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

Assessment Period: August 2019 - July 2020

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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
- Fuel oil
- 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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Table of Contents

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	73,787	88.5
Estimated	9,584	11.5
Total	83,371	100

Market-based

Accuracy Overview	tCO_2e/year	%
Actual	54,043	84.9
Estimated	9,584	15.1
Total	63,627	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)	Estimated
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	Actual
Bus and coach	Actual
Cars	Actual
Hotel night stays	Actual
Rail (train, tram, light rail, underground)	Actual

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

Assessment Summary for The University of Edinburgh

Gross Overall Emissions (location-based): 83,371 tCO_2e

Gross Overall Emissions (market-based): 63,627 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
934,000 Floor area (square metres)	0.0893 tCO_2e per square metre (Location-Based)
44,510 Number of students	1.87 tCO_2e per Student (Location-Based)
11,446 Full Time Equivalent Employees	7.28 tCO_2e per Full Time Equivalent Employee (Location-Based)
1,120,100 Thousand GBP Revenue (£)	0.0744 tCO_2e per Thousand GBP Revenue (£) (Location-Based)
934,000 Floor area (square metres)	0.0681 tCO_2e per square metre (Market-Based)
44,510 Number of students	1.43 tCO_2e per Student (Market-Based)
11,446 Full Time Equivalent Employees	5.56 tCO_2e per Full Time Equivalent Employee (Market-Based)
1,120,100 Thousand GBP Revenue (£)	0.0568 tCO_2e per Thousand GBP Revenue (£) (Market-Based)

Summary by Activity (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	62,534	75
Company owned vehicles	214	0.257
Business Travel	10,960	13.1
Staff Commuting	5,500	6.6
Student Commuting	3,955	4.74
Contractor Vehicles	51.9	0.0622
Waste	155	0.186
Total	83,371	100

Summary by Activity (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	42,790	67.3
Company owned vehicles	214	0.336
Business Travel	10,960	17.2
Staff Commuting	5,500	8.64
Student Commuting	3,955	6.22
Contractor Vehicles	51.9	0.0816
Waste	155	0.244
Total	63,627	100

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

Scope	tCO_2e/year	%
Scope 1	40,911	49.1
Scope 2	19,744	23.7
Scope 3	22,716	27.2
Total	83,371	100

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

Scope	tCO_2e/year	%
Scope 1	40,911	64.3
Scope 3	22,716	35.7
Total	63,627	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	72,641	72,641	53,075	53,075
CH_4	25	4.93	123	2.49	62.3
N_2O	298	0.71	211	0.317	94.6
Biogenic CO_2	0	6.49	0	6.49	0
HFC-134a	1430	0.025	35.8	0.025	35.8
HFC-404a	3921.6	0.056	220	0.056	220
HFC-407c	1773.85	0.0351	62.3	0.0351	62.3
HFC-410a	2087.5	0.0342	71.4	0.0342	71.4
CO_2e	1	10,006	10,006	10,006	10,006
		Total	83,371		63,627

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

No Data Available

Emission Factor Type	Energy		Market-Based Emissions	
	MWh	%	tCO_2e	%
Client-supplied market-based instrument	84,687	100	0	0
Residual mix factors	0	0	0	0
Default location-based factors	0	0	0	0
Total	84,687	100	0	0

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	**40,437**	**2.19**	**0.0996**	**40,911**	**49.1%**
Company owned vehicles Total	211	0.00465	0.00888	214	0.257%
Other fuel(s)	211	0.00465	0.00888	214	0.257%
Premises Total	40,226	2.19	0.0907	40,697	48.8%
Fuel oil	472	0.0195	0.0179	478	0.573%
Natural gas	39,737	2.17	0.0728	39,813	47.8%
Other fuels, UK (gross CV)	17.4	5.06e-4	3.72e-5	17.4	0.0209%
Refrigerant gas loss and other fugitive emissions	0	0	0	389	0.467%
Scope 2 Total	**19,566**	**2.44**	**0.392**	**19,744**	**23.7%**
Premises Total	19,566	2.44	0.392	19,744	23.7%
Electricity	19,566	2.44	0.392	19,744	23.7%
Scope 3 Total	**12,638**	**0.303**	**0.218**	**22,716**	**27.2%**
Business Travel Total	10,904	0.0979	0.182	10,960	13.1%
Air travel	9,745	0.0356	0.163	9,794	11.7%
Bus and coach	59.7	4.83e-4	0.00163	60.2	0.0722%
Cars	233	0.00876	0.00501	235	0.281%
Hotel night stays	567	0.0378	0.00412	569	0.683%
Rail (train, tram, light rail, underground)	232	0.0152	0.00617	234	0.281%
Taxi	66.8	4.63e-5	0.00204	67.4	0.0808%
Contractor Vehicles Total	51.3	0.00212	0.00194	51.9	0.0622%
Other fuel(s)	51.3	0.00212	0.00194	51.9	0.0622%
Premises Total	1,683	0.203	0.0341	2,094	2.51%
Electricity: Electricity - transmission & distribution losses (MCR)	1,683	0.203	0.0341	1,698	2.04%
Water supply	0	0	0	134	0.161%
Water treatment	0	0	0	262	0.314%
Staff Commuting Total	0	0	0	5,500	6.6%
Bicycle	0	0	0	0	0%
Bus and coach	0	0	0	1,300	1.56%
Cars	0	0	0	3,409	4.09%
Motorcycle	0	0	0	55	0.066%
On foot	0	0	0	0	0%
Rail	0	0	0	716	0.859%
Taxi	0	0	0	20	0.024%
Student Commuting Total	0	0	0	3,955	4.74%

Bicycle	0	0	0	0	0%
Bus and coach	0	0	0	1,922	2.31%
Cars	0	0	0	1,061	1.27%
Motorcycle	0	0	0	33	0.0396%
On foot	0	0	0	0	0%
Rail	0	0	0	854	1.02%
Taxi	0	0	0	85	0.102%
Waste Total	0	0	0	155	0.186%
Composted waste	0	0	0	9.42	0.0113%
Hazardous waste	0	0	0	4.08	0.0049%
Incinerated waste	0	0	0	16.9	0.0202%
Landfilled waste	0	0	0	49.3	0.0591%
Recycled plastic	0	0	0	0.108	1.29e-4%
Recycled waste	0	0	0	34.8	0.0417%
Residential waste mass anaerobic digestion (ERWMADI)	0	0	0	2.34	0.00281%
Residential waste mass used to create energy (ERWMENE)	0	0	0	38.5	0.0462%
Total	**72,641**	**4.93**	**0.71**	**83,371**	**100%**

Market-Based methodology

Source of Emissions	tCO_2/yr	tCH_4/yr	tN_2O/yr	Total Emissions (tCO_2e/yr)	%
Scope 1 Total	**40,437**	**2.19**	**0.0996**	**40,911**	**64.3%**
Company owned vehicles Total	211	0.00465	0.00888	214	0.336%
Other fuel(s)	211	0.00465	0.00888	214	0.336%
Premises Total	40,226	2.19	0.0907	40,697	64%
Fuel oil	472	0.0195	0.0179	478	0.751%
Natural gas	39,737	2.17	0.0728	39,813	62.6%
Other fuels, UK (gross CV)	17.4	5.06e-4	3.72e-5	17.4	0.0274%
Refrigerant gas loss and other fugitive emissions	0	0	0	389	0.611%
Scope 2 Total	**0**	**0**	**0**	**0**	**0%**
Premises Total	0	0	0	0	0%
Electricity	0	0	0	0	0%
Scope 3 Total	**12,638**	**0.303**	**0.218**	**22,716**	**35.7%**
Business Travel Total	10,904	0.0979	0.182	10,960	17.2%
Air travel	9,745	0.0356	0.163	9,794	15.4%
Bus and coach	59.7	4.83e-4	0.00163	60.2	0.0947%
Cars	233	0.00876	0.00501	235	0.369%
Hotel night stays	567	0.0378	0.00412	569	0.895%
Rail (train, tram, light rail, underground)	232	0.0152	0.00617	234	0.368%

Taxi	66.8	4.63e-5	0.00204	67.4	0.106%
Contractor Vehicles Total	51.3	0.00212	0.00194	51.9	0.0816%
Other fuel(s)	51.3	0.00212	0.00194	51.9	0.0816%
Premises Total	1,683	0.203	0.0341	2,094	3.29%
Electricity: Electricity - transmission & distribution losses (MCR)	1,683	0.203	0.0341	1,698	2.67%
Water supply	0	0	0	134	0.21%
Water treatment	0	0	0	262	0.411%
Staff Commuting Total	0	0	0	5,500	8.64%
Bicycle	0	0	0	0	0%
Bus and coach	0	0	0	1,300	2.04%
Cars	0	0	0	3,409	5.36%
Motorcycle	0	0	0	55	0.0864%
On foot	0	0	0	0	0%
Rail	0	0	0	716	1.13%
Taxi	0	0	0	20	0.0314%
Student Commuting Total	0	0	0	3,955	6.22%
Bicycle	0	0	0	0	0%
Bus and coach	0	0	0	1,922	3.02%
Cars	0	0	0	1,061	1.67%
Motorcycle	0	0	0	33	0.0519%
On foot	0	0	0	0	0%
Rail	0	0	0	854	1.34%
Taxi	0	0	0	85	0.134%
Waste Total	0	0	0	155	0.244%
Composted waste	0	0	0	9.42	0.0148%
Hazardous waste	0	0	0	4.08	0.00641%
Incinerated waste	0	0	0	16.9	0.0265%
Landfilled waste	0	0	0	49.3	0.0775%
Recycled plastic	0	0	0	0.108	1.7e-4%
Recycled waste	0	0	0	34.8	0.0546%
Residential waste mass anaerobic digestion (ERWMADI)	0	0	0	2.34	0.00368%
Residential waste mass used to create energy (ERWMENE)	0	0	0	38.5	0.0606%
Total	**53,075**	**2.49**	**0.317**	**63,627**	**100%**

Summary by Company Unit

Location-Based methodology

Assessment	August 2018 - July 2019		August 2019 - July 2020	
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	92,355	8.42	83,371	7.28
Academic estate	72,899	-	66,862	-
Accommodation	6,968	-	7,054	-

Market-Based methodology

Assessment	August 2018 - July 2019		August 2019 - July 2020	
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	103,154	9.41	63,627	5.56
Academic estate	82,531	-	49,245	-
Accommodation	8,136	-	4,927	-

Annual Activity Data

Source of Emissions	Value	Unit
Business Travel		
Air travel		
Long-haul, average class (RFI 1.9)	11,992,328	pass.km
Long-haul, business (RFI 1.9)	2,981,231	pass.km
Long-haul, economy (RFI 1.9)	24,446,151	pass.km
Long-haul, first class (RFI 1.9)	34,569	pass.km
Long-haul, premium economy (RFI 1.9)	1,763,235	pass.km
Medium-haul, average class (RFI 1.9)	3,579,316	pass.km
Medium-haul, business (RFI 1.9)	251,798	pass.km
Medium-haul, economy (RFI 1.9)	5,434,639	pass.km
Short-haul (RFI 1.9)	3,236,414	pass.km
Bus and coach		
Average bus	562,241	pass.km
Coach	82,524	pass.km
Cars		
Average car (unknown fuel)	1,369,083	km
Hotel night stays		
Hotel night stays	23,028	night
Rail (train, tram, light rail, underground)		
Eurostar	5,700	pass.km
Intercity/National train	6,338,639	pass.km
Taxi		
Average taxi	330,909	km
Company owned vehicles		
Other fuel(s)		
Diesel, retail station biofuel blend	54,787	l
Gas Oil	22,425	l
Petrol, retail station biofuel blend	5,870	l
Contractor Vehicles		
Other fuel(s)		
Gas Oil	18,819	l
Premises		
Electricity		
Electricity consumption	84,687,308	kWh
Fuel oil		
Gas Oil	173,178	l
Natural gas		
Natural gas (average UK network) (gross)	216,526,933	kWh
Other fuels, UK (gross CV)		

	LPG (gross CV)	11,200	l
Refrigerant gas loss and other fugitive emissions			
	HFC-134a emissions	25	kg
	R404a emissions	56	kg
	R407c emissions	35.1	kg
	R410a emissions	34.2	kg
Water supply			
	Water supply	389,184	m3
Water treatment			
	Water treatment	369,725	m3
Staff Commuting			
Bicycle			
	Bicycle	2,961,322	km
Bus and coach			
	Total CO2e emissions	1,300	tonne
Cars			
	Total CO2e emissions	3,409	tonne
Motorcycle			
	Total CO2e emissions	55	tonne
On foot			
	On foot	1,466,523	km
Rail			
	Total CO2e emissions	716	tonne
Taxi			
	Total CO2e emissions	20	tonne
Student Commuting			
Bicycle			
	Bicycle	2,374,404	km
Bus and coach			
	Total CO2e emissions	1,922	tonne
Cars			
	Total CO2e emissions	1,061	tonne
Motorcycle			
	Total CO2e emissions	33	tonne
On foot			
	On foot	4,496,582	km
Rail			
	Total CO2e emissions	854	tonne
Taxi			
	Total CO2e emissions	85	tonne
Waste			
Composted waste			

Composted waste, food and drink waste	426	tonne
Composted waste, garden waste	497	tonne
Hazardous waste		
Combusted waste, energy recovery, mixed commercial and industrial	191	tonne
Incinerated waste		
Combusted waste, energy recovery, mixed commercial and industrial	792	tonne
Landfilled waste		
Mixed commercial and industrial waste, landfilled	108	tonne
Recycled plastic		
Closed loop recycling - average plastics	5.06	tonne
Recycled waste		
Closed loop recycling - books	1.41	tonne
Closed loop recycling - cardboard	0.65	tonne
Closed loop recycling - glass	93.6	tonne
Closed loop recycling - mixed commercial and industrial waste	1,403	tonne
Closed loop recycling - mixed paper & board	43.8	tonne
Closed loop recycling - scrap metal	9.25	tonne
Open loop recycling - WEEE - mixed	54.8	tonne
Open loop recycling - WEEE - small	0.74	tonne
Open loop recycling - average construction material	75.6	tonne
Open loop recycling - average plastics	1.44	tonne
Open loop recycling - wood	19	tonne
Residential waste mass anaerobic digestion (ERWMADI)		
Municipal waste, average, anaerobic digestion	229	tonne
Residential waste mass used to create energy (ERWMENE)		
Combusted waste, energy recovery, municipal waste, average	1,808	tonne

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Assessment Summary for Academic estate

Gross Overall Emissions (location-based): 66,862 tCO_2e

Gross Overall Emissions (market-based): 49,245 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
736,000 Floor area (square metres)	0.0908 tCO_2e per square metre (Location-Based)
736,000 Floor area (square metres)	0.0669 tCO_2e per square metre (Market-Based)

Summary by Activity (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	55,617	83.2
Company owned vehicles	193	0.289
Business Travel	10,960	16.4
Contractor Vehicles	51.9	0.0776
Waste	40.2	0.0601
Total	66,862	100

Summary by Activity (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	38,000	77.2
Company owned vehicles	193	0.393
Business Travel	10,960	22.3
Contractor Vehicles	51.9	0.105
Waste	40.2	0.0816
Total	49,245	100

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

Scope	tCO_2e/year	%
Scope 1	36,304	54.3
Scope 2	17,617	26.3
Scope 3	12,941	19.4
Total	66,862	100

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

Scope	tCO_2e/year	%
Scope 1	36,304	73.7
Scope 3	12,941	26.3
Total	49,245	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	65,755	65,755	48,296	48,296
CH_4	25	4.4	110	2.22	55.5
N_2O	298	0.654	195	0.305	90.8
Biogenic CO_2	0	5.63	0	5.63	0
HFC-134a	1430	0.025	35.8	0.025	35.8
HFC-404a	3921.6	0.056	220	0.056	220
HFC-407c	1773.85	0.0351	62.3	0.0351	62.3
HFC-410a	2087.5	0.0342	71.4	0.0342	71.4
CO_2e	1	414	414	414	414
		Total	66,862		49,245

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

No Data Available

Emission Factor Type	Energy		Market-Based Emissions	
	MWh	%	tCO_2e	%
Client-supplied market-based instrument	75,565	100	0	0
Residual mix factors	0	0	0	0
Default location-based factors	0	0	0	0
Total	75,565	100	0	0

Assessment Summary for Accommodation

Gross Overall Emissions (location-based): 7,054 tCO_2e

Gross Overall Emissions (market-based): 4,927 tCO_2e

Summary by Activity (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	6,918	98.1
Company owned vehicles	20.8	0.294
Waste	115	1.63
Total	7,054	100

Summary by Activity (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	4,791	97.2
Company owned vehicles	20.8	0.421
Waste	115	2.34
Total	4,927	100

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

Scope	tCO_2e/year	%
Scope 1	4,607	65.3
Scope 2	2,127	30.2
Scope 3	320	4.54
Total	7,054	100

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

Scope	tCO_2e/year	%
Scope 1	4,607	93.5
Scope 3	320	6.5
Total	4,927	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	6,887	6,887	4,779	4,779
CH_4	25	0.535	13.4	0.272	6.79
N_2O	298	0.0551	16.4	0.0129	3.84
Biogenic CO_2	0	0.865	0	0.865	0
CO_2e	1	137	137	137	137
		Total	7,054		4,927

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

No Data Available

Emission Factor Type	Energy		Market-Based Emissions	
	MWh	%	tCO_2e	%
Client-supplied market-based instrument	9,122	100	0	0
Residual mix factors	0	0	0	0
Default location-based factors	0	0	0	0
Total	9,122	100	0	0