

# Greenhouse Gas Protocol (Dual Reporting) Report for Dawson College

Assessment Period: July 2013 - June 2014

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# Assessment Details

## Consolidation Approach

Operational Control

## Organisational Boundaries

Operations of Dawson College

### Included

- Dawson College
- Dawson College

## Operational Boundary

- Electricity
- Landfilled waste
- Natural gas
- Off-road vehicles and equipment
- Other fuel(s)
- Recycled waste

## Quality Assurance Assessor

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# Introduction

A greenhouse gas (GHG) emissions assessment quantifies the total greenhouse gases produced directly and indirectly from a business or organisation's activities. Also known as a carbon footprint, it is an essential tool, providing your business with a basis for understanding and managing its climate change impacts.

A GHG assessment quantifies all seven Kyoto greenhouse gases where applicable and is measured in units of carbon dioxide equivalence, or CO<sub>2</sub>e<sup>1</sup>. The seven Kyoto gases are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), nitrogen trifluoride (NF<sub>3</sub>), sulphur hexafluoride (SF<sub>6</sub>) and perfluorocarbons (PFCs). The global warming potential (GWP) of each gas is illustrated in the Table 1.

**Table 1. GWP of Kyoto Gases (IPCC 2013, without climate-carbon feedback)**





# Assessment Summary for Dawson College

**Gross Overall Emissions (location-based): 783 tCO<sub>2</sub>e**

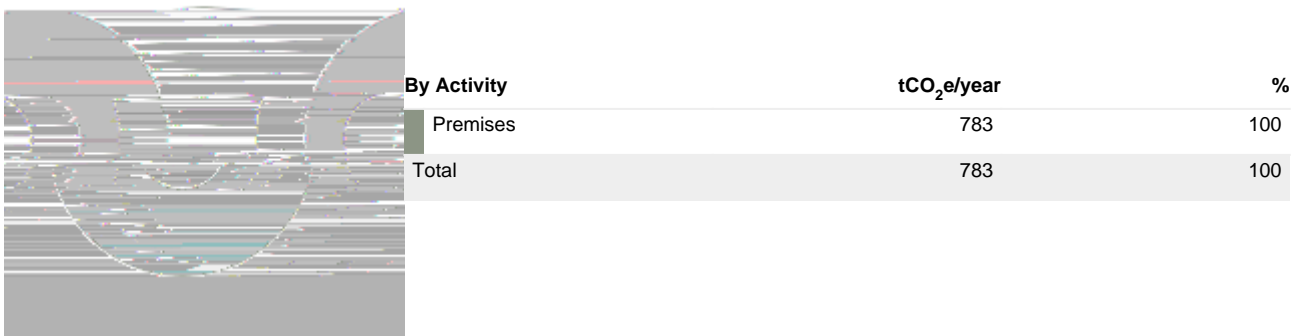
**Gross Overall Emissions (market-based): 783 tCO<sub>2</sub>e**

## Key Performance Indicators

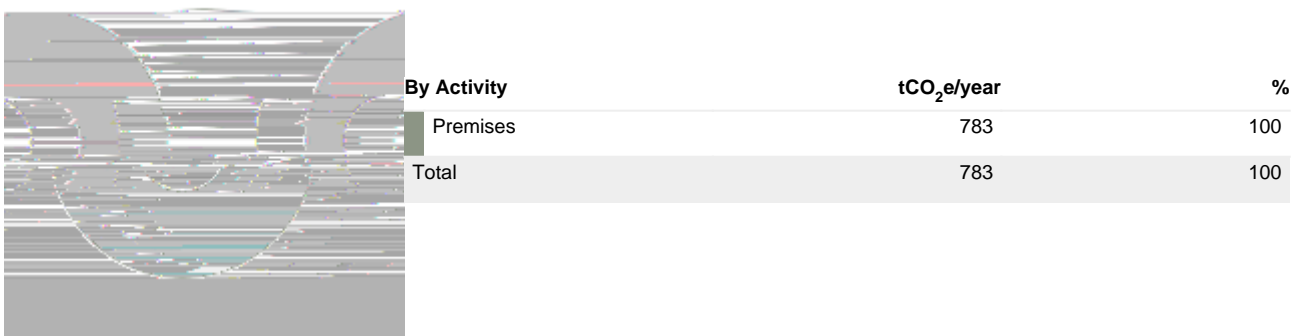
Absolute GHG emissions will vary over time and often correspond to the expansion or contraction of an organisation. It is useful therefore to use reporting metrics that take these effects into account and monitor relative GHG emissions intensity. A common emissions intensity metric is tonnes of CO<sub>2</sub>e per full time equivalent. This has been calculated, along with other relevant metrics, in the table below:

Data	KPI
10,851 Number of students	0.0722 tCO <sub>2</sub> e per student (Location-Based)
78,949 Floor area (square metres)	0.00992 tCO <sub>2</sub> e per square metre (Location-Based)
783 Full Time Equivalent Employees	1 tCO <sub>2</sub> e per Full Time Equivalent Employee (Location-Based)
10,851 Number of students	0.0722 tCO <sub>2</sub> e per student (Market-Based)
78,949 Floor area (square metres)	0.00992 tCO <sub>2</sub> e per square metre (Market-Based)
783 Full Time Equivalent Employees	1 tCO <sub>2</sub> e per Full Time Equivalent Employee (Market-Based)

## Summary by Activity (Location-Based, tCO<sub>2</sub>e)



## Summary by Activity (Market-Based, tCO<sub>2</sub>e)



## Summary by WBCSD/WRI Scope (Location-Based, tCO<sub>2</sub>e)



Scope	tCO <sub>2</sub> e/year	%
Scope 1	479	61.1
Scope 2	24.8	3.16
Scope 3	280	35.8
Total	783	100

# Summary of Scope 2 Market-Based Method for Dawson College

## Energy Consumed and Emissions By Factor Type In Scope 2 Market-Based Method

Scope 2 Market-Based Energy



Scope 2 Market-Based Emissions



Emission Factor Type	Energy		Market-Based Emissions	
	MWh	%	tCO <sub>2</sub> e	%





# Summary by Company Unit

Location-Based methodology

Assessment

July 2012 - June 2013

July 2013 - June 2014

Company Unit

Total  
Emissions  
(tCO

# Annual Activity Data

Source of Emissions	Value	Unit
<b>Premises</b>		
Electricity		
Electricity consumption	14,282,609	kWh
Landfilled waste		
Waste, landfilled, MSW	186	tonne
Natural gas		
Natural gas consumption (gross CV)	250,938	m3
Off-road vehicles and equipment		
Small utility mobile equipment and off-road vehicles, gasoline	80	l
Other fuel(s)		
Diesel	825	l
Recycled waste		
Waste, recycled	62	tonne

# References

EC (2016). National Inventory Report, 1990-2014: Greenhouse Gas Sources and Sinks in Canada. Environment Canada.

EC (2015). National Inventory Report. Greenhouse Gas Sources and Sinks in Canada: 1990 - 2013. Environment Canada.; EC (2016). National Inventory Report. Greenhouse Gas Sources and Sinks in Canada: 1990 - 2014. Environment Canada.

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