Canterbury City Council 2023 Greenhouse Gas Emissions Report

Produced March 2025

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1. Executive summary

Introduction

Canterbury City Council has undertaken a comprehensive review of carbon emissions to inform the review and update of the council's Climate Change Action Plan, which was adopted in 2021.

This report summarises the Council's greenhouse gas emissions data for the calendar year 2023, including sources such as buildings and transportation.

The analysis has been completed internally through the council's Climate Change Working Group, with some data provided by external partners.

The main findings of the report are the total emissions footprint for Canterbury City Council and its partners of 3,242 tCO2e for 2023.

We have identified the operational areas that have the highest emissions for each scope.

The analysis shows that the highest emissions areas include the diesel emissions from our waste, maintenance and street cleansing services, which make up 37% of the 2023 total emissions, and our assisted housing schemes which make up a further 31% of total emissions.

2. Introduction and purpose

The CCAP was adopted in May 2021 and sought to put in place the actions that the council would take to achieve net zero operational emissions by 2030.

The CCAP was informed by an analysis of emissions from across the council's activities which was first undertaken in 2021.

Since this time, a variety of projects from the CCAP have been delivered or progressed, which have targeted reductions in emissions from specific areas of council activities.

Examples of this include: Action NZ2 to minimise office accommodation emissions, Action NZ10 the Leisure centre decarbonisation plan, with Kingsmead the latest to be refurbished and Action NZ4 Workplace charge points, which were successfully installed at the Military Road offices.

However, it is important that the CCAP is kept under periodic review and the council is now looking to update the CCAP during 2025.

The purpose of this report is therefore to update our assessment of emissions from the council's activities, in line with best practice and the latest guidance.

This report is therefore intended to inform decisions about the updated CCAP, and the priority for projects to further reduce emissions to 2030.

3. Methodology

3.1 Operational boundary

The Local Government Association (LGA) Greenhouse Gas Accounting Tool guidance advises that councils should report "...*on all sources of carbon emissions over which it has operational control. The authority has operational control over a service if it has authority to introduce and implement its operating policies."*

In the context of the operational control, the below areas are considered within scope of our carbon footprint:

- **Estate – Core Offices**: Main office and computer centre
- **Estate – Expanded**: Other offices, Park and Ride sites, street lighting
- **Estate – Cultural**: heritage and religious, museums, memorials, parks

- **Estate – Housing Revenue Account related**: general needs, hostels, older persons schemes - no support, older persons schemes- with support, other gas
- **Estate - Parks & Recreation**: parks, amenities, buildings and estate, recreation centre, sports facilities
- **Waste, Maintenance & Street Cleansing**: Canenco buildings and waste fleet
- **Park & Ride**: Park and Ride fleet & Canenco buildings

This approach was discussed and agreed to by the council's Climate Change Working Group.

Activities outside of the council's operational control have therefore been excluded, including leisure facilities, social housing and other activities which are classified as "financial control".

Leisure facilities

Although not within operational control, the council has commissioned heat decarbonisation plans for each of the leisure centres and will continue to work with Active Life on the implementation of these.

Decarbonisation work has recently been completed for Kingsmead Leisure Centre in Canterbury, partially funded by the Public Sector Decarbonisation Scheme.

Some progress has already been made at Whitstable Swimming Pool, where funding was secured via the Swimming Pool Fund in 2024 for solar PV and a new filtration system.

Although emissions from leisure are not within operational scope, the emissions data has been provided separately within the report.

Social housing

As per the LGA guidance for reporting on greenhouse gas emissions, social housing emissions are not considered within operational control for a local authority, except for emissions from communal areas (such as stairwells, corridors etc.) for which the council is responsible.

Emissions from communal areas only have therefore been included within our reporting for this area.

Other emissions (financial control)

Currently the is no feasible conversion factor for electronics or purchased goods. The only method available is to take the weight of the product and factor in the monetary value against the LGA tool, however the weight of goods purchased is not something that is monitored by the council.

3.2 Analysing emissions by source

Our analysis is undertaken by looking at the different sources of emissions, which is also known as the "scope". This enables us to distinguish between emissions from different types of sources.

Scope 1 – includes the emissions from our **direct use**, so these are mostly from **fossil fuels** that are combusted through our own activities such as through our gas boilers in buildings or the use of petrol and diesel for our vehicles.

Scope 2 - includes emissions from our **indirect use**, so these are mostly from the **electricity** we purchase to operate our buildings and street lighting where the emissions themselves are generated off-site.

Scope 3 - includes the emissions from **products and services that the council buys and uses**, such as CanenCo (outsourced waste collection and grounds maintenance), Stagecoach (the outsourced Park and Ride service) and emissions derived from water.

3.3 Data gathering

Data has been collected from financial billing at building level for gas, electricity, and water. Data for the other Scope 3 areas has been provided by Canenco and Stagecoach and calculated by the council.

Active Life provided gas and electricity consumption data for each of the leisure centres.

This has allowed the council to assess the carbon emissions of the leisure sector, even though they are not included within our carbon footprint.

All data covers the full calendar year for 2023.

Conversion factors have been applied to the relevant consumption figures (gas Kwh, electricity Kwh, waste/fresh water m3). The conversion factors have been sourced at year level from the LGA Greenhouse Gas Accounting Tool.

Emission conversion factors have been applied at line level within our raw data sheet.

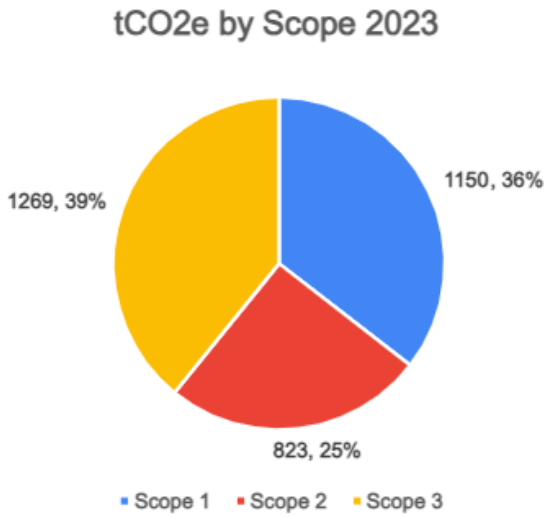
The factors are multiplied with the consumption data, to provide a CO2e figure.

Where some monthly data is missing due to faulty reads or missing reported data either an average has been used or that single month has been omitted from the results.

4. Emissions data and analysis

4.1 Emissions data summary

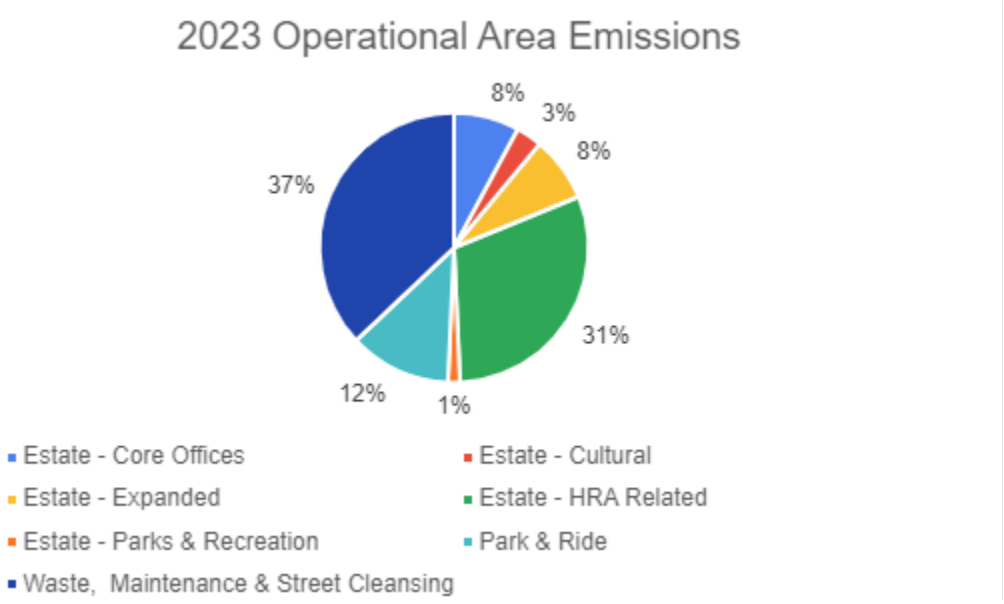
The chart below shows the total carbon emissions within the council's operational control in tonnes of carbon (tCO2e), broken down by scope, for 2023.



This shows that Scope 3 emissions amount to almost 40% of the council's emissions, while Scope 2 accounts for a quarter.

The total emissions calculated for 2023 was 3,242 tCO2e.

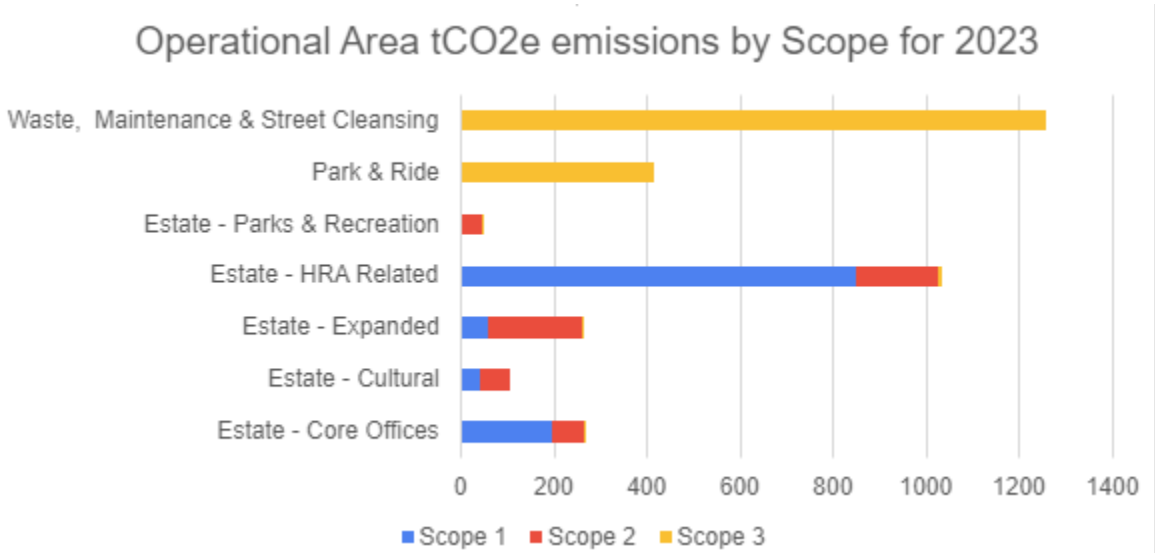
The next chart shows how emissions are broken down across the council's operational areas.



The analysis shows that emissions from Waste, Maintenance & Street Cleansing, and the Estate – HRA Related make up most of our footprint at 68% of total emissions for 2023.

Our other operational areas have more evenly distributed emissions, with Park and Ride being our third highest accounting for a further 12%.

The following graph shows the total emissions in tCO2e across these operational areas and breaks this down by scope.



Waste, Maintenance & Street Cleansing services from CanenCo represent the highest operational area emissions output for 2023. This includes fuel consumption and building consumption for water, electricity, and gas.

Our next biggest emissions contributor is our HRA related estate emissions. This is a collection of services which include hostels and older people's accommodation where gas heating is currently the biggest contributor.

4.2 Emissions data by operational area

Estate – Core Offices: main office and computer centre

Emissions for our core estate are driven by our main office at Military Road and the accompanying computer centre for 2023. Going forwards we expect to see a rapid decrease in emissions as the new office at Rose Lane and Whitefriars will replace these.

Total emissions for Scope 1 Estate – Core was 199.19 tCO2e. These are the only sources within the Core Estate to measure.

Building	Address	tCO2e
Military Road Offices	Canterbury CT1 1YW	193.80
Computer Centre	Canterbury CT1 1YW	5.40

The total emissions for Scope 2 within the Estate – Core category was:

Building	Address	tCO2e
Military Road Offices	Canterbury CT1 1YW	51.28
Computer Centre	Canterbury CT1 1YW	16.62

The total consumption for Scope 3 sources for Estate – Core was: 0.38 tCO2e. This was for both Fresh and Waste water.

Estate – Expanded: other Offices, Park and Ride buildings, street lighting

The key driver for the expanded estate is other key council buildings, such as Kings Hall in Herne Bay and the Guildhall in Canterbury.

Whilst our Scope 1 usage is smaller than other areas within our estate, our expanded estate our Scope 2 usage is much higher because of the variety of buildings included.

The total emissions for Scope 1 from Estate – Expanded was 59.86 tCO2e.

The lead emissions sources for Scope 1 were:

Building	Address	tCO2e
Kings Hall	Herne Bay, CT6 6BA	34.74
Guildhall	Canterbury, CT1 2DB	12.96
Tower House	Canterbury, CT1 2DB	8.68
Lucerne Community Centre	Faversham Road, Seasalter	2.85

The total emissions for Scope 2 emissions from Estate – Expanded was 202.51 tCO2e.

For Scope 2 our highest emission buildings were:

Building	Address	tCO2e
CR1043095, Unmetered Equipment, CCTV, Alarms	Canterbury, CT1 1AA	87.81
Kings Hall	Herne Bay, CT6 6BA	24.09
Warehouse (South Quay Shed)	South Quay, Whitstable Harbour, CT5 1AD	15.19
Wincheap Park & Ride	Wincheap, Canterbury, CT1 3TY	9.09
CCC- Park & Ride	1 New Dover Street, CT1 3AD	8.78
Chartham Village Streetlighting Account 1	Chartham, CT4 7JE	7.12
Both Chapels, Westgate Court	1 Linden Grove, Canterbury, CT2 8AB	6.94
Irrigation System.	Central Parade, Herne Bay, CT6 5JJ	5.57
Newspaper House	29 Simmonds Road, Canterbury, CT13YR	5.41
To Market stalls feeder pillar	Iron Bar Lane, Canterbury, CT1 2HN	3.77

The Total Scope 3 emissions for Estate – Expanded was 2.67tCO2e which was from fresh and waste water.

Estate – Cultural: Heritage and religious, museums, memorials

Our Estate - Cultural category consists of public use buildings and emissions are mostly within Scope 2.

For buildings like the Roman Museum no heating source from gas is available at the site so there is no usage to record.
Only the Beaney has emissions in the Scope 1 category. The total amount for emissions here is 42.02 tCO2e.

The total emissions for Scope 2 emissions from Estate – Cultural was 65.12 tCO2e.

For Scope 2 our highest emission buildings were

Building	Address	tCO2e
Beaney	18 High Street, Canterbury, CT1 2RA	43.93
Roman Museum	Butchery Lane, Canterbury, CT1 2JR	7.76
Both Chapels	1 Linden Grove, Canterbury, CT2 8AB	4.4

War memorial park, Pump Station (Park Pump, Dering Road) Herne Bay	Kings Road, Herne Bay, CT6 5DD	2.08
War Memorial Park, Sports Pavilion	Kings Road, Herne Bay, CT6 5QN	2.68

For Scope 3 we only have data available for the Beaney for 2023:

Building	Address	tCO2e
Beaney	18 High Street, Canterbury CT1 2RA	0.94

Estate - HRA Related: Hostels and Older Persons Accommodation

This category includes four different service areas, including schemes for older persons accommodation.

One scheme is without support and the other scheme has staff and facilities on site to support them and therefore their usage is also included within the calculations.

There are also hostels covered and another category which covers usage for offices and communal areas.

This is one of the largest usage categories as it covers such a wide variety of uses.

The total emissions for Scope 1 from Estate – HRA Related was 849.18 tCO2e.

The lead emissions sources for Scope 1 were:

Building	Address	tCO2e
Whitgift Court	Fisher Road, Canterbury, CT2 8JJ	97.60
Lang Court	Marine Cr, Whitstable, CT5 2QH	81.91
Longfield Court	Whitstable, CT5 2SP	75.05
Shalmsford Court	Chartham, Canterbury CT4 7QR	66.28
Godfrey House	Grimshill Road, Whitstable, CT5 4RH	65.20
Cranmer House	London Road, St Dunstan's, Canterbury, CT2 8LX	61.59
St Gregorys Court	50 Craddock Road, Canterbury, CT1 1YT	58.45
Collard House	Russett Road, Canterbury, CT1 1RW	54.70
Thornhurst	Churchill Avenue, Herne Bay, CT6 6SQ	51.07
Churchill House	Union Road, Bridge, Canterbury, CT4 5LP	44.40

The total emissions for Scope 2 emissions from Estate – Cultural was 178.25 tCO2e.

For Scope 2 our highest emission buildings were

Building	Address	tCO2e
Whitgift Court	Fisher Road, Canterbury, CT2 8JJ	13.91
Lang Court Marine Crescent	Marine Cr, Whitstable, CT5 2QH	11.44
Collard House	Russett Road, Canterbury, CT1 1RW	9.81
Thornhurst	Churchill Avenue, Herne Bay, CT6 6SQ	7.65
Longfield Court	Whitstable, CT5 2SP	6.46
New Beverley House Market Way, Meter 1, SC Supply	Market Way, Canterbury, CT2 7JN	6.41
Godfrey House	Grimshill Road, Whitstable, CT5 4RH	6.25
Seaview House	Canterbury Road, Herne Bay, CT6 5HP	6.05
Maple House	Rough Common, Canterbury, CT2 9DF	5.48
Elm Lodge, C/Bury Road, LL Supply	Herne Bay, CT6 5DG	5.31

A list of buildings can be found as an appendix to this summary.

For Scope 3 the total emissions were: 7.76 tCO2e.

Only Windsor House within the buildings where data was available contributed 2.91 tCO2e towards the total emissions for 2023. The remaining 19 sources combined totaled 3.92 tCO2e.

Estate - Parks and Recreation: parks, amenities, buildings, recreation centres, sports Facilities

For this category the Scope 1 emissions the combined total is 0.09 tCO2e.

Scope 2 combined emissions are 48.13 tCO2e.

Building	Address	tCO2e
The Bandstand, Central Parade	Herne Bay CT6 5JN	15.74
St Georges Public Conveniences	Canterbury Lane, Car Park, CT1 2HL	10.04
Conveniences, Hampton Pleasure Ground,	Swalecliffe Avenue, Herne Bay, CT6 8EJ	7.39
Public Conveniences	Worthgate Place, Canterbury, CT1 2QX	4.52
Public Conveniences	Tower Way, Canterbury CT1 2DP	2.3

The total emissions for Scope 3 for Estate – Parks and Recreation was 0.32 tCO2e.

Waste, Maintenance and Street Cleansing – CanenCo buildings and waste fleet

This data is provided by CanenCo, who operate the waste services for the Canterbury district.

All the usage here is considered Scope 3 emissions according to the LGA Tool for operational control. The fuel consumption for the waste fleet is the current single highest source of emissions within our operation scope.

The combined total emissions for the four fuel types provided is: 1225.93 tCO2e.

This breakdown is presented as:

Fuel	tCO2e
Diesel	1199.59
Premium Diesel	6.12
Super Unleaded	10.64
Unleaded	9.57

The electricity usage sent to us currently covers four of the buildings CanenCo use to run their operation.

Building	Address	tCO2e
Cotton Road Dept	Wincheap Industrial Estate, CT1 3TQ	27.60
Fordwhich Depot	Chislet Close, CT3 4HQ	2.56
EDF Portacabin Whitstable	Whitstable	1.29
Cemetary Portacabin	Canterbury	0.86

The total combined usage is: 31.3 tCO2e.

Water emissions contribute a small amount to the overall emissions with the combined total equaling 1.12 tCO2e.

Park and Ride – Stagecoach Park and Ride fleet

The data for the Park and Ride services operated by Stagecoach identifies the total combined emissions are 415.844 tCO2e for 2023.

The service operates two types of bus, and the data contributed is for fuel used:

Bus type	tCO2e
E200 Singe Decker (Diesel)	255.24
E400 Double Decker (Diesel)	160.60

Leisure (not in scope)

Although leisure centres do not fall within scope, Active Life has shared its consumption data with the council, allowing us to calculate the emissions from the three leisure centres in Canterbury, Whitstable, and Herne Bay.

Total emissions can be found below by year, for each leisure centre.

Building	Address	tCO2e
Herons Leisure Centre	William Street, Herne Bay CT6 5NX	460
Kingsmead Leisure Centre	Kingsmead Road, Canterbury CT2 7PH	450
Whitstable Swimming Pool	Tower Parade, Town Centre, Whitstable CT5 2BJ	266

Emissions for Kingsmead Leisure Centre were lower than usually expected because the building was closed during 2023 for the retrofit project.

5. Conclusions and next steps

The total carbon emissions recorded for 2023 under Canterbury City Councils operation control were 3,242 tCO2e.

The areas that face the biggest challenge to reduce are Estate – HRA Related which made up 31% of total emissions and Waste, Maintenance and Street Cleansing which made up 37% of the total emissions.

From the analysis we know that Scopes 1 and 3 make up most of our emissions output. Diesel usage for fleet vehicles is the highest use under Scope 3 and heating/ natural gas usage accounts for the Scope 1 emissions. Most of our Scope 2 emissions come from the CCTV usage and a number of key buildings.

Diesel is the highest single emissions source at 1199.59 tCO2e.

The buildings that contributed the highest amount of emissions for Scope 1 (fossil fuels) in 2023 were:

Building	Address	tCO2e
Military Road Offices	Canterbury CT1 1YW	193.80
Whitgift Court	Fisher Road, Canterbury, CT2 8JJ	97.60
Lang Court	Marine Cr, Whitstable, CT5 2QH	81.91
Longfield Court	Whitstable, CT5 2SP	75.05
Shalmsford Court	Chartham, Canterbury CT4 7QR	66.28
Godfrey House	Grimshill Road, Whitstable, CT5 4RH	65.20
Cranmer House	London Road, St Dunstan's, Canterbury, CT2 8LX	61.59
St Gregorys Court	50 Craddock Road, Canterbury, CT1 1YT	58.45
Collard House	Russett Road, Canterbury, CT1 1RW	54.70
Beaney	18 High Street, Canterbury, CT1 2RA	43.93

The buildings that contributed the highest amount of emissions for Scope 2 (electricity) in 2023 were:

Building	Address	tCO2e
CR1043095, Unmetered Equipment, CCTV, Alarms	Canterbury, CT1 1AA	87.81
Military Road Offices	Canterbury CT1 1YW	51.28
Beaney	18 High Street, Canterbury, CT1 2RA	43.93
Kings Hall	Herne Bay, CT6 6BA	24.09
The Bandstand, Central Parade	Herne Bay CT6 5JN	15.74
Warehouse (South Quay Shed)	South Quay, Whitstable Harbour, CT5 1AD	15.19
Whitgift Court	Fisher Road, Canterbury, CT2 8JJ	13.91
Lang Court Marine Crescent	Marine Cr, Whitstable, CT5 2QH	11.44
St Georges Public Conveniences	Canterbury Lane, Car Park, CT1 2HL	10.04
Collard House	Russett Road, Canterbury, CT1 1RW	9.81

Our HRA – Related buildings are the highest contributors to Scope 1 emissions with eight out of the ten highest emitting buildings appearing in the table.

Although our Military Road offices are the highest single source of Scope 1 emissions in 2023, the council is in the process of relocating to smaller, more modern office premises so the emissions are expected to fall significantly.

Scope 2 emissions are distributed across a larger number of categories with usage from the Estate – Expanded appearing at the top of the table, however three of the buildings in the HRA category appear within the top ten of this table as well.

The data for the GHG report will be used to inform an update of the CCAP. The breakdown of the emissions will help to inform business areas of their current emissions and help to make informed decisions to achieve Net Zero.

The emissions data will be reviewed periodically over the period of the CCAP to measure and report progress.

6. Appendices

2023 comparisson usage.xlsx