action Report* will be posted to our website at [www.cotr.bc.ca](http://www.cotr.bc.ca).

COTR plans to pursue various avenues such as: continuing to upgrade our mechanical systems like our primary boilers, with more energy efficient ones; upgrades to our buildings' HVAC automated systems; future upgrades to our buildings' interior lighting systems; and the design and installation of solar hot water and solar photovoltaic systems.

This report identifies various items that although in some cases seem negligible, represent major steps for our small College. All of these items as they are actioned and completed will assist our Institution in the control of our greenhouse gas emissions.



**Dianne Teslak**  
**Vice President, Financial Services**  
**College of the Rockies**

## **ACTIONS TAKEN TO REDUCE GREENHOUSE GAS EMISSIONS IN 2014**

### **Stationary Fuel Combustion, Electricity (Buildings)**

#### **Cranbrook Campus**

- Welding Shop HVAC Upgrade Project.
- Replace 55 existing exit light fixtures with LED exit fixtures.
- Pinnacle Hall lighting upgrade - Removal of T5 HO light fixtures and replace with LED fixtures.
- LED Wall Pack Upgrade - Removal of existing wall pack light fixtures and replacement with LED fixtures.
- LED Parking Lot Upgrade - Removal of existing parking lot light heads and replace with LED fixtures

### **Mobile Fleet Combustion (Fleet & Other Vehicles)**

Facilities Department purchased 2010 John Deere 244J to replace 1986 Dresser Loader. Also traded in 1987 International Truck.

Golden Campus reduced fleet by one vehicle.

Haul Truck Program purchased 2014 Freightliner Truck.

#### **IT Department**

- Increased use of remote desktop for assisting users. Only have to travel to regional campuses for hardware install or replacement. Work at regional campuses is bunched to reduce number of visits to fix multiple issues.
- Increased use of BlueJeans web based video conferencing procured through BCNet (Shared Service).

Staff and Faculty participated in Bike to Work Week 2014.

### **Supplies (Paper)**

#### **International Department**

- Printed new international view books on 100% recycled paper.
- Stopped issuing hard copies of Letters of Acceptance. Letters are sent via email (PDF) only.
- Staff attended increased number of webinars instead of traveling.

## **Other**

Cranbrook Campus – 2014 hardscape landscaping at Aboriginal Gathering Place Building

Invermere Campus

- Building course on dovetail joints and energy efficient wall assembly.
- Completed in 2014: In all washrooms, replaced toilets with auto-flush sensors and taps with on/off sensors.
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- Adventure Training Program has a strong eco-tourism sustainability/stewardship curriculum that translates back to the campus operation.
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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.

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

COTR 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:

- Instituted 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. e-Book and e-Reader technology will be embraced and supported by the Bookstore.

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 was implemented this year. This allows students to view all the Continuing Education courses offered



at all COTR 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.



## CARBON NEUTRAL GOVERNMENT 2014 SUCCESS STORY

### Project Description: Welding Shop HVAC Project

We were able to replace one of our larger MUA units and associated fans with new models. These all have VFD's to greatly reduce electrical consumption.

Allan Knibbs  
Manager, Facilities  
College of the Rockies





## PLANS TO CONTINUE TO REDUCE GREENHOUSE GAS EMISSIONS IN 2015 AND BEYOND

### Cranbrook Campus

- 2015 Dual Technology Solar Thermal System at Residence
- 2015 Summit Hall Parking Lot - Replace light standards.
- 2015 Atrium Lighting - Supply & replace 3 lamps. Library Lighting - Install & connect 4 LED light fixtures to local circuits



### Finance Department

- Working on a conversion to payments via electronic funds transfer (EFT) to reduce the amount of paper used in printing cheques. This should be implemented by September 2015 and is expected to cover 75% or more of our vendors and payments. This will reduce not only paper use, but also energy required for printing.
- 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.

Fernie Campus – 2015 Install 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.

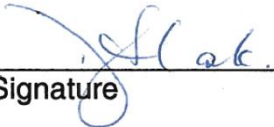
Install solar-powered signage outside all COTR Campuses. Cranbrook and Kimberley Campuses to receive first signs.

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

## Emissions and Offsets Summary:

<b>COLLEGE OF THE ROCKIES' GHG Emissions and Offsets for 2014 (TCO2E)</b>	
<b>GHG Emissions created in calendar year 2014 (from SMARTTool Homepage)</b>	
<b>Total Emissions (TCO2E)</b>	<b>733</b>
<b>Total Offsets (TCO2E)</b>	<b>716</b>
<b>Adjustments to GHG Emissions Reported in Previous Years (from SMARTTool Homepage)</b>	
<b>Total Emissions (TCO2E)</b>	<b>-1</b>
<b>Total Emissions for Offsets (TCO2E)</b>	<b>0</b>
<b>Total Emissions for Offset for the 2014 Reporting Year (from SMARTTool Homepage)</b>	
<b>Total Offsets (TCO2E)</b>	<b>716</b>

### Executive sign-off:

 Signature	May 28, 2015 Date
Dianne Teslak Name (please print)	Vice President-Finance + Corporate Service Title

# 2014 Carbon Neutral Action Report (CNAR)

## - Part 2 ACTIONS

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### Organization Name

COLLEGE OF THE ROCKIES

### Actions Taken to Reduce Emissions

#### 1) Stationary Fuel Combustion, Electricity (Buildings): Indicate which actions were taken in 2014:

Performed energy retrofits on existing buildings

Yes

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

Yes

Undertook an evaluation of overall building energy use.

No

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

Cranbrook Campus

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## **2) Mobile Fleet Combustion (Fleet and other vehicles):Indicate which actions were taken in 2014:**

Do you have a fleet?

Yes

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

Yes

Replaced existing vehicles with hybrid or electric vehicles

No

Reduced the overall number of fleet vehicles

Yes

Took steps to drive less than last year

Yes

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

Facilities Department purchased 2010 John Deere 244J to replace 1986 Dresser Loader. Also traded in 1987 International Truck.

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Haul Truck Program purchased 2014 Freightliner Truck.

IT Department:

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- Increased use of BlueJeans web based video conferencing procured through BCNet (Shared Service).

Staff and Faculty participated in Bike to Work Week 2014.

### **3) Supplies (Paper): Indicate which actions were taken in 2014:**

Used less paper than previous year

Yes

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:

International Department

- Printed new international view books on 100% recycled paper.
- Stopped issuing hard copies of Letters of Acceptance. Letters are sent via email (PDF) only.
- Staff attended increased number of webinars instead of traveling.

### **Page 3**

### **Actions Taken to Reduce Emissions - continued**

Explain how you plan to continue minimizing emissions in 2015 and future years:

#### 2015 Cranbrook Campus

- Dual Technology Solar Thermal System at Residence
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Install solar-powered signage outside all COTR Campuses. Cranbrook and Kimberley Campuses to receive first signs.

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

Yes



**Actions to Promote Sustainability and Conservation - Optional**The following are actions that fall outside the scope of the Carbon Neutral Government Regulation, but which many organizations still undertake and may wish to report on. This section is optional for reporting.

**Business Travel**Created a low-carbon travel policy or travel reduction goal (Low-carbon: Lowest emission of greenhouse gases per kilometre per passenger)

Yes

**Virtual Meeting Technology**Installed web-conferencing software (e.g., Live Meeting, Elluminate, etc.)

Yes

**Made desktop web-cameras available to staff**

Yes

**Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)**

Yes

**Encourage carpooling to meetings**

Yes

**Education and Awareness**Have created Green, Sustainability, Energy Conservation, or Climate Action Teams.

No

**Provided resources and/or dedicated staff to support these teams**

No

**Provided behaviour change education/training for these teams (e.g., community-based social marketing)**

No

**Established a sustainability/green awards or recognition program**

No

**Support green professional development (e.g., workshops, conferences, training)**

Yes

**Planning for Climate Change** Have assessed whether extreme weather events and/or long term changes in climate will affect our organization's business areas

No

**Long term changes in climate have been incorporated into our organization's decision making.**

No

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**Actions to Promote Sustainability and Conservation - Optional (continued)**

**Staff Awareness and Education** Provided education to staff about the science of climate change

Yes

**Provided education to staff about the conservation of water, energy, and raw materials**

Yes

**Provided green tips on staff website or in newsletters**

Yes

**Alternate Work/Commuting Options** Allow for telework/working from home

Yes

**Staff have the option of a compressed work week**

No

**Commuting by foot, bicycle, carpool or public transit is encouraged**

Yes

**Shower or locker facilities are provided for staff/students who commute by foot or by bicycle**

Yes

**Secure bicycle storage is provided**

Yes

**Other Sustainability Actions** Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models

Yes

**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**

Yes

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

No

**Have implemented a hazardous waste reduction and disposal strategy  
(Hazardous Waste: E.g., electronics including computer parts and monitors,  
batteries, paints, fluorescent bulbs)**

Yes

**Have incorporated minimum recycled content standards into procurement  
policy for consumable, non-paper supplies (e.g., writing instruments, binders,  
toner cartridges, etc.)**

No

**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**

No

**Please list and other sustainability actions you wish to report not included in the  
previous list.**

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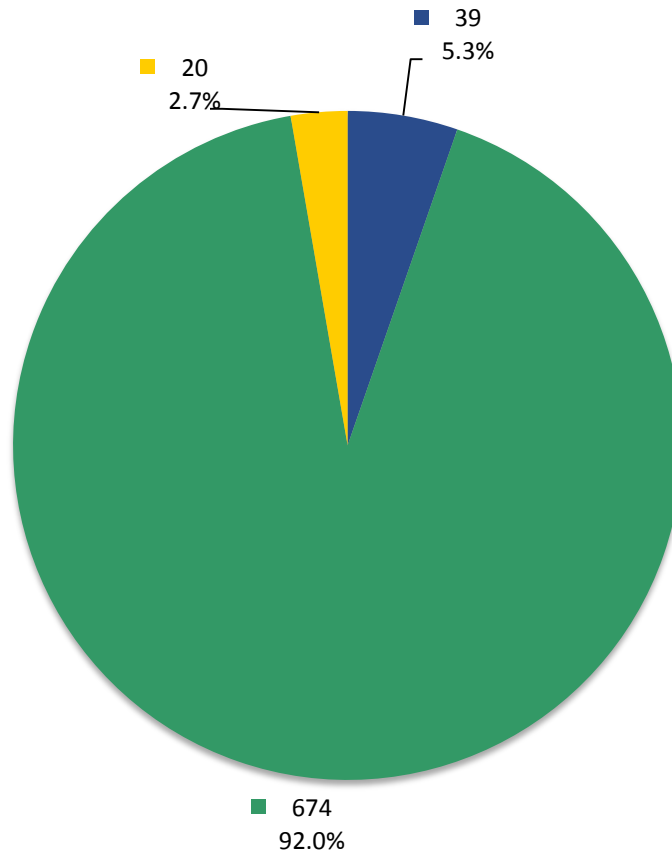
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**College of the Rockies  
Greenhouse Gas Emissions by Source  
for the 2014 Calendar Year (tCO<sub>2</sub>e\*)**



**Total Emissions: 733**

- 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 2014 (Generated June 23, 2015 4:04 PM)**

Total offsets required: **716**. Total offset investment: **\$17,900**. Emissions which do not require offsets: **17** \*\*

\*Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) 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.