Greenhouse Gas Protocol (Dual Reporting) Report for The University of Edinburgh

Assessment Period: August 2016 - July 2017

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Assessment Details

Consolidation Approach

Operational Control

Organisational Boundaries

Operations of The University of Edinburgh

Included

- The University of Edinburgh
- Academic estate
- Accommodation

Operational Boundary

- Air travel
- Bicycle
- Bus and coach
- Cars
- Composted waste
- Electricity
- Hazardous waste
- Hotel night stays
- Incinerated waste
- Landfilled waste
- Motorcycle
- Natural gas
- On foot
- Other fuel(s)
- Other fuels, UK (gross CV)
- Rail
- Rail (train, tram, light rail, underground)
- Recycled plastic
- Recycled waste
- Refrigerant gas loss and other fugitive emissions
- Residential waste mass anaerobic digestion (ERWMADI)
- Residential waste mass used to create energy (ERWMENE)
- Taxi
- Water supply
- Water treatment

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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 2007)

Greenhouse Gas	GWP
Carbon dioxide (CO_2)	1
Methane (CH_4)	25
Nitrous oxide (N_2O)	298
Hydrofluorocarbons (HFCs)	124 - 14,800
Perfluorocarbons (PFCs)	7,390 - 12,200
Nitrogen trifluoride (NF_3)	17,200
Sulphur hexafluoride (SF_6)	22,800

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	101,023	92.8
Estimated	7,887	7.24
Total	108,910	100

Market-based

Accuracy Overview	tCO_2e/year	%
Actual	101,023	92.8
Estimated	7,887	7.24
Total	108,910	100

Table 2. Data Quality and Availability

Source of emissions	Data quality
Premises	
Electricity	Actual
Fuel oil	Actual
Natural gas	Actual
Other fuel(s)	N/A
Other fuels, UK (gross CV)	Actual
Refrigerant gas loss and other fugitive emissions	Actual
Water supply	Actual
Water treatment	Actual
Company owned vehicles	
Other fuel(s)	Actual
Business Travel	
Air travel	Mixed
Bus and coach	Mixed
Cars	Actual
Hotel night stays	Mixed

Rail (train, tram, light rail, underground)	Actual
Taxi	Mixed
Waste	
Composted waste	Mixed
Hazardous waste	Estimated
Incinerated waste	Estimated
Landfilled waste	Estimated
Recycled glass	N/A
Recycled metal	N/A
Recycled paper & board	N/A
Recycled plastic	Estimated
Recycled waste	Mixed
Residential waste mass anaerobic digestion (ERWMADI)	Estimated
Residential waste mass used to create energy (ERWMENE)	Estimated
Staff Commuting	
Bicycle	Actual
Bus and coach	Actual
Cars	Actual
Estimated emissions	N/A
Motorcycle	Actual
On foot	Estimated
Rail	Actual
Taxi	Actual
Student Commuting	
Bus and coach	Mixed
Cars	Actual
Motorcycle	Actual
On foot	N/A
Rail	Actual
Taxi	Actual
Contractor Vehicles	
Other fuel(s)	Actual

Key Assumptions

none

Assessment Summary for The University of Edinburgh

Gross Overall Emissions (location-based): 108,910 tCO_2e

Gross Overall Emissions (market-based): 108,910 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
39,576 Number of students	2.75 tCO_2e per Student (Location-Based)
846,547 Floor area (square metres)	0.129 tCO_2e per square metre (Location-Based)
928,847 Thousand GBP Revenue (£)	0.117 tCO_2e per Thousand GBP Revenue (£) (Location-Based)
9,987 Full Time Equivalent Employees	10.9 tCO_2e per Full Time Equivalent Employee (Location-Based)
39,576 Number of students	2.75 tCO_2e per Student (Market-Based)
846,547 Floor area (square metres)	0.129 tCO_2e per square metre (Market-Based)
928,847 Thousand GBP Revenue (£)	0.117 tCO_2e per Thousand GBP Revenue (£) (Market-Based)
9,987 Full Time Equivalent Employees	10.9 tCO_2e per Full Time Equivalent Employee (Market-Based)

Summary by Activity (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	74,650	68.5
Company owned vehicles	329	0.302
Business Travel	20,387	18.7
Waste	199	0.183
Staff Commuting	8,157	7.49
Student Commuting	5,127	4.71
Contractor Vehicles	60.8	0.0558
Total	108,910	100

Summary by Activity (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	74,650	68.5
Company owned vehicles	329	0.302
Business Travel	20,387	18.7
Waste	199	0.183
Staff Commuting	8,157	7.49
Student Commuting	5,127	4.71
Contractor Vehicles	60.8	0.0558
Total	108,910	100

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

Scope	tCO_2e/year	%
Scope 1	35,983	33
Scope 2	35,155	32.3
Scope 3	37,772	34.7
Total	108,910	100

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

Scope	tCO_2e/year	%
Scope 1	35,983	33
Scope 2	35,155	32.3
Scope 3	37,772	34.7
Total	108,910	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	93,645	93,645	93,645	93,645
CH_4	25	4.87	122	4.87	122
N_2O	298	1.19	354	1.19	354
HFC-134a	1430	0.064	91.5	0.064	91.5
HFC-404a	3921.6	0.077	302	0.077	302
CO_2e	1	14,395	14,395	14,395	14,395
Total			108,910		108,910

Summary of Scope 2 Market-Based Method for The University of Edinburgh

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	99,996	100	35,155	100
Total	99,996	100	35,155	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	**35,514**	**2**	**0.0889**	**35,983**	**33%**
Company owned vehicles Total	321	0.00806	0.0266	329	0.302%
Other fuel(s)	321	0.00806	0.0266	329	0.302%
Premises Total	35,193	1.99	0.0623	35,655	32.7%
Natural gas	35,127	1.98	0.0619	35,195	32.3%
Other fuels, UK (gross CV)	65.8	0.00449	3.79e-4	66	0.0606%
Refrigerant gas loss and other fugitive emissions	0	0	0	393	0.361%
Scope 2 Total	**34,884**	**2.48**	**0.701**	**35,155**	**32.3%**
Premises Total	34,884	2.48	0.701	35,155	32.3%
Electricity	34,884	2.48	0.701	35,155	32.3%
Scope 3 Total	**23,248**	**0.396**	**0.398**	**37,772**	**34.7%**
Business Travel Total	19,931	0.153	0.314	20,387	18.7%
Air travel	16,406	0.0488	0.275	16,489	15.1%
Bus and coach	25.5	6.04e-4	8.44e-4	25.8	0.0237%
Cars	0	0	0	358	0.328%
Hotel night stays	2,987	0.0844	0.0262	2,996	2.75%
Rail (train, tram, light rail, underground)	373	0.0193	0.00972	376	0.345%
Taxi	140	1.76e-4	0.00275	141	0.13%
Contractor Vehicles Total	55.9	0.00249	0.0163	60.8	0.0558%
Other fuel(s)	55.9	0.00249	0.0163	60.8	0.0558%
Premises Total	3,261	0.24	0.0671	3,841	3.53%
Electricity: Electricity - transmission & distribution losses	3,261	0.24	0.0671	3,287	3.02%
Water supply	0	0	0	200	0.184%
Water treatment	0	0	0	354	0.325%
Staff Commuting Total	0	0	0	8,157	7.49%
Bus and coach	0	0	0	1,744	1.6%
Cars	0	0	0	5,325	4.89%
Motorcycle	0	0	0	95.9	0.0881%
On foot	0	0	0	0	0%
Rail	0	0	0	971	0.892%
Taxi	0	0	0	21.2	0.0195%
Student Commuting Total	0	0	0	5,127	4.71%
Bus and coach	0	0	0	2,278	2.09%
Cars	0	0	0	1,706	1.57%

Motorcycle	0	0	0	50.3	0.0462%
Rail	0	0	0	1,064	0.977%
Taxi	0	0	0	28.9	0.0265%
Waste Total	0	0	0	199	0.183%
Composted waste	0	0	0	5.33	0.00489%
Hazardous waste	0	0	0	12.5	0.0114%
Incinerated waste	0	0	0	21.9	0.0201%
Landfilled waste	0	0	0	113	0.104%
Recycled plastic	0	0	0	0.0701	6.43e-5%
Recycled waste	0	0	0	38.9	0.0357%
Residential waste mass anaerobic digestion (ERWMADI)	0	0	0	1.66	0.00152%
Residential waste mass used to create energy (ERWMENE)	0	0	0	5.58	0.00512%
Total	**93,645**	**4.87**	**1.19**	**108,910**	**100%**

Market-Based methodology

Source of Emissions	tCO_2/yr	tCH_4/yr	tN_2O/yr	Total Emissions (tCO_2e/yr)	%
Scope 1 Total	**35,514**	**2**	**0.0889**	**35,983**	**33%**
Company owned vehicles Total	321	0.00806	0.0266	329	0.302%
Other fuel(s)	321	0.00806	0.0266	329	0.302%
Premises Total	35,193	1.99	0.0623	35,655	32.7%
Natural gas	35,127	1.98	0.0619	35,195	32.3%
Other fuels, UK (gross CV)	65.8	0.00449	3.79e-4	66	0.0606%
Refrigerant gas loss and other fugitive emissions	0	0	0	393	0.361%
Scope 2 Total	**34,884**	**2.48**	**0.701**	**35,155**	**32.3%**
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Air travel	16,406	0.0488	0.275	16,489	15.1%
Bus and coach	25.5	6.04e-4	8.44e-4	25.8	0.0237%
Cars	0	0	0	358	0.328%
Hotel night stays	2,987	0.0844	0.0262	2,996	2.75%
Rail (train, tram, light rail, underground)	373	0.0193	0.00972	376	0.345%
Taxi	140	1.76e-4	0.00275	141	0.13%
Contractor Vehicles Total	55.9	0.00249	0.0163	60.8	0.0558%
Other fuel(s)	55.9	0.00249	0.0163	60.8	0.0558%
Premises Total	3,261	0.24	0.0671	3,841	3.53%
Electricity: Electricity - transmission & distribution losses	3,261	0.24	0.0671	3,287	3.02%

Water supply	0	0	0	200	0.184%
Water treatment	0	0	0	354	0.325%
Staff Commuting Total	0	0	0	8,157	7.49%
Bus and coach	0	0	0	1,744	1.6%
Cars	0	0	0	5,325	4.89%
Motorcycle	0	0	0	95.9	0.0881%
On foot	0	0	0	0	0%
Rail	0	0	0	971	0.892%
Taxi	0	0	0	21.2	0.0195%
Student Commuting Total	0	0	0	5,127	4.71%
Bus and coach	0	0	0	2,278	2.09%
Cars	0	0	0	1,706	1.57%
Motorcycle	0	0	0	50.3	0.0462%
Rail	0	0	0	1,064	0.977%
Taxi	0	0	0	28.9	0.0265%
Waste Total	0	0	0	199	0.183%
Composted waste	0	0	0	5.33	0.00489%
Hazardous waste	0	0	0	12.5	0.0114%
Incinerated waste	0	0	0	21.9	0.0201%
Landfilled waste	0	0	0	113	0.104%
Recycled plastic	0	0	0	0.0701	6.43e-5%
Recycled waste	0	0	0	38.9	0.0357%
Residential waste mass anaerobic digestion (ERWMADI)	0	0	0	1.66	0.00152%
Residential waste mass used to create energy (ERWMENE)	0	0	0	5.58	0.00512%
Total	**93,645**	**4.87**	**1.19**	**108,910**	**100%**

Summary by Company Unit

Location-Based methodology

Assessment	August 2015 - July 2016		August 2016 - July 2017	
Company Unit	**Total Emissions (tCO_2e)**	**Emissions per FTE (tCO_2e/FTE)**	**Total Emissions (tCO_2e)**	**Emissions per FTE (tCO_2e/FTE)**
The University of Edinburgh	103,783	11.1	108,910	10.9
Academic estate	82,081	8.8	88,125	-
Accommodation	8,417	-	7,501	-

Market-Based methodology

Scope 2 Market Based Emissions were only computed starting in 2016. No previous year is available for comparison.

Annual Activity Data

Source of Emissions	Value	Unit
Business Travel		
Air travel		
Long-haul, average class (RFI 1.9)	18,174,111	pass.km
Long-haul, business (RFI 1.9)	2,206,981	pass.km
Long-haul, economy (RFI 1.9)	27,500,619	pass.km
Long-haul, first class (RFI 1.9)	603,459	pass.km
Long-haul, premium economy (RFI 1.9)	2,133,993	pass.km
Medium-haul, average class (RFI 1.9)	4,446,753	pass.km
Medium-haul, business (RFI 1.9)	425,865	pass.km
Medium-haul, economy (RFI 1.9)	28,410,168	pass.km
Short-haul (RFI 1.9)	5,891,000	pass.km
Bus and coach		
Coach	389,360	pass.km
Local bus	121,959	pass.km
Cars		
Total CO2e emissions	358	tonne
Hotel night stays		
Hotel night stays	105,023	night
Rail (train, tram, light rail, underground)		
Train, national	8,042,650	pass.km
Taxi		
Black cab taxi	440,737	km
Company owned vehicles		
Other fuel(s)		
Diesel, retail station biofuel blend	88,022	l
Gas Oil	25,563	l
Petrol, retail station biofuel blend	11,160	l
Contractor Vehicles		
Other fuel(s)		
Gas Oil	20,583	l
Premises		
Electricity		
Electricity consumption	99,996,087	kWh
Natural gas		
Natural gas consumption (gross CV)	191,107,122	kWh
Other fuels, UK (gross CV)		
Burning Oil (gross CV)	147,712	kWh
LPG (gross CV)	137,939	kWh
Refrigerant gas loss and other fugitive emissions		

	HFC-134a emissions	64	kg
	R404a emissions	77	kg
Water supply			
	Water supply	581,275	m3
Water treatment			
	Water treatment	500,686	m3
Staff Commuting			
Bicycle			
	Bicycle	3	mi
Bus and coach			
	Total CO2e emissions	1,744	tonne
Cars			
	Total CO2e emissions	5,325	tonne
Motorcycle			
	Total CO2e emissions	95.9	tonne
On foot			
	On foot	1	mi
Rail			
	Total CO2e emissions	971	tonne
Taxi			
	Total CO2e emissions	21.2	tonne
Student Commuting			
Bus and coach			
	Total CO2e emissions	2,278	tonne
Cars			
	Total CO2e emissions	1,706	tonne
Motorcycle			
	Total CO2e emissions	50.3	tonne
Rail			
	Total CO2e emissions	1,064	tonne
Taxi			
	Total CO2e emissions	28.9	tonne
Waste			
Composted waste			
	Composted waste, food & drink	370	tonne
	Composted waste, garden waste	518	tonne
Hazardous waste			
	Closed loop recycling - mixed commercial and industrial waste	11.5	tonne
	Combusted waste, energy recovery, mixed commercial and industrial	40.5	tonne
	Mixed commercial and industrial waste, landfilled	113	tonne
Incinerated waste			
	Incinerated waste, mixed commercial & industrial, with heat recovery	1,045	tonne

Landfilled waste		
Metal, landfilled	3.82	tonne
Mixed commercial and industrial waste, landfilled	1,101	tonne
Wood, landfilled	3.82	tonne
Recycled plastic		
Open loop recycling - average plastics	3.22	tonne
Recycled waste		
Recycled waste, WEEE, open loop	76.8	tonne
Recycled waste, books, closed loop	3.57	tonne
Recycled waste, glass, closed loop	163	tonne
Recycled waste, mixed commercial & industrial, closed loop	1,492	tonne
Recycled waste, paper & board, closed loop	118	tonne
Residential waste mass anaerobic digestion (ERWMADI)		
Municipal waste, average, anaerobic digestion	76.2	tonne
Residential waste mass used to create energy (ERWMENE)		
Combusted waste, energy recovery, municipal waste, average	256	tonne

Key Observations

none

Reduction Actions

none

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Assessment Summary for Academic estate

Gross Overall Emissions (location-based): 88,125 tCO_2e

Gross Overall Emissions (market-based): 88,125 tCO_2e

Summary by Activity (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	67,305	76.4
Company owned vehicles	301	0.341
Business Travel	20,387	23.1
Waste	72	0.0817
Contractor Vehicles	60.8	0.069
Total	88,125	100

Summary by Activity (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	67,305	76.4
Company owned vehicles	301	0.341
Business Travel	20,387	23.1
Waste	72	0.0817
Contractor Vehicles	60.8	0.069
Total	88,125	100

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

Scope	tCO_2e/year	%
Scope 1	32,430	36.8
Scope 2	31,747	36
Scope 3	23,948	27.2
Total	88,125	100

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

Scope	tCO_2e/year	%
Scope 1	32,430	36.8
Scope 2	31,747	36
Scope 3	23,948	27.2
Total	88,125	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	86,401	86,401	86,401	86,401
CH_4	25	4.41	110	4.41	110
N_2O	298	1.11	330	1.11	330
HFC-134a	1430	0.064	91.5	0.064	91.5
HFC-404a	3921.6	0.077	302	0.077	302
CO_2e	1	890	890	890	890
Total			88,125		88,125

Summary of Scope 2 Market-Based Method for Academic estate

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	90,302	100	31,747	100
Total	90,302	100	31,747	100

Assessment Summary for Accommodation

Gross Overall Emissions (location-based): 7,501 tCO_2e

Gross Overall Emissions (market-based): 7,501 tCO_2e

Summary by Activity (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	7,346	97.9
Company owned vehicles	28.2	0.376
Waste	127	1.7
Total	7,501	100

Summary by Activity (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	7,346	97.9
Company owned vehicles	28.2	0.376
Waste	127	1.7
Total	7,501	100

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

Scope	tCO_2e/year	%
Scope 1	3,553	47.4
Scope 2	3,408	45.4
Scope 3	540	7.2
Total	7,501	100

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

Scope	tCO_2e/year	%
Scope 1	3,553	47.4
Scope 2	3,408	45.4
Scope 3	540	7.2
Total	7,501	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	7,244	7,244	7,244	7,244
CH_4	25	0.464	11.6	0.464	11.6
N_2O	298	0.0813	24.2	0.0813	24.2
CO_2e	1	221	221	221	221
Total			7,501		7,501

Summary of Scope 2 Market-Based Method for Accommodation

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	9,694	100	3,408	100
Total	9,694	100	3,408	100