

Cheltenham Borough Council & Cheltenham Borough

Homes

Full Council –14th October 2024

Carbon Emission Reports: Financial Year 2023/24

Accountable member:

Cllr Iain Dobie, Cabinet Member for Climate Emergency

Accountable officer:

Maizy McCann, Climate Emergency Officer

Jack Cole, Climate Change Officer

Ward(s) affected:

All

Key Decision:

No

Executive summary:

Emission categories and report scope

This Carbon Report calculates organisational carbon emissions for the financial year 2023-24, borough wide emissions are not included in the scope of this report.

Carbon emissions are a direct result of organisational energy use and organisation procurement activities. These include scope 1, 2 and 3 emissions, outline below in Table 1 (Cheltenham Borough Council) & Table 2 (Cheltenham Borough Homes) below. Throughout this report, CBC and CBH have been considered separately, given the reporting period predates the organisational integration in July 2024

Table 1: Cheltenham Borough Council Operations

Category	Description	Source	Total (tCO ₂ e)	% Reduction from baseline
Scope 1	Direct emissions as a result of burning fossil fuels	Gas usage within Council, Ubico, Cheltenham Trust sites, miscellaneous properties & vehicle fleet gas/fuel use	1,651.02	-50%
Scope 2	Indirect emissions from purchasing energy for operations	Metered electricity use for Council, Ubico, Cheltenham Trust sites & miscellaneous properties.	828.73	-4%
Scope 3	All other quantifiable indirect emissions produced in relation to the organisational activity	Staff commuting & business travel, water usage, procurement, 50% of airport electricity & ground operations, transmission & distribution of electricity	21,261.90	NA

Table 2: Cheltenham Borough Homes Operations

Category	Description	Source	Total (tCO ₂ e)	% Reduction from base line
Scope 1	Direct emissions as a result of burning fossil fuels from activities owned or controlled by the organisation	Property Schemes managed by CBH that have a communal gas supply, Gas for CBH office spaces, fuel for CBH vehicle fleet	394.71	-11.94
Scope 2	Indirect emissions from purchased energy (electricity) consumed by CBH operations.	Metered electricity use for communal areas of properties managed by CBH, metered electricity use for CBH office spaces	160.06	-35.69
Scope 3	All other quantifiable indirect emissions from sources not owned or controlled by CBH.	Business travel and employee commuting, housing stock including those owned by CBC and CBH, Transmission and Distribution losses from purchased electricity in scope 2, supply chain emissions	11,744.62	NA

Scale of the challenge

Scope 1 & 2 Emissions

This report illustrates the scale of the net zero challenge. The primary need is to focus on the reduction of scope 1 and 2 emissions to minimal levels, and to explore the viability of compensating for the remaining emissions through mechanisms such as carbon-offsetting. Alongside decarbonisation of our vehicle fleet, achieving this is reliant on significant capital investment and successful bids to central

government grant funding programmes such as the Public Sector Decarbonisation Fund (Public Buildings).

Grid electricity continues to cost more than gas. Consequently, energy efficiency measures, potentially combined with judicious electricity generation projects, where feasible, can simultaneously support net zero and reduce high energy costs. Achieving our net zero ambitions will also play a key role in reducing the council's overheads and supporting the long-term financial viability of the council and its services. The report summarises recommendations for further work to address the Council's decarbonisation actions.

When considering the actions needed to decarbonise, this heavily relies on large scale electrification of activity, moving away from gas. In the absence of own generation or a direct supply of renewable electricity, this relies on the decarbonisation of the national electricity grid. In the 2023 update, UK Electricity CO₂e factor increased by 7% (compared to the 2022) due to an increase in natural gas use in electricity generation and a decrease in renewable generation.

We note that there was an error in last year's reported gas usage, due to the removal of a gas meter from the national meter database by our former supplier, coupled with three months of electricity information from the Crematorium being incorrectly excluded from the data displaying platform last year. Despite this, considering corrected data for last year, it is evident that the Building Management System is now delivering a return on investment. Significant efforts are being put into refining the use of the system to drive further energy efficiency reductions.

Scope 3 Emissions

Although efforts will be made to reduce our Scope 3 emissions as much as possible, this is an area where the organisation generally has less direct control. Business travel, water usage and staff commuting can be influenced by the organisation. With regard to the housing stock, CBC controls the fabric and heating systems within these properties and hence energy efficiency improvements directly impact on emissions from this source. Progress in decarbonising social housing stock, however, requires significant capital investment. This is also reliant on successful bids to the Social Housing Fund. Progress to deliver net zero, as indicated in the HRA Carbon Reduction Plan, relies on this external funding.

Many Councils do not calculate a full range of Scope 3 emissions and the calculation methodology and the approach to address these supply chain emissions remain a more nascent area for development. In the light of this, as we develop our approach to working with our suppliers to explore our emissions in more detail, the numbers will likely continue to be subject to fluctuation. We are planning to take a segregated approach to addressing our Scope 3 emissions supply chain emissions commencing with the Council's highest areas of expenditure in the coming months, working alongside the Council's newly appointed procurement lead. CBC's clear priority must be to ensure that emissions within the control of the authority are reduced, whilst demonstrating internal and town-wide community leadership to encourage others to take on this important work within their spheres of influence.

Cheltenham Borough Council Report Highlights:

Scope 1 Emissions – Fossil Fuel Use

Total scope 1 emissions, those that relate to fossil fuel use, have reduced by 352.7 tCO₂e (18%) compared to the previous year, and 1672.8 tCO₂e (50%) compared to the baseline. The Building Management System is now starting to see the return on investment, with efforts being put into refining the use of the system.

Diesel usage in the Ubico fleet is identified as our highest scope 1 emissions source. The transition to hydrogenated vegetable oil (HVO) as a fuel, alongside fleet electrification, and further route efficiencies, has resulted in a decrease of 1181 tCO₂e in emissions associated with Ubico diesel consumption from the baseline year and 376.4 tCO₂e relative to last year.

Scope 2 Emissions – Electricity Use

Total scope 2 emissions have increased 81.5 tCO₂e (11%) compared to the previous year and reduced 38.8 tCO₂e (4%) compared to the baseline, as fossil fuel use is transitioned largely to electricity use. The emissions associated with electricity use will reduce as the Electricity Grid decarbonises at a national level.

The Cheltenham Trust gas use is a material element in scope 1 emissions and the electricity consumption in the buildings operated by the Trust is the highest emission source for scope 2. We are developing a pathway for each of our major building assets to decarbonise and as our understanding of the steps required to improve energy use grows, several projects have been approved which will increase the energy efficiency at the Leisure Centre, such as heat retention pool covers and solar PV on the Sports Hall, which will lead to decreases in emissions for the next reporting year.

Scope 3 Emissions – Procurement and other indirect emissions

Emissions relating to purchasing of good and services account for 90% of the organisation's total emissions. As we develop our approach to working with our suppliers to explore our emissions in more detail, the numbers will likely continue to be subject to fluctuation, however we provide a best estimate based on the tools available to support further work in this area.

Cheltenham Borough Homes Report Highlights:

Scope 1 Emissions – Fossil Fuel Use

Scope 1 emissions have reduced by 11.94% on the 2019/20 baseline, which is a reduction of 53.53tCO₂e. Notable changes within Scope 1 emissions compared to the previous year's report are reductions in the gas usage in communal heating systems and less diesel used within our fleet. Reduction in this area reflects a small amount of work that has been put into areas such as introducing more HVO vehicles, replacing diesel usage.

Scope 2 Emissions – Electricity Use

Scope 2 emissions have reduced by 35.69% on the 2019/20 baseline, which is a reduction of 88.84 tCO₂e.

The emissions reported on in Scope 2, have reduced compared to the baseline. Continued reduction in these emissions will rely on internal behavioural change, reduce power usage, alongside the greening of the national electricity grid.

Scope 3 Emissions – Housing stock, procurement & other indirect emissions

Scope 3 emissions have increased by 22.42% on the 2019/20 baseline, which is an increase of 2,150.62 tCO₂e as a consequence of the introduction of supply chain emissions. Scope 3 continues to carry the bulk of emissions, and the largest set of emissions still lies in the housing stock, which makes up 58.7% of all emissions. Those produced by the housing stock, however, fell 312.79 tCO₂e compared to 2022/23's figure, and this can be attributed to major retrofit works including EWI and low-carbon heat technologies, alongside other ongoing small-scale energy efficiency measures such as loft insulation.

The introduction of supply chain emissions across housing has added an extra 4,578.56 tCO₂e to the overall Scope 3 emission total.

Recommendations:

It is recommended that Council support the following actions:

- 1. Approve calculating CBC emissions through one report next year (2024-2025), and onwards by combining the previous Cheltenham Borough Council and Cheltenham Borough Homes reports, such that a new baseline is created combining the two organisations' original figures.**
- 2. Alongside the broader Climate Emergency Action Plan, seek funding to progress the development of detailed designs and pathway plans for the key individual buildings owned by Cheltenham Borough Council, to enable an application for Public Sector Decarbonisation Scheme Funding next year, given the bid for Low Carbon Skills Funding to complete these necessary preparatory steps provided unsuccessful this year.**
- 3. Continued focus is retained on HRA Carbon Reduction Plan for Housing including the continued improvements to the housing stock utilising external funding where-ever possible, i.e. WH:SHF (Warm Homes: Social Housing Fund)**
- 4. Support the work across CBC to review Scope 3 supply chain emissions and processes for engaging with key contractors to better understand emissions and hence plan reductions.**

1. Implications

1.1 Financial, Property and Asset implications

Scope 1 and 2 carbon emissions arise as a direct result of energy consumption. This is the gas and electricity used in Council's operational buildings, including the properties Cheltenham Borough Home's manage, communal heating systems, and landlord electricity supplies to communal areas. In the light of persistent high energy costs, efforts should be focused on driving down consumption through improved energy efficiency measures, exploration of the cost effectiveness of how carbon heat projects and the potential for larger scale renewable energy generation, where appropriate, to drive down electricity costs and emissions simultaneously. For instance, CBH has installed LED lighting in communal areas and a shared loop ground source heat pump heating system at one of its sheltered properties (so this no longer comprises communal heating and is much more energy efficient) and is looking at the possibility of doing this at other suitable sites.

Achieving net-zero in our portfolio will rely on substantial capital investment. Individual property emissions are detailed in the summary report. To support future decarbonisation works there is significant preparatory work required for buildings within the property portfolio. Working towards reducing carbon emissions can mean long term financial savings but will require upfront investment, which may not fit the criteria for an invest to save project. Any funding bids will need to be supported by robust business cases, to allow Members to make informed and transparent decisions around investing to reduce our carbon footprint.

To fully decarbonise, the housing stock will need a major transition from gas boilers to the electrification

of heating. Reducing emissions across the stock will be achieved by installing energy efficiency measures and low-carbon technologies which are costly. Even with installing some on-site generation via renewable energy, the overall drive to net zero will rely heavily on the national grid becoming carbon-free. Financial savings from energy efficiency measures and renewable energy generation installations support the longevity of the assets and provides cost savings for tenants, thus reducing the risk of fuel poverty, but for these properties there is no direct return on investment for the Council.

The procurement of goods and services are the largest source of emission for CBC, accounting for approximately 90% of total emissions. For CBH the largest sources of emissions are the housing stock (57.3% of the total) and the supply chain (37.2% of the total). The figures for procurement/supply chain are based on a model which uses the total monetary value of goods and services procured to define emissions depending on category of spend. It does not utilise individual contractor emissions directly. Therefore, while using this methodology, the only way to report a reduction in emissions would be to reduce the total annual spend. Moving forward, emissions will be reviewed through a segmented approach, starting with the highest-emitting supply chain partners as a first step in the development of a sustainable procurement strategy.

Signed off by: Gemma Bell, Director of Finance & Assets, gemma.bell@cheltenham.gov.uk

Legal implications

None arising directly from the report. When future specific projects or actions are taken to implement the agreed and published 'net zero by 2030' commitment, further legal advice and support may be required, and officers will consult with One Legal on a case-by-case basis.

Signed off by: One Legal, legalservices@onelegal.org.uk

Environmental and climate change implications

These reports are fundamental to ensuring that the authority is effectively and transparently monitoring and reporting on organisational progress towards the achievement of our net-zero carbon emissions by 2030 target.

Signed off by: Maizy McCann, Climate Emergency Officer, maizy.mccann@cheltenham.gov.uk

1.2 Corporate Plan Priorities

This report contributes to the following Corporate Plan Priorities:

- Working with residents, communities and businesses to help make Cheltenham #netzero by 2030
- Ensuring residents, communities and businesses benefit from Cheltenham's future growth and prosperity
- Being a more modern, efficient and financially sustainable council

1.3 Equality, Diversity and Inclusion Implications

There will be no direct implications from the reporting of the carbon footprint on equality or discrimination, although we recognise that climate change is likely to have a disproportionate impact on those with protected characteristics, and those on low incomes, therefore this needs to be carefully considered when planning our mitigating actions in response to the climate emergency.

Signed off by: Richard Gibson, Head of communities, wellbeing & partnerships,
Richard.gibson@cheltenham.gov.uk

1.4 Performance management – monitoring and review

Each financial year the annual carbon footprint will be calculated and reported. Analysis of the results will underpin CBC's progress towards its net zero target and any required changes to our action planning. Review of data collection and carbon calculating methods will occur to ensure that the most accurate and best available estimates are reported.

The report annual carbon emissions form part of the organisations key performance indicators.

2 Background

2.1. Cheltenham Borough Council has a key leadership role to play in tackling climate change by reducing carbon emissions from its in-house services, those which CBC directly control, and by working with others in the borough to lower district-wide carbon emissions. The council has set out clear and transparent aspirations and a commitment to help tackle climate change by:

- Declaring a climate emergency in 2019 and committing to strive towards reduce both in-house and borough-wide emissions to net-zero by 2030;
- Publishing the Carbon Neutral Cheltenham report in 2019;
- Publishing a full Climate Emergency Action Plan (reviewed, refined and updated during 2024), detailing an associated framework to becoming a net zero Council and Borough by 2030;
- Launching a Climate Impact Assessment Tool for ensuring all proposals and projects the Council undertakes consider their social and environmental impacts
- Developing an SPD that will seek to ensure that sustainable measures are considered in planning and construction.

3 Reasons for recommendations

1. CBC and CBH are now one organisation; to begin reporting as one organisation is the only logical way forward and, therefore, to begin reporting as one organisation combination of the original baselines of both organisations will be required.
2. Funding is key to progressing the Climate Emergency Action Plan designed to reduce emissions for the Council:
 - a. Further material progress on Scope 1 requires Public Sector Decarbonisation Funding to reduce the emissions associated with key building assets. This cannot be applied for without detailed designs, which are expensive to produce. The funding bid made to the Low Carbon Skills Fund (run as a lottery) to progress this during 2024, proved unsuccessful;
 - b. The HRA Carbon Reduction Plan provides guidance for the housing stock carbon emission reduction actions. 2030 Continuing to improve the housing stock will reduce one of the largest blocks of carbon emissions and the cost of this could be supported by the Governments WH:SHF (Warm Homes: Social Housing Fund). Works done to the housing stock must comply with PAS 2035 under the Government grant, which aims to ensure

best practice.

3. With procurement/supply chain emissions being the largest emissions overall for CBC & CBH combined, engaging with contractors across CBC will be integral to understanding and eventually reducing these emissions.

4 Alternative options considered

4.1 There are no other reasonable alternative options to measuring carbon emissions.

5 Consultation and feedback

5.1 This report has been written with internal consultation with cross the wider housing, climate and property teams.

5.2 No public consultation needed.

5.3 In advance of being published on the website, the carbon calculations and totals will be subject to an auditing process.

6 Key risks

6.1 The Council needs to continue to develop decarbonisation pathways for each of its key building assets, building its understanding around the steps and costs to decarbonise key individual property assets. Alongside development of detailed designs, this is also a requirement to apply for Public Sector Decarbonisation Funds and funding needs to be found to enable the Council to take the next step on its decarbonisation pathway.

6.2 Housing stock emission reduction requires significant capital investment, there are currently some Government grants available to support this, but they are competitive and longer term availability is unknown, it is also likely to be inadequate to deliver net zero social housing. Timeframes for awarded grant are tight and funding maybe removed if targets are not met, posing a legislative/policy risk

6.3 Scope 3 procurement emissions are notoriously difficult to address. The current method is linked to overall cost and a strategy will need to be developed at the Council over the next year as it explores the emissions associated with procurement, starting with the highest areas of expenditure over the coming months.

Report author:

[Maizy McCann, Climate Emergency Officer, maizy.mccann@cheltenham.gov.uk.]

Appendices:

- i. Risk Assessment
- ii. Equality Impact Assessment – Screening –(to be included in all Cabinet and Council reports)

Background information:

- [The Carbon Neutral Cheltenham report](#)
- [Climate Emergency Action Plan – pathway to net zero](#)

- [Corporate Plan – 2023 to 2027](#)

Appendix 1: Risk Assessment

Risk Details	Risk Manager	Risk Action	Review Date
Scope 1,2 & 3 Emissions			
Scope 1 & 2: CBH integration - carbon footprint for CBH will be integrated with CBC.	Frances Crick	Reduce	Q4 2024
Scope 1 & 2: Property Portfolio (key buildings including the Pool, Pitville Pump Room etc).	Gemma Bell	Reduce	Quarterly progress Q2 2024
Scope 1 & 2: Ubico emissions reduction plan incl. depot	Karen Watson	Reduce	Formulate plan to address 30/09/2024
Scope 3 Supply Chain Targets	Claire Hughes	Reduce	30/09/2024
Scope 3 Housing stock emissions	Frances Crick	Reduce	

Appendix 2: Equality Impact Assessment (Screening – to be included in all Cabinet and Council reports)

1. Identify the policy, project, function or service change

a. Person responsible for this Equality Impact Assessment

Officer responsible: Maizy McCann	Service Area: Climate and flooding
Title: Climate Emergency Officer	Date of assessment: 01/10/24
Signature: MMcCann	

b. Is this a policy, function, strategy, service change or project?

Other

If other, please specify: **Report**

c. Name of the policy, function, strategy, service change or project

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Is this new or existing?

Other

Please specify reason for change or development of policy, function, strategy, service change or project

Annual report

d. What are the aims, objectives and intended outcomes and who is likely to benefit from it?

Aims:	To report on the organisational carbon emissions for the year 2023/24.
Objectives:	<ul style="list-style-type: none"> - Calculate and report on total carbon emissions. - Explain increases and decreases in emissions compared to the previous year and baseline year.

Outcomes:	<ul style="list-style-type: none"> Measure the organisations progress towards the key priority 2 in the corporate plan, to make Cheltenham Borough Council net zero by 2030.
Benefits:	This benefits internal service areas such as property, finance, and climate as it captures all organisational activity and associated emissions. Providing an evidence base to support carbon reduction projects.

e. What are the expected impacts?

Are there any aspects, including how it is delivered or accessed, that could have an impact on the lives of people, including employees and customers.

No

Do you expect the impacts to be positive or negative?

No impact expected

Please provide an explanation for your answer:

This report aims to calculate and report on annual carbon emissions. There are associated decarbonisation works which account for increases/decreases in emissions, however describing the specific details and related of impacts of these works sits outside the scope of this report.

If your answer to question e identified potential positive or negative impacts, or you are unsure about the impact, then you should carry out a Stage Two Equality Impact Assessment.

f. Identify next steps as appropriate

Stage Two required	No
Owner of Stage Two assessment	
Completion date for Stage Two assessment	

Please move on to Stage 2 if required ([intranet link](#)).