



radiocomms

*CARBON
FOOTPRINT-2020*

Radiocomms Systems Ltd – SFR 108 (Issue 5) Jan 2021

2020 - RESULTS

Type of Emissions	Activity	Units	Tonnes of CO ₂ e	% of Total
Direct	Gas (kWh)	41,114	8.08	6.78%
	Company Vehicles (miles)	260,545	45.56	38.19%
	Subtotal		53.64	44.97%
Indirect Energy	Purchased Electricity (kWh)	44,573	19.83	16.62%
	Subtotal		27.12	16.62%
Indirect Other	Business Travel (km)	106,534	17.9	15.00%
	<i>Car (km)</i>	42,000	7.38	6.18%
	<i>National Rail (km)</i>	11,970	0.62	0.33%
	<i>Flights (km)</i>	52,564	9.9	8.30%
	Other		9.69	8.12%
	<i>Stationery (reams)</i>	100	0.24	0.20%
	<i>Hotel Stay (room-night)</i>	191	7.44	6.23%
	<i>Outbound deliveries (tonne.km)</i>	2,798	0.3	0.16%
	<i>Transmission and Distribution of electricity</i>	44,573	1.71	1.43%
	WTT		18.12	15.19%
	Subtotal		45.71	38.32%
TOTAL EMISSIONS (tCO₂e)			119.27	

EMISSIONS BY ACTIVITY

The results of the project show that Radiocomms Systems' carbon emissions for the period **1st January 2020 to 31st December 2020** were **119.27 tonnes of CO₂e**.

The largest source of emissions was company vehicles, accounting for **45.56 tCO₂e or 38.19%** of the total, followed by purchased electricity at **19.83 tCO₂e or 16.62%** and then business travel at **17.9 tCO₂e or 15%**.

DIRECT EMISSIONS

Direct Emissions arise from the generation of greenhouse gas emissions in company-owned or leased assets. In most businesses, these arise from consumption of gas in buildings (for heating & hot water) and combustion of fuels in company-owned vehicles. They are also from the combustion of other heating fuels, from chemical reactions and from gas leakage (fugitive emissions) during manufacturing, production and from air conditioning systems.

Direct Emissions totalled **53.64 tonnes of CO₂e or 44.97%** of Radiocomms Systems' total footprint.

GAS

Gas consumption at Radiocomms Systems, used for heating and hot water, was responsible for **8.08 tonnes of CO₂e**, representing **6.78%** of total emissions. To cover the full reporting period, gas consumption data has been extrapolated from that provided.

COMPANY VEHICLES

Radiocomms Systems operates a number of vehicles and the GHG emissions resulting from the use of company vehicles is **45.56 tonnes of CO₂e**, representing **38.19%** of total emissions.

INDIRECT ENERGY EMISSIONS

Indirect Energy Emissions arise from the generation of imported electricity, heat or steam consumed by the company.
Electricity

Indirect Energy Emissions result from consumption of energy, for lighting, cooling, computers, IT servers and general electrical equipment. Total electricity consumption amounted to **44,573 kWh**, responsible for **19.83 tonnes of CO₂e**, representing **16.62% of total emissions**.

Radiocomms Systems operates out of one main office in London for which detailed electricity consumption data was provided. In addition, it uses premises at Heathrow, Swansea and Manchester for 52 days of the year for which electricity consumption data was not available. For these premises at Heathrow, the electricity consumption has been estimated using CIBSE industry standards¹ and floor areas occupied by Radiocomms Systems for the respective buildings. To further improve the accuracy of these emissions, it is recommended that in future years' carbon footprint, further work is undertaken to collect accurate data for electricity consumption during use of the premises in Heathrow.

OTHER INDIRECT EMISSIONS

Other Indirect Emissions comprised **50.27%** of total emissions or **95.41 tonnes of CO₂e**. These emissions are from a number of sources including business travel, outbound deliveries, paper usage and hotel stays.

BUSINESS TRAVEL

The business journeys made by Radiocomms Systems' employees accounted for **17.9 tonnes of CO₂e** or **15%** of total emissions. A breakdown by mode of transport:

Mode of transport	Units	Tonnes of CO ₂ e	% of Total
Car (km)	42,000	7.38	6.18%
National Rail (km)	11,970	0.62	0.33%
Flights (km)	52,564	9.9	8.12%
Business Travel total (km)		17.9	15%

Emissions from flights amounted to **9.9 tonnes of CO₂e** which account for **8.30%** of the overall footprint. To reduce the emissions from business travel it is recommended that Radiocomms Systems consider using video conferencing and remote telecommunications for any non-essential business travel.

OTHER ACTIVITIES

Other activities, as described below, resulted in **9.69 tonnes of CO₂e** or **8.12%** of total emissions.

Outbound deliveries: accounted for **0.3 tonnes of CO₂e**. Emissions were calculated based on details of delivery journeys, average weight and distances.

Stationery emissions are calculated based on **100 reams of A4 paper** being used, which resulted in **0.24 tonnes of CO₂e**.

Hotel Stay emissions account for **7.44 tonnes of CO₂e** which is responsible for **7.44%** of emissions. Increased use of teleconferencing tools would decrease the need for business travel and associated overnight hotel stays.

Transmission and distribution of electricity accounts for **1.71 tonnes of CO₂e** which is responsible for **1.43%** of total emissions.

ANALYSIS

KEY PERFORMANCE INDICATORS

Key Performance Indicators (KPIs) can be used to monitor emissions over time and to compare performance with other organisations. We have used turnover (£million) and staff numbers (FTE) against which to measure intensity of Radiocomms Systems' emissions.

Key Performance Indicators	2020
Total Footprint (tCO ₂ e)	119.27
Turnover (£million)	9.1
Staff Number (FTE)	38
Total footprint/Turnover	13.1
Total footprint/ FTE	3.1

YEAR ON YEAR ANALYSIS

A year on year analysis has been calculated to compare the emissions from the present reporting year with those of the previous year.

Activity	2013	2014	2015	2016	2017	2018	2019	2020
Gas	12.1	4.53	8.7	13.47	10.5	8.43	7.89	8.08
Company Vehicles	70.6	97.2	73.9	66.91	66.91	63.0	58.88	45.56
Electricity	42.7	32.7	28.8	30.37	26.09	25.64	27.12	19.83
Business travel	34.7	46.1	28.63	27.1	33.83	41.84	45.5	17.9
Other / WTT	43.2	63.3	49.23	42.81	46.34	51.76	49.19	45.71
Total Emissions	203.4	243.90	189.26	180.66	183.13	190.67	189.3	119.27

YEAR ON YEAR ANALYSIS OF EMISSIONS PER OWNED COMPANY VEHICLE

The below shows that Radiocomms has reduced its emissions year by year.

	2013	2014	2015	2016	2017	2018	2019	2020
Number of company vehicles	11	15	18	15	15	15	15	16
Total annual mileage	403,784	340,921	422,653	382,723	382,723	360,367	336,698	260,545
Total emissions from company vehicles	70.6	97.2	73.9	66.91	66.91	63.0	58.88	45.56
Emissions per vehicle (tCO ₂ e)	6.4	6.4	4.1	4.4	4.4	4.2	3.92	2.84

YEAR ON YEAR ANALYSIS OF KPI'S

The below outlines the changes in KPIs between 2013 and 2020.

Key Performance Indicators	2013	2014	2015	2016	2017	2018	2019	2020
Total Footprint (tCO ₂ e)	203.4	243.9	189.26	180.66	183.13	190.67	189.3	119.27
Turnover (£million)	7.4	7.2	8.1	8.6	8.5	8.5	10.2	9.1
Staff Number (FTE)	38	38	36	36	36	35	36	38
Total footprint/Turnover	27.5	33.8	23.3	21	21.5	22.4	18.6	13.1
Total footprint/ FTE	5.4	6.4	5.2	5	5.1	5.4	5.2	3.1