CCS Media

Energy and carbon report

April 2018 – March 2019

Contents

Introduction

This report is prepared for CCS Media Ltd. CCS Media is one of the UK's largest technology and suppliers/IT resellers. Its services include print and office supplies, IT project services and finance solutions for over 14,000 customers across the UK. CCS Media was established over 30 years ago and is now based south of Chesterfield.

CCS Media's carbon footprint has been calculated for the reporting period 01/04/2018 to 31/03/2019. The consolidation approach (as defined in the WRI GHG protocol) includes the emissions produced through activities under the company's **operational control**. The premises Old Birdholme House, Chesterfield are encompassed within the organisational boundary of the footprint.

Organisation name	CCS Media Ltd
Organisation key contact and role	Olivia Chilcott Compliance General Manager
Organisation address	Old Birdholme House Derby Road Chesterfield S40 2EX
Number of staff (FTE)	170
Floor area (m²)	1,087 m²
Author	Sasha Segar Carbon Smart

Table 1: Organisation details

Executive Summary

About CCS Media

CCS Media is an established technology and supplier's reseller, delivering IT solutions and services to a diverse array of organisations both within the UK and globally. With over 14,000 customers, CCS Media work with more than 2,000 manufacturer partners, selling in excess of 1.3 million products. In 2018, CCS Media were recognised as one of the UK's fastest growing companies in the Sunday Times FastTrack 250.

CCS Media have partnered with Carbon Smart since 2010 to reduce their carbon footprint and grow the business responsibly. CCS Media received Carbon Smart's Gold Standard Certificate for three years running and the two parties are working together to comply with the Energy Savings Opportunity Scheme in 2019, identifying energy saving opportunities through detailed energy profiling and energy audits.

Performance Summary

CCS Media's total carbon footprint for the 2018-19 reporting period was 319tCO_2e, a 46% increase on 2017's figure of 219 tCO_2e. This increase can be attributed to:

1. **Increased reporting scope**: CCS Media reported on emissions from expensed business mileage for staff for the first time in 2018-19
2. **Expansion of company fleet:** There has been a 37% increase in company car emissions in 2018-19, relative to 2017, which has been driven by a 43% increase in the amount of fuel purchased

For comparability, without the inclusion of emissions from expensed mileage CCS Media's total carbon footprint would have increased by 4% relative to 2017 and decreased by 20% on a per employee basis. With the inclusion of emissions from expensed mileage, emissions per employee have risen by 11% on 2017.

Positively, the company has reduced the carbon impacts from its air travel (-26%) and its use of **electricity (-24%)** and **natural gas (-3%)**.

Reductions in demand for heat and power can be attributed to the company's Green Team intiative, with individuals in each department taking responsibility for communicating the company's environmental policy to the rest of the team – ensuring that IT, lighting and other electronic equipment is turned off when not in use and at the end of each day. The transition to LED lighting in the company's head office will have also contributed to this trend.

Changes to Reporting Approach

In 2019, CCS Media took the decision with Carbon Smart, to switch to an April to March reporting year. This decision was taken to align with the company's financial reporting year as well as the energy data used for the company's ESOS compliance.

Action Plan: Opportunities for Improvement

Based on the data from previous years and CCS Media's performance this year, we have identified three key recommendations that would reduce carbon emissions for the business:

Recommendation 1: **Continue transition to low-emission company cars**

Between 2017 and 2018-19, CCS Media has successfully increased the proportion of hybrid cars within their company cars, from 14% to 77%. In 2018-19, CCS Media's fleet consisted of 44 vehicles that travelled a total of 774,000 miles, accounting for 30% of total emissions. Of these vehicles, 20% are powered by diesel engines, significantly contributing to company car emissions. If CCS Media were to transition their diesel vehicles to average hybrid vehicles, this would lead to an 8% decrease in total company car emissions based on 2018-19 mileage.

Next Steps

1. Provide workplace charging facilities for plug-in hybrid vehicles. There are a variety of grants available to small businesses such as the Workplace Charging Scheme[1]

2. Conduct route and driver analysis in order to identify the low-emission vehicles most suitable for CCS Media e.g. Hybrid, Plug-in Hybrid, Range-extender or Pure electric car – again there are grants available to small businesses who utilise fully electric company cars

Recommendation 2: **Reduce domestic flights**

In 2018, the number of CCS Media's flights increased by 16% on 2017, of which 75% of these flights were domestic. Flying produces a significant volume of emissions. If domestic flights were replaced by rail journeys, emissions from flights could be reduced by up to 74%.

Next Steps

1. Introduce a travel policy for staff which promotes rail as the default option for domestic travel

2. Deploy the use of virtual meetings software where possible e.g. Skype, Google Meet

3. Ensure Economy cabin travel is used where flying is necessary. Business class flights account for three times the amount of carbon as economy travel.

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[1] Details of the UK Government's Workplace Charging Scheme can be found at:
https://www.gov.uk/government/collections/government-grants-for-low-emission-vehicles#workplace-charging-scheme

Recommendation 3: **Utilise renewable tariffs**

In 2018/19, CCS Media's electricity emissions fell by 24% from the previous year. This was driven by both a decrease in electricity consumption and the decarbonisation of the UK's electricity grid. If CCS Media were to move to fully renewable tariffs, the carbon impact of CCS Media's electricity emissions would be reported as zero.

Next Steps

1. Ensure use of energy providers renewable energy tariff. The Energy Saving Trust have a comprehensive guide on switching to green tariffs[2].

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[2] Information on switching energy tariffs can be found at: https://www.energysavingtrust.org.uk/home-energy-efficiency/switching-utilities/buying-green-electricity

Scope

Your organisation's environmental performance has been assessed using an organisational control approach. Activities that have a material and measurable impact on environmental performance have been quantified.

	In Scope	Out of Scope
Carbon footprint	**Scope 1** – Direct emissions: Company cars, natural gas	None
	Scope 2 – Indirect emissions: Purchased electricity	None
	Scope 3 – Other indirect emissions relating to: Electricity transmission and distribution losses, non-company cars, waste, water, employee commuting, emissions from hotel accomodation, paper, couriers	Any other indirect emissions not said to be in scope

Figure 1: Breakdown of scope 1, 2 and 3 emissions

Scope 1 (Direct emissions): Emissions from activities owned or controlled by your organisation that release emissions into the atmosphere. They are direct emissions. For example, scope 1 emissions are generated from natural gas use.

Scope 2 (Energy indirect): Emissions released into the atmosphere associated with your consumption of purchased electricity. These are indirect emissions that are a consequence of your organisation's activities, but which occur at sources you do not own or control. For example, scope 2 emissions are generated from purchase of grid electricity.

Scope 3 (Other indirect): Emissions that are a consequence of your actions, which occur at sources which you do not own or control and which are not classed as scope 2 emissions. Examples of scope 3 emissions are your business travel and waste disposal.

Your Environmental Performance

CCS Media's carbon footprint for 2018-19 was 319 tCO$_2$e, the equivalent of 1.87 tCO$_2$e per full time employee based on 170 full time employees.

Table 2 below provides a breakdown of emissions by business area.

2018-19 highlights:

- This year, CCS Media reported non-company cars for the first time – generating 91 tCO$_2$e.
- In 2018-19, business travel was the greatest source of emissions accounting for 38% of total emissions, where non-company cars accounted for 76% of this.
- Company cars accounted for a further 30% of total emissions.
- Premises emissions (utilities waste and paper) were also a significant contributor to CCS Media's total footprint, accounting for 102 tCO$_2$e of the total 319 tCO$_2$e or 32% of emissions.

Operational area	Emissions source	tCO$_2$e	
Premises	Electricity generation	54	102
	Electricity transmission and distribution	5	
	Water	1	
	Waste	2	
	Natural Gas	32	
	Paper	9	
Company Vehicles	Fleet	0	96
	Company Cars	96	
Business travel	Flights	18	121
	Rail	12	
	Non-Company Cars	91	
	Taxi	0	
Procurement	Accommodation Services	0	0
	Couriers	0	
Grand total		319	319

Table 2: Environmental performance broken down by business area

Year-on-Year Environmental Performance by Emission Source

CCS Media's 2018-19 total carbon footprint is the largest it has been since 2016, with an overall increase of 38% over this three-year period. Electricity was the only emission source to have decreased since 2016, with a 42% drop in emissions. This reflects the company's growth over this period, with CCS Media having increase its headcount by 30.

Table 3 below provides a breakdown of emissions from 2016 to 2018, by resource.

Scope	Resource	2016 tCO$_2$e	2017 tCO$_2$e	2017[3] tCO$_2$e *(restated)*	2018-19 tCO$_2$e	% change from previous year	% change between 2016 and 2018-19
Scope 1	Natural Gas	27	33	33	32	-3%	19%
	Company Cars	92	70	70	96	37%	4%
Scope 2	Electricity	102	77	77	59	-24%	-42%
Scope 3	Water	1	1	1	1	0%	1%
	Flights		0	24	18	-26%	N/A
	Non-Company Cars			0	91	100%	N/A
	Rail	7	9	9	12	24%	72%
	Waste	1	2	1	2	10%	100%
	Paper	2	2	2	9	267%	328%
Grand Total		231	195	219	319	46%	38%

Table 3: Total emissions broken down by resource

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[3] 2017 emissions have been restated to update flights emissions to 24 tCO$_2$e (previously reported as 0 tCO$_2$e) and non-company car emissions to 0 tCO$_2$e (not previously recorded). *See Appendix 1 (pg. 16)*

Company Cars

CCS Media has continued to take action to reduce their vehicle emissions. Led by company Directors, diesel company cars are being transitioned to hybrid vehicles to reduce fuel consumption. In 2018-19, 80% of CCS Media's company car mileage was derived from hybrid vehicles, compared to 2% the previous year.

2018-19 has seen a 37% increase in company car emissions, however it should be noted that between 2017 and 2018-19, there was a 110% increase in the number of vehicles reported, with a 135% increase in mileage. If it weren't for CCS Media's transition to hybrid vehicles, the associated emissions with this increase would be far higher.

Non-Company Cars

2018 was the first year that CCS Media reported expensed mileage for non-company cars. The addition of this emission source has been material to CCS Media's total carbon footprint, accounting for 29% of total emissions. If non-company cars were not accounted for in the 2018 carbon footprint, CCS Media's total footprint would be 227 tCO_2e – only a 4% increase in total emissions on 2017.

Paper

Although paper emissions account for only 3% of total emissions, 2018 has seen a 267% increase in emissions on the previous year and 328% increase on 2016. In 2018 it was reported that 1.1 million sheets of A4 paper were consumed, 800,000 sheets more than 2017. The cause for this increase should be identified and mitigated for the future.

Emissions by Scope

Most organisations have varying degrees of control over their Scope 1-3 emissions. CCS Media should concentrate efforts not only on the largest sections of the pie chart, but also those that have the greatest ability to influence reductions in carbon emissions e.g. the fuel type of company cars in use.

In 2018-19, Scope 1 emissions accounted for 128 (40%) tCO_2e of CCS Media's total carbon footprint. Scope 1 emissions include emissions generated by CCS Media's Company Cars, that represents the largest carbon impact.

Scope 2 emissions represented 59 tCO_2e (18%) of CCS Media's total carbon footprint and the smallest of the three Scopes, accounting for generated electricity.

Scope 3 emissions accounted for the 131 tCO_2e (41%) of CCS Media's total carbon footprint and the largest of the three Scopes. This includes Non-Company Cars, equating to 69% of Scope 3 emissions.
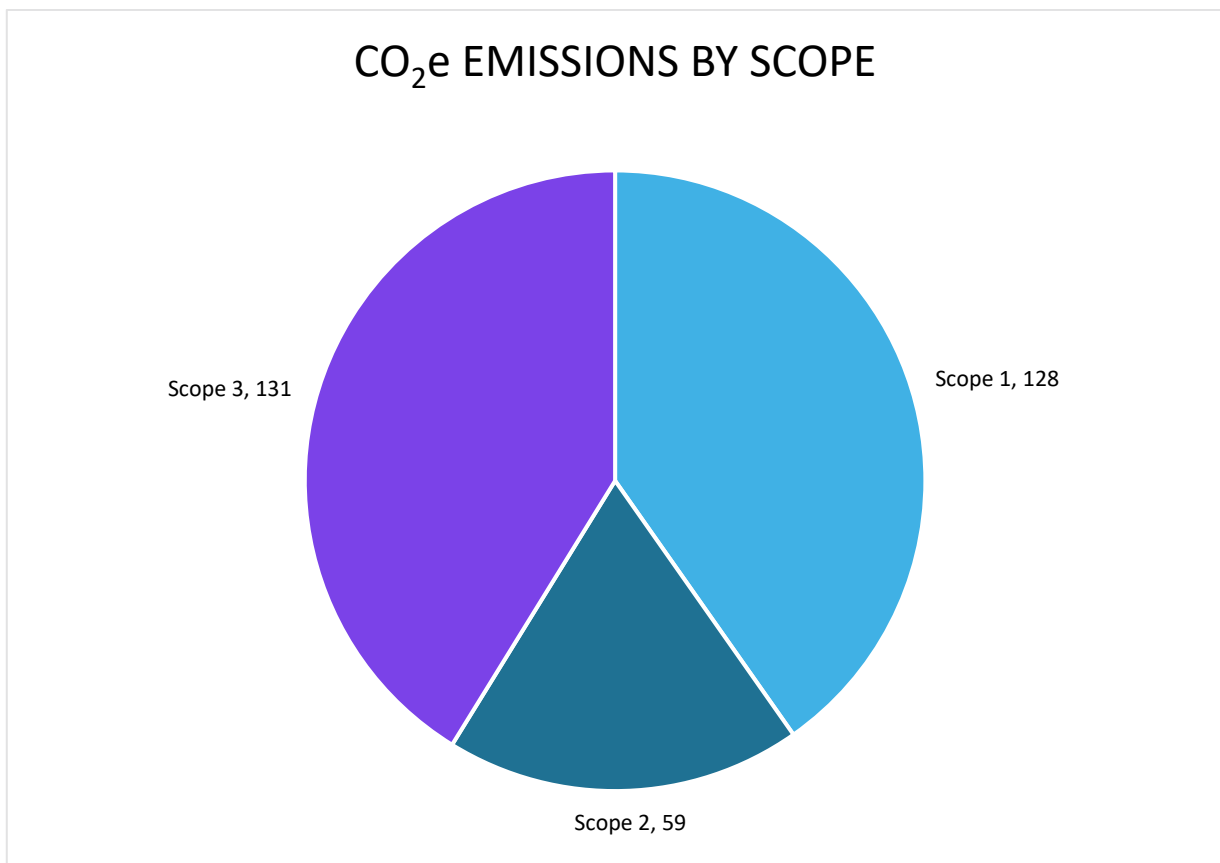

CO$_2$e EMISSIONS BY SCOPE

Scope 3, 131

Scope 1, 128

Scope 2, 59

Figure 2: Total emissions broken down by Scope (measured in tCO$_2$e)

Analysis of Performance

In order to compare the carbon efficiency of the business year on year as it evolves and changes, intensity metrics (per FTE/m² of floor area/£) can be used to analyse the carbon footprint and ensure a level of consistency can be maintained to measure progress. CCS Media's metrics for the last three years are as follows:

		2016	2017	2017[4] (restated)	2018-19	2018-19 (exc. NCC)	% change (2017 to 2018-19)	% change (2017 to 2018-19, exc. NCC)
CO2e	Total carbon footprint	231.07	195.4	218.91	318.66	227.49	46%	4%
tCO2e per	FTE	1.79	1.50	1.68	1.87	1.34	11%	-20%
	unit of floor area m²	0.21	0.18	0.20	0.29	0.21	47%	5%
	£100,000 of revenue	0.15	0.11	0.12	0.14[5]	0.10	13%	-19%

Table 4: Equivalent carbon performance based on key organisational metrics

(NCC = non-company cars)

For 2018-19, non-company cars were reported for the first time, accounting for 29% of total emissions. For additional context on CCS Media's performance, an additional column has been included in Table 4 that compares CCS Media's performance across several intensity metrics excluding emissions from non-company cars in 2018-19. Discounting non-company cars there has been a 20% decrease in emissions between 2017 and 2018-19 per employee and a 19% reduction per £100,000 of revenue. This is a welcome trend and suggests that CCS Media has successfully decoupled its environmental impact from its business growth.

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[4] 2017 emissions have been restated to update flights emissions to 24 tCO₂e (previously reported as 0 tCO₂e) and non-company car emissions to 0 tCO₂e (not previously recorded). *See Appendix 1 (pg. 16)*
[5] CCS Media's 2018-19 revenue figures were not available at the time of the production of this report. Revenue growth has therefore been estimated to have increased in line with headcount (+31%)

Energy Performance

Energy Savings Opportunity Scheme

CCS Media has worked together with Carbon Smart to comply with the Energy Savings Opportunity Scheme (ESOS) in both Phase One (2015) and Phase Two (2019). ESOS is aimed at increasing energy efficiency in businesses, thereby encouraging cost savings at the same time as abating climate change. Those organisations that are captured by ESOS criteria in the UK undergo an assessment of energy use and energy efficiency opportunities across selected sites.

CCS Media's ESOS (Phase Two) report highlights:

- By virtualising half of the servers at OBH, CCS Media will save 38,000 kWh/year – equivalent to annual savings of £6,700.
- Replacing current lighting at OBH and NBH with LED alternatives will save 9,720 kWh/year – equivalent to annual savings of £1,150.
- Adjusting the air conditioning set point in the server rooms at OBH, this would cost only £72 to implement and generate energy savings of 3,309 kWh/year – equivalent to annual savings of £3,109.

Energy Intensity

CCS Media has complied with ESOS, identifying and prioritising a comprehensive list of energy savings opportunities. By acting on Carbon Smart recommendations from previous years, CCS Media has successfully reduced their energy intensity per full time employee, from 2017 to 2018/19 – illustrated in Figure 3. Per full time employee, utility consumption has decreased, where electricity consumption has fallen 42% and natural gas consumption has fallen by 26%.
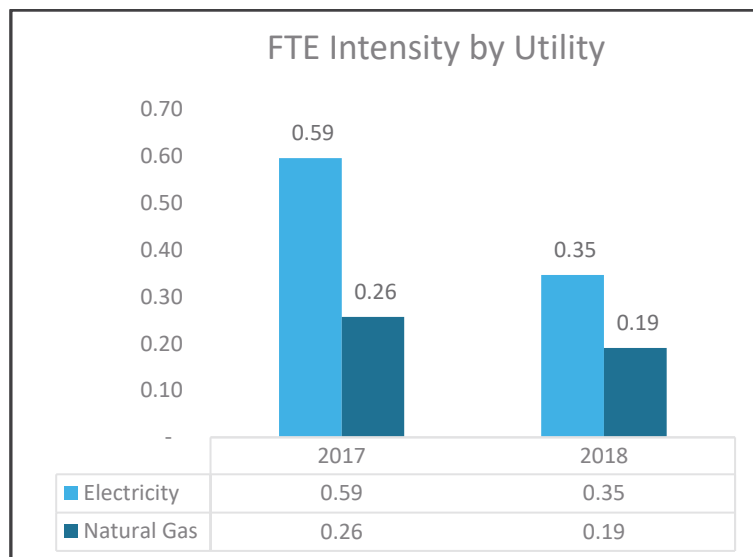

Figure 3: utility kWh per employee

Visualising your Carbon Footprint

The following visualisations have been produced to provide context to CCS Media's 2018-19 carbon footprint:

> The amount of electricity you consumed could power a 100W light bulb for 219 years

Figure 4: Visualisation of electricity impact

> CCS Media's total carbon footprint is equivalent to the volume of 1,736 London buses

Figure 5: Visualisation of total carbon footprint

Next Steps

Integrating sustainability into your business is a process that requires both practical alterations to business operations and employee behaviour. Some actions can be made immediately within a business and produce fast results, whilst other changes to business practice require allocation of money and time that may need to take place over several years before results can be seen.

In the upcoming year, CCS Media should focus on implementing the changes to business travel addressed in the Action Plan. By doing so, CCS Media will be able to focus on 'Achieving carbon and cost savings' (highlighted below) that will allow the company to transition into the Monitoring and Measuring stage of the emissions reduction process.

Carbon footprint	Site survey and recommendations	Achieving carbon savings	Monitor and measure
• Data collection and review	• Building operation survey	• Update environmental policy	• Monitor data on a regular basis
• Carbon footprint calculation	• Detailed and prioritised recommendations	• Regularly review your action plan	• Measure against baseline
• Data quality review	• Policy review	• Keep staff updated on progress	• Celebrate successes
			• Address challenges

Appendix 1

A guide to help you understand your data quality

Data quality is an important part of the carbon footprint calculation process. The higher quality the data submitted, the more accurate and meaningful carbon footprint calculations can become. It is also true that resource use that cannot accurately be measured, cannot accurately be managed, so collecting robust data is very important. This is probably quite an obvious statement, but a lot of organisations do not currently collect or monitor their energy and resource consumption at all. There are two important aspects to data quality that we consider when calculating your operational carbon emissions:

Source

The consumption figures you have been able to supply and where they came from e.g. the kWh consumption of electricity from meter readings or spend on fuel from receipts for a company car.

Completeness

The time period your data considers and the coverage within the business, e.g. natural gas data for one whole year, for two floors of a two-storey building. Carbon Smart rates each individual piece of information you provide to us for the calculation of your carbon footprint following the three-tier traffic light system. All pieces of data will be categorised by source (as primary, secondary or spend) and by completeness, as per the definitions below:

Primary – actual consumption of fuel / energy / or product with the appropriate units

Secondary – a figure we can convert into fuel / energy / product consumption simply i.e. mileage, bags of waste etc.

Spend – data that we can approximate to consumption through a series of assumptions but will include a number of other factors i.e. VAT, levies and other taxes.

The quality of your data is very important as you cannot manage what you cannot properly measure. The table below explains data quality:

	Good quality data Primary data sources have been used. Data completeness and accuracy is high
	Average data quality Mixed primary and secondary data sources. Limited extrapolation with average completeness and accuracy
	Poor data quality High levels of estimation and benchmarking. Poor completeness and accuracy

Table 5. presents the raw data supplied and the corresponding data quality rating for your 2018 carbon footprint:

	Emissions source	Primary data	Secondary data	Tertiary data	Your data quality
Scope 1	Natural Gas	Consumption (kWh, m³ or HCF)		Spend (£)	Green
	Other Fuels	Consumption (kWh, Kg, Litres)		Spend (£)	Grey
	Fleet	Consumption (litres)	Distance (Miles or Km)	Spend (£)	Grey
	Company Cars	Consumption (litres)	Distance (Miles or Km)	Spend (£)	Green
Scope 2	Electricity	Consumption (kWh)		Spend (£)	Green
Scope 3	Water	Consumption (m³ or litres)		Spend (£)	Green
	Waste	Waste transfer notes (Kg)	Container size (litres) and collection frequency (per week)	Number of bin bags and collection frequency	Orange
	Flights	Arrival and Departure Airport (IATA Codes) or Distance (Km)	Specify Domestic, Short haul (<3,700Km), Long haul (>3,700 Km), International or Unknown	Spend (£)	Green
	Rail	Arrival and Departure Station or Distance (Km)		Spend (£)	Green
	International Rail	Arrival and Departure Station or Distance (Km)		Spend (£)	Grey
	Taxis	Distance (Miles or Km)		Spend (£)	Grey
	Non-Company Cars	Consumption (litres)	Distance (Miles or Km)	Spend (£)	Orange
	Paper	Quantity and Type (No. of reams, size, weight and recycled content)		Spend (£)	Orange

Table 5: Data quality classifications by resource type and their units

Restatements

A restatement is defined as a revision of a previously issued environmental statement to correct an error. Table 6., below, highlights any restatements made in this report:

Operational Area	Emissions Source	Year	From (tCO$_2$e)	To (tCO$_2$e)	Reason for restatement
Business Travel	Flights	2017	0	24	Data provided by CCS Media
Business Travel	Non-company cars	2017	N/A	0	Data provided by CCS Media

Table 6: Restatements

Appendix 2

The following Defra conversion factors were used:

2018 Defra emissions factors	Unit	Conversion factor (kg CO_2e per unit) to 3 d.p.
Electricity Generation	kWh	0.281
Transmission and distribution	kWh	0.024
Water supply	m^3	0.344
Water treatment	m^3	0.708
Waste – to landfill	Tonne	586.531
Medium Diesel Cars	Km	0.174
Large Diesel Cars	Km	0.215
Medium Hybrid Cars	Km	0.115
Small Petrol Cars	Km	0.156
Flights	km	0.162
Rail	Passenger.km	0.044

Table 7: Defra 2018 conversion factors used in the report

Your greenhouse gas assessment follows international and UK standards

The project was conducted through the following steps:

- **Definition of organisational boundary:** Operational control approach taken

- **Calculation of data:** To calculate your carbon footprint we have applied the most recent DEFRA conversion factors.

- **Collection and aggregation of data:** The data collection focused on central sources of data and, where necessary, missing data points were extrapolated in line with best practice.

- **Carbon footprint calculation:** Undertaken in line with the World Resources Institute (WRI) Greenhouse Gases Accounting and Reporting Protocol (revised edition) and DEFRA's 2018 Guidance to measuring and reporting GHG emissions, and DEFRA's 2018 GHG emissions factors

- **Accuracy –** the confidence you have in your data i.e. are these figures 100% accurate, estimates, or unknown? Carbon Smart rates each individual piece of information you provide to us for the calculation of your carbon footprint following the three-tier traffic light system.

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