

CARBON FOOTPRINT REPORT



01st March 2023 – 29th February 2024



ELLIS Patents Ltd. Carbon Footprint Report FY2023/24

1. Outline

Carbon footprint report of Ellis Patents Ltd. From 01st March 2023 to 29th February 2024.

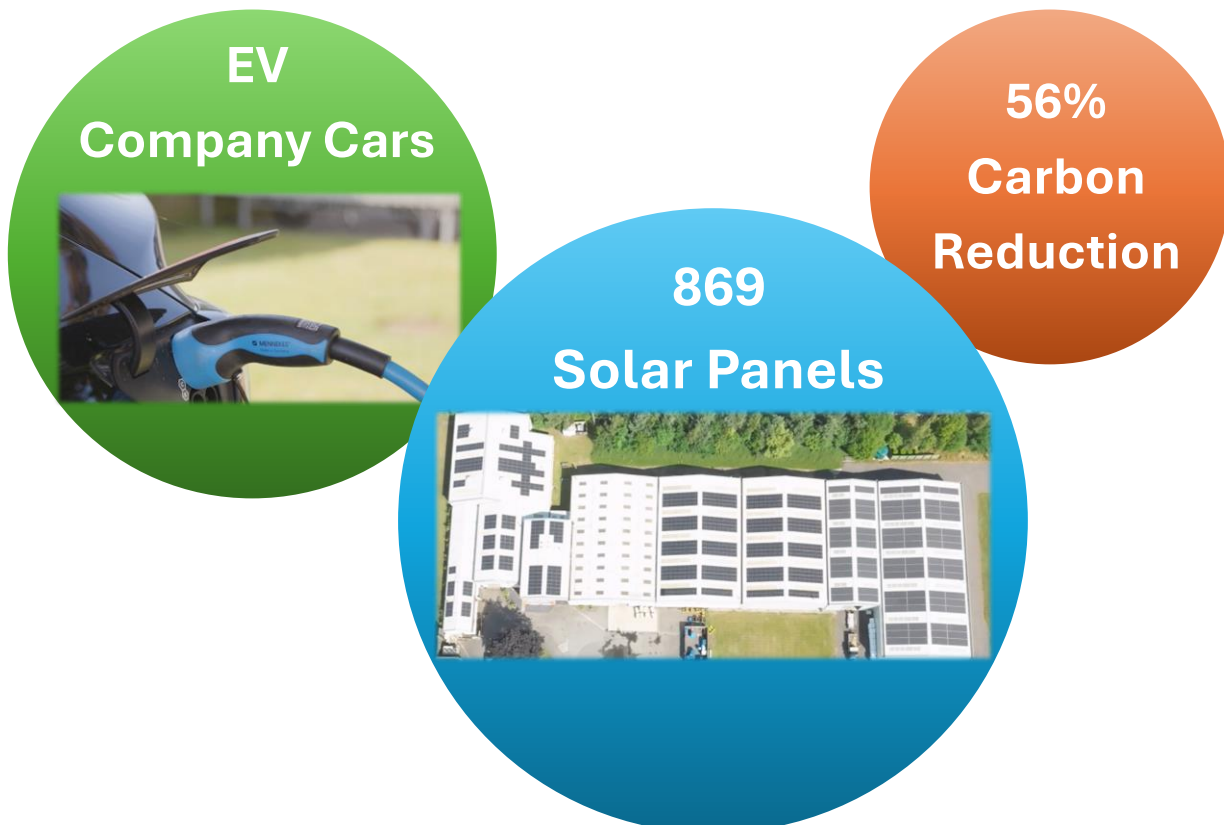
Ellis Patents Ltd. emitted 147 tCO₂e (tons of carbon dioxide equivalent) in 2023/24 (across scope 1 & 2). This value has an intensity indicator of 2.2 tCO₂e per full-time equivalent employee (FTE) and 15.3 tCO₂e per million GBP turnover (£m Turnover).

The addition of scope 3 emissions brings the total to 294 tCO₂e.

Ellis has implemented significant carbon reduction measures from the year 2017/18 to 2022/23 resulting in a **56% decrease** in greenhouse gas (GHG) emissions (across scope 1 & 2). From 334 tCO₂e in FY2017/18, to 147 tCO₂e in FY2023/24.

These reductions can be largely attributed to the installation of **869 solar panels**, LED lighting across the entire site, the electrification of the company car fleet and energy saving measures implemented by the energy team.

Across the year FY2023/24, Ellis generated enough renewable energy to power ~100 homes and exported 95,421 kWh renewable energy back to the National Grid. This is enough energy to power over 35 homes UK homes for an entire year.



2. Methodology & Definitions

Methodology

TRACC methodology has been implemented to produce the data for the carbon footprint reports in line with the GHG Protocol, maintaining:

- Transparency
- Relevance
- Accuracy
- Consistency
- Completeness

The DESNZ GHG Conversion Factors 2023 have been used to translate the data collected into CO₂e GHG emissions.

CO₂e is the universal unit of measurement used to represent the global warming potential (GWP) of greenhouse gases (GHGs) where 1 kgCO₂e = GWP of 1 kg CO₂. There are many different greenhouse gases with different global warming potentials, and the CO₂e unit allows like for like comparison between all.

More information regarding the methodology can be provided upon request.

Definitions:

£m Turnover = Million GDP Turnover

FTE = Full time Employee

GHG = Greenhouse Gases

GWP = Global Warming Potential

RF = Radiative Forcing

Scope 1 - Direct GHG emissions that occur from sources controlled / owned by an organisation.

Scope 2 - Indirect GHG emissions from the purchase of electricity or heating / cooling. Scope 2 emissions physically occur at the facility where they are generated, but they are included in an organisation's GHG emissions because they are a result of the organisation's energy use.

Scope 3 - Indirect GHG emissions from activities and assets not owned or controlled by an organisation, but that the organisation indirectly affects in its value chain. This includes upstream and downstream activities.

T&D = Transmission & Distribution

WTT = Well-to-tank

3. Results

Table 1. GHG emissions table for period 01st March 2023 to 29th February 2024.

Emission Source	Unit	kg CO ₂ e	tCO ₂ e
Scope 1			
Burning Oil	22,000 l	55,883	55.9
Medium Car (plug-in hybrid)	31,369 km	1,927	1.9
Van - Average (up to 3.5 tonnes) (diesel)	27,471 km	6,354	6.4
Total Scope 1		64,164	64.2

Scope 2			
UK National Grid Electricity	396,280 kWh	82,059	82.1
EV Charging	1,190 kWh	246	0.2
Total Scope 2		82,306	82.3
Exported Solar Energy	95,421 kWh	19,759	19.8
Total Scope 2 minus Exported Solar Energy		62,546	62.5

Total Scope 1 & 2	146.5
Total tCO₂e per *FTE on gross Scope 1 & 2	2.2
Total tCO₂e per *£m Turnover on gross Scope 1 & 2	15.3

Scope 3 (Category – Emission Source)			
1 - Water Supply	635 m ³	112	0.1
3 - Water Treatment	635 m ³	128	0.1
3 - Transmission & Distribution of UK National Grid Electricity	396,280 kWh	7,099	7.1
3 - WTT - UK Electricity (generation)	396,280 kWh	18,189	18.2
3 - WTT - UK Electricity (T&D)	396,280 kWh	1,573	1.6
3 - WTT - Fuel Oil	22,000 l	11,677	11.7
3 - WTT - Average Car (unknown fuel)	28,369 km	692	0.7
3 - WTT - Medium Car (plug-in Hybrid)	31,369 km	696	0.7
3 - WTT - Average Car (plug-in Hybrid)	15,874 km	387	0.4

3 - WTT - Average Car (diesel)	133,908 km	5,550	5.6
3 - WTT - Average Car (petrol)	102,209 km	4,652	4.7
3 - WTT - Van - Average (up to 3.5 tonnes) (diesel)	27,471 km	1,555	1.6
3 - WTT - Regular taxi	1,352 km	70	0.1
3 - WTT - National Rail	18,694 passenger.km	168	0.2
3 - WTT - Light Rail & Tram	161 passenger.km	1	0.0
3 - WTT - London Underground	1,174 passenger.km	9	0.0
3 - WTT - Local bus (not London)	20,467 passenger.km	591	0.6
3 - WTT - Ferry (foot passenger)	1,494 passenger.km	6	0.0
3 - WTT - Flights (Domestic, Economy Class, with RF)	2,019 passenger.km	68	0.1
3 - WTT - Flights (Short-haul, Economy Class, with RF)	66,224 passenger.km	1,489	1.5
3 - WTT - Flights (Long-haul, Economy Class, with RF)	121,011 passenger.km	2,978	3.0
5 - Waste generated in operations	34,350 kg	731	0.7
6 - Local bus (not London)	1,056 passenger.km	125	0.1
6 - Flights (Domestic, Economy Class, with RF)	2,019 passenger.km	550	0.6
6 - Flights (Short-haul, Economy Class, with RF)	66,224 passenger.km	12,110	12.1
6 - Flights (Long-haul, Economy Class, with RF)	121,011 passenger.km	24,215	24.2
6 - Ferry (foot passenger)	1,494 passenger.km	28	0.0
6 - Average Car (Unknown fuel)	28,369 km	4,727	4.7
6 - Regular taxi	1,352 passenger.km	281	0.3
6 - National Rail	18,694 passenger.km	663	0.7
6 - Light Rail & Tram	161 passenger.km	5	0.0
6 - London Underground	1,174 passenger.km	33	0.0
6 - Hotel Stay (Various Countries)	172 nights	3,069	3.1
7 - Local bus (not London)	19,411 passenger.km	2,298	2.3
7 - Average Car (petrol)	102,209 km	16,753	16.8
7 - Average Car (diesel)	133,908 km	22,741	22.7
7 - Average Car (plug-in Hybrid)	15,874 km	1,046	1.0
7 - Homeworking	1,020 hrs	341	0.3
Total Scope 3		147,407	147.4

Total Scope 1, 2 & 3	293.9
Total tCO₂e per *FTE on gross Scope 1, 2 & 3	4.4
Total tCO₂e per *£m Turnover on gross Scope 1, 2 & 3	30.7

Notes: For 01 March 2022 to 28 February 2023 the number of FTE's was 65 and the turnover was £8,910,231.

4. Results Analysis & Carbon Reduction

ELLIS has reduced its carbon footprint significantly since FY2017/18. Across scope 1 & 2 a 56% overall reduction. Comparing intensity factors (per FTE / £m Turnover) across scope 1 & 2 the reduction is greater than 60%.

Table 2. Emissions over time per scope.

Scope	FY2017/18 (tCO ₂ e)	FY2022/23 (tCO ₂ e)	FY2023/24 (tCO ₂ e)	% Change from Base Line
1	122	73	64	-47%
2	212	92	82	-61%
3	202	143	147	-27%
1 & 2	334	165	147	-56%
1, 2 & 3	537	302	294	-45%

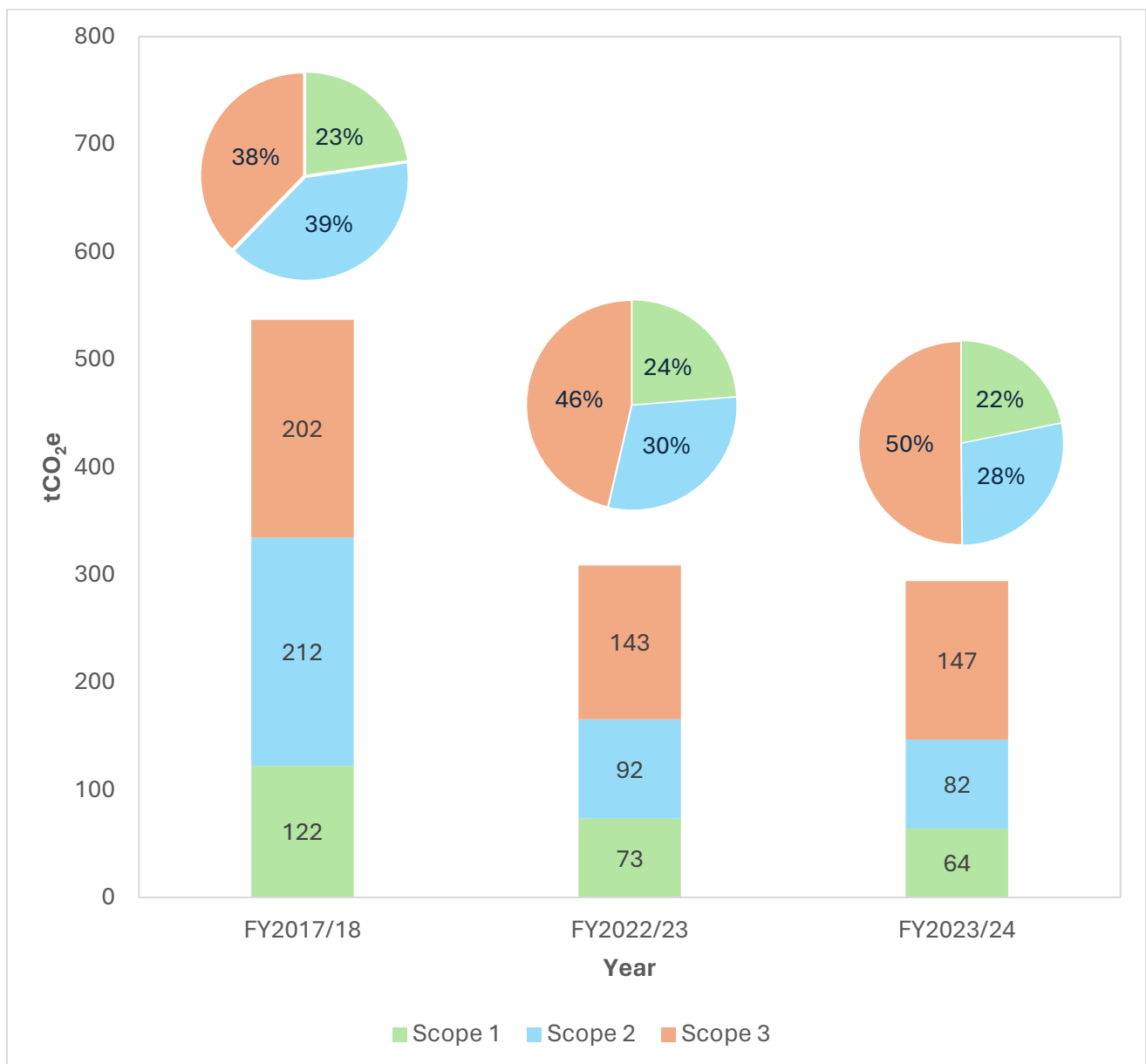
Table 3. Emissions per FTE over time.

Scope	FY2017/18 (tCO ₂ e per FTE)	FY2022/23 (tCO ₂ e per FTE)	FY2023/24 (tCO ₂ e per FTE)	% Change from Base Line
1 & 2	5.7	2.6	2.2	-61%
1, 2 & 3	9.1	4.7	4.4	-52%

Table 4. Emissions over time per £m Turnover.

Scope per £m Turnover	FY2017/18 (tCO ₂ e per £m Turnover)	FY2022/23 (tCO ₂ e per £m Turnover)	FY2023/24 (tCO ₂ e per £m Turnover)	% Change from Base Line
1 & 2	43.4	18.6	15.3	-65%
1, 2 & 3	69.8	35.1	30.7	-56%

Figure 1. Emissions over time per scope.



Ellis has significantly reduced its scope 1 & 2 emissions from FY2017/18. Scope 2 emissions now only account for 28% of the total emissions compared to 39% in FY2017/18. Scope 3 emissions have increased from FY2022/23 and this is due to the growth of the sales team and therefore an increase in business travel emissions.

Figure 2. Emissions over time split into categories. Small contributors are not given data labels.

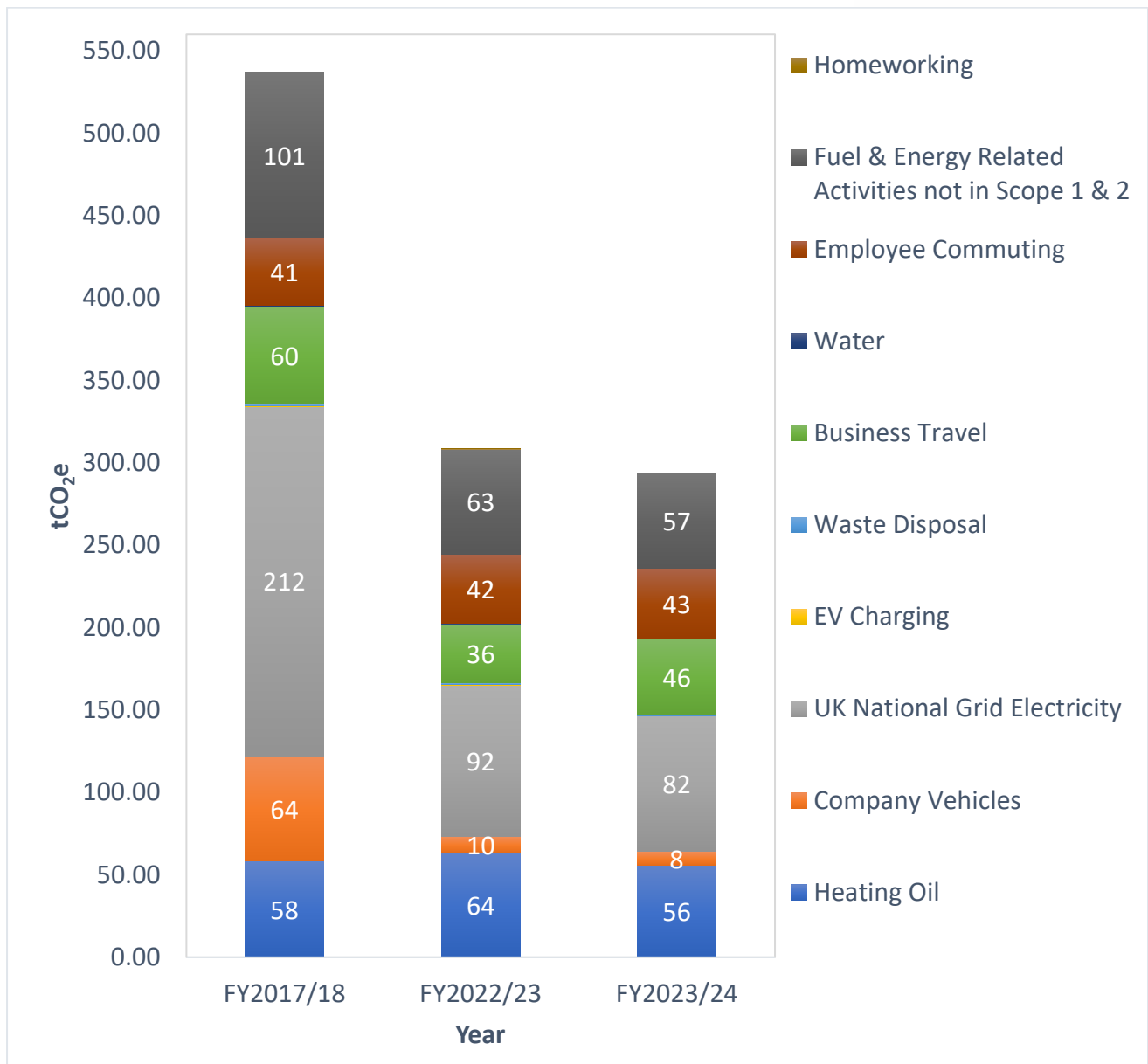


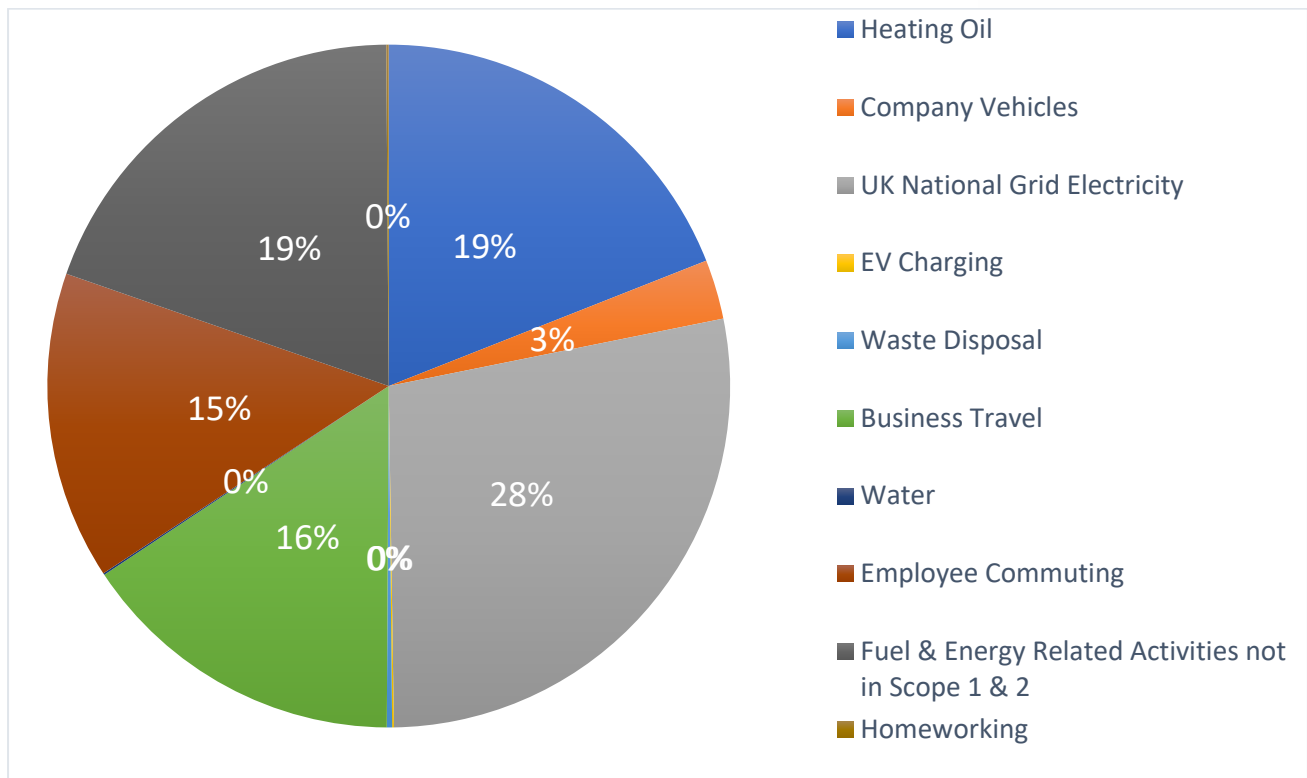
Figure 2 breaks down emissions into categories demonstrating the three largest contributors Ellis GHG emissions are:

1. UK National Grid Electricity (82 tCO₂e, 28%)
2. Fuel & Energy Related Activities Not Included in Scope 1 & 2 (57 tCO₂e, 19%)
3. Heating Oil (56 tCO₂e, 19%)

* Green = Scope 1, Blue = Scope 2, Orange = Scope 3

The large GHG emission contributors within scope 1 and scope 2 are areas where there are significant opportunities for carbon reduction.

Figure 3. Emissions by categories as a percentage FY2023/24.



Additional Information

Table 2: Scope 3 emissions by categories and which are reported.

Scope 3 Categories	Reported (Y/N)	Comments
1: Purchased Goods and Services	Y	Only water reported.
2: Capital Goods	N	
3: Fuel and Energy Related Activities Not Included in Scope 1 or Scope 2	Y	
4: Upstream Transportation and Distribution	N	To be reported from FY2024/25.
5: Waste Generated in Operations	Y	
6: Business Travel	Y	Flight emissions reported with RF.
7: Employee Commuting	Y	
8: Upstream Leased Assets	N	
9: Downstream Transportation and Distribution	N	To be reported from FY2024/25.
10: Processing of Sold Products	N	
11: Use of Sold Products	N	
12: End-of-Life Treatment of Sold Products	N	
13: Downstream Leased Assets	N	
14: Franchises	N	
15: Investments	N	