Greenhouse Gas Protocol (Dual Reporting) Report for Canadore College

Assessment Period: April 2020 - March 2021

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Assessment Details

Consolidation Approach

Operational control

Organisational Boundaries

Operations of Canadore College

Included

- Canadore College
- College Drive
- Commerce Court
- Aviation
- West Parry Sound

Operational Boundary

- Cars
- Electricity
- Homeworkers
- Landfilled waste
- Natural gas
- Off-road vehicles and equipment
- Other fuel(s)
- Recycled waste
- Trucks
- Vans
- Water supply

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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_2e[1]. The seven Kyoto gases are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), nitrogen trifluoride (NF_3), sulphur hexafluoride (SF_6) 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)

Greenhouse Gas	GWP
Carbon dioxide (CO_2)	1
Methane (CH_4)	28
Nitrous oxide (N_2O)	265
Hydrofluorocarbons (HFCs)	1 - 12,400
Perfluorocarbons (PFCs)	1 - 11,100
Nitrogen trifluoride (NF_3)	16,100
Sulphur hexafluoride (SF_6)	23,500

This assessment has been carried out in accordance with the World Business Council for Sustainable Development and World Resources Institute's (WBCSD/WRI) Greenhouse Gas Protocol; a Corporate Accounting and Reporting Standard, including the GHG Protocol Scope 2 Guidance. This protocol is considered current best practice for corporate or organisational greenhouse gas emissions reporting. GHG emissions have been reported by the three WBCSD/WRI Scopes.

Scope 1 includes direct GHG emissions from sources that are owned or controlled by the company such as natural gas combustion and company owned vehicles.

Scope 2 accounts for GHG emissions from the generation of purchased electricity, heat and steam generated off-site. As the subject of this assessment operates in markets which offer contractual instruments with product or supplier-specific data, scope 2 emissions are reported using both the location-based method and the market-based method. The location-based method applies average emission factors that correspond to the grid where consumption occurs, whereas the market-based method applies emission factors that correspond to energy purchased (or not purchased) through contractual instruments. Contractual instruments include energy attribute certificates, direct energy contracts, and supplier specific emission rates. The subject of this assessment has ensured that any contractual instruments used in the market-based method have met the Scope 2 Quality Criteria, as defined in the Guidance. Where contractual instruments do not meet the Quality Criteria, or where contractual instruments were not purchased, market-based scope 2 emissions have been calculated using residual mix emission factors. Where residual mix emission factors are not available, market-based scope 2 emissions have been calculated using default location grid-average emission factors, per the Protocol hierarchy. This may result in double counting between electricity consumers, as an adjusted emission factor taking into account voluntary purchases of electricity with specific attributes was not available.

Scope 3 includes all other indirect emissions such as waste disposal, business travel and staff commuting. Reporting of these activities is optional under the WBCSD/WRI GHG Protocol, but as they can contribute a significant portion of overall emissions Ecometrica recommends they are reported where applicable.

A GHG assessment is an essential tool in the process of monitoring and reducing an organisation's climate change impact as it allows reduction targets to be set and action plans formulated. GHG assessment results can also allow organisations to be transparent about their climate change impacts through reporting of GHG emissions to customers, shareholders, employees and other stakeholders. Regular assessments allow clients to track their progress in achieving reductions over time and provide evidence to support green claims in external marketing initiatives such as product labelling or CSR reporting. Ecometrica GHG assessments are designed to be transparent, consistent and repeatable over time.

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[1] Carbon dioxide equivalent or CO_2e is a term for describing different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO_2e signifies the amount of CO_2 which would have the equivalent global warming impact.

Data Quality and Availability

In order to provide the most accurate estimate of an organisation's GHG emissions, primary (actual) data should be used where it is available, up to date and geographically relevant. Secondary data in the form of estimates, extrapolations and industry averages may be used when primary data is not available. Table 2 details the quality of data submitted for this assessment with the key assumptions used stated below.

Data Quality Overview

Location-based

Accuracy Overview	tCO_2e/year	%
Actual	679	17.7
Estimated	3,158	82.3
Total	3,837	100

Market-based

Accuracy Overview	tCO_2e/year	%
Actual	679	17.7
Estimated	3,158	82.3
Total	3,837	100

Table 2. Data Quality and Availability

Source of emissions	Data quality
Premises	
Composted waste	N/A
Electricity	Mixed
Fuel oil	N/A
Landfilled waste	Mixed
Natural gas	Mixed
Other fuel(s)	Actual
Recycled waste	Estimated
Refrigerant gas loss and other fugitive emissions	N/A
Water supply	Mixed
Company owned vehicles	
Cars	Estimated
Off-road vehicles and equipment	Estimated
Trucks	Actual
Vans	Estimated
Homeworkers	

Homeworkers	Estimated
Staff Commuting	
Bicycle	N/A
Bus and coach	N/A
Cars	N/A
Motorcycle	N/A
On foot	N/A
Rail (train, tram, light rail, underground)	N/A
Student Commuting	
Bicycle	N/A
Bus and coach	N/A
Cars	N/A
Motorcycle	N/A
On foot	N/A
Rail (train, tram, light rail, underground)	N/A
Business Travel - Employees	
Air travel	N/A
Bus and coach	N/A
Employee owned cars	N/A
Hired cars	N/A
Hotel night stays	N/A
Rail (train, tram, light rail, underground)	N/A
Taxi	N/A
Business Travel - Students	
Air travel	N/A
Bus and coach	N/A
Employee owned cars	N/A
Hired cars	N/A
Hotel night stays	N/A
Rail (train, tram, light rail, underground)	N/A
Taxi	N/A

Key Assumptions

General

- All emissions were calculated using the Ecometrica Sustainability platform, a software which automatically selects the most geographically and temporally appropriate emission factors and non-standard conversions (e.g. fuel efficiency, heat content) for each emission source. Each of the emission factors and non-standard conversions is associated with a level of uncertainty, assigned by the tool based on its associated level of scientific certainty.
- Ecometrica did not review raw data or internal data collection systems. All data provided is assumed to be accurate and complete.
- It was confirmed that none of the sites included in the 2021 assessment purchased any market-based instruments for Scope 2 energy consumption in 2021. Per the Scope 2 Protocol, residual mix factors are applied in the market-based method where available (i.e. European countries), and location-based factors are defaulted to in the market-based method where residual mix factors are not available.

- The reporting boundary is defined as four sites represented by the three campus buildings in North Bay and one campus building in Perry Sound; Canadore College has chosen to exclude the four Stanford campuses.

Key Performance Indicators

- The number of students was calculated using the number of equivalent full-time employees and the total number of students. With an a fraction that was extrapolated to the 3 terms in the year, Canadore College was able to calculate the number of students for each campus.

Premises

- Electricity consumption for the College Drive campus was estimated by allocating a percentage of the building's total consumption based on the percentage of the space they occupy.
- Natural gas consumption for the College Drive campus was estimated by allocating a percentage of the building's total consumption based on the percentage of the space they occupy.
- Gasoline consumption for the College Drive campus was estimated by allocating a percentage of the building's total consumption based on the percentage of the space they occupy.
- Water consumption for the College Drive campus was estimated by allocating a percentage of the building's total consumption based on the percentage of the space they occupy.
- Landfilled waste for the College Drive campus was estimated by allocating a percentage of the building's total waste based on the percentage of the space they occupy.
- For recycling, it was assumed that 10-yard bins were emptied 3 times and were, on average, 2/3 full each time for College Drive and Commerce Court campuses.

Company-owned vehicles

- For the College Drive campus, it was estimated that each of their 2 cars travelled 2500 km throughout the assessment period.
- For College Drive, the usage of their electric vehicle was estimated to be half of the yearly usage as it was in repair for 6 months.

Homeworking

- Ecometrica uses an in-house developed home worker model to estimate homeworker emissions that are geographically and temporally specific. The model includes three distinct energy demands – home office equipment, space heating, and space cooling. The assumed energy use of home office equipment is constant across all countries whereas the energy required for heating and cooling the home varies significantly and is based on country-specific data.
- The model applies country specific grid electricity factors to the assumed energy consumption of home office equipment in order to calculate resultant greenhouse gas emissions. Additionally, country specific (or climatic average) residential heating and cooling data is deduced and is thus subject to location- and fuel-specific emission factors in order to calculate the emissions from additional heating and cooling from increased occupancy of homes during homeworking. Added together these calculation outputs provide the emissions of CO2, CH4 and N2O 'per working day' in order to allow application against a known number of days worked from home for employees in each country/region.
- It was assumed that all employees worked from home during the assessment period due to COVID-19. It was assumed that employees had 5 holidays plus a minimum of 3 weeks' vacation in 2021. Part-time employees were assumed to have worked 25% of a full year.
- Canadore College chose to include the homeworking of students. Total homeworking days for students were divided by the number of periods taken by students and multiplied by 2 to represent the number of semesters.

Commuting and business travel

- Staff commuting, student commuting, employee business travel, and student business travel were not included for this assessment period as a data collection system is still being put in place.

Assessment Summary for Canadore College

Gross Overall Emissions (location-based): 3,837 tCO_2e

Gross Overall Emissions (market-based): 3,837 tCO_2e

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_2e per full time equivalent. This has been calculated, along with other relevant metrics, in the table below:

Data	KPI
3,158 Number of students	1.21 tCO_2e per student (Location-Based)
682,445 Floor area (square feet)	0.00562 tCO_2e per square foot (Location-Based)
3,158 Number of students	1.21 tCO_2e per student (Market-Based)
682,445 Floor area (square feet)	0.00562 tCO_2e per square foot (Market-Based)

Summary by Activity (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Homeworkers	2,180	56.8
Premises	1,636	42.6
Company owned vehicles	20.4	0.532
Total 3,837	100	

Summary by Activity (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Homeworkers	2,180	56.8
Premises	1,636	42.6
Company owned vehicles	20.4	0.532
Total 3,837	100	

Summary by WBCSD/WRI Scope (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Scope 1	1,343	35
Scope 2	119	3.11
Scope 3	2,374	61.9
Total	3,837	100

Summary by WBCSD/WRI Scope (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Scope 1	1,343	35
Scope 2	119	3.11
Scope 3	2,374	61.9
Total	3,837	100

Summary by Greenhouse Gas

Greenhouse Gas	GWP	tGHG/year (Location-Based)	tCO_2e/year (Location-Based)	tGHG/year (Market-Based)	tCO_2e/year (Market-Based)
CO_2	1	3,632	3,632	3,632	3,632
CH_4	28	1.96	55	1.96	55
N_2O	265	0.0703	18.6	0.0703	18.6
CO_2e	1	131	131	131	131
Total			3,837		3,837

Summary of Scope 2 Market-Based Method for Canadore 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_2e	%
Client-supplied market-based instrument	0	0	0	0
Residual mix factors	0	0	0	0
Default location-based factors	4,515	100	119	100
Total	4,515	100	119	100

Detailed Results

Detailed Summary by WBCSD/WRI Scope

Location-Based methodology

Source of Emissions	tCO_2/yr	tCH_4/yr	tN_2O/yr	Total Emissions (tCO_2e/yr)	%
Scope 1 Total	**1,336**	**0.0266**	**0.0254**	**1,343**	**35%**
Company owned vehicles Total	20	0.00111	0.00142	20.4	0.531%
Cars	1.05	2.8e-5	2.49e-5	1.05	0.0274%
Off-road vehicles and equipment	4.3	6.31e-4	1.83e-4	4.36	0.114%
Trucks	13.9	4.1e-4	0.00121	14.2	0.371%
Vans	0.724	4.39e-5	6.91e-6	0.727	0.019%
Premises Total	1,316	0.0254	0.0239	1,323	34.5%
Natural gas	1,312	0.0253	0.0239	1,319	34.4%
Other fuel(s)	4.11	1.78e-4	3.56e-5	4.12	0.107%
Scope 2 Total	**117**	**0.0316**	**0.00451**	**119**	**3.11%**
Premises Total	117	0.0316	0.00451	119	3.11%
Electricity	117	0.0316	0.00451	119	3.11%
Scope 3 Total	**2,179**	**1.91**	**0.0405**	**2,374**	**61.9%**
Company owned vehicles Total	0.0175	1.52e-6	4.42e-7	0.0177	4.6e-4%
Cars	0.0172	1.43e-6	4.29e-7	0.0173	4.51e-4%
Cars: Electricity - transmission & distribution losses (MCR)	3.41e-4	9.19e-8	1.31e-8	3.48e-4	9.06e-6%
Homeworkers Total	2,168	0.0486	0.0401	2,180	56.8%
Homeworkers	2,168	0.0486	0.0401	2,180	56.8%
Premises Total	10.8	1.86	4.15e-4	194	5.05%
Electricity: Electricity - transmission & distribution losses	10.8	0.0029	4.15e-4	11	0.286%
Electricity: Electricity grid, T&D losses, upstream emissions	0	0	0	12.6	0.328%
Electricity: Electricity grid, generated, upstream emissions	0	0	0	106	2.76%
Landfilled waste	0	1.85	0	51.9	1.35%
Recycled waste	0	0	0	0	0%
Water supply	0	0	0	12.4	0.324%
Total	**3,632**	**1.96**	**0.0703**	**3,837**	**100%**

Market-Based methodology

Source of Emissions	tCO_2/yr	tCH_4/yr	tN_2O/yr	Total Emissions (tCO_2e/yr)	%
Scope 1 Total	**1,336**	**0.0266**	**0.0254**	**1,343**	**35%**

Company owned vehicles Total	20	0.00111	0.00142	20.4	0.531%
Cars	1.05	2.8e-5	2.49e-5	1.05	0.0274%
Off-road vehicles and equipment	4.3	6.31e-4	1.83e-4	4.36	0.114%
Trucks	13.9	4.1e-4	0.00121	14.2	0.371%
Vans	0.724	4.39e-5	6.91e-6	0.727	0.019%
Premises Total	1,316	0.0254	0.0239	1,323	34.5%
Natural gas	1,312	0.0253	0.0239	1,319	34.4%
Other fuel(s)	4.11	1.78e-4	3.56e-5	4.12	0.107%
Scope 2 Total	**117**	**0.0316**	**0.00451**	**119**	**3.11%**
Premises Total	117	0.0316	0.00451	119	3.11%
Electricity	117	0.0316	0.00451	119	3.11%
Scope 3 Total	**2,179**	**1.91**	**0.0405**	**2,374**	**61.9%**
Company owned vehicles Total	0.0175	1.52e-6	4.42e-7	0.0177	4.6e-4%
Cars	0.0172	1.43e-6	4.29e-7	0.0173	4.51e-4%
Cars: Electricity - transmission & distribution losses (MCR)	3.41e-4	9.19e-8	1.31e-8	3.48e-4	9.06e-6%
Homeworkers Total	2,168	0.0486	0.0401	2,180	56.8%
Homeworkers	2,168	0.0486	0.0401	2,180	56.8%
Premises Total	10.8	1.86	4.15e-4	194	5.05%
Electricity: Electricity - transmission & distribution losses	10.8	0.0029	4.15e-4	11	0.286%
Electricity: Electricity grid, T&D losses, upstream emissions	0	0	0	12.6	0.328%
Electricity: Electricity grid, generated, upstream emissions	0	0	0	106	2.76%
Landfilled waste	0	1.85	0	51.9	1.35%
Recycled waste	0	0	0	0	0%
Water supply	0	0	0	12.4	0.324%
Total	**3,632**	**1.96**	**0.0703**	**3,837**	**100%**

Summary by Company Unit

Location-Based methodology

Company Unit	tCO_2e/year
Canadore College	3,837
College Drive	2,502
Commerce Court	868
Aviation	382
West Parry Sound	84.3

Market-Based methodology

Company Unit	tCO_2e/year
Canadore College	3,837
College Drive	2,502
Commerce Court	868
Aviation	382
West Parry Sound	84.3

Annual Activity Data

Source of Emissions	Value	Unit
Company owned vehicles		
Cars		
Average battery electric car	1,000	km
Average car (unknown fuel)	5,000	km
Off-road vehicles and equipment		
Industrial/Commercial equipment, diesel	1,422	l
Industrial/commercial equipment, gasoline	200	l
Trucks		
Gasoline medium and heavy duty truck	30,000	km
Vans		
Gasoline light duty truck, passenger transportation	3,000	km
Homeworkers		
Homeworkers		
Canadian homeworker	603,855	Homeworker Day
Premises		
Electricity		
Electricity consumption	4,514,973	kWh
Landfilled waste		
Waste, landfilled, MSW	78.1	tonne
Natural gas		
Natural gas consumption (gross CV)	682,855	m3
Other fuel(s)		
Diesel	0	l
Gasoline, commercial stationary combustion	1,781	l
Recycled waste		
Waste, recycled	14,250	imp. gallon
Waste, recycled	1,375	yd3
Water supply		
Water supply	42,006	m3

Key Observations

- For the 2021 assessment period, no valid market-based instruments have been applied to the Scope 2 energy consumption, moreover the location included in the scope of this assessment, Canada, has no valid electricity residual mix factor available. Therefore the location based factor has been applied to the electricity consumption to derive a result in line with the Scope 2 market-based methodology.

Location based methodology

- Overall emissions were 3,837 tonnes of CO2e in 2021.
- Homeworking (of employees and students) accounts for the largest portion of emissions with 2,180 tonnes of CO2e, or 56.82% of the total emissions.
- Natural gas accounts for the second largest portion of emissions with 1,319 tonnes of CO2e, or 34.38% of the total emissions.

Market based methodology

- Overall emissions were 3,837 tonnes of CO2e in 2021.
- Homeworking (of employees and students) accounts for the largest portion of emissions with 2,180 tonnes of CO2e, or 56.82% of the total emissions.
- Natural gas accounts for the second largest portion of emissions with 1,319 tonnes of CO2e, or 34.38% of the total emissions.

Primary and Secondary Data

- To provide the most accurate estimate of your organization's GHG emissions, primary (actual) data should be used where available.
- For this assessment period, actual data accounted for 17.7 % of emissions, while estimated data accounted for 82.3 % of emissions.
- The following Scope 1 sources used estimated data: Natural gas, company-owned vehicles
- The following Scope 2 sources used estimated data: Electricity
- Future improvements to data quality involve the collection of actual data of the above listed sources.

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Assessment Summary for College Drive

Gross Overall Emissions (location-based): 2,502 tCO_2e

Gross Overall Emissions (market-based): 2,502 tCO_2e

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_2e per full time equivalent. This has been calculated, along with other relevant metrics, in the table below:

Data	KPI
2,128 Number of students	1.18 tCO_2e per student (Location-Based)
400,963 Floor area (square feet)	0.00624 tCO_2e per square foot (Location-Based)
2,128 Number of students	1.18 tCO_2e per student (Market-Based)
400,963 Floor area (square feet)	0.00624 tCO_2e per square foot (Market-Based)

Summary by Activity (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Homeworkers	1,518	60.7
Premises	964	38.5
Company owned vehicles	20.4	0.815
Total 2,502	100	

Summary by Activity (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Homeworkers	1,518	60.7
Premises	964	38.5
Company owned vehicles	20.4	0.815
Total 2,502	100	

Summary by WBCSD/WRI Scope (Location-Based, tCO_2e)

By Activity		tCO_2e/year	%
Scope 1		813	32.5
Scope 2		72.4	2.89
Scope 3		1,617	64.6
Total	2,502	100	

Summary by WBCSD/WRI Scope (Market-Based, tCO_2e)

By Activity		tCO_2e/year	%
Scope 1		813	32.5
Scope 2		72.4	2.89
Scope 3		1,617	64.6
Total	2,502	100	

Summary by Greenhouse Gas

Greenhouse Gas	GWP	tGHG/year (Location-Based)	tCO_2e/year (Location-Based)	tGHG/year (Market-Based)	tCO_2e/year (Market-Based)
CO_2	1	2,396	2,396	2,396	2,396
CH_4	28	0.703	19.7	0.703	19.7
N_2O	265	0.0466	12.4	0.0466	12.4
CO_2e	1	74.3	74.3	74.3	74.3
Total			2,502	2,502	

Summary of Scope 2 Market-Based Method for College Drive

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_2e	%
Client-supplied market-based instrument	0	0	0	0
Residual mix factors	0	0	0	0
Default location-based factors	2,737	100	72.4	100
Total	2,737	100	72.4	100

Assessment Summary for Commerce Court

Gross Overall Emissions (location-based): 868 tCO_2e

Gross Overall Emissions (market-based): 868 tCO_2e

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_2e per full time equivalent. This has been calculated, along with other relevant metrics, in the table below:

Data	KPI
790 Number of students	1.1 tCO_2e per student (Location-Based)
178,500 Floor area (square feet)	0.00486 tCO_2e per square foot (Location-Based)
790 Number of students	1.1 tCO_2e per student (Market-Based)
178,500 Floor area (square feet)	0.00486 tCO_2e per square foot (Market-Based)

Summary by Activity (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Homeworkers	500	57.6
Premises	369	42.4
Total 868	100	

Summary by Activity (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Homeworkers	500	57.6
Premises	369	42.4
Total 868	100	

Summary by WBCSD/WRI Scope (Location-Based, tCO_2e)

By Activity		tCO_2e/year	%
Scope 1		292	33.6
Scope 2		27.8	3.21
Scope 3		549	63.2
Total	868	100	

Summary by WBCSD/WRI Scope (Market-Based, tCO_2e)

By Activity		tCO_2e/year	%
Scope 1		292	33.6
Scope 2		27.8	3.21
Scope 3		549	63.2
Total	868	100	

Summary by Greenhouse Gas

Greenhouse Gas	GWP	tGHG/year (Location-Based)	tCO_2e/year (Location-Based)	tGHG/year (Market-Based)	tCO_2e/year (Market-Based)
CO_2	1	817	817	817	817
CH_4	28	0.682	19.1	0.682	19.1
N_2O	265	0.0156	4.14	0.0156	4.14
CO_2e	1	28.2	28.2	28.2	28.2
Total		868	868		

Summary of Scope 2 Market-Based Method for Commerce Court

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_2e	%
Client-supplied market-based instrument	0	0	0	0
Residual mix factors	0	0	0	0
Default location-based factors	1,052	100	27.8	100
Total	1,052	100	27.8	100

Assessment Summary for Aviation

Gross Overall Emissions (location-based): 382 tCO_2e

Gross Overall Emissions (market-based): 382 tCO_2e

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_2e per full time equivalent. This has been calculated, along with other relevant metrics, in the table below:

Data	KPI
207 Number of students	1.84 tCO_2e per student (Location-Based)
88,382 Floor area (square feet)	0.00432 tCO_2e per square foot (Location-Based)
207 Number of students	1.84 tCO_2e per student (Market-Based)
88,382 Floor area (square feet)	0.00432 tCO_2e per square foot (Market-Based)

Summary by Activity (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	242	63.4
Homeworkers	140	36.6
Total 382	100	

Summary by Activity (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	242	63.4
Homeworkers	140	36.6
Total 382	100	

Summary by WBCSD/WRI Scope (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Scope 1	200	52.3
Scope 2	14.3	3.75
Scope 3	168	43.9
Total	382	100

Summary by WBCSD/WRI Scope (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Scope 1	200	52.3
Scope 2	14.3	3.75
Scope 3	168	43.9
Total	382	100

Summary by Greenhouse Gas

Greenhouse Gas	GWP	tGHG/year (Location-Based)	tCO_2e/year (Location-Based)	tGHG/year (Market-Based)	tCO_2e/year (Market-Based)
CO_2	1	353	353	353	353
CH_4	28	0.43	12	0.43	12
N_2O	265	0.00679	1.8	0.00679	1.8
CO_2e	1	14.8	14.8	14.8	14.8
Total		382	382		

Summary of Scope 2 Market-Based Method for Aviation

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_2e	%
Client-supplied market-based instrument	0	0	0	0
Residual mix factors	0	0	0	0
Default location-based factors	541	100	14.3	100
Total	541	100	14.3	100

Assessment Summary for West Parry Sound

Gross Overall Emissions (location-based): 84.3 tCO_2e

Gross Overall Emissions (market-based): 84.3 tCO_2e

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_2e per full time equivalent. This has been calculated, along with other relevant metrics, in the table below:

Data	KPI
32.5 Number of students	2.59 tCO_2e per student (Location-Based)
14,600 Floor area (square feet)	0.00577 tCO_2e per square foot (Location-Based)
32.5 Number of students	2.59 tCO_2e per student (Market-Based)
14,600 Floor area (square feet)	0.00577 tCO_2e per square foot (Market-Based)

Summary by Activity (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	61.8	73.4
Homeworkers	22.5	26.6
Total 84.3	100	

Summary by Activity (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	61.8	73.4
Homeworkers	22.5	26.6
Total 84.3	100	

Summary by WBCSD/WRI Scope (Location-Based, tCO_2e)

By Activity		tCO_2e/year	%
Scope 1		38.8	46
Scope 2		4.89	5.8
Scope 3		40.6	48.2
Total	84.3	100	

Summary by WBCSD/WRI Scope (Market-Based, tCO_2e)

By Activity		tCO_2e/year	%
Scope 1		38.8	46
Scope 2		4.89	5.8
Scope 3		40.6	48.2
Total	84.3	100	

Summary by Greenhouse Gas

Greenhouse Gas	GWP	tGHG/year (Location-Based)	tCO_2e/year (Location-Based)	tGHG/year (Market-Based)	tCO_2e/year (Market-Based)
CO_2	1	66.1	66.1	66.1	66.1
CH_4	28	0.149	4.16	0.149	4.16
N_2O	265	0.00132	0.349	0.00132	0.349
CO_2e	1	13.6	13.6	13.6	13.6
Total		84.3	84.3		

Summary of Scope 2 Market-Based Method for West Parry Sound

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_2e	%
Client-supplied market-based instrument	0	0	0	0
Residual mix factors	0	0	0	0
Default location-based factors	185	100	4.89	100
Total	185	100	4.89	100