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

Assessment Period: August 2021 - July 2022

Produced on June 1, 2023 by *Ecometrica Sustainability*

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
- Ferry
- 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 waste
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- Residential waste mass used to create energy (ERWMENE)
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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	70,908	85.5
Estimated	11,991	14.5
Total	82,899	100

Market-based

Accuracy Overview	tCO_2e/year	%
Actual	87,922	88
Estimated	11,991	12
Total	99,913	100

Table 2. Data Quality and Availability

Source of emissions	Data quality
Premises	
Electricity	Actual
Fuel oil	Actual
Natural gas	Actual
Other fuel(s)	Actual
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	Actual
Bus and coach	Actual
Cars	Actual
Ferry	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	Actual
Motorcycle	Estimated
On foot	Estimated
Rail	Estimated
Taxi	Estimated
Student Commuting	
Bicycle	Estimated
Bus and coach	Estimated
Cars	Estimated
Estimated emissions	Actual
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	Mixed
Recycled glass	Actual
Recycled metal	Actual
Recycled paper & board	Actual
Recycled plastic	Actual
Recycled waste	Mixed
Residential waste mass anaerobic digestion (ERWMADI)	Estimated
Residential waste mass used to create energy (ERWMENE)	Estimated

Assessment Summary for The University of Edinburgh
Gross Overall Emissions (location-based): 82,899 tCO_2e
Gross Overall Emissions (market-based): 99,913 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
979,350 Floor area (square metres)	0.0846 tCO_2e per square metre (Location-Based)
11,357 Full Time Equivalent Employees	7.3 tCO_2e per Full Time Equivalent Employee (Location-Based)
1,298,000 Thousand GBP Revenue (£)	0.0639 tCO_2e per Thousand GBP Revenue (£) (Location-Based)
49,065 Number of students	1.69 tCO_2e per Student (Location-Based)
979,350 Floor area (square metres)	0.102 tCO_2e per square metre (Market-Based)
11,357 Full Time Equivalent Employees	8.8 tCO_2e per Full Time Equivalent Employee (Market-Based)
1,298,000 Thousand GBP Revenue (£)	0.077 tCO_2e per Thousand GBP Revenue (£) (Market-Based)
49,065 Number of students	2.04 tCO_2e per Student (Market-Based)

Summary by Activity (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	65,370	78.9
Staff Commuting	5,980	7.21
Student Commuting	5,909	7.13
Business Travel	5,186	6.26
Company owned vehicles	267	0.322
Waste	137	0.165
Contractor Vehicles	49.1	0.0592
Total	82,899	100

Summary by Activity (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	82,384	82.5
Staff Commuting	5,980	5.99
Student Commuting	5,909	5.91
Business Travel	5,186	5.19
Company owned vehicles	267	0.268
Waste	137	0.137
Contractor Vehicles	49.1	0.0491
Total	99,913	100

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

By Activity	tCO_2e/year	%
Scope 1	42,763	51.6
Scope 2	20,851	25.2
Scope 3	19,285	23.3
Total	82,899	100

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

By Activity	tCO_2e/year	%
Scope 1	42,763	42.8
Scope 2	37,865	37.9
Scope 3	19,285	19.3
Total	99,913	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	69,943	69,943	87,190	87,190
CH_4	25	6.13	153	2.68	67.1
N_2O	298	0.722	215	0.226	67.5
Biogenic CO_2	0	6.87	0	6.87	0
HFC-134a	1430	0.238	341	0.238	341
HFC-404a	3921.6	0.00361	14.2	0.00361	14.2
HFC-407c	1773.85	0.0256	45.4	0.0256	45.4
HFC-410a	2087.5	0.0216	45.1	0.0216	45.1

CO_2e	1	12,142	12,142	12,142	12,142
		Total	82,899		99,913

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	107,825	100	37,865	100
Default location-based factors	0	0	0	0
Total	107,825	100	37,865	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	**42,230**	**2.31**	**0.0988**	**42,763**	**51.6%**
Company owned vehicles Total	264	0.00577	0.0116	267	0.322%
Other fuel(s)	264	0.00577	0.0116	267	0.322%
Premises Total	41,967	2.3	0.0871	42,496	51.3%
Fuel oil	265	0.011	0.0103	269	0.324%
Natural gas	41,684	2.29	0.0768	41,765	50.4%
Other fuels, UK (gross CV)	16.6	5.18e-4	3.48e-5	16.7	0.0201%
Refrigerant gas loss and other fugitive emissions	0	0	0	445	0.537%
Scope 2 Total	**20,617**	**3.45**	**0.496**	**20,851**	**25.2%**
Premises Total	20,617	3.45	0.496	20,851	25.2%
Electricity	20,617	3.45	0.496	20,851	25.2%
Scope 3 Total	**7,095**	**0.378**	**0.128**	**19,285**	**23.3%**
Business Travel Total	5,160	0.0739	0.0823	5,186	6.26%
Air travel	4,122	0.0173	0.0688	4,143	5%
Bus and coach	47	3.49e-4	0.00146	47.5	0.0572%
Cars	232	0.0093	0.00505	233	0.281%
Ferry	3.18	3.77e-5	1.45e-4	3.23	0.00389%
Hotel night stays	642	0.0401	0.00337	644	0.777%
Rail (train, tram, light rail, underground)	80.8	0.00681	0.00244	81.7	0.0985%
Taxi	32.7	2.62e-5	0.001	33	0.0398%
Contractor Vehicles Total	48.5	0.002	0.00189	49.1	0.0592%
Other fuel(s)	48.5	0.002	0.00189	49.1	0.0592%
Premises Total	1,887	0.302	0.0434	2,024	2.44%
Electricity: Electricity - transmission & distribution losses (MCR)	1,887	0.302	0.0434	1,907	2.3%
Water supply	0	0	0	41.2	0.0497%
Water treatment	0	0	0	75	0.0905%
Staff Commuting Total	0	0	0	5,980	7.21%
Bicycle	0	0	0	0	0%
Bus and coach	0	0	0	1,272	1.53%
Cars	0	0	0	4,116	4.97%
Motorcycle	0	0	0	64.9	0.0783%
On foot	0	0	0	0	0%
Rail	0	0	0	488	0.589%
Taxi	0	0	0	38.9	0.0469%

Student Commuting Total	0	0	0	5,909	7.13%
Bicycle	0	0	0	0	0%
Bus and coach	0	0	0	2,956	3.57%
Cars	0	0	0	1,782	2.15%
Motorcycle	0	0	0	54.7	0.066%
On foot	0	0	0	0	0%
Rail	0	0	0	800	0.965%
Taxi	0	0	0	317	0.382%
Waste Total	0	0	0	137	0.165%
Composted waste	0	0	0	7.86	0.00949%
Hazardous waste	0	0	0	3.97	0.00479%
Incinerated waste	0	0	0	17.7	0.0214%
Landfilled waste	0	0	0	39.1	0.0471%
Recycled waste	0	0	0	30.7	0.037%
Residential waste mass anaerobic digestion (ERWMADI)	0	0	0	0.838	0.00101%
Residential waste mass used to create energy (ERWMENE)	0	0	0	36.3	0.0438%
Total	**69,943**	**6.13**	**0.722**	**82,899**	**100%**

Market-Based methodology

Source of Emissions	tCO_2/yr	tCH_4/yr	tN_2O/yr	Total Emissions (tCO_2e/yr)	%
Scope 1 Total	**42,230**	**2.31**	**0.0988**	**42,763**	**42.8%**
Company owned vehicles Total	264	0.00577	0.0116	267	0.268%
Other fuel(s)	264	0.00577	0.0116	267	0.268%
Premises Total	41,967	2.3	0.0871	42,496	42.5%
Fuel oil	265	0.011	0.0103	269	0.269%
Natural gas	41,684	2.29	0.0768	41,765	41.8%
Other fuels, UK (gross CV)	16.6	5.18e-4	3.48e-5	16.7	0.0167%
Refrigerant gas loss and other fugitive emissions	0	0	0	445	0.446%
Scope 2 Total	**37,865**	**0**	**0**	**37,865**	**37.9%**
Premises Total	37,865	0	0	37,865	37.9%
Electricity	37,865	0	0	37,865	37.9%
Scope 3 Total	**7,095**	**0.378**	**0.128**	**19,285**	**19.3%**
Business Travel Total	5,160	0.0739	0.0823	5,186	5.19%
Air travel	4,122	0.0173	0.0688	4,143	4.15%
Bus and coach	47	3.49e-4	0.00146	47.5	0.0475%
Cars	232	0.0093	0.00505	233	0.234%
Ferry	3.18	3.77e-5	1.45e-4	3.23	0.00323%
Hotel night stays	642	0.0401	0.00337	644	0.645%

Rail (train, tram, light rail, underground)	80.8	0.00681	0.00244	81.7	0.0817%
Taxi	32.7	2.62e-5	0.001	33	0.033%
Contractor Vehicles Total	48.5	0.002	0.00189	49.1	0.0491%
Other fuel(s)	48.5	0.002	0.00189	49.1	0.0491%
Premises Total	1,887	0.302	0.0434	2,024	2.03%
Electricity: Electricity - transmission & distribution losses (MCR)	1,887	0.302	0.0434	1,907	1.91%
Water supply	0	0	0	41.2	0.0412%
Water treatment	0	0	0	75	0.0751%
Staff Commuting Total	0	0	0	5,980	5.99%
Bicycle	0	0	0	0	0%
Bus and coach	0	0	0	1,272	1.27%
Cars	0	0	0	4,116	4.12%
Motorcycle	0	0	0	64.9	0.065%
On foot	0	0	0	0	0%
Rail	0	0	0	488	0.488%
Taxi	0	0	0	38.9	0.0389%
Student Commuting Total	0	0	0	5,909	5.91%
Bicycle	0	0	0	0	0%
Bus and coach	0	0	0	2,956	2.96%
Cars	0	0	0	1,782	1.78%
Motorcycle	0	0	0	54.7	0.0547%
On foot	0	0	0	0	0%
Rail	0	0	0	800	0.801%
Taxi	0	0	0	317	0.317%
Waste Total	0	0	0	137	0.137%
Composted waste	0	0	0	7.86	0.00787%
Hazardous waste	0	0	0	3.97	0.00397%
Incinerated waste	0	0	0	17.7	0.0177%
Landfilled waste	0	0	0	39.1	0.0391%
Recycled waste	0	0	0	30.7	0.0307%
Residential waste mass anaerobic digestion (ERWMADI)	0	0	0	0.838	8.38e-4%
Residential waste mass used to create energy (ERWMENE)	0	0	0	36.3	0.0364%
Total	**87,190**	**2.68**	**0.226**	**99,913**	**100%**

Summary by Company Unit

Location-Based methodology

Assessment	August 2020 - July 2021		August 2021 - July 2022	
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	69,220	6.17	82,899	7.3
Academic estate	58,535	-	64,232	-
Accommodation	7,279	-	6,777	-

Market-Based methodology

Assessment	August 2020 - July 2021		August 2021 - July 2022	
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	78,251	6.98	99,913	8.8
Academic estate	66,541	-	79,772	-
Accommodation	8,304	-	8,251	-

Annual Activity Data

Source of Emissions	Value	Unit
Business Travel		
Air travel		
Long-haul, average class (RFI 1.9)	2,378,536	pass.km
Long-haul, business (RFI 1.9)	581,443	pass.km
Long-haul, economy (RFI 1.9)	12,145,957	pass.km
Long-haul, premium economy (RFI 1.9)	454,481	pass.km
Medium-haul, average class (RFI 1.9)	1,693,437	pass.km
Medium-haul, business (RFI 1.9)	148,320	pass.km
Medium-haul, economy (RFI 1.9)	4,857,398	pass.km
Short-haul (RFI 1.9)	2,049,007	pass.km
Bus and coach		
Coach	49,150	pass.km
Local bus	411,848	pass.km
Cars		
Average car (unknown fuel)	1,367,192	km
Ferry		
Average ferry passenger	28,579	pass.km
Hotel night stays		
Hotel night stays	27,038	night
Rail (train, tram, light rail, underground)		
Eurostar	814,261	pass.km
Intercity/National train	2,199,095	pass.km
Taxi		
Average taxi	158,513	km
Company owned vehicles		
Other fuel(s)		
Diesel, retail station biofuel blend	62,376	l
Gas Oil	35,932	l
Petrol	3,692	l
Contractor Vehicles		
Other fuel(s)		
Gas Oil	17,793	l
Premises		
Electricity		
Electricity consumption	107,825,185	kWh
Fuel oil		
Gas Oil	97,455	l
Natural gas		
Natural gas (average UK network) (gross)	228,796,639	kWh

Other fuels, UK (gross CV)			
	LPG (gross CV)	10,705	l
Refrigerant gas loss and other fugitive emissions			
	HFC-134a emissions	238	kg
	R404a emissions	3.61	kg
	R407c emissions	25.6	kg
	R410a emissions	21.6	kg
Water supply			
	Water supply	374,396	m3
Water treatment			
	Water treatment	326,115	m3
Staff Commuting			
Bicycle			
	Bicycle	6,647,302	km
Bus and coach			
	Total CO2e emissions	1,272	tonne
Cars			
	Total CO2e emissions	4,116	tonne
Motorcycle			
	Total CO2e emissions	64.9	tonne
On foot			
	On foot	5,173,379	km
Rail			
	Total CO2e emissions	488	tonne
Taxi			
	Total CO2e emissions	38.9	tonne
Student Commuting			
Bicycle			
	Bicycle	5,337,803	km
Bus and coach			
	Total CO2e emissions	2,956	tonne
Cars			
	Total CO2e emissions	1,782	tonne
Motorcycle			
	Total CO2e emissions	54.7	tonne
On foot			
	On foot	13,398,055	km
Rail			
	Total CO2e emissions	800	tonne
Taxi			
	Total CO2e emissions	317	tonne
Waste			

Composted waste		
Composted waste, food and drink waste	392	tonne
Composted waste, garden waste	491	tonne
Hazardous waste		
Combusted waste, energy recovery, mixed commercial and industrial	187	tonne
Incinerated waste		
Combusted waste, energy recovery, mixed commercial and industrial	833	tonne
Landfilled waste		
Mixed commercial and industrial waste, landfilled	83.7	tonne
Recycled waste		
Closed loop recycling - average construction material	89.2	tonne
Closed loop recycling - average plastics	0.46	tonne
Closed loop recycling - books	1.44	tonne
Closed loop recycling - glass	60.6	tonne
Closed loop recycling - mixed commercial and industrial waste	1,187	tonne
Closed loop recycling - mixed paper & board	63	tonne
Closed loop recycling - scrap metal	22.7	tonne
Closed loop recycling - wood	22.1	tonne
Open loop recycling - WEEE - mixed	79.3	tonne
Open loop recycling - WEEE - small	0.74	tonne
Residential waste mass anaerobic digestion (ERWMADI)		
Municipal waste, average, anaerobic digestion	94	tonne
Residential waste mass used to create energy (ERWMENE)		
Combusted waste, energy recovery, municipal waste, average	1,707	tonne

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Assessment Summary for Academic estate

Gross Overall Emissions (location-based): 64,232 tCO_2e

Gross Overall Emissions (market-based): 79,772 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
765,000 Floor area (square metres)	0.084 tCO_2e per square metre (Location-Based)
765,000 Floor area (square metres)	0.104 tCO_2e per square metre (Market-Based)

Summary by Activity (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	58,703	91.4
Business Travel	5,186	8.07
Company owned vehicles	254	0.395
Contractor Vehicles	49.1	0.0764
Waste	40.4	0.0629
Total	64,232	100

Summary by Activity (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	74,243	93.1
Business Travel	5,186	6.5
Company owned vehicles	254	0.318
Contractor Vehicles	49.1	0.0615
Waste	40.4	0.0506
Total	79,772	100

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

By Activity	tCO_2e/year	%
Scope 1	38,059	59.3
Scope 2	19,046	29.7
Scope 3	7,127	11.1
Total	64,232	100

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

By Activity	tCO_2e/year	%
Scope 1	38,059	47.7
Scope 2	34,586	43.4
Scope 3	7,127	8.93
Total	79,772	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	63,299	63,299	79,053	79,053
CH_4	25	5.55	139	2.4	60
N_2O	298	0.666	199	0.213	63.6
Biogenic CO_2	0	6.29	0	6.29	0
HFC-134a	1430	0.238	341	0.238	341
HFC-404a	3921.6	0.00361	14.2	0.00361	14.2
HFC-407c	1773.85	0.0256	45.4	0.0256	45.4
HFC-410a	2087.5	0.0216	45.1	0.0216	45.1
CO_2e	1	150	150	150	150
		Total	64,232		79,772

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	98,488	100	34,586	100
Default location-based factors	0	0	0	0
Total	98,488	100	34,586	100

Assessment Summary for Accommodation

Gross Overall Emissions (location-based): 6,777 tCO_2e

Gross Overall Emissions (market-based): 8,251 tCO_2e

Summary by Activity (Location-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	6,668	98.4
Waste	96.1	1.42
Company owned vehicles	13.5	0.198
Total	6,777	100

Summary by Activity (Market-Based, tCO_2e)

By Activity	tCO_2e/year	%
Premises	8,141	98.7
Waste	96.1	1.16
Company owned vehicles	13.5	0.163
Total	8,251	100

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

By Activity	tCO_2e/year	%
Scope 1	4,704	69.4
Scope 2	1,806	26.6
Scope 3	268	3.95
Total	6,777	100

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

By Activity	tCO_2e/year	%
Scope 1	4,704	57
Scope 2	3,279	39.7
Scope 3	268	3.25
Total	8,251	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	6,643	6,643	8,137	8,137
CH_4	25	0.582	14.5	0.283	7.08
N_2O	298	0.056	16.7	0.013	3.88
Biogenic CO_2	0	0.58	0	0.58	0
CO_2e	1	103	103	103	103
		Total	6,777		8,251

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	9,337	100	3,279	100
Default location-based factors	0	0	0	0
Total	9,337	100	3,279	100