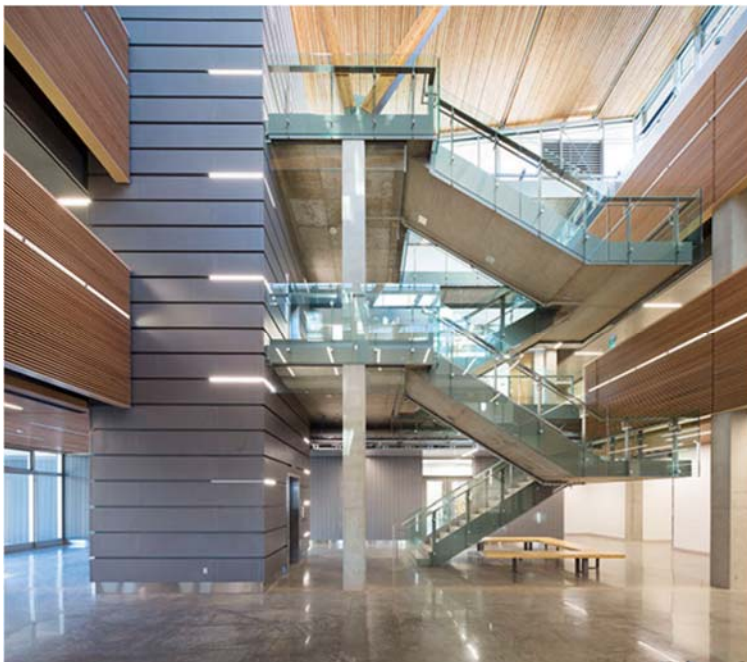




2016

Carbon Neutral Action Report

Okanagan College





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Declaration Statement:

Declaration statement: This Carbon Neutral Action Report for the period January 1st, 2016 to December 31st, 2016 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2016 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2017 and beyond.

By June 30, 2017 Okanagan College's final *Carbon Neutral Action Report* will be posted to our website at http://www.okanagan.bc.ca/Campus_and_Community/employees/facilities_management/Sustainability/Climate/Carbon_Neutrality.html

Overview

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.

The Okanagan College Strategic Plan identifies the need to address the human and financial resources, infrastructure, and environmental challenges that will accompany anticipated demographic, economic, and social changes.



- Seek additional sources of funding to sustain and further develop the College.
- Ensure there are sustainable operations in each of the four regions.
- Augment the College's human resource plan through improved strategies in key areas such as succession planning, employee development and the recruitment and retention of a diverse employee base.
- Complete and implement a sustainability plan that addresses environmental, financial and social 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. In July 2014, Okanagan College submitted our report and scored a Silver rating, a full 10% higher than our original submission in 2011. Many of the activities which improve our STARs scoring are also directly aligned with our carbon reduction initiatives. We are planning to submit again in 2017 and anticipate a further improvement in our rating – particularly with regards to our GHG emissions.

The quest for improvement is ongoing. The institution has established the following goals 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 involved giving greater voice and visibility to the topic. It starts with new staff orientation – sustainability is a featured topic in these sessions, introducing employees to the values, vision, policies and practices of the institution. Social Media plays a larger role every year as we now have an active Facebook page to complement our sustainability blog.

A significant achievement in 2016 was the completion of our **Trades Training Complex** on our KLO campus. The project will be submitted for LEED Platinum standard as well as some of the petals in the much more rigorous Living Building Challenge. It is designed to be “Energy Net Zero” and the College has already installed 200 KW of a planned 450 KW of PV Solar Panels. Construction of the four-year project began in fall 2012 with the initial steps of renovating and retrofitting 4,385 square meters of existing shop, classroom and administration space; and concluded with the completion of 6,264 square meters of new space. This now accommodates more than 750 trade and apprenticeship students, many of whom were previously trained offsite in leased space. All mechanical and energy systems in the renovated spaces were improved to significantly reduce the building’s carbon footprint.

The Penticton campus saw the start of construction of a new daycare facility which will be certified as a “Passive House”. This will offer opportunities for our construction students to be exposed to the highly advanced construction practices of the future.





The Kelowna campus started construction on a new Trades Training House project in 2016, which will include PV solar panels and thermal mass heating for the students to work with.

The College will continue to leverage the technology, passion and creativity inherent in these buildings to be an agent of change for the larger community, drawing on the interests and expertise of staff and students, to advance our intentions regarding sustainability and carbon reduction.

Emissions Reductions Activities in 2016

Purchasing / Consumption

- A Trash Audit was performed on the Vernon campus to help identify opportunities for carbon reduction in our purchasing practices.
- Our Pay for Printing program entered its fourth year which included the introduction of a personal printing account option to help staff better appreciate the impact of their own printing and copying habits. We provide individual print and copy reports for all staff which help them better understand their usage patterns.

Transportation

- We have recently contracted with a travel booking agency who can provide us with GHG emissions reports based upon our flight bookings.
- We continue to expand our Ride to Work Week and ICBC Commuter Challenge programs. We added a refreshment station on our Kelowna campus in 2016 to increase awareness and attract more riders.

Energy

- With funding from the Carbon Neutral Capital Program (CNCP), we were able to replace the remaining older, inefficient boilers with high-efficiency condensing boilers on our Kelowna Campus.
- Lighting retrofits continue on all sites whenever possible and include replacement of fixtures, addition of motion sensors and daylight harvesting.
- We are continuing to implement the energy saving opportunities identified through our Building Optimization Program (BOP) on the KLO campus.





Policy & Planning

- Our new “Strategic Plan 2016-2020” includes Sustainability as one of our Core Values.
- A College-wide official sustainability plan has been developed and is currently under review.
- A new Campus Master Plan was introduced in 2016 which drew upon elements in our transportation, energy and sustainability plans.
- STARS Planning: We resubmitted in July 2014 and scored a Silver. We are now working on our performance in many areas in anticipation of our 2017 submission.

Education and Engagement

- Sustainability continues to be a key element in our orientation processes for new staff and students.

Plans to Continue Reducing Greenhouse Gas Emissions 2016 and beyond

- The Trades Training Complex was completed in 2016. It is anticipated to be energy net zero. We are now monitoring its operation to ensure effectiveness and to maximize our GHG reductions. It’s also used as a learning tool to inform future construction projects.
- The Kelowna Campus will start the design of an expansion to the Laboratory building. This will house our health sciences programs and will provide us an opportunity to upgrade some of the central systems in the existing building as well as the main IT server room.
- Continue to review administration processes in different departments using Lean methodology to reduce unnecessary paper-based filing systems where practical.
- Continue to have projects planned and budgeted so we can take advantage of the Carbon Neutral Capital Program.




Emissions and Offset Summary Table:

| <i>Okanagan College</i> GHG Emissions and Offset for 2016 (TCO₂E) | |
|---|------|
| GHG Emissions created in Calendar Year 2016 : | |
| Total Emissions (tCO ₂ e) | 1400 |
| Total Offsets (tCO ₂ e) | 1397 |
| Adjustments to GHG Emissions Reported in Prior Years : | |
| Total Emissions (tCO ₂ e) | 0 |
| Total Offsets (tCO ₂ e) | 0 |
| Grand Total Offsets for the 2016 Reporting Year : | |
| Grand Total Offsets (tCO ₂ e) | 1397 |

Retirement of Offsets:

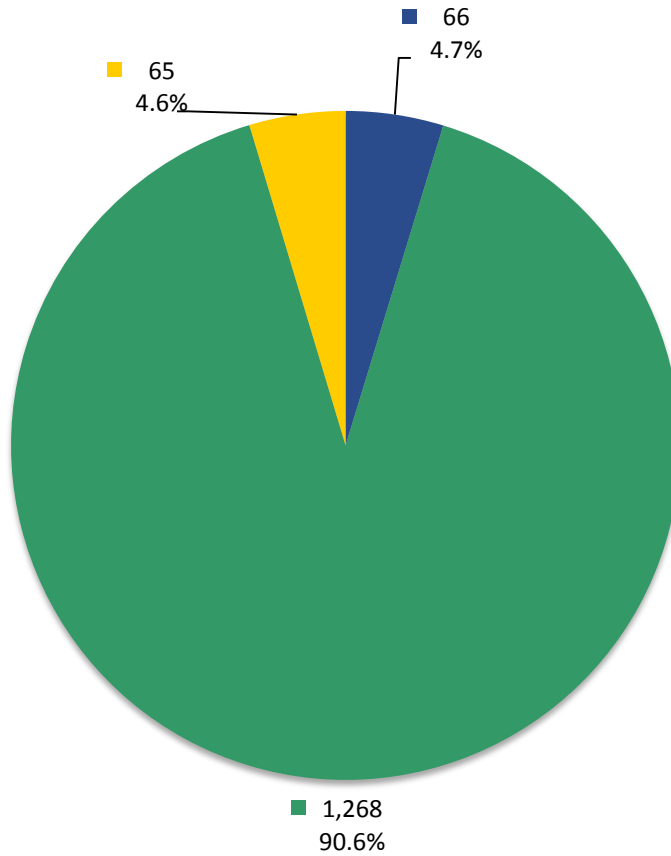
In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, **Okanagan College (the Organization)** is responsible for arranging for the retirement of the offsets obligation reported above for the 2016 calendar year, together with any adjustments reported for 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.

Executive sign-off:

| | |
|---|--------------|
|  | 30 May, 2017 |
| Signature | Date |
| Jim Hamilton | President |
| Name (please print) | Title |



Okanagan College Greenhouse Gas Emissions by Source for the 2016 Calendar Year (tCO₂e*)



Total Emissions: 1,400

- 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 2016 (Generated May 15, 2017 4:21 PM)

Total offsets required: **1,397**. Total offset investment: **\$34,925**. Emissions which do not require offsets: **2** **

*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.

2016 Carbon Neutral Action Report Survey

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Part One (external)

Contact Name(s):

Rob St. Onge

Organization Name:

Okangan College

Please select your sector:

- Post-Secondary Institution

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

During 2016, did your organization take any of the following actions to support emissions reductions from buildings?

Select all that apply

- Built, or are building new LEED Gold or other “Green” buildings.: If yes, how many buildings? 1

Briefly describe your organization’s plans to continue reducing emissions from its stationary sources in future years.

Central Heating Plant optimization is ongoing. We have upgraded our boiler plant to become more efficient and are continuing with lighting upgrades for all buildings as budget permits.

During 2016, did your organization participate in utility-sponsored energy demand management program(s) (e.g. BC Hydro’s Energy Management (Manager))?

No

If yes, please describe briefly:

(No response)

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

During 2016, did your organization take any of the following actions to support emission reductions from its mobile sources?

Select all that apply

- Took steps to drive less than previous years.
-

Briefly describe your organization's plans to continue reducing emissions from its mobile sources in future years.

We currently have a fleet of vehicles for inter-campus travel. We are considering the replacement of one of the vehicles with a 100% electric model. We are also actively trying to replace some inter-campus travel with more teleconferencing.

3) Supplies (Paper):

During 2016, did your organization take any of the following actions to support emissions reductions from paper supplies?

Select all that apply

- Awareness campaign focused on reducing office paper use.
-

Briefly describe your organization's plans to continue reducing emissions associated with its office paper use in future years.

We now provide personalized monthly paper print and copy reports for all staff so they can become more aware of their own usage.

4) Other Sustainability Actions:

Business Travel:

During 2016, did your organization take any of the following actions to support emissions reductions from business travel?

Select all that apply

-
- Other, please describe briefly: We have recently contracted with a travel booking agency who can provide us with GHG emissions reports based upon our flight bookings.
-

Education Awareness:

During 2016, did your organization have any of the following programs or initiatives to support sustainability education and awareness?

Select all that apply

-
- Green, Sustainability or Climate Action Team
 - Support for professional development on sustainability (e.g. workshops, conferences, training)
 - Supported or provided education to staff about the science of climate change, conservation of water, energy and/or raw materials

Other Sustainability Actions:

During 2016, did your organization have any of the following programs or initiatives to support sustainability?

Select all that apply

-
- A water conservation strategy which may include a plan or policy for replacing water fixtures with efficient models
 - An operations policy or program to facilitate the reduction and diversion of building occupant waste (e.g., composting, collection of plastics, batteries) from landfills or incineration facilities
 - Green procurement standards for goods (e.g., office furniture, etc.)
 - Lifecycle costing of new construction or renovations