

**2012**

# Carbon Neutral Action Report

Okanagan College





# 2012 Carbon Neutral Action Report

## Okanagan College

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### Executive Summary

Okanagan College continues to develop and enhance its focus on sustainability, from the perspective of an organization with a responsibility for education, training and community development, and from the perspective of an organization that is focused on achieving carbon neutrality.

Okanagan College Strategic Plan includes the following directives:



- Embed sustainability in the full range of educational programming.
- Increase sustainable practices in all operations.
- Educate students and employees to act sustainably.
- Promote leadership and collaboration with communities in developing sustainable practices.
- Ensure financial sustainability.

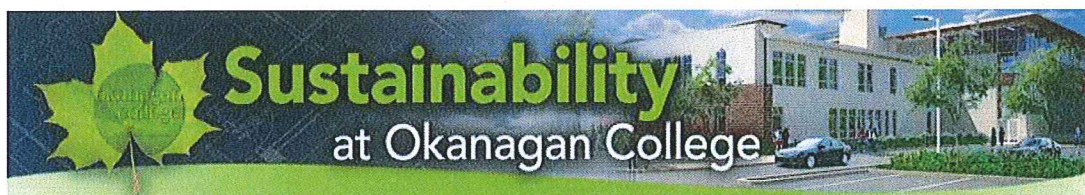
The College continues to participate in the STARS program – (**Sustainability Tracking and Assessment Rating System** administered by the Association for the Advancement of Sustainability in Higher Education). The process involves a rigorous examination of practices, policies, and achievements that contribute to sustainability. Okanagan College spent 2012 preparing for our bi-annual resubmission which will be completed in 2013. We had received an original score of Silver and were the first College in B.C. to receive such a ranking. Conveniently, many of the activities which improve our STARS scoring are also directly aligned with our carbon reduction initiatives.

The quest for improvement is ongoing. The institution has established goals for itself for carbon emissions and energy use/production:

- Okanagan College is seeking to be energy net zero by 2025, producing as much energy as it consumes, and
- Reduce our net carbon emissions by 80 tons per year.



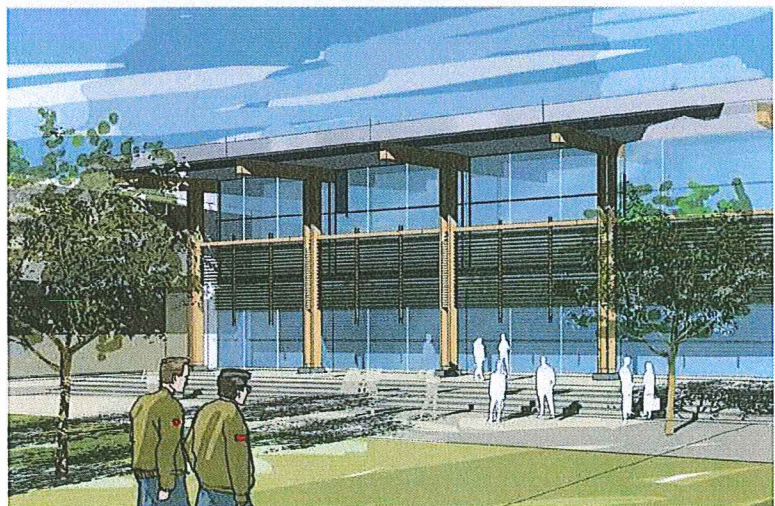
Part of Okanagan College's commitment to sustainability has involves giving greater voice and visibility to the topic. It starts with new staff orientation – sustainability is a featured topic in those sessions that introduce employees to the values and vision, policies and practices of the institution. A sustainability blog – [okanagan.bc.ca/sustainabilityblog](http://okanagan.bc.ca/sustainabilityblog) – builds the conversation and information-sharing channels.



Green teams comprised of students and staff have been formed at each of the College's four campuses, and the institution continues to support several student-led initiatives that involve the larger Okanagan community in sustainability efforts.

In early March 2012, the Okanagan College Students in Free Enterprise (SIFE) team won gold in the Scotiabank Go Green challenge, emerging victorious over the University of Calgary, Simon Fraser University, University of British Columbia, Brandon University, SAIT Polytechnic and Kwantlen Polytechnic University. Kacie Sawri from Penticton and Kelowna students Danielle Hofer, Evan Dizak, Dominique Tipton and Alejandro Valcarcel presented on the Green Business Awards (a project in partnership with the Kelowna Chamber of Commerce) and Farmbag (a new Penticton project) as well as Instill Life.

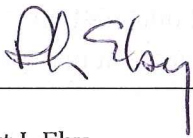
In August of 2012, the Government announced "**Trades Renewal and Expansion Project**" on our KLO campus. The project is seeking a minimum of LEED Gold standards and aims to be "Energy Net Zero". Construction of the 4 year project began in fall 2012 with the initial steps of renovating and retrofitting of 4,385 square meters of existing shop, classroom and administration space. The project will conclude with the construction of 6,264 square meters of new space, which will accommodate more than 750 trade and apprenticeship students





who currently train offsite on leased space. All mechanical and energy systems will be improved to reduce the building's carbon footprint significantly.

The College will continue to leverage the technology, passion and creativity inherent in the building to be an agent of change for the larger community, drawing on the interests and expertise of staff and students to advance the efforts to be sustainable and to reduce our collective carbon footprint.



Robert L Eby

Vice President Finance, Okanagan College

## Greenhouse Gas Emissions

Total Greenhouse Gas Emissions *Reported*\*for 2012 = **1607 tonnes of CO<sub>2</sub>e**

- **\*After the reporting deadline, a data entry error was found reducing this number to 1487tonnes**

## Offsets Applied to Become Carbon Neutral in 2012

**1606.83 tonnes of CO<sub>2</sub>e**were applied to Pacific Carbon Trust to become carbon neutral.

**2.97 tonnes of CO<sub>2</sub>e**do not require offsets due to the ethanol content in fuel for vehicles.

## Historical Performance

Reporting Year	Building Area	Students	GHG Emissions Tonnes CO <sub>2</sub> e		
			Tonnes	Tonnes / Student	Tonnes / M <sup>2</sup>
2007	57810	5258	1,977	0.38	0.0342
2008	57810	5455	2,000	0.37	0.0346
2009	61568	5906	1,902	0.32	0.0309
2010	65664	6331	1,632	0.26	0.0249
2011	72419	6457	1,599	0.25	0.0221
2012	72961	6314	1,487	0.24	0.0204

## Emissions Reductions Activities in 2012

### **Purchasing / Consumption**

- Trash Audits were performed on the Vernon and KLO campus to help us identify opportunities for carbon reduction in our purchasing practices.
- Two-sided printing was introduced as a default on all photocopiers
- All printers were set to begin “pay for print” operation in 2013
- Bulk Purchasing of cleaning products was expanded to reduce packaging waste and transportation emissions



## **Transportation**

- We have secured funding (75%) for 10 Electric car charging stations which will be installed at all 4 centers and operational by Mar 31, 2013. The next step would be to add electric cars to our fleet.
- Continued Expansion of our “Ride to work Week” and “ICBC Commuter Challenge” Programs
- Parking rates were increased and an educational program was introduced in an effort to motivate people to consider alternative forms of transportation.

## **Energy**

- We are now underway in our Building Optimization Program (BOP) on the KLO campus. Fortis BC has provided funding for utility sub-metering and an operational review which will hopefully identify opportunities for energy savings which we can take advantage of and likely duplicate at our other sites.
- Lighting retrofits continue on all sites whenever possible and include replacement of fixtures, addition of motion sensors and daylight harvesting. This year also saw the addition of LED fixtures to our strategy in some areas.
- Continued optimization of our DDC control systems – especially on the Vernon and Penticton campuses will assist in our ongoing carbon emissions reduction initiatives.
- Sub-metering of our electrical consumption is now in place in Salmon Arm and all 3 Penticton buildings. This will yield valuable consumption information which we can use to develop additional reduction strategies.

## **Policy & Planning**

- Planning has started on a 33,000,000 Trades Renewal and Expansion Project – intended to be Net Zero Energy – or better. As part of the project, we have already begun design and construction of the building expansion – including new outdoor “canopy” with 200 kW Solar PV array.
- College Wide official sustainability policy is under development
- Okanagan College has begun the second round of STARS evaluation as the Key Performance Indicator for sustainability at the College.

## **Education and Engagement**

- Completed Large Demonstration Garden Project in Vernon which was created as an educational space to promote sustainable practices in an effort to preserve, stimulate and promote agricultural and ecological ventures in the Okanagan Valley.
- In a partnership with the Fresh Outlook Foundation, the College hosted films as part of REEL Change Sustainability Film Festival
- Staff Training Staff – As part of our annual staff education program “Connections”, Educational sessions were presented on both “Sustainability on Campus” and “Sustainability in the Classroom”
- Creation of “Sustainability at Okanagan College” Facebook Page

## **Plans to Continue Reducing Greenhouse Gas Emissions 2013 and beyond**

- The Trades Complex – Renovation and Expansion in under design – anticipated to be energy net zero – currently, it consume over 20% of the college total energy footprint.
- Replace existing gas powered fleet vehicles with Electric Fleet Vehicles
- Explore Opportunities for Biomass energy generation.
- Continuous Optimization Programs for Salmon Arm, Vernon and Penticton Campuses





Okanagan College - 2012 Carbon Neutral Action Report

Actions Towards Carbon Neutrality					
The actions listed below contribute to a reduction in greenhouse gas emissions from sources for which public sector organizations are responsible under the carbon neutral government regulation of the Greenhouse Gas Reduction Targets Act.					
Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Mobile Fuel Combustion (Fleet and other)					
Behaviour change program					
Provide fleet driver training to reduce fuel use	Not Yet Evaluated				No End Date (Continuous)
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Ongoing/In Progress	There are anti-idling signs on all campuses.	Develop awareness/education campaign around all transportation practices - including idling.	2011	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress	Installed Electric Car Charging Stations to facilitate future addition of Electric Cars in fleet. These vehicles will be used to motivate staff to pay more attention to their fleet transportation choices.	Continue to develop awareness/education campaign around all transportation practices - including carpooling and fleet vehicle habits.	2011	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress	Continue to develop awareness/education campaign around all transportation practices - especially around alternative transportation.	We will be preparing a transportation modal split report this year to provide raw data to help us develop future programs.	2011	No End Date (Continuous)
Vehicle fuel efficiency					
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	There were no changes to our Fleet Vehicles in 2012, however, we did install Electric Car Charging Stations on all on all 4 main campuses to allow for the future addition of Electric Cars to our fleet.	An initiative was included in this years budget to seek funding for an electric car as part of a pilot program for our fleet.	2011	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	There were no changes to our fleet inventory on 2012.	A plan is in place to consider "right sizing" as part our selection criteria for all future fleet additions	2011	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Completed (in Previous Year)				No End Date (Continuous)
Stationary Fuel Combustion, Electricity					
Behaviour change program					
Help staff reduce personal energy use through ""workstation tune-ups""	Not Yet Evaluated				No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress	Education campaign is on-going. Energy management section set-up on College web site. Information includes behavior change tips including "Power Bar Management"	We are developing a business case to implement "occupancy controlled" power bars in office spaces.	2010	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Completed (in Previous Year)				No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress	Education campaign is on-going. Energy management section set-up on College web site. Information includes behavior change tips including "Dishwasher Settings"	Post 'Notice' of energy reduction benefits on all dishwashers on campus.	2008	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress	Education campaign is on-going. Energy management section set-up on College web site. Information includes behavior change tips including evening and weekend protocols.	Energy Reduction competition to be implemented - including prizes for identifying unnecessary 'after hour' energy consumption	2008	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress	Education campaign is on-going. Energy management section set-up on College web site. Information includes behavior change tips including benefits of using the stairs instead of elevators.	Install Signage in all elevators encouraging use of stairs and other carbon reducing tips.	2010	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress	We continue with "pay-it-forward" motivation campaign where staff and students distribute laminated "turn off your lights" cards to people who have left their lights on, encouraging them to turn off their lights and pass the card on to another offender.	Continue Expanding Pay-it-forward Awareness Program as well as strategic placement of "Turn out the Lights" signs.	2008	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Promote hot water conservation	Ongoing/In Progress	Education campaign is on-going. Energy management section set-up on College web site. Information includes behavior change tips including hot water conservation.	Energy Conservation information will be provided specifically for incoming student residents as part of orientation package.	2010	No End Date (Continuous)
IT power management					
Install power management software which shuts down computers outside of regular business hours	Completed (in Reporting Year)	All computers (except those required for 24/7 operation) now have power management software installed.		2008	2012
Implement server virtualization	Completed (in Reporting Year)	Remaining servers were virtualized in 2012		2008	2012
Apply auto-sleep settings on computer monitors and CPUs	Completed (in Previous Year)				No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices as part of a print management strategy	Ongoing/In Progress	Most personal printers, copiers and fax machines have been removed and replaced with central units. (Except where required for confidentiality reasons).	"Pay for Print" mode will be implemented in 2013 on all central printers for all staff and students.	2008	No End Date (Continuous)
Apply auto-sleep settings on printers, fax machines, and/or multi-function devices	Completed (in Previous Year)				No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Completed (in Previous Year)				No End Date (Continuous)
Leased buildings					
Establish energy performance baseline for leased buildings	Completed (in Previous Year)				No End Date (Continuous)
Lease space with operations and maintenance performance labelling/certification (e.g., LEED EB:O&M)	In Development	STARS Program also requires this certification. Review of LEED EBOM Requirements underway.	LEED EBOM Planning is in early stages. Budget and Manpower requirements are biggest hurdle.	2011	No End Date (Continuous)
Lease space with commercial interiors performance labelling/certification (e.g., LEED CI)	Not Yet Evaluated				No End Date (Continuous)
Develop a green lease policy that requires green features to conserve energy be included in all lease negotiations	In Development	No green lease policy in place yet.	Review green lease policy for other institutions to develop suitable criteria for Okanagan College.	2013	No End Date (Continuous)
Owned buildings					
Establish energy performance baseline for owned buildings	Completed (in Previous Year)				No End Date (Continuous)
Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M)	Ongoing/In Progress	Okanagan College has signed on as a participant in the STARS program designed specifically post secondary institutions. We scored a "Silver" in our initial rating (2011) and are currently preparing to resubmit in 2013. One of the scoring criteria for STARS is LEED EBOM ratings; as such, LEED EBOM is one of the tools we use when assessing our operational decisions.	Calculate a specific LEED EBOM score for each buildings to help identify sustainability opportunities.	2010	No End Date (Continuous)
Register for performance labelling/certification for commercial interiors of owned buildings (e.g., LEED CI)	Ongoing/In Progress	No significant interior development in 2012	No significant interior development planned for 2013 - but policy has been drafted to allow for LEED CI for any significant renovation.	2011	No End Date (Continuous)
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress	There were no new buildings completed in 2012 - but we did receive official LEED NC Gold for our previously completed (2009) "Center for Learning" building. We are also awaiting final LEED Certification for our "Center of Excellence" building. (Completed in 2011)	Our goal is to have all new building or major renovations achieve a minimum of LEED-NC Gold. We are in the early design stages of a major expansion to our Kelowna Trades building, which is expected to be LEED-NC Platinum as well as "Net Zero Energy"	2008	No End Date (Continuous)
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress	KLO Campus Trades building is one of our oldest and most energy intensive buildings. In Sept 2012, we received official approval to	Depending on the success of the BOP in Kelowna, we will hopefully expand the program to out other campuses.	2008	No End Date (Continuous)



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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
		begin a major renovation and expansion to this building. The goal for Okanagan College is for this building to be "net-zero energy". This criteria was included in the concept plan for the design team. Also in 2012, Okanagan College started a "Building Optimization Program" (BOP) in partnership with Fortis BC, for our KLO Campus. All KLO building are being audited to identify energy reduction opportunities.			
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Completed (in Previous Year)				No End Date (Continuous)
Planning/management					
Reduce office space (square meters) per employee	Ongoing/In Progress	There were no significant changes to staff spaces or head count in 2012, but design has begun on a major expansion to the Trades Building, which will include open plan office spaces as opposed to individual office where practical.	During renovation or new construction projects Okanagan College promotes the use of open plan office spaces and/or redesign of existing office spaces to reduce their size to reflect the current office space standards. (Ongoing)	2008	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	Electrical sub metering was installed on the Vernon campus. Electrical, Gas and BTU sub metering is in the design for the expansion project in the Heavy Duty Mechanics building - to be completed by summer 2013	Any new buildings will have sub metering included as part of our construction standard. We also continue add sub metering to existing buildings whenever opportunity and budget allow.	2009	No End Date (Continuous)
Retrofit details for owned buildings					
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	There were no major retrofits in 2012.	There are a number of mechanical system changes we would like to make but they don't make financial sense unless they are implemented as part of a larger retrofit project. As our Facilities Management and Campus Planning groups are all part of the same Department, all of our retrofits undergo a mechanical system review as part of the planning process.	2008	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	There were no major retrofits in 2012. However, "lighting only" retrofits were executed in the Automotive and Heavy Duty shops.	A Parking Lot lighting retrofit will be completed in 2013. A lighting Review is part of our planning process for all retrofit projects.	2009	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	There were no major retrofits in 2012.	A controls system upgrade will be completed in the Trades building as party of the larger Trades Expansion project. A Controls System Review is part of our planning process for all retrofit projects.	2009	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	There were no major retrofits in 2012.	A building insulation upgrade will be completed in the Heavy Duty Mechanics building as party of the larger Trades Expansion project. A Building Envelope and Insulation Review is part of our planning process for all retrofit projects.	2009	No End Date (Continuous)
Supplies (Paper)					
Behaviour change program					
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Not Yet Evaluated				No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Not Yet Evaluated				No End Date (Continuous)
Electronic media in place of paper					
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Not Yet Evaluated				No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Use electronic document library for filing common documents	Ongoing/In Progress	75% of documents are in electronic format.	Continued Expansion of electronic documentation.	2008	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Completed (in Previous Year)				No End Date (Continuous)
Paper Type					
Purchase 30% post-consumer recycled paper	Completed (in Previous Year)				No End Date (Continuous)
Purchase 40% post-consumer recycled paper	Not Yet Evaluated				No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	Compliance to regulatory requirements	Continued Compliance	2009	No End Date (Continuous)
Printer/document settings					
Switch networked printers and photocopiers to automatic double-sided	Completed (in Reporting Year)	All printers are now capable of double sided printing and also set to double sided as default.		2009	2012



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Actions to Reduce Provincial Emissions and Improve Sustainability					
The actions listed below contribute to a reduction in greenhouse gas emissions from sources that fall outside of the reporting requirements defined in the carbon neutral government regulation of the Greenhouse Gas Reduction Targets Act. Public sector					
Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Business Travel					
Behaviour change program					
Train staff in web-conferencing	Ongoing/In Progress	Education campaign is on-going. Sustainability section set-up on College web site. Information includes behavior change tips including benefits of web-conferencing.	Detailed web-conferencing instructions to be posted on-line for easy access.	2009	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress	Education campaign is on-going. Sustainability section set-up on College web site. Information includes behavior change tips including benefits of web-conferencing.	Detailed web-conferencing instructions to be posted on-line for easy access.	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress	Transportation Committee is being formed and will report at next period.	Committee will be preparing education campaign.	2011	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress	Participated in Ride to Work Week and ICBC Commuter Challenge.	Transportation committee will be preparing education campaign. Continued participation in Ride to Work Week and ICBC Commuter Challenge.	2011	No End Date (Continuous)
Policy and budgeting					
Create a low-carbon travel policy or travel reduction goal	Not Yet Evaluated				No End Date (Continuous)
Virtual meeting technology					
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Completed (in Previous Year)				No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress	5% of staff have access to desktop web-cameras. Webcams available at 4 core campus AV drops, webcam enabled laptops available at all sites.	No further steps planned at this time.	2011	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Completed (in Previous Year)				No End Date (Continuous)
Education, Awareness, and Engagement					
Awards/Recognition					
Establish a sustainability/green awards or recognition program	Ongoing/In Progress	Continued program development for STARS program - current score: Silver	Re-certifying in 2013 for the STARS program	2010	No End Date (Continuous)
Staff Professional Development					
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress	PD Funding Criteria currently includes any staff involved in any aspect of the STARS program.	Expand PD Funding to allow for Sustainability Related Opportunities - even if not directly related to line of work. (budget willing)	2011	No End Date (Continuous)
Include green options in employee performance measurement system	Not Yet Evaluated				No End Date (Continuous)
Staff awareness/education					
Provide education to staff about the science of climate change	Not Yet Evaluated				No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress	Facilities Dept provides sustainability education opportunity to all staff during annual "Connections" training Program. Began planning for staff outreach program promoting Energy and Sustainability Progress in the form of annual Sustainability "Exposition"	Anticipating first annual Sustainability "Expo"	2011	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Completed (in Previous Year)				No End Date (Continuous)

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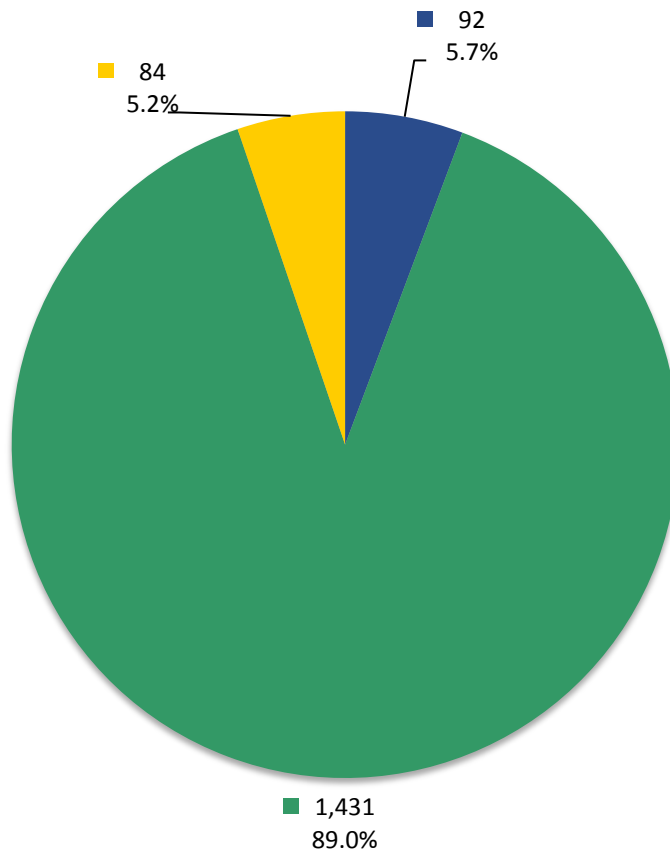
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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Provide sustainability education during new staff orientation	Completed (in Previous Year)				No End Date (Continuous)
Team-building					
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress	Sustainability Committees formed on all 4 campuses - working to develop comprehensive Sustainability Policy under the oversight of Executive team.	Anticipate roll-out of official College wide Sustainability Policy.	2011	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress	Energy Manager provided Energy Data and recommendations to Sustainability teams.	Building level energy consumption data to be posted on-line for buildings. Where possible, live, interactive dashboards will be employed.	2011	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress	Sustainability Workshop provided at 2012 Connections Staff training Event. Future Workshops planned for future.	Administration Association training event will include an interactive results based workshop in June 2013.	2011	No End Date (Continuous)
Other Sustainability Actions					
Adaptation to Climate Change					
Assessed whether extreme weather events and/or long term changes in climate will affect the organization's business areas	Not Yet Evaluated				No End Date (Continuous)
Integrated considerations of extreme weather events and/or long term changes in climate into the organization's decision making.	Not Yet Evaluated				No End Date (Continuous)
Building construction, renovation					
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Ongoing/In Progress	Okanagan College, Campus Planning has started to develop a "Construction & Demolition Debris Recycling Policy" for implementation on all capital construction and renovation projects.	Complete and implement guidelines for "Construction & Demolition Debris Recycling" for implementation on all major capital construction and renovation projects.	2010	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	Not Yet Evaluated				No End Date (Continuous)
Commuting to and from home					
Introduce telework/work from home policy	Not Yet Evaluated				No End Date (Continuous)
Offer staff a compressed work week	Not Yet Evaluated				No End Date (Continuous)
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress	We installed 10 electric car charging stations in 2012. OC has a representative on the newly formed working group: Okanagan Active Transportation Society (OAT's) Continue to develop awareness/education campaign around all transportation practices - especially around alternative transportation. Ride to work week, carpool week etc.	Detailed Transportation outreach program is under development.	2012	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress	Showers and Lockers available in select areas at OC.	All shower and locker facilities to be added to campus maps to help identify future needs.	2012	No End Date (Continuous)
Provide secure bicycle storage	Completed (in Previous Year)				No End Date (Continuous)
Procurement (non-paper supplies)					
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	Ongoing/In Progress	Education Campaign, reinforcing the awareness of procurement standards and compliance where applicable.	Continued awareness and compliance to procurement standards.	2010	No End Date (Continuous)
Establish green standards for goods that are replaced infrequently	Ongoing/In Progress	For all soft flooring replacements carpet tile has been made standard	Further evaluation of products such resilient flooring, ceiling tiles,	2011	No End Date



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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	Progress	(Interface Floors) product is completely recyclable and allows flexibility with renovation reducing overall waste.	whiteboards and paint to ensure products are in-line with College's values around sustainability (S.T.A.R.S.)		(Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Completed (in Previous Year)				No End Date (Continuous)
Waste reduction/diversion					
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Ongoing/In Progress	Waste Audits performed on KLO and Vernon Campuses. Annual participant in Recyclemania Multi stream recycling and composting is operational at all campuses. In-house closed vessel composter is in place and integrated into the composting program.	Expand the waste diversion to include post-consumer foods	2008	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress	Another successful "Waste Round Up Day". Our "green" movement has influenced many OC departments who have made the choice to improve their level of environmental responsibility. In 2012 OC eliminated all nuclear radioactive isotopes from all campuses. Using computer simulations and models, these materials will no longer be used within any of our laboratories.	Creation of hazardous waste policy as part of overall sustainability policy.	2008	No End Date (Continuous)
Water conservation					
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress	Washroom faucets, upon failure, are replaced with hands-free units. Also replacement urinals and water closets upon failure are replaced with low-flow units only.	Continue to replace washroom fixture failures with updated hands-free and/or low-flow units. (ie; Urinals, Water-Closets and Faucets)	2008	No End Date (Continuous)
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	Ongoing/In Progress	Historical water consumption data analyzed to find opportunities for reduction.	Complete Water Management Policy to be completed under College Wide Sustainability Policy	2008	No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Ongoing/In Progress	Kelowna; Parking lot 14 . Construction of Rain garden and bioswale to improve area drainage. Campus road west @ KLO road construction of bioswale to improve drainage. Vernon. Research gardens include rain water harvesting/storm water irrigation.	Complete Water Management Policy to be completed under College Wide Sustainability Policy	2009	No End Date (Continuous)

**Okanagan College  
Greenhouse Gas Emissions by Source  
for the 2012 Calendar Year (tCO<sub>2</sub>e\*)**



**Total Emissions: 1,607**

- 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 2012 (Generated May 27, 2013 11:45 AM)**

Total offsets required: **1,604**. Total offset investment: **\$40,100**. Emissions which do not require offsets: **3** \*\*

\*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.