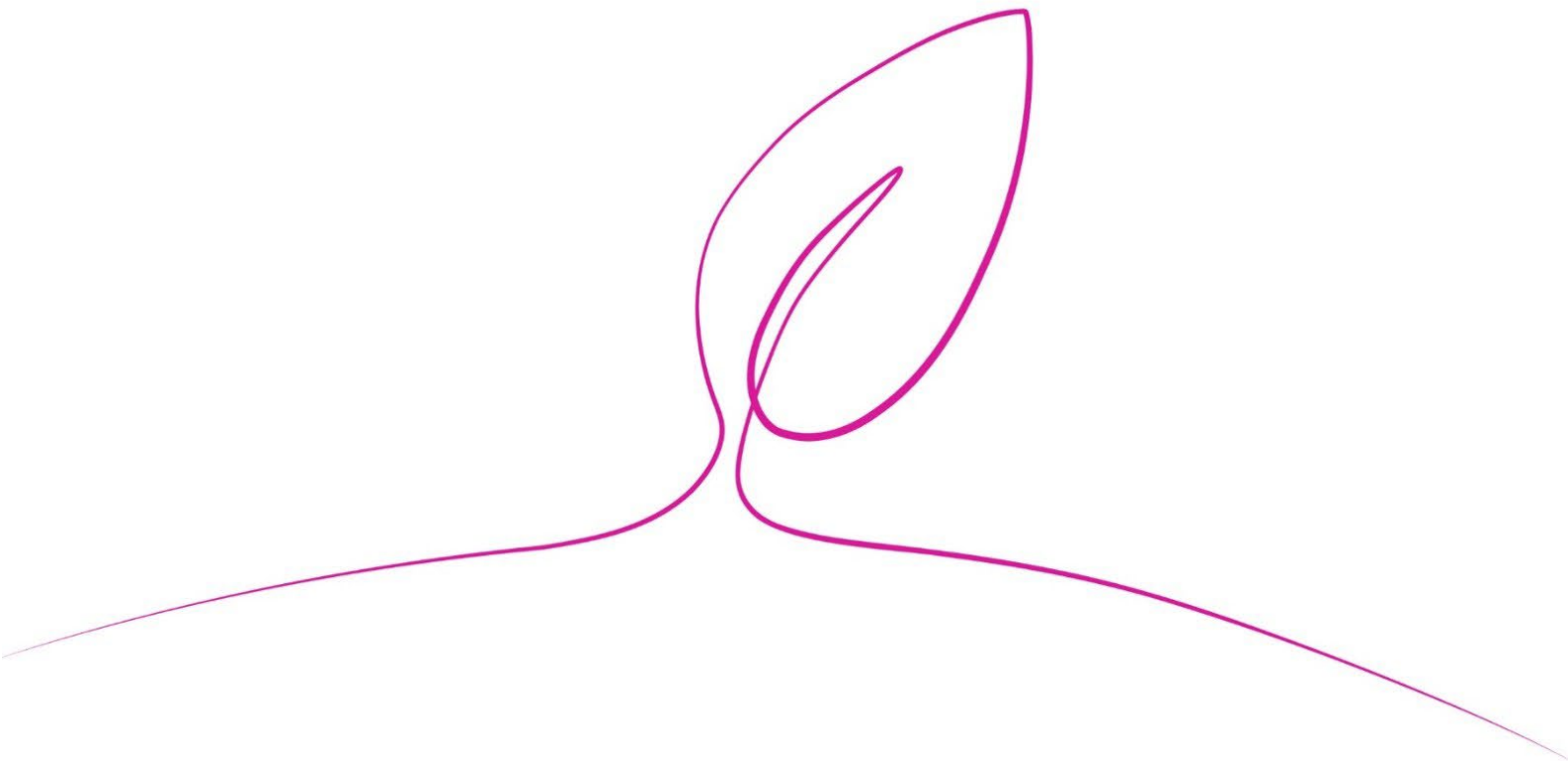


Beazley Greenhouse Gas Methodology for 2023 Greenhouse Gas Emissions

March 2024



beazley

1. Overview

1.1 Objective

This methodology summary details Beazley Group's (hereafter Beazley) approach to the calculation of corporate greenhouse gas (GHG) emissions for corporate reporting. The method applies to the calculation of 2023 GHG emissions, as disclosed via Beazley Group's 2023 Annual Report and Accounts 2023, for the period covering 1st January to 31st December.

The data generated is also used to support disclosure of corporate energy consumption and GHG emissions for compliance with the Streamlined Energy and Carbon Reporting Framework (SECR).

1.2 Summary of changes to 2022 methodology

Several revisions and methodological changes have been made from 2022 GHG emissions methodology version to 2023. These are:

- The scope of offices reported against has increased to include: Denver, Houston, Los Angeles, Vancouver, Toronto, and Singapore;
- Improving the accuracy of reporting for US, Canada, UK, Europe, and Rest of World (RoW) office energy use: This is based on the results of an energy use survey which was conducted in 2023. The findings have helped to reduce the use of estimates, particularly for the US offices;
- Introducing a section in the methodology providing an overview of key metrics reported and their definitions;
- Including, within the appendix, a recalculation of historical emissions, 2019-2022, due to the changes in the 2023 methodology. This is to enable direct comparisons to still be made to the 2019 baseline year; and
- The method for estimating distances travelled by taxis has been expanded to using regional mileage rates rather than a single global rate.

1.3 Metrics calculated

The table below shows the key GHG emission metrics calculated and reported against using the methodology outlined in this document. For Scopes 1 and 2, emissions are also reported and broken down by the relevant regions: USA and Canada, Europe, UK, and RoW.

Scope	Metric Calculated	Unit	Definition
Scope 1	GHG emissions occurring from sources that are controlled or owned by Beazley	tCO ₂ e	GHG emissions arising from company owned or leased vehicles used for business purposes; refrigerant leakage or top-up of air conditioning system; and any use of back-up generators
Scope 2	GHG emissions of office electricity and heating energy use	tCO ₂ e	GHG emissions from Beazley leased office electricity and heating energy use (gas and steam), and electrical vehicle charging
Scope 3	Indirect GHG emissions (not included in scope 2) that occur in Beazley's value chain	tCO ₂ e	GHG emissions arising from business travel including hotel stays and all travel modes, use of external data centres, and emissions arising from fuel and energy related activities not included in scope 1&2 which include T&D emissions associated with office energy use and electrical vehicle use
Overall	GHG emissions per FTE employee	tCO ₂ e	Normalised GHG scope 1, 2 & 3 combined emissions by fulltime equivalent employee headcount, incl. temporary headcount
Overall	Office energy consumption	kWh	Total office electricity consumption in kWh
Overall	Renewable energy percentage	%	Percentage of electricity procured from certified renewable energy sources

1.4 Methodology

Greenhouse gas (GHG) emissions are calculated in accordance with the Greenhouse Gas Protocol, Corporate Reporting and Accounting Standard including the amended GHG Protocol Scope 2 Guidance, and HM Government, Environmental Reporting Guidelines. Applicable UK Government's (BEIS) GHG Conversion Factors for Company Reporting are used unless otherwise indicated. Beazley's GHG emissions are, where possible, calculated using emission factors for 'kgCO₂e' (i.e. the sum of emission factors for carbon dioxide, methane and nitrous oxide). The exceptions to this are:

- GHG emissions associated with refrigerants, which are reported as GHG carbon dioxide equivalent (tCO₂e) emissions based on their global warming potential;

- GHG emissions associated with the US, Canada, European, and Singapore office electricity use are calculated using emission factors provided by Carbonfootprint.com (hereafter referred to as Carbonfootprint), who have collated these emission factors from a number of recognised sources.
- GHG emissions associated with the Dublin office electricity use are calculated using information reported by SEAI and reported as gCO₂/kWh. To calculate kgCO₂e emission, BEIS NO₂ and CH₄ emission factors were added to SEAI figure;
- US office gas use (Scope 2) where the Environment Protection Agency (EPA) US State emission factors are used;
- US office business travel (where such travel is booked via Beazley’s US travel provider) by rental car, personal car, air and rail (Scope 3) where the US EPA emission factors are used. The exception to this rule is for flights to/from/ within the UK, even if this has been booked via the US booking process. In this instance, the BEIS emission factors are used;
- Where emissions factors are not listed by BEIS for the country of hotel stay, then data from the Cornell Hotel Sustainability Benchmarking (CHSB) index is applied;
- Emissions factors for US steam use, which is sourced from ENERGY STAR Portfolio Manager; and
- Travel on the Eurostar has used the BEIS international rail emission factor.

1.5 Scope of Reporting

Reporting is based on operational control. Beazley Group does not have operational control over the building infrastructure and plant at its offices due to the presence of facility management companies and shared tenancy; as a result, emissions primarily fall within Scope 2 and 3 of the Greenhouse Gas Protocol.

The parameter of Scope 1 and Scope 2 reporting in 2023 includes 22 sites covering London (UK), Birmingham (UK), Dublin (Ireland), Munich (Germany), Paris (France), Barcelona (Spain), Singapore (Asia), Atlanta (US), Boston (US), Chicago (US), Dallas (US), Farmington (US), New York (US), San Francisco (US), Philadelphia (US), Denver (US), Houston (US), Los Angeles (US), Miami (US), Vancouver (Canada), Toronto (Canada), Montreal (Canada), and one third party cloud-based data centre service provider called Equinix). This equates to 95.5% of Beazley employees including contractors. However, business travel (Scope 3) is included for all employees. Overall normalisation of the emissions is based on a total FTC headcount number of 2,480.45. This headcount is the total number of employees at Beazley, whether in a permanent or temporary capacity. All of which can book travel via Beazley’s travel provider to travel on Beazley related business.

Beazley’s two US subsidiaries, Lodestone (Lewisville) & BHI (Miami), are excluded.

Energy consumption for the charging of electrical vehicles in scope 2 is included and calculated based on maximum distance specified in terms of car lease agreements for the year of reporting, and for the proportion of the year the car is in use.

It is noted that our Atlanta office hosts a data server room, and the New York, Farmington, Chicago and Atlanta offices also have significant IT infrastructure and associated cooling demand. In the case of the Dublin office we also have control over air conditioning systems for the areas of the building we occupy. This increase in energy consumption is reflected in the billing data Beazley receives, which form the basis of the GHG calculations.

A summary of the scope of reporting across each of the three scopes of GHG reporting is outlined in the table below. This is for the 2023 year of reporting. The same scope is used for the reporting of the 2019 to 2022 data to ensure direct comparisons can be made.

	Scope 1			Scope 2			Scope 3							
	Company Cars	Refrigerant	Diesel use for backup generators	Office Energy Consumption	Energy Consumption from charging EV Cars	Energy Consumption from Heating	Air Travel	T & D from Energy Consumption	Rail Travel	Taxis	Hotels	Hire Cars	Personal Car Use	External Data Centres
2023	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

1.6 Data limitations

Below table describes some limitations of the use of data and methods for calculating GHG emissions by scope and reporting category.



Scope 1

Metric Calculated	Data limitations
GHG emissions arising from Company Cars	Mileage is estimated based on contract agreements, and for the proportion of the year the car is in use. Use of estimates is considered not material to results
Refrigerant from A/C systems	Refrigerant data is based on top up values documented in maintenance schedules. This maintenance regime is undertaken by the landlord. Beazley, therefore, is reliant on information being provided by the landlord to facilitate the reporting of these emissions.

Scope 2

Metric Calculated	Data limitations
GHG emissions arising from office energy use	For offices where energy data is not available, the energy consumption has been estimated. These estimates are based on either data from the same period in a previous year, or average building energy consumption pro-rated for the floor area Beazley occupies. Where either of these pieces of data are unavailable, typical energy consumption figures, as set out in CIBSE guidance, have been used to provide energy consumption per m ² . This factor has then been multiplied by the total floor area Beazley occupies to give an overall energy consumption figure. Reported emissions may therefore be under/over reported and need to be interpreted with some caution.

Scope 3

Metric Calculated	Data limitations
GHG emissions arising from business travel – from travel providers	Average emission factors for flights, rail, car travel, and hotel stays are sourced from BEIS and US EPA. The specific emission factors for the type of plane, train, car etc, are not available. This does mean that the calculations may not reflect actual emissions. The use of average emissions factors is in line with standard practice. Results are considered to be not materially impacted. Raw data is sourced from Beazley's travel providers, who in turn source this data from the transportation companies i.e. airlines. The assumption is that the information provided by the travel providers is a reflection of the travel made.
GHG arising from External Data centres	Whilst the energy consumption of data racks are directly metered, total building mechanical and electrical overhead energy use is apportioned to Beazley's rented racks. The average energy apportionment of total building energy use to data racks may therefore not reflect actual energy use, and therefore, overall carbon emissions. Results are considered to be not materially impacted.
GHG emissions arising from fuel and energy related activities not included in scope 1 or 2	Data limitation related to company car use and office energy consumption will propagate into related T&D calculations.
GHG emissions arising from steam consumption - actuals	There is not an energy star emission factor for the T&D emissions associated with the consumption of steam. Instead the BEIS emission factor has been used.

Normalised Metrics

Metric Calculated	Data limitations
Total GHG/ total FTE (including contractors)	Normalisation by FTE headcount may skew performance and not reflect actual reduction of emissions

1.7 Data Sources

The table below summarises the sources of data being used to enable the calculation of the in-scope GHG scope 1, 2 & 3 GHG emissions.

Scope and metric calculated	Source/raw data collected to facilitate GHG emissions calculation
Scope 1	
GHG emissions arising from Company Cars	GHG emissions are calculated based on the details i.e. fuel type, engine size etc of the cars, mileage allowance outlined in the car lease agreements. Where the car's lease either begins or ends in the year, then the total mileage allowance is calculated on a pro-rata basis.
Refrigerant from A/C systems	Refrigerant top up sheets from landlords/ FM companies acting on their behalf
Scope 2	

GHG emissions arising from electricity consumption - actuals	<p>The electricity consumption data is sourced from either bills supplied by the landlord, or directly from the energy meters measuring consumption arising from the office space Beazley rents.</p> <p>If obtaining the electricity consumption of the office space Beazley rents is not possible, the metered electricity data for the whole building is obtained from landlords. Beazley then apports the electricity consumed by Beazley based on floor area.</p>
GHG emissions arising from electricity consumption - estimate	Floor area is obtained from landlord to enable electricity consumption to be estimated using industry averages.
GHG emissions arising from renewable energy	<p>The sources of data required to calculate the proportion of emissions coming from renewable energy are described above.</p> <p>The determination of whether the energy comes from renewable sources is based on a copy of the REGO certificates</p>
GHG emissions arising from gas consumption - actuals	<p>The gas consumption data is sourced from either bills supplied by the landlord, or directly from the energy meters measuring consumption arising from the office space Beazley rents.</p> <p>If obtaining the gas consumption of the office space Beazley rents is not possible, the metered gas data for the whole building is obtained from landlords. Beazley then apports the gas consumed by Beazley based on floor area.</p>
GHG emissions arising from gas consumption - estimate	Floor area is obtained from landlord to enable gas consumption to be estimated using industry averages.
GHG emissions arising from steam consumption - actuals	<p>The steam consumption data is sourced from either bills supplied by the landlord, or directly from the energy meters measuring consumption arising from the office space Beazley rents.</p> <p>If obtaining the steam consumption arising from the office space Beazley rents is not possible, the metered steam data for the whole building is obtained from landlords. Beazley then apports the steam consumed by Beazley based on floor area.</p>
GHG emissions arising from steam consumption - estimate	Floor area is obtained from landlord to enable steam consumption to be estimated using industry averages.
Scope 3	
GHG emissions arising from business travel – from travel providers	Travel data is provided Beazley’s travel partners – Frosch and Reed & Mackay (R&M). Beazley books business travel via these providers.
GHG emissions arising from business travel – from finance (agresso)	Additional travel data (taxi use and company cars) may be booked internally or expensed from company credit cards. This data is provided by the Group’s Accounts Payable team, and sourced from the Financial systems Agresso and Workday.
GHG arising from External Data centres	Energy consumption for the power used by Beazley in the Equinix data centres is sourced from an Equinix provided data source.

2. Outline of Methodology

2.1 Detailed summary of data collection, calculation methods, assumptions, and exclusions

Scope 1

Fire Suppression/ AC units

Office fire suppression and air conditioning units in serviced offices are generally the responsibility of our landlord, and therefore, out of scope for Beazley's reporting. Beazley has management control over small refrigerant systems associated with IT server cooling at our London, Dublin, New York, Farmington, Chicago and Atlanta offices. Refrigerant losses are reported on the basis of 'top-up' values and hence, are reported after the event. Beyond refilling refrigerants, any products used for maintenance or repair of AC units are out of scope. No refrigerant top-up was reported for 2023.

Company Cars

Data is provided by Beazley's Facilities team, based on lease hire agreements. To calculate GHG emissions, it has been assumed that the driver has used the maximum annual distance allowance allowed under the terms of the lease agreement. Any apportionment of distance travelled is calculated and used for any lease beginning throughout the year. If a lease starts/ ends mid-year, estimated maximum mileage is calculated for proportion of the year the car is in use. Company cars are only held by UK employees.

GHG emissions have been calculated using the BEIS emission factors, with the emission factor selected on the basis of the car market segment. It has been assumed that all hybrid cars have petrol/hybrid combination.

Backup Generators

Beazley's Birmingham office has a backup diesel generator for power supply. The generator is managed on behalf of Beazley by the landlord and was not used in 2023.

Scope 2

Electricity Consumption and Heating Energy

The reported electricity consumption, steam, and gas use for heating has been calculated using one of three methods. The method is determined by the availability of data, with method 1 preferred to method 2 and 3.

Method	Description
Method 1	The preferred method is the use of utility bills provided by either the utility provider or the landlord for the floor space which Beazley rents. This method is considered the most accurate for determining carbon emissions.
Method 2	Where direct metered readings for our rented space/floor are not available, but the metered total building energy use is (via utility bill or metered data from the landlord), the average kWh/square meter/year for the building is calculated and applied to the space Beazley rents.
Method 3	If metered data as set out in methods 1 and 2 are not available, or are considered unreliable, the CIBSE 2021 office energy benchmarking for average electricity and/or gas use is used. The CIBSE factor for air conditioned, prestige offices, with good energy practice are used. This emission factor is believed to best reflect the office space we lease, given many have LEED/ BREEAM certification.

The table below summarises the key methods of data collection and calculations methods utilised for collecting data and calculating GHG emissions across our offices. For US steam T&D losses, BEIS' emission factor district heat and steam has been used as a proxy to fill the data gap. For UK gas use, emissions factor for gross CV of gas use has been applied. For our London office, the BEIS' emissions factor for biogas has been applied for the procurement of green gas. This is gross of CV. No other location is procuring biogas. The use of biogas is only reflected in the reporting of market based emissions. The emission factor for natural gas has been used for the reporting of location based emissions for London.

Location	Office rented space (m ²)	Use renewable electricity tariff?	Electricity	Gas	Steam	Source of GHG emissions factors
UK, Europe & ROW						
Barcelona	670	No	Method 1	n/a	n/a	Emissions factors sourced from carbonfootprint.com
Birmingham	1,127	Yes from 1 st July, 2023	Method 1	Method 2	n/a	BEIS/UK Government GHG Conversion Factors for Company Reporting
Dublin	555	Yes	Method 1	n/a	n/a	SEAI emission factor (does not have CO ₂ e, therefore, BEIS factors for CH ₄ and N ₂ O have been added to SEAI CO ₂ factor.
London	4,619	Yes	Method 1	Method 1	n/a	BEIS/UK Government GHG Conversion Factors for Company Reporting
Montreal	124	No	Method 2	n/a	n/a	Emissions factors sourced from carbonfootprint.com
Munich	439	No	Method 1	n/a	Method 3	Emissions factors sourced from carbonfootprint.com for electricity. BEIS emission factors used for steam
Paris	477	No	Method 1	n/a	n/a	Emissions factors sourced from carbonfootprint.com
Singapore	552	No	Method 1	n/a	n/a	Emissions factors sourced from carbonfootprint.com
Vancouver	43	No	Method 3	Method 3	n/a	Emissions factors sourced from carbonfootprint.com for electricity use US Environmental Protection Agency (EPA) emissions factors for gas use
USA						
Atlanta	1,614	No	Method 2	n/a	n/a	Emissions factors sourced from carbonfootprint.com
Boston (new office)	100	No	Method 2	Method 2	n/a	Emissions factors sourced from carbonfootprint.com for electricity use US Environmental Protection Agency (EPA) emissions factors for gas use
Chicago	929	No	Method 1	n/a	n/a	Emissions factors sourced from carbonfootprint.com
Dallas	323	No	Method 2	n/a	n/a	Emissions factors sourced from carbonfootprint.com
Denver	53	No	Method 2	n/a	n/a	Emissions factors sourced from carbonfootprint.com

Farmington	2,836	No	Method 2	Method 2	n/a	Emissions factors sourced from carbonfootprint.com for electricity use US Environmental Protection Agency (EPA) emissions factors for gas use
Houston	80	No	Method 2	n/a	n/a	Emissions factors sourced from carbonfootprint.com
Los Angeles	667	No	Method 2	n/a	n/a	Emissions factors sourced from carbonfootprint.com
Miami	304	No	Method 2	n/a	n/a	Emissions factors sourced from carbonfootprint.com
New York	2,600	No	Method 2	n/a	Method 2	Emissions factors sourced from carbonfootprint.com for electricity use ENERGY STAR for steam use BEIS/UK Government GHG Conversion Factors for Company Reporting for heating T&D loss
Philadelphia	830	No	Method 2	n/a	Method 2	Emissions factors sourced from carbonfootprint.com for electricity use ENERGY STAR for steam use BEIS/UK Government GHG Conversion Factors for Company Reporting for heating T&D loss, as data not available in energy star.
San Francisco	951	Yes	Method 2	Method 2	n/a	Emissions factors sourced from carbonfootprint.com for electricity use US Environmental Protection Agency (EPA) emissions factors for gas use
Toronto	768.3	No	Method 1	Method 2	n/a	Emissions factors sourced from carbonfootprint.com for electricity use US Environmental Protection Agency (EPA) emissions factors for gas use

Estimates

Actual data for the final months of the year was unavailable at the time of compiling the end of year figures for a number of office locations. This has resulted in the use of estimated values. A summary of the office locations where estimates have been used, and the estimate methodology adopted is as follows:

Electricity

Office	Months where estimates have been used	Methodology to provide proxy data
Europe		
Munich	All months are estimates	Estimate for whole year based on daily average from bill running 28/04/22 - 12/03/23
USA		
Chicago	December	Average energy consumption for January 2023 to November 2023 used for December 2023.
Farmington	December	Average energy consumption for January 2023 to November 2023 used for December 2023.
Los Angeles	December	Average energy consumption for January 2023 to November 2023 used for December 2023.
Rest of World		
Toronto	December	Average energy consumption for January 2023 to November 2023 used for December 2023.
Montreal	December	Average energy consumption for January 2023 to November 2023 used for December 2023.
Vancouver	All months are estimates	CIBSE Estimate used.

Imported heat

Office	Months where estimates have been used	Methodology to provide proxy data
Europe		
Munich	All months are estimates	CIBSE Estimate used.
USA		
Farmington	October to December	Average energy consumption for January 2023 to September 2023 used for October to December 2023.
San Francisco	December	Average energy consumption for January 2023 to November 2023 used for December 2023.
Toronto	December	Average energy consumption for January 2023 to November 2023 used for December 2023.
Vancouver	All months are estimates	CIBSE Estimate used.

Data coverage

GHG emissions are based on billing data provided by the landlords or utility companies. The data is provided on a monthly basis. This means that billing at the beginning and end of the year may cover small periods in either 2022 or 2024. Billing does cover 365 days worth of energy consumption.

Energy from Charging of EV Cars

It has been assumed that all cars are charged at the owner's residence. Emissions from EV charging is estimated based on distance travelled, using the methodology set out for the calculation of Scope 1 emissions. The BEIS emissions factors have been used.

2.2 Restatement of Historical Scope 2 Office Emissions (2019-2022)

Summary of changes to methodology

Restatements are considered where there is a change in the data and/or calculation methodology which will impact total emissions reported. The historical emissions for 2019 to 2022 have been restated due to a number of changes in 2023. These are as follows:

1. For the US offices, the methodology has been adjusted following the completion of an energy survey to understand the energy consumption and billing arrangements. The survey revealed both the use of additional energy sources (i.e. steam) and/or building services (e.g. heating, hot water systems, HVAC);
2. The energy survey also enabled additional energy data to be captured, which has resulted in a decrease in the use of estimates. This means the calculations have generally moved away from the utilisation of method 3 (as described previously) to either methods 1 or 2; and
3. There has been an increase in scope of offices reported, with reporting now covering: Denver, Houston, Los Angeles, Vancouver, Toronto, and Singapore.

The following actions have been taken to update the historic reporting of emissions:

1. Where actual data has been provided to Beazley this has been included in the calculations. This has resulted in a decreased use in CIBSE energy factors to estimate energy use;
2. The over-reporting of previously estimated emissions for heating from gas have been removed, where its has been validated that the building is electricity only;
3. Historical energy use for new offices introduced into reporting scope have been assumed to be the same as 2022; and
4. An adjustment factor based on the percentage difference between the updated methodology and previously reported emissions for 2022 has been applied to historically estimated emissions.

A full summary of the changes on an office-by-office basis is included in Appendix 2.

Impact of the changes in methodology on the historic (2019-2022) carbon emissions

The table below summarises the difference in total Scope 2 emissions for 2022 reporting as a result of the updated methodology.

Scope 2	2022 (previously reported)	2022 (updated methodology)	% difference
Scope 2 - Location based	1,144.79	946.81	-17.7
Scope 2 - Market based	1,027.79	770.21	-30.7

The difference between previously reported emissions and updated emissions for 2022 is attributable to an increased accuracy of underlying raw data, rather than from increased use of renewable energy sources. A full summary of the changes on an office-by-office basis can be found in Appendix 2.

2.3 Scope 3: Detailed summary of data collection, calculation methods, assumptions, and exclusions

Beazley Group's activities include business travel which is recognised as a significant source of GHG emissions. Scope 3 emissions comprise of the following activities:

- Air travel;
- T & D Losses associated with office energy consumption (just electricity) and electrical vehicle use;
- Rail travel;
- Taxi use;
- Hotel Stay;
- Car Hire;
- Personal Car Use; and
- External data centres.

Air Travel

BEIS emission factors for 'to/from UK' are used for all flights booked through Beazley's UK and Europe booking partner and flights to/from the UK, booked via our USA travel partner. For the remaining flights booked via the USA travel booking system, the US Environmental Protection Agency emission factors for 'Short', 'Medium' and 'Long Haul' flights have been used, as detailed in US EPA Centre for Corporate Climate Leadership, Emission Factors for GHG Inventories. Emission factors relevant to the reporting years are used. The table below shows the defined distances for flight types used per emission factor database.

Emission factor source	Flight distances		
	Long haul	Medium haul	Short haul
US EPA	>2300 miles/ 3,701.5 km	>300 miles to <2300 miles >482.80km to <3,701.5 km	<300 miles / 482.80km
UK BEIS	>2300 miles/ 3,701.5 km	n/a	<2300 miles/ 3,701.5 km

Rail Travel

BEIS emission factors for rail travel ('National Rail' and 'International Rail') are used for all UK and European Rail travel, including Eurostar. The calculations exclude travel recorded in the booking process for the London Underground (defined as travel on TFL services which do not use mainline railways). This is due to be unable to ascertain an accurate distance travelled.

For the USA travel, emissions factors provided by US EPA are used ('Inter city rail -other routes and 'Northeast Corridor', where applicable. Travel in Canada uses EPA international rail emission factors.

Taxi Use

The distance travelled by taxi has been estimated from cost data and currency of spend. The below table summarises the taxi rates per mile of travel applied based on publicly reported average taxi costs in UK, Paris, New York, and Singapore.

Currency	Rate/mile
GBP	9
USD	6.5
EUR	2.87
CAD	6.5
SGD	4.525

The BEIS 'Regular taxi' emission factor has been used globally, as region-specific emission factors for taxi use are not available.

Data is based on the date the taxi use was claimed back via Beazley's expenses process, with data sourced from Finance systems (Agresso & Workday) – reliance has been placed on processing undertaken by the Group Accounts Payable team. These Finance systems do not capture travel date, only invoice date. As a result, invoice dates for 2023 are used for calculating emissions, which means there could be some taxi use from 2022 included in the 2023 calculations. This is considered negligible from a GHG emissions perspective. In addition, at present, for employees in Canada and Singapore, expenses are processed via a different platform, and itemised data is not currently available. This is also considered negligible from a GHG emissions perspective.

The limitations associated with the approach to estimation of distance travelled are recognised, but are not considered to be significant for overall emissions given the relatively minor contribution of taxi travel to Beazley Group's reported GHG emissions. Work will be undertaken in subsequent years to refine the use of taxi rates for estimating distances.

Hire Cars

Emissions for hire cars are based on an assumption that an average distance of 100 miles is travelled per day of hire. US EPA emission factors for 'Passenger Car' have been applied to car hires in the USA and BEIS emissions factors for UK and all other locations. 92% of car hire where in the US with remaining in UK and RoW locations. .

Personal Car Use

Beazley employees use their personal cars for business travel and recover the cost through expenses at rates based on region of travel (see table below). GHG emissions are calculated using the BEIS and US EPA emission factors. BEIS factors have been used for car use in the UK and Europe, and US EPA factors (passenger car emission factor) have been used for car use in Canada. For UK/ European personal car use, where the details of the car engine size and fuel type have been provided, the appropriate BEIS emission factor has been used. Where this information has not been provided the BEIS factor for 'average car' and 'unknown fuel type' has been used. In 2023, no distances were estimated based on claimed costs as all employees self-reported distances travelled as part of the expense claim process. It has been assumed that the distance data has been inputted correctly by the Beazley employee. Data is based on the date the car use was claimed back via Beazley's expenses process. This does mean that there could be some personal car use from 2022 included in the 2023 calculations. There is considered to be an equal amount of travel for 2023 yet to be claimed by the expense process in early 2024. This is considered negligible from a GHG emissions perspective. In addition, at present, for employees in Canada and Singapore, expenses are processed via a different platform, and itemised data is not currently available. This is also considered negligible from a GHG emissions perspective.

Region	Currency	Rate/mile	Rate mileage thresholds
UK	GBP	0.45	0.45: 1 – 10,000 miles 0.25: >10,000
Canada	CAD	0.68	0.68: 1 – 5,000 miles 0.25: >5,000
France	EUR	0.613	0.613 (median): 1 – 5,000 miles 0.355 (median): 5,001-20,000 0.42 (median): >20,000
Germany	EUR	0.3	n/a
Ireland	EUR	0.4681	0.4681 (median): 1 – 1,500 miles 0.81635 (median): 1,501-5,000 0.355 (median): 5,001 – 25,000 0.23215: >25,000
Spain	EUR	0.26	n/a

Hotel Stays

GHG Emissions for hotel stays are based on the number of nights stay using BEIS emission factors for the relevant country.

Where emissions factors are not listed by BEIS for the country of stay, then data from the Cornell Hotel Sustainability Benchmarking (CHSB) index for the relevant year has been used. Where metro emission factors exist in the CHSB data base, these have been used for any city based stays. This data is the data used by BEIS to inform their emission factors.

Where the country is not listed, the appropriate climate has been selected as detailed below, with the mean value for all hotels used. This selection has been based on a review of country climate characteristics, as set out on the Climate Change Knowledge Portal.

2023 Cornell Hotel Climates		
Definition in CHSB	Countries applies to	kgCO ₂ e per night
Subarctic climate	Finland	16.0
	Iceland	
	Norway	
	Sweden	
Temperate oceanic climate	Denmark	11.31
Hot deserts climate	Kuwait	58.1
Tropical monsoon	Sri Lanka	62.1
Tropical rainforest climate	Bolivia	56.8
	Ecuador	
	Dominic Republic	
Hot-summer humid continental climate	North Macedonia	18.1
Hot-summer Mediterranean climate	Cyprus	21.8
	Israel	
	Monaco	
Warm summer humid continental climate	Slovenia	19.30
	Serbia	
Humid subtropical climate	Bermuda	21.6
Tropical Savanna Climate	Cayman Islands	62.73
	Paraguay	

Transmission & Distribution (T&D) Losses

GHG emissions associated with electricity T&D losses have been calculated on the same basis of the Scope 2 emissions. For US offices which use steam, in the absence of an emission factor from Energy Star, the BEIS emission factor has been used. T&D losses for gas are not included in the calculations.

External data centres

Beazley uses one external data centre service provider called Equinix. Equinix host data centres used by Beazley in London and Dublin. We use externally verified GHG emissions and energy reports provided by Equinix for energy and GHG reporting. Equinix provide energy reports annually in March. For this reason, 2022 data is used as an estimate for 2023 and will be updated in future reporting when data is available.

3.0 Calculation of Energy Consumption Values and SECR metrics

Outline of methodology – reporting of electricity consumption from offices

The methodology to calculate the energy consumption arising from Beazley's operations mirrors that being used to calculate the GHG emissions. The energy consumption (kWh) figures are used as a source of raw data, from which the GHG emissions are calculated.

Two metrics are reported for energy consumption:

- Total office electricity consumption in kWh – this is the sum total of electricity consumption for 2023 for each of the in scope offices. Data is obtained via the calculation methods set out in section 2 of this report.
- Percentage of electricity procured from certified renewable energy sources – this is the percentage of the total electricity consumption which comes from renewable sources, and is calculated by dividing the electricity consumption, from in scope offices, which has been documented as coming from renewables, by the total electricity consumption for the in scope offices.

Outline of methodology – reporting to meet Streamlined Energy and Carbon Reporting (SECR) requirements

Energy consumption is calculated to report the following:

- Energy for small power (noting there was no direct purchase of gas or heat/ steam by Beazley)
- The energy use from both global and UK car hire
- The energy use from company cars

The methodology for each is as follows:

Energy for small power

The calculation methodology mirrors that previously outlined in section 3.0 for the reporting of electricity consumption from offices. For SECR, consumption is reported for the UK and then globally for all offices in scope.

The energy use from both global and UK car hire

Energy use arising from all car hire is calculated using the appropriate BEIS factors outlined in the latest UK Government GHG Emission Factors database. BEIS factors have been used regardless of the global location of the car hire. It has been assumed that all cars are of average size and fuel economy. The data input parameters to enable the calculation of the energy use is the same as that outlined for the calculation of GHG emissions arising from car hire i.e. distance travelled. The emission factor used is kWh (net CV).

The energy use from company cars

Energy use arising from all company cars is calculated using the appropriate BEIS factors outlined in the latest UK Government GHG Emission Factors database. The data input parameters to enable the calculation of the energy use is the same as that outlined for the calculation of GHG emissions arising from company cars. The emission factor used is kWh (net CV).

Appendix 1: Staff Numbers by location at 31.12.2023

Location	Total
Atlanta	145.00
Barcelona	47.88
Birmingham	157.00
Boston	31.00
Chicago	95.00
Dallas	23.00
Denver	16.09
Dublin	39.62
Farmington	235.00
Houston	15.00
London	1116.78
Los Angeles	39.00
Miami	29.00
Montreal	6.00
Munich	18.00
New York	113.00
Paris	39.00
Philadelphia	57.00
Rio	1.00
San Francisco	31.09
Shanghai - Lloyds	2.00
Singapore	50.00
Toronto	58.00
Vancouver	7.00
Remote Workers USA	88.00
Remote Workers UK	5.00
Remote Workers Europe (Switzerland, Germany and Spain)	16.00
Grand Total	2480.45

Appendix 2: Restatement of historical scope 2 emissions

Electricity

US and Canada Offices

For 2022 reporting, all US and Canada office locations were estimated due to data availability and the limited understanding of energy use. Estimates were also backdated for 2019 to 2021 to enable backward comparisons to be undertaken. In 2023, the reporting approach was enhanced, and 2022 estimates for US and Canada were updated with actual/building specific data, where possible. This has led to a difference between the 2022 estimated carbon emissions (as reported in 2022) and 2022 updated emissions (as reported in 2023).

As the 2022 data was used, for a number of locations, to estimate the emissions for 2019 to 2021, it is important to understand the degree to which over-reporting has occurred. Beazley can then use this information to apply an adjustment factor to historically estimated electricity emissions over 2019-2021 (where applicable). The full details of the calculations for previous years are as follows:

Location	Updated methodology for 2023 (Yes/No)	2019	2020	2021	2022	2023	% difference	Adjustment factor for historical years and/or changes carried out
Atlanta	Yes	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	Actuals	Actuals	-29.6	0.77 applied to 2019-2021
Boston (pre July 2022 office)	No	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	Data apportioned for 7 months due to office move	n/a as moved offices	n/a	No change
Boston (New office – July 2022 onwards)	No	n/a	n/a	n/a	Actuals (apportionment from WeWorks floor energy)	Actuals (apportionment from WeWorks floor energy))	n/a	No change
Chicago	Yes	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	Actuals (apportionment from total building energy)	Actuals (apportionment from total building energy)	-18.9	0.84 applied to 2019-2021
Dallas	Yes	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	Actuals (apportionment from total building energy)	Actuals (apportionment from total building energy)	-45.5	0.69 applied to 2019-2021
Denver (new in scope)	Yes	Assumed 2022 Energy Figures	Assumed 2022 Energy Figures	Assumed 2022 Energy Figures	Actuals (apportionment from total building energy)	Actuals (apportionment from total building energy)	new data	Updated historical years to assume the same as 2022
Farmington	Yes	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	Actuals (apportionment from total building energy)	Actuals (apportionment from total building energy)	-110.2	0.48 applied to 2019-2021
Houston (new in scope)	Yes	Assumed 2022 Energy Figures	Assumed 2022 Energy Figures	Assumed 2022 Energy Figures	Actuals (apportionment from total building energy)	Actuals (apportionment from total building energy)	new data	Updated historical years to assume the same as 2022

Los Angeles (new in scope)	Yes	Assumed 2022 Energy Figures	Assumed 2022 Energy Figures	Assumed 2022 Energy Figures	Actuals (apportionment from total building energy)	Actuals (apportionment from total building energy)	new data	Updated historical years to assume the same as 2022
Miami	Yes	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	Actuals (apportionment from total building energy)	Actuals (apportionment from total building energy)	-42.5	0.70 applied to 2019-2021
Montreal	No - landlord applied 0.5813% still used	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	Actuals (apportionment from total building energy)	Actuals (apportionment from total building energy)	0.0	No change
New York	Yes	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	Actuals (apportionment from total building energy)	Actuals (apportionment from total building energy)	-95.2	0.51 applied to 2019-2021
Philadelphia	Yes	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	Actuals (apportionment from total building energy)	Actuals (apportionment from total building energy)	-109.5	0.48 applied to 2019-2021
San Francisco	Yes	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	Actuals (apportionment from total building energy)	Actuals (apportionment from total building energy)	-151.0	0.40 applied to 2019-2021
Toronto (new in scope)	Yes	Assumed 2022 Energy Figures	Assumed 2022 Energy Figures	Assumed 2022 Energy Figures	Actuals (based on tenanted floor sub-meter readings)	Actuals (tenanted floor sub-meter readings)	new data	Updated historical years to assume the same as 2022
Vancouver (new in scope)	No - CIBSE estimate	CIBSE estimate	CIBSE estimate	CIBSE estimate	CIBSE estimate	CIBSE estimate	new data	Updated historical years to assume the same as 2022

UK, Europe, and RoW

For UK, Europe, and RoW office locations, the table below summarises the percentage differences and adjustment factors/changes applied to historically estimated electricity emissions over 2019-2021 (where applicable). The full details of the calculations for previous years are as follows:

Location	Updated methodology for 2023 (Yes/No)	2019	2020	2021	2022	2023	% difference	Adjustment factor for historical years and/or changes carried out
London	Yes - change in data source from dashboard meter readings to reconciliated	Actuals	Actuals	Actuals	Actuals (apportionment from total building energy)	Actuals (apportionment from total building energy)	+52.7	2022 emissions updated. 2021-2019 emissions not updated as data pre-dates office relocation to Bishopsgate.

	recharge statements provided by management company							
Birmingham	Yes	Actuals (tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	Actuals- (tenanted floor sub-meter readings. Also Q4 2022 estimate updated with 2022 actuals)	Actuals (tenanted floor sub-meter readings)	-5.5	2022 emissions updated. Previous historical data 2021-2019 complete and no change.
Dublin	No change	Actuals (tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	n/a	no change
Barcelona	No change	Actuals (tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	n/a	no change
Paris	No change	Actuals (tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	n/a	no change
Munich	No change	Actuals (tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	Actuals (Tenanted floor sub-meter readings)	n/a	no change
Singapore (new in scope)	New data	CISE Estimate	CISE Estimate	CISE Estimate	CISE Estimate	Actuals (tenanted floor sub-meter readings)	n/a	New data - CIBSE estimate for 2019 - 2022 used as no reliable data available. 2023 actual metered data used

Imported Heat and Gas

US and Canada Offices

For the US and Canada, the table below summarises the percentage differences and adjustment factors applied to historically estimated imported heating related emissions (gas and steam use), over 2019-2021 (where applicable). The full details of the calculations for previous years are as follows:

Location	Updated methodology for 2023 (Yes/No)	2019	2020	2021	2022	2023	% difference	Adjustment factor for historical years and/or changes carried out
Atlanta	n/a - building confirmed as all electric	No gas					n/a	Deleted historically estimated gas use emissions
Boston (pre-July 2022 office)	No	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	n/a as moved offices	0.0	No change as still estimated for years of occupancy.
Boston (New office – July 2022 onwards)	Yes – actual data collected for 2023	n/a	n/a	n/a	CIBSE Estimate	Actuals (apportionment from total building gas use)	n/a	No change as actuals for 2022 are unavailable
Chicago	n/a - building confirmed as all electric	No gas					n/a	Deleted historically estimated gas related emissions.
Dallas	n/a - building confirmed as all electric	No gas					n/a	Deleted historically estimated gas related emissions
Denver (new in scope for 2023)	n/a - building confirmed as all electric	No gas					n/a	n/a
Farmington	Yes	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	Actuals (apportionment from total building gas use)	Actuals (apportionment from total building gas use)	-133.8	0.4277 applied to 2019 - 2021
Houston (new in scope for 2023)	n/a - building confirmed as all electric	No gas					n/a	n/a

Los Angeles (new in scope for 2023)	n/a - building confirmed as all electric	No gas					n/a	n/a
Miami	n/a - building confirmed as all electric	No gas					n/a	Deleted historically estimated gas related emissions
Montreal	n/a - building confirmed as all electric	No gas					n/a	Deleted historically estimated gas related emissions
New York	Yes - building confirmed as using steam	Estimated based on 2022	Estimated based on 2022	Estimated based on 2022	Actuals (apportionment from total building steam use)	Actuals (apportionment from total building steam use)	n/a	Deleted historically estimated gas use related emissions and replaced with steam use related emissions. 2022 energy data assumed for 2021-2019
Philadelphia	Yes - building confirmed as using steam	Estimated based on 2022	Estimated based on 2022	Estimated based on 2022	Actuals (apportionment from total building steam use)	Actuals (apportionment from total building steam use)	n/a	Deleted historically estimated gas use related emissions and replaced with steam use related emissions. 2022 energy data assumed for 2021-2019
San Francisco	Yes	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	Actuals (apportionment from total building gas use)	Actuals (apportionment from total building gas use)	-285.9	0.2592 applied to 2019 - 2021
Toronto (new in scope for 2023)	Yes	Estimated based on 2022	Estimated based on 2022	Estimated based on 2022	Actuals (apportionment from total building gas use)	Actuals (apportionment from total building gas use)	New data	Updated historical energy use to assume the same as 2022
Vancouver - new in scope	new data – CIBSE estimate	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	CIBSE estimate	Historical and current reporting year energy use estimated using CIBSE

UK, Europe, and RoW

For UK, Europe, and RoW office locations, the table below summarises the percentage differences and adjustment factors/changes applied to historically estimated imported heating related emissions (gas and steam use) over 2019-2021 (where applicable). The full details of the calculations for previous years are as follows:

Location	Updated methodology for 2023 (Yes/No)	2019	2020	2021	2022	2023	% difference	Adjustment factor for historical years and/or changes carried out
London	Yes	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	Actuals (apportionment from total building gas use)	Actuals (apportionment from total building gas use)	+67.1	2022 emissions updated with actuals. 2021-2019 emissions not updated as data pre-dates office relocation to Bishopsgate.
Birmingham	Yes - change from estimating based on CIBSE to using actual building apportioned gas use by the management company	Estimated based on 2022	Estimated based on 2022	Estimated based on 2022	Actuals (apportionment from total building gas use)	Actuals (apportionment from total building gas use)	-131.7	Updated historical energy use to assume the same as 2022
Dublin	Yes - building confirmed all electric	No gas					n/a	Deleted historically estimated gas related emissions
Barcelona	Yes - building confirmed all electric	No gas					n/a	Deleted historically estimated gas related emissions
Paris	n/a - building previously confirmed all electric	No gas					n/a	n/a
Munich	No - building uses steam. CIBSE estimate applied	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	CIBSE Estimate	n/a	no change
Singapore - new in scope	n/a	No gas					n/a	n/a - building confirmed all electric