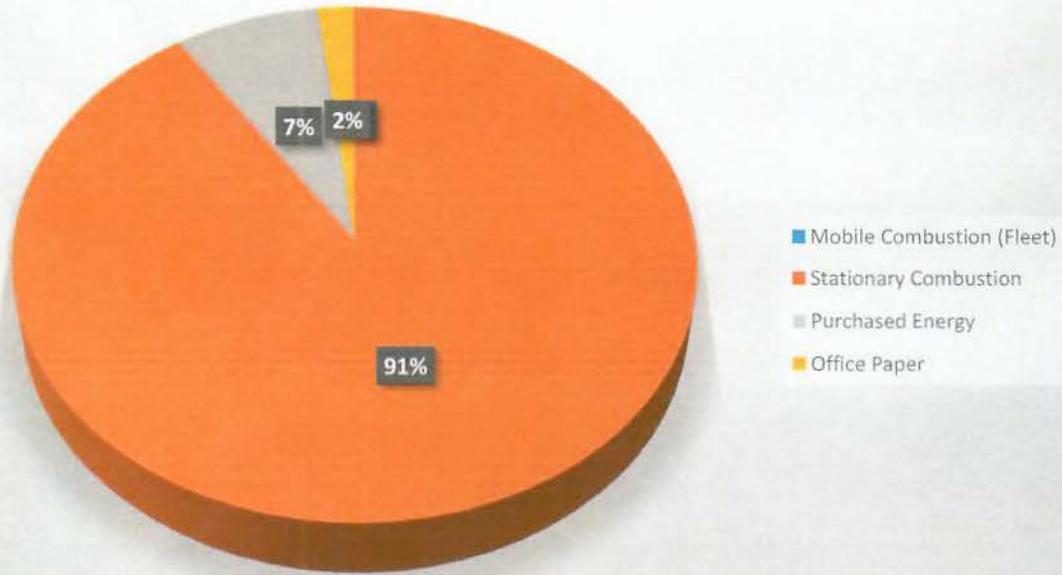




# 2017 Carbon Neutral Action Report



**Emily Carr University of Art + Design  
Green House Gas Emissions by Source  
for the 2017 Calendar Year (tCO2e)**



	tCO2e
Mobile Combustion (Fleet)	0.04
Stationary Combustion	724.59
Purchased Energy	60.29
Office Paper	14.46
<b>Offsets Applied to Become Carbon Neutral in 2017</b>	<b>809</b>
<b>Total Offset Investment</b>	<b>\$ 21,236.25</b>

**Retirement of Offsets:**

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, Emily Carr University of Art + Design (**the Organization**) is responsible for arranging for the retirement of the offsets obligation reported above for the 2017 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 within 30 days, 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:**

Signature: *Michael Clifford* Date: MAY 29<sup>th</sup> 2018  
 Name: MICHAEL CLIFFORD Date: MAY 29<sup>th</sup> 2018

# Executive Summary



This Carbon Neutral Action Report for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2017 summarizes the university's emissions profile, the amount of offsets purchased to reach net zero emissions, the actions taken in 2017 to reduce our greenhouse gas emissions and plans to continue reducing emissions in 2018 and beyond.



In 2017, Emily Carr University of Art + Design completed the development of its new Campus location. This year reflects the fact that the University was operating two main Campus locations for a period of time as it wound down its operations at the historic Granville Island location. The new Campus location in the South East False Creek neighborhood began operations August 2017 and welcomed its first students in September.



The development of the new campus has achieved LEED Gold Certification.



The design and construction took advantage of several state of the art technologies. A key feature being the physical location which allowed the Campus to connect to the City of Vancouver's Neighborhood Energy Utility System. The this "waste to energy" utility provides hot water for both Campus Heating and Domestic Water and eliminates the need for the University to burn fossil fuel for heating. Other features include:

- Efficient insulation levels in walls and roofs with a low window to wall ratio;
- High performance windows (double glazed, low-e and argon gas fill, thermally broken frame);
- Efficient lighting design and extensive use of occupancy sensors to control lighting. Dimmable ballasts and daylight sensors to maximize daylight harvesting;
- Chilled beams use for zonal heating and cooling;
- All pumps and fan motors utilize variable speed drives;
- Specialty exhaust systems with heat pump heat recovery through coils within the exhaust air streams;
- Outdoor air ventilation controlled in response to CO2 levels;
- High efficiency water-to-water heat pumps supply chilled water to the building, these systems are capable of rejecting heat onto the low temperature hot water loop; and
- Low flow fixtures to reduce the water usage and energy required.



The location of the Emily Carr University of Art + Design Campus lends itself perfectly to users of low carbon impact transportation system. Situated just a short walk from rapid transit stations, and right along the Central Valley Green Way, the Campus welcomes cyclists with multiple bike racks, secure lockers and storage areas as well as end-of-journey shower and change facilities. Reserved parking spaces for Carpool use along with purpose built Electric Vehicle charging stations further encourage the use of low carbon impact transportation.



A comprehensive waste management program complete with performance metrics help ensure the diversion of waste from landfill and causes the recycling and repurposing of educational materials and green waste.

# Part 1: CNAR Survey

## 1. General Information

Name: Andy O'Neill

Contact Email: andyoneill@ecuad.ca

Organization Name: Emily Carr University of Art + Design

Sector: Post Secondary

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

During 2017, did your organization take any of the following actions to support emissions reductions from buildings? (please select all that apply)

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

If you selected "*Performed energy retrofits of the organization's building(s)*":

How many buildings were retrofitted?:

If you selected "*Built, or are building new LEED Gold or other "Green" buildings*":

How many new "Green" buildings?: 1

Did your Organization perform any retrofits during 2017? Please describe briefly:

## 2a. Stationary Sources (eg. Buildings, Power Generators): Fuel Combustion, Electricity use, Fugitive Emissions.

Please briefly describe your organization's plans to continue reducing emissions from its stationary sources:

a) Over the next 1-5 years

Maximizing the operation and performance of high efficiency natural gas fired kilns

b) Over the following 6-10 years

Maximizing the operation and performance of high efficiency natural gas fired kilns

## 3. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:

During 2017, did your organization take any of the following actions to support emission reductions from its mobile sources? (please select all that apply)

Took steps to drive less than previous years

If you selected "*Replaced existing vehicles with more fuel efficient vehicles (gas/diesel)*":

How many vehicles?:

If you selected "*Replaced existing vehicles with hybrid or electric vehicles*":

How many vehicles?:

## 3a. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:

Please briefly describe your organization's plans to continue reducing emissions from its mobile sources:

a) Over the next 1-5 years

At such time that our propane fueled forklift is to be replaced, we plan to explore the option of sourcing and electric powered machine.

b) Over the following 6-10 years

## 4. Supplies (Paper): Indicate which actions your PSO took in 2017:

During 2017, did your organization take any of the following actions to support emissions reductions from paper supplies? (please select all the apply)

Had an awareness campaign focused on reducing office paper use

If you selected "*Had a policy requiring the purchase of recycled content paper*":

State the required recycled content here (30%, 50%, 100%):

If you selected "*Had a policy requiring the purchase of alternate source paper (bamboo, hemp, wheat, etc)*", which type of alternate source paper did you use?

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

Promoting electronic document sharing. Evaluate purchasing options for office paper produced through reduced emission manufacturing processes.

## 5. Other Sustainability Actions

### a) Business Travel

During 2017, did your organization take any of the following actions to support emissions reductions from business travel? (please select all that apply)

Encouraged alternative travel for business (e.g. bicycles, public transit, walking); Encouraged or allowed teleworking or working from home

### b) Education/Awareness

During 2017, did your organization have any of the following programs or initiatives to support sustainability education and awareness? (please select all that apply)

4. Supplies (Paper): Indicate which actions your PSO took in 2017:

5a) Other Sustainability Actions - Other? Please specify: Established the environmental and sustainability services program and requirements in conjunction with the key service provider

## c) Other Sustainability Actions

**During 2017, did your organization have any of the following programs or initiatives to support sustainability? (please select all that apply)**

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; Lifecycle costing of new construction or renovations