

Chelmsford City Council Green House Gas report 2023/24

1. Climate change and Chelmsford City Council

Chelmsford City Council declared a Climate and Ecological Emergency in July 2019. Information on the Council’s action plan and creating a greener Chelmsford can be found by visiting www.loveyourchelmsford.gov.uk

2. Outline of key risks to organisation from climate change

In the future the City Chelmsford will experience warmer and wetter winters, hotter and drier summers, and more severe weather events. By the 2080’s average summer temperatures in the Southeast of England could rise by up to 3.9°C and there could be a 23% reduction in average summer rainfall. ¹

The Council and its operations will be subjected to risks because of climate change. These risks may include:

- Risks to public health from hotter summers and severe weather events (example increased pests, diseases, excessively hot and cold homes and workplaces)
- Risks to buildings from excess heating and extreme weather events (example cracking in surfaces from excess heat or freeze thaw action and localised flooding)
- Risks to infrastructure; utilities, highways and public transport from extreme weather
- Risks to supply chain from climate disruption leading to negative market impacts

3. Data

All numbers in tonnes CO ₂ equivalent	2023/24	Baseline year (2019/20)
Scope 1 (direct) emissions	2633	3637
Scope 2 (from electricity) emissions	1068	1663
Scope 3 (indirect) emissions	27	70
Total Gross emissions	3728	5370
Carbon offsets	-	-
Energy purchased from green tariffs	-	-
Total annual net emissions	3728	5370
Intensity measurement (per F.T.E employee; excluding casual staff)	840 FTE	833 FTE

Table 1: Chelmsford City Council emissions by emissions scope

4. Reporting period

This report covers all emissions from Chelmsford City Council sources between 1st April 2023 and 31st March 2024.

5. Change in emissions

Emissions have now fallen by 25% compared to the previous year and 30% against the baseline year.

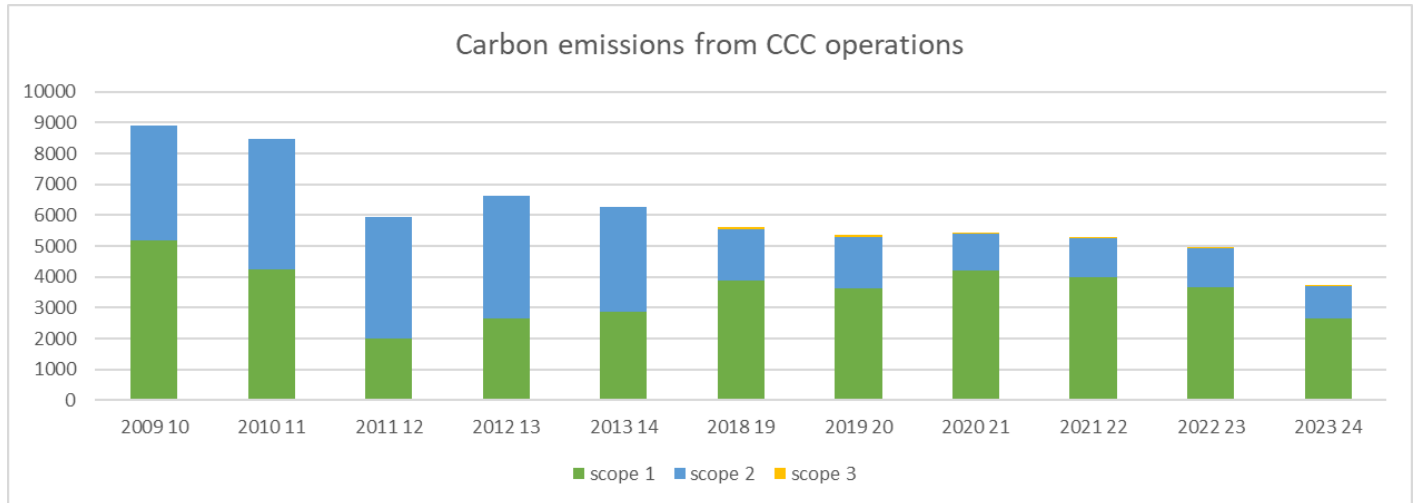


Table 2: Historical emissions by scope

6. Comment on change in emissions

Significant changes that contribute to the reduction include:

- A change in use of fuels for recycling and waste collection, street care and grounds maintenance activities
- Further investment in the LED lighting replacement programme

Scope 3 emissions remain the same as last year despite more vehicle miles being reported. This is due to improvements in emissions standards of vehicles used by staff.

This report does not include for electricity generated by the CHP unit at Riverside Ice and Leisure Centre.

7. Approach

The following criteria has been used to compile this report

Emissions source					
Scope 1	Scope 2	Scope 3	Carbon offsets	Energy purchased from green tariffs	Intensity measurement
Gas consumption data from energy supplier	Electricity consumption data from electricity	Car business mileage data from	Chelmsford City Council does not offset its	Fuel supply mix from electricity suppliers	Number of Full time equivalent (FTE) staff

	suppliers and meter read information.	employee mileage claims	emissions		employed on 31 st March 2024
Heating Oil data from delivery data					
Owned transport fuel consumption from fuel delivery data					

N. B Process and fugitive emissions are not included

8. Scope

This report does not include emissions from properties owned by Chelmsford City Council but occupied by a third party where the tenant receives energy bills directly.

This report does not include emissions from buildings where Chelmsford City Council is the tenant and the land lord pays energy bills directly. This is known as the financial control approach.

The report does not include the electricity generated by the Council’s solar PV arrays.

Electricity used to charge Council operated electric vehicles is taken from the Council’s existing supplies and not counted separately.

Electricity generated by the Council’s Combined Heat and Power plant is not counted; instead the gas used to generate the electricity is included in the gas consumption data as per best practice guidance.

9. Intensity Measurement

The ‘number of employees’ is based on the last day of the reporting year’. This is the number of full-time equivalent staff employees, excluding casual staff.

10. Carbon Offsetting

Chelmsford City Council does not purchase carbon offsets. Instead, it invests money into improving the efficiency of its current building stock and operational practices.

11. Report verification

This report aims to be transparent about the energy sources and green house gas emissions used by Chelmsford City Council. The report is validated by the internal audit team before publication.

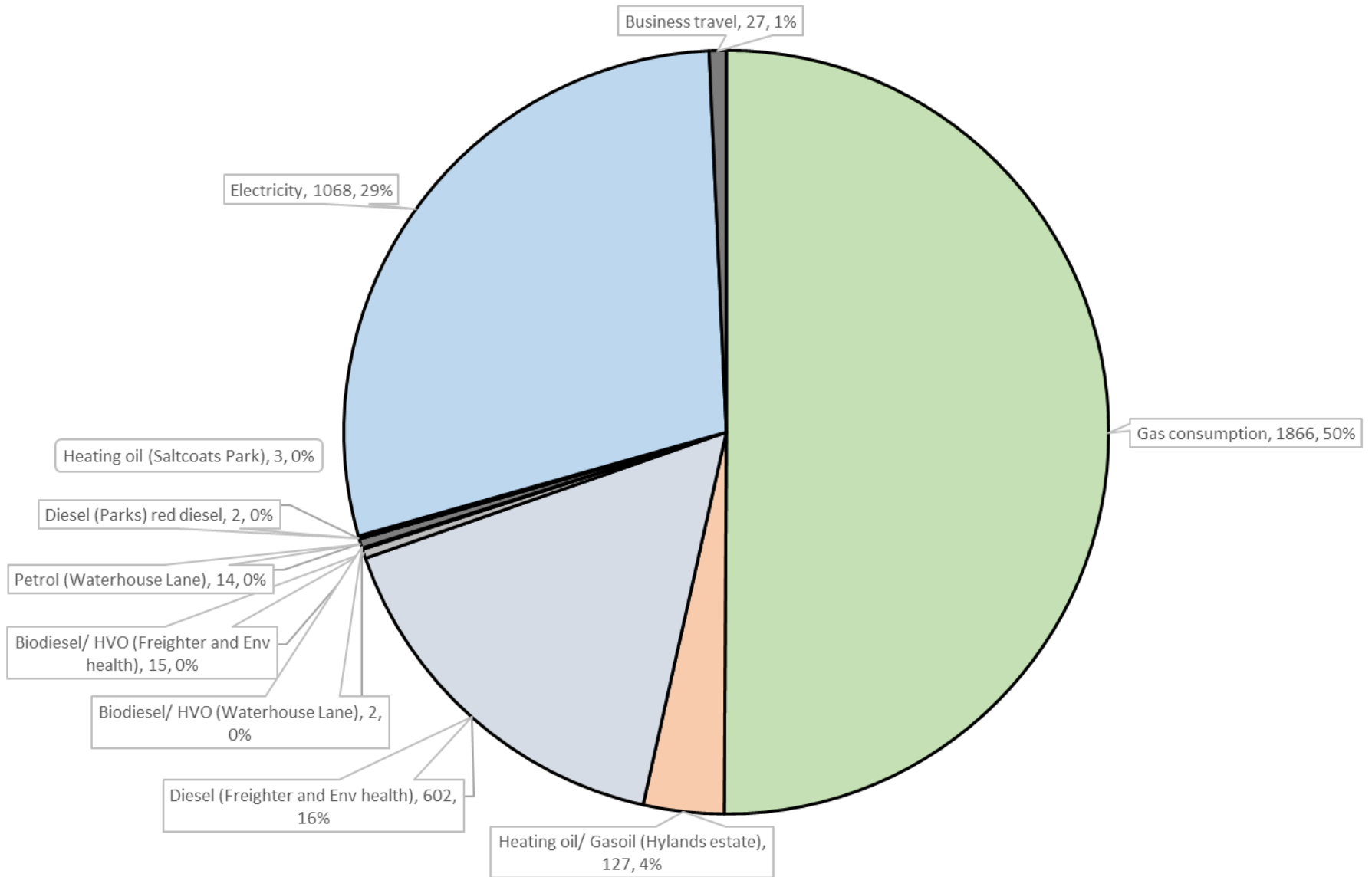
12. References

Green house Gas conversion figures are taken from the [Greenhouse gas reporting: conversion factors 2023 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023)

[Adapting to climate change: A guide to local councils \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/101314/adapting-to-climate-change-a-guide-to-local-councils.pdf)

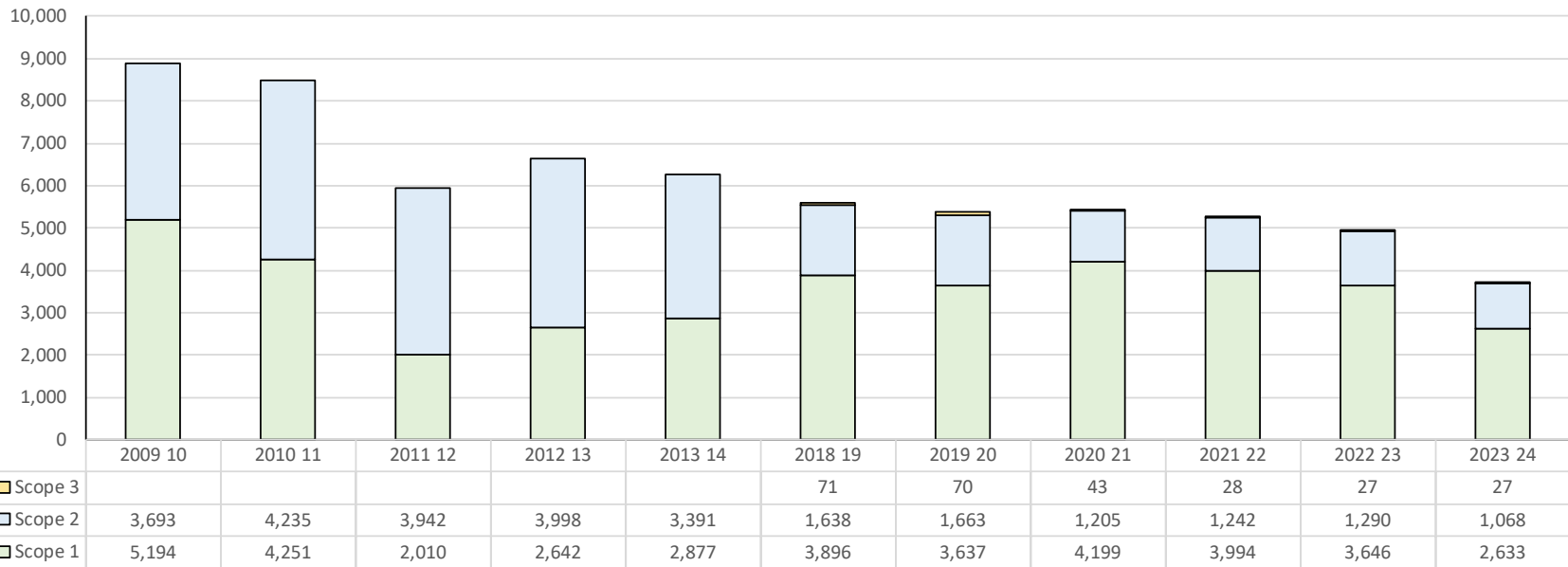
Scope	Factors	conversion factor	quantity	unit	CO2e		
Scope 1	Gas consumption	0.18	10,367,351	kWh	1866		
	Heating oil/ Gasoil (Hylands estate)	2.76	46,000	litres	127		
	Diesel (Freighter and Env health)	2.51	239,674	litres	602		
	Biodiesel/ HVO (Freighter and Env health)	0.03558	411,037	litres	15		
	Biodiesel/ HVO (Waterhouse Lane)	0.03558	62,310	litres	2		
	Petrol (Waterhouse Lane)	2.1	6,823	litres	14		
	Diesel (Parks) red diesel	2.51	981	litres	2		
	Heating oil (Saltcoats Park)	2.76	971	litres	3	2631	Scope 1 total
Scope 2	Electricity	0.207074	5,157,564	kWh	1068	1068	Scope 2 total
Scope 3	Business travel	vehicle dependant	107,467	miles	27	27	Scope 3 total
	Total emissions (Tonnes CO2e)				3726		
Conversion factors taken from 2023 condensed set							
https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023							
Using Gross CV values where applicable							
	Does not currently include						
	Electricity from CHP or solar PV						
	Electricity used to charge Evs as a category; this is included within the building use						

Source of carbon emissions 2023/24



	2009 10	2010 11	2011 12	2012 13	2013 14	2018 19	2019 20	2020 21	2021 22	2022 23	2023 24
	tonnes CO2eq	tonnes CO2eq	tonnes CO2eq	tonnes CO2eq	tonnes CO2eq	tonnes CO2eq	tonnes CO2eq	tonnes CO2eq	tonnes CO2eq	tonnes CO2eq	tonnes CO2eq
Scope 1	5,194	4,251	2,010	2,642	2,877	3,896	3,637	4,199	3,994	3,646	2,633
Scope 2	3,693	4,235	3,942	3,998	3,391	1,638	1,663	1,205	1,242	1,290	1,068
Scope 3						71	70	43	28	27	27
Total	8,887	8,486	5,952	6,640	6,268	5,605	5,370	5,447	5,264	4,963	3,728
Change yr on yr [tonnes CO2eq]		-401	-2,534	688	-372	-663	-235	77	-183	-301	-1,235
Change yr on yr [%]		-4.5%	-29.9%	11.6%	-5.6%		-4.2%	1.4%	-3.4%	-5.7%	-24.9%
Compared to base line								77	-106	-407	-1,642
Compared to base line [%]								1.4%	-2.0%	-7.6%	-30.6%

Carbon emissions from Chelmsford City Council activities and operations



Emissions from vehicle fuel						2,032	1,617	2,041	1,873	1,707	635
Change yr on yr [tonnes CO2eq]							-415	424	-168	-166	-1,072
Change yr on yr [%]							-20.4%	26.2%	-8.2%	-8.9%	-62.8%
Compared to base line								424	256	90	-982
Compared to base line [%]								26.2%	15.8%	5.6%	-60.7%