



# **Greenhouse Gas Protocol (Dual Reporting) Report for Collège Ahuntsic**

**Assessment Period: juillet 2019 - juin 2020**

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# Assessment Details

## Consolidation Approach

Contrôle opérationnel

## Organisational Boundaries

Operations of Collège Ahuntsic

### Included

- Collège Ahuntsic
- Collège
- Résidence

## Operational Boundary

- Air travel
- Bus and coach
- Electricity
- Hired cars
- Hotel night stays
- Landfilled waste
- Natural gas
- Off-road vehicles and equipment
- Other fuel(s)
- Paper
- Rail (train, tram, light rail, underground)
- Refrigerant gas loss and other fugitive emissions
- Trucks
- Vans

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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)**

Greenhouse Gas	GWP
Carbon dioxide (CO <sub>2</sub> )	1
Methane (CH <sub>4</sub> )	28
Nitrous oxide (N <sub>2</sub> O)	265
Hydrofluorocarbons (HFCs)	1 - 12,400
Perfluorocarbons (PFCs)	1 - 11,100
Nitrogen trifluoride (NF <sub>3</sub> )	16,100
Sulphur hexafluoride (SF <sub>6</sub> )	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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<sup>1</sup> Carbon dioxide equivalent or CO<sub>2</sub>e is a term for describing different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO<sub>2</sub>e signifies the amount of CO<sub>2</sub> 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 <sub>2</sub> e/year	%
Actual	1 435	91.9
Estimated	126	8.09
<b>Total</b>	<b>1 561</b>	<b>100</b>



Market-based Accuracy Overview		
	tCO <sub>2</sub> e/year	%
Actual	1 435	91.9
Estimated	126	8.09
<b>Total</b>	<b>1 561</b>	<b>100</b>

**Table 2. Data Quality and Availability**

Source of emissions	Data quality
<b>Premises</b>	
Composted waste	Inconnu
Electricity	Mixed
Fuel oil	Actual
Incinerated waste	Actual
Landfilled waste	Mixed
Natural gas	Actual
Other fuel(s)	Actual
Paper	Mixed
Recycled waste	Inconnu
Refrigerant gas loss and other fugitive emissions	Actual
Water supply	Inconnu
Water treatment	Inconnu
<b>Company owned vehicles</b>	
Cars	Actual
Off-road vehicles and equipment	Mixed

Trucks	Actual
Vans	Mixed
<b>Business Travel</b>	
Air travel	Mixed
Bus and coach	Mixed
Employee owned cars	Actual
Hired cars	Mixed
Hotel night stays	Actual
Rail (train, tram, light rail, underground)	Mixed
Taxi	Mixed
<b>Homeworkers</b>	
Homeworkers	Mixed
<b>Hosted servers</b>	
Electricity - Remote Servers and Other Delocalized Consumption	Mixed
<b>Staff Commuting</b>	
Commuting (combination of all sources)	Mixed
<b>Student Commuting</b>	
Commuting (combination of all sources)	Mixed
<b>Purchased Goods and Services</b>	
Purchased Goods and Services	Mixed

## Key Assumptions

### Général

- Toutes les émissions ont été calculées à l'aide de la plateforme Ecometrica Sustainability, un logiciel qui sélectionne automatiquement les facteurs d'émission et les conversions non standard les plus appropriés géographiquement et temporellement (par exemple, efficacité du carburant, contenu thermique) pour chaque source d'émission. Chacun des facteurs d'émission et des conversions non standard est associé à un niveau d'incertitude, attribué par l'outil en fonction de son niveau de certitude scientifique.
- Ecometrica n'a pas examiné les données brutes ou les systèmes internes de collecte de données. Toutes les données fournies sont supposées être exactes et complètes.
- Pour l'indicateur de performance clé de la superficie, le Collège Ahuntsic a exclu les éléments suivants : l'Institut des communications graphiques et de l'imprimabilité (ICGQ) et le CPE.
- Le Collège Ahuntsic a choisi d'inclure toutes les émissions en amont (du puits au réservoir) pour les champs 1, 2 et 3, ainsi que les pertes de transmission et de distribution pour le champ 2.

# Assessment Summary for Collège Ahuntsic

**Gross Overall Emissions (location-based): 1 561 tCO<sub>2</sub>e**

**Gross Overall Emissions (market-based): 1 561 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
7 892 Number of students	0.198 tCO <sub>2</sub> e per student (Location-Based)
91 400 Floor area (square metres)	0.0171 tCO <sub>2</sub> e per square metre (Location-Based)
8 769 Number of campus users	0.178 tCO <sub>2</sub> e per Number of campus users (Location-Based)
7 892 Number of students	0.198 tCO <sub>2</sub> e per student (Market-Based)
91 400 Floor area (square metres)	0.0171 tCO <sub>2</sub> e per square metre (Market-Based)
8 769 Number of campus users	0.178 tCO <sub>2</sub> e per Number of campus users (Market-Based)

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



By Activity	tCO <sub>2</sub> e/year	%
Premises	1 449	92.8
Business Travel	104	6.68
Company owned vehicles	7.75	0.496
<b>Total</b>	<b>1 561</b>	<b>100</b>

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



By Activity	tCO <sub>2</sub> e/year	%
Premises	1 449	92.8
Business Travel	104	6.68
Company owned vehicles	7.75	0.496
<b>Total</b>	<b>1 561</b>	<b>100</b>

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



By Activity	tCO <sub>2</sub> e/year	%
Scope 1	949	60.8
Scope 2	17.1	1.1
Scope 3	595	38.1
<b>Total</b>	<b>1 561</b>	<b>100</b>

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



By Activity	tCO <sub>2</sub> e/year	%
Scope 1	949	60.8
Scope 2	17.1	1.1
Scope 3	595	38.1
<b>Total</b>	<b>1 561</b>	<b>100</b>

**Summary by Greenhouse Gas**

Greenhouse Gas	GWP	tGHG/year (Location-Based)	tCO <sub>2</sub> e/year (Location-Based)	tGHG/year (Market-Based)	tCO <sub>2</sub> e/year (Market-Based)
CO <sub>2</sub>	1	859	859	859	859
CH <sub>4</sub>	28	1.75	48.9	1.75	48.9
N <sub>2</sub> O	265	0.0178	4.72	0.0178	4.72
HFC-134a	1300	0.0567	73.7	0.0567	73.7
HFC-407c	1624.21	0.0717	116	0.0717	116
CO <sub>2</sub> e	1	458	458	458	458
<b>Total</b>			<b>1 561</b>		<b>1 561</b>



# Summary of Scope 2 Market-Based Method for Collège Ahuntsic

## 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	%
Client-supplied market-based instrument	0	0	0	0
Residual mix factors	0	0	0	0
Default location-based factors	13 885	100	17.1	100
Total	13 885	100	17.1	100

# Detailed Results

## Detailed Summary by WBCSD/WRI Scope

### Location-Based methodology

Source of Emissions	tCO <sub>2</sub> /yr	tCH <sub>4</sub> /yr	tN <sub>2</sub> O/yr	Total Emissions (tCO <sub>2</sub> e/yr)	%
<b>Scope 1 Total</b>	<b>755</b>	<b>0.0147</b>	<b>0.014</b>	<b>949</b>	<b>60.8%</b>
Company owned vehicles Total	6.13	2.03e-4	2.79e-4	6.21	0.398%
Off-road vehicles and equipment	2.03	3.25e-5	4.63e-5	2.05	0.131%
Trucks	2.51	7.39e-5	2.17e-4	2.57	0.165%
Vans	1.59	9.64e-5	1.51e-5	1.6	0.102%
Premises Total	749	0.0145	0.0137	943	60.4%
Natural gas	748	0.0145	0.0137	752	48.2%
Other fuel(s)	1.16	3.37e-5	9.51e-6	1.16	0.0744%
Refrigerant gas loss and other fugitive emissions	0	0	0	190	12.2%
<b>Scope 2 Total</b>	<b>16.7</b>	<b>0.00278</b>	<b>0.00139</b>	<b>17.1</b>	<b>1.1%</b>
Premises Total	16.7	0.00278	0.00139	17.1	1.1%
Electricity	16.7	0.00278	0.00139	17.1	1.1%
<b>Scope 3 Total</b>	<b>87.8</b>	<b>1.73</b>	<b>0.00242</b>	<b>595</b>	<b>38.1%</b>
Business Travel Total	87.6	0.00161	0.0024	104	6.68%
Air travel	72.3	4.1e-4	0.00229	72.9	4.67%
Air travel: Flights, long-haul, economy, upstream emissions	0	0	0	12.2	0.779%
Air travel: Flights, medium-haul, economy, upstream emissions	0	0	0	2.71	0.173%
Air travel: Flights, short-haul, upstream emissions	0	0	0	0.253	0.0162%
Bus and coach	0.432	3.21e-4	1.85e-5	0.446	0.0286%
Bus and coach: Coach, upstream emissions	0	0	0	0.325	0.0209%
Hired cars	2.33	9.25e-5	3.01e-5	2.35	0.15%
Hired cars: Average petrol car, upstream emissions	0	0	0	0.534	0.0342%
Hotel night stays	12.5	7.81e-4	6.27e-5	12.5	0.801%
Rail (train, tram, light rail, underground)	0.0444	7.21e-6	9.11e-7	0.0448	0.00287%
Rail (train, tram, light rail, underground): Eurostar, upstream emissions	0	0	0	0.00622	3.99e-4%
Company owned vehicles Total	0	0	0	1.54	0.0984%
Off-road vehicles and equipment: Diesel, 100% mineral, upstream emissions	0	0	0	0.453	0.029%
Off-road vehicles and equipment: Petrol, 100% mineral, upstream emissions	0	0	0	0.0216	0.00139%
Trucks: Petrol, 100% mineral, upstream emissions	0	0	0	0.65	0.0416%
Vans: Petrol, 100% mineral, upstream emissions	0	0	0	0.411	0.0264%
Premises Total	0.186	1.73	1.55e-5	489	31.3%

Electricity: Electricity - transmission & distribution losses	0.186	3.1e-5	1.55e-5	0.191	0.0122%
Electricity: Electricity grid, T&D losses, upstream emissions	0	0	0	41.7	2.67%
Electricity: Electricity grid, generated, upstream emissions	0	0	0	284	18.2%
Landfilled waste	0	1.73	0	48.4	3.1%
Natural gas: Natural gas (100% mineral) (gross CV), upstream emissions	0	0	0	85.6	5.48%
Other fuel(s): Diesel, 100% mineral, upstream emissions	0	0	0	0.271	0.0173%
Paper	0	0	0	28.9	1.85%
<b>Total</b>	<b>859</b>	<b>1.75</b>	<b>0.0178</b>	<b>1 561</b>	<b>100%</b>

### Market-Based methodology

Source of Emissions	tCO <sub>2</sub> /yr	tCH <sub>4</sub> /yr	tN <sub>2</sub> O/yr	Total Emissions (tCO <sub>2</sub> e/yr)	%
<b>Scope 1 Total</b>	<b>755</b>	<b>0.0147</b>	<b>0.014</b>	<b>949</b>	<b>60.8%</b>
Company owned vehicles Total	6.13	2.03e-4	2.79e-4	6.21	0.398%
Off-road vehicles and equipment	2.03	3.25e-5	4.63e-5	2.05	0.131%
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Premises Total	749	0.0145	0.0137	943	60.4%
Natural gas	748	0.0145	0.0137	752	48.2%
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Refrigerant gas loss and other fugitive emissions	0	0	0	190	12.2%
<b>Scope 2 Total</b>	<b>16.7</b>	<b>0.00278</b>	<b>0.00139</b>	<b>17.1</b>	<b>1.1%</b>
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Business Travel Total	87.6	0.00161	0.0024	104	6.68%
Air travel	72.3	4.1e-4	0.00229	72.9	4.67%
Air travel: Flights, long-haul, economy, upstream emissions	0	0	0	12.2	0.779%
Air travel: Flights, medium-haul, economy, upstream emissions	0	0	0	2.71	0.173%
Air travel: Flights, short-haul, upstream emissions	0	0	0	0.253	0.0162%
Bus and coach	0.432	3.21e-4	1.85e-5	0.446	0.0286%
Bus and coach: Coach, upstream emissions	0	0	0	0.325	0.0209%
Hired cars	2.33	9.25e-5	3.01e-5	2.35	0.15%
Hired cars: Average petrol car, upstream emissions	0	0	0	0.534	0.0342%
Hotel night stays	12.5	7.81e-4	6.27e-5	12.5	0.801%
Rail (train, tram, light rail, underground)	0.0444	7.21e-6	9.11e-7	0.0448	0.00287%

Rail (train, tram, light rail, underground): Eurostar, upstream emissions	0	0	0	0.00622	3.99e-4%
<b>Company owned vehicles Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.54</b>	<b>0.0984%</b>
Off-road vehicles and equipment: Diesel, 100% mineral, upstream emissions	0	0	0	0.453	0.029%
Off-road vehicles and equipment: Petrol, 100% mineral, upstream emissions	0	0	0	0.0216	0.00139%
Trucks: Petrol, 100% mineral, upstream emissions	0	0	0	0.65	0.0416%
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<b>Premises Total</b>	<b>0.186</b>	<b>1.73</b>	<b>1.55e-5</b>	<b>489</b>	<b>31.3%</b>
Electricity: Electricity - transmission & distribution losses	0.186	3.1e-5	1.55e-5	0.191	0.0122%
Electricity: Electricity grid, T&D losses, upstream emissions	0	0	0	41.7	2.67%
Electricity: Electricity grid, generated, upstream emissions	0	0	0	284	18.2%
Landfilled waste	0	1.73	0	48.4	3.1%
Natural gas: Natural gas (100% mineral) (gross CV), upstream emissions	0	0	0	85.6	5.48%
Other fuel(s): Diesel, 100% mineral, upstream emissions	0	0	0	0.271	0.0173%
Paper	0	0	0	28.9	1.85%
<b>Total</b>	<b>859</b>	<b>1.75</b>	<b>0.0178</b>	<b>1 561</b>	<b>100%</b>

# Summary by Company Unit

## Location-Based methodology

Company Unit	tCO <sub>2</sub> e/year
Collège Ahuntsic	1 561
Collège	1 333
Résidence	228

## Market-Based methodology

Company Unit	tCO <sub>2</sub> e/year
Collège Ahuntsic	1 561
Collège	1 333
Résidence	228

# Annual Activity Data

Source of Emissions	Valeur	Unit
<b>Business Travel</b>		
Air travel		
Long-haul, economy	759 899	pass.km
Medium-haul, economy	161 566	pass.km
Short-haul	9 446	pass.km
Bus and coach		
Coach	50 150	pass.km
Hired cars		
Average gasoline cars	642	USD
Average petrol car	304	Euro
Hotel night stays		
Hotel night stays	513	night
Rail (train, tram, light rail, underground)		
Eurostar	9 016	pass.km
<b>Company owned vehicles</b>		
Off-road vehicles and equipment		
Lawn and garden equipment, diesel	723	l
Lawn and garden equipment, gasoline 2 stroke	36.2	l
Trucks		
Gasoline medium and heavy duty truck	1 087	l
Vans		
Gasoline light duty truck, freight	689	l
<b>Premises</b>		
Electricity		
Electricity consumption	13 884 600	kWh
Landfilled waste		
Waste, landfilled, MSW	77.9	tonne
Natural gas		
Natural gas consumption (gross CV)	392 147	m3
Other fuel(s)		
Diesel	432	l
Paper		
Office paper (30% recycled inputs)	44 474	lb
Paper	19 184	lb
Refrigerant gas loss and other fugitive emissions		
HFC-134a emissions	125	lb
R407c emissions	158	lb

# Key Observations

## Méthodologie basée sur la localisation

Les émissions globales pour l'évaluation de juillet 2019 à juin 2020 étaient de 1 561 tCO<sub>2</sub>e.

- La consommation de gaz naturel représente la plus grande partie des émissions avec 748 tonnes de CO<sub>2</sub>e, soit 47.9 % des émissions totales.
- Fuites de gaz réfrigérants et autres émissions fugitives représente la deuxième plus grande partie des émissions avec 190 tonnes de CO<sub>2</sub>e, soit 12 % des émissions totales.

## Méthodologie basée sur le marché

Les émissions globales pour l'évaluation de juillet 2019 à juin 2020 étaient de 1 561 tCO<sub>2</sub>e.

- La consommation de gaz naturel représente la plus grande partie des émissions avec 748 tonnes de CO<sub>2</sub>e, soit 47.9 % des émissions totales.
- Fuites de gaz réfrigérants et autres émissions fugitives représente la deuxième plus grande partie des émissions avec 190 tonnes de CO<sub>2</sub>e, soit 12 % des émissions totales.

## Données primaires et secondaires

- Pour fournir l'estimation la plus précise des émissions de GES de votre organisation, il faut utiliser les données primaires (réelles) lorsqu'elles sont disponibles.
- Pour cette période d'évaluation, les données réelles représentaient 91.9 % des émissions, tandis que les données estimées représentaient 8.09% des émissions.
- Les sources suivantes du champ 1 ont utilisé des données estimées : Véhicules de l'organisation
- Les sources suivantes du champ 2 ont utilisé des données estimées : Électricité
- Les améliorations futures de la qualité des données impliquent la collecte de données réelles des sources énumérées ci-dessus.



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# Assessment Summary for Collège

**Gross Overall Emissions (location-based): 1 333 tCO<sub>2</sub>e**

**Gross Overall Emissions (market-based): 1 333 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
78 855 Floor area (square metres)	0.0169 tCO <sub>2</sub> e per square metre (Location-Based)
78 855 Floor area (square metres)	0.0169 tCO <sub>2</sub> e per square metre (Market-Based)

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



By Activity	tCO <sub>2</sub> e/year	%
Premises	1 221	91.6
Business Travel	104	7.82
Company owned vehicles	7.75	0.581
<b>Total</b>	<b>1 333</b>	<b>100</b>

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



By Activity	tCO <sub>2</sub> e/year	%
Premises	1 221	91.6
Business Travel	104	7.82
Company owned vehicles	7.75	0.581
<b>Total</b>	<b>1 333</b>	<b>100</b>

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



By Activity	tCO <sub>2</sub> e/year	%
Scope 1	776	58.2
Scope 2	15.4	1.15
Scope 3	542	40.6
<b>Total</b>	<b>1 333</b>	<b>100</b>

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



By Activity	tCO <sub>2</sub> e/year	%
Scope 1	776	58.2
Scope 2	15.4	1.15
Scope 3	542	40.6
<b>Total</b>	<b>1 333</b>	<b>100</b>

**Summary by Greenhouse Gas**

Greenhouse Gas	GWP	tGHG/year (Location-Based)	tCO <sub>2</sub> e/year (Location-Based)	tGHG/year (Market-Based)	tCO <sub>2</sub> e/year (Market-Based)
CO <sub>2</sub>	1	685	685	685	685
CH <sub>4</sub>	28	1.74	48.8	1.74	48.8
N <sub>2</sub> O	265	0.0145	3.85	0.0145	3.85
HFC-134a	1300	0.0567	73.7	0.0567	73.7
HFC-407c	1624.21	0.0717	116	0.0717	116
CO <sub>2</sub> e	1	405	405	405	405
		<b>Total</b>	<b>1 333</b>		<b>1 333</b>

# Summary of Scope 2 Market-Based Method for Collège

## 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	%
Client-supplied market-based instrument	0	0	0	0
Residual mix factors	0	0	0	0
Default location-based factors	12 482	100	15.4	100
Total	12 482	100	15.4	100

# Assessment Summary for Résidence

**Gross Overall Emissions (location-based): 228 tCO<sub>2</sub>e**

**Gross Overall Emissions (market-based): 228 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
385 Number of tenants	0.592 tCO <sub>2</sub> e per tenant (Location-Based)
12 545 Floor area (square metres)	0.0182 tCO <sub>2</sub> e per square metre (Location-Based)
385 Number of tenants	0.592 tCO <sub>2</sub> e per tenant (Market-Based)
12 545 Floor area (square metres)	0.0182 tCO <sub>2</sub> e per square metre (Market-Based)

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



By Activity	tCO <sub>2</sub> e/year	%
Premises	228	100
Total	228	100

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



By Activity	tCO <sub>2</sub> e/year	%
Premises	228	100
Total	228	100

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



By Activity	tCO <sub>2</sub> e/year	%
Scope 1	173	76.1
Scope 2	1.73	0.758
Scope 3	52.8	23.2
<b>Total</b>	<b>228</b>	<b>100</b>

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



By Activity	tCO <sub>2</sub> e/year	%
Scope 1	173	76.1
Scope 2	1.73	0.758
Scope 3	52.8	23.2
<b>Total</b>	<b>228</b>	<b>100</b>

**Summary by Greenhouse Gas**

Greenhouse Gas	GWP	tGHG/year (Location-Based)	tCO <sub>2</sub> e/year (Location-Based)	tGHG/year (Market-Based)	tCO <sub>2</sub> e/year (Market-Based)
CO <sub>2</sub>	1	174	174	174	174
CH <sub>4</sub>	28	0.00364	0.102	0.00364	0.102
N <sub>2</sub> O	265	0.0033	0.874	0.0033	0.874
CO <sub>2</sub> e	1	52.8	52.8	52.8	52.8
<b>Total</b>			<b>228</b>		<b>228</b>

# Summary of Scope 2 Market-Based Method for Résidence

## 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	%
Client-supplied market-based instrument	0	0	0	0
Residual mix factors	0	0	0	0
Default location-based factors	1 402	100	1.73	100
Total	1 402	100	1.73	100