

Greenhouse Gas Emissions from Local Authority Own Estate and Operations

Reporting Period 2024-25

Oxford City Council

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Greenhouse Gas Emissions (GHG) Report from the Council's own estate and operations covering the 2024/25 financial year

Foreword

This report provides our annual review of Oxford City Council's progress in reducing greenhouse gas emissions from our own estate and operations. Each year we publish an update on our carbon footprint to ensure transparency as we work towards our commitment of becoming a Net Zero Council. The report covers all relevant Scope 1 and Scope 2 emissions and selected Scope 3 emissions associated with Council buildings, operations, fleet activities, business travel and water consumption.

The 2024/25 reporting year has seen continued progress in the Council's carbon management journey. Total greenhouse gas emissions from the Council's estate and operations were 5,088 tCO₂e, representing an 8% reduction compared with the previous reporting year. However, this reduction is largely attributable to changes made to the Council's reporting boundary during the year, specifically the removal of Temporary Accommodation and Vacant Corporate Sites from the reporting scope. These changes were made following external advice and to ensure greater alignment with established greenhouse gas reporting principles. Had these site categories remained within the reporting boundary, overall emissions would have been broadly consistent with 2023/24 levels, with little reduction recorded. This can be explained by a number of factors, most notably the significantly higher number of heating degree days experienced during 2024/25 compared with the previous year, which increased demand for heating across the Council's estate. While the headline reduction should therefore be viewed in the context of these methodological changes, the Council has continued to make progress through ongoing investment in energy efficiency and low-carbon technologies.

Looking at our longer-term performance, emissions have now fallen by 31% compared with our 2019/20 baseline year. This achievement reflects years of investment in energy efficiency, renewable energy and operational improvements across Council buildings including leisure centres, depots and fleet operations. During this year, the Council has continued progress in key strategic projects, including exploring opportunities for a potential city centre heat network. Work has also accelerated within our communally heated residential buildings, supported by funding through the Heat Network Efficiency Scheme and preparations for forthcoming Heat Network Technical Assurance Scheme requirements. Alongside this, further heat decarbonisation studies are helping us understand the pathway to transitioning more of our buildings away from fossil-fuel-based heating systems.

We remain proud of the progress made so far, but we are equally aware of the challenge ahead. Achieving Net Zero by 2030 will require continued investment and partnership working. Through the delivery of our Carbon Management Plan, a focus on heat decarbonisation, and ongoing investment in low-carbon technologies, we remain committed to reducing emissions and responding to the climate emergency. I would like to thank all officers, partners, councillors and residents who continue to support this work, and I look forward to building on this progress in the years ahead.

Councillor Anna Railton, Deputy Leader & Cabinet Member for Planning & Zero Carbon Oxford Greenhouse Gas Emissions (GHG) from Local Authority own estate and operations covering the 2024/25 financial year

1. Introduction

Local Authorities in England are encouraged by the Department for Energy Security and Net Zero (DESNZ) to measure and report on their annual greenhouse gas emissions. The reports summarise the total gross annual greenhouse gas emissions from the Council's own estate and operations. Oxford City Council have been conducting this exercise for well over ten years, and this report outlines emissions for the financial year 1st April 2024 to 31st March 2025.

Total GHG emissions for period 1 April 2024 to 31 March 2025	
Scope	Tonnes of CO ₂ e
Scope 1	1,958
Scope 2	1,482
Scope 3	1,647
Total core GHG emissions	5,088

Table 1: Total GHG emissions for the period 2024/25

The Council is currently delivering on its fourth Carbon Management Plan (Carbon Management Plan 4: Zero Carbon Council by 2030) covering the 9 years from 2021/22 to 2029/30. The plan maps a route to a net zero Council – driving down energy, fuel and water consumption and the associated carbon dioxide emissions. Currently, the Council are working towards two key carbon reduction related targets (below), with this report being related to monitoring progress on the delivery of target 1.

- **(1) Net Zero carbon Council by 2030 or sooner:** delivered by an acceleration of the reduction in the Council's underlying emissions. This applies to greenhouse gas emissions (CO₂e) from heating and powering our buildings, fuelling our fleet vehicles and plant, through to our business travel and water consumption.
- **(2) Net Zero carbon City by 2040** recognising that the Council is responsible for 1% of city-wide emissions, this vision is to be delivered by working in partnership with key stakeholders in the city to galvanise action on climate change, with an emphasis on the two largest sources of emissions - buildings and road transport. A roadmap has been developed, and the Zero Carbon Oxfordshire Partnership (ZCOP) has been collaboratively delivering carbon reduction actions since 2021. (See: Roadmap and Action Plans - Zero Carbon Oxford Partnership)

2. Approach to Carbon Reporting

2.1 Organisation Information

Oxford City Council is a non-metropolitan district council as defined by Section 1(4) and Schedule 1 Part II of the Local Government Act 1972. The Local Authority main contact details are Oxford City Council, Town Hall, St Aldates, Oxford, OX1 1DS.

2.2 Base Year

The GHG reporting process follows the Net Zero by 2030 trajectory outlined in the Carbon Management Plan 4 approved in February 2021 ("Zero Carbon Council by 2030"), committing the Council to Net Zero by 2030 against a 2019/20 baseline year.

2.3 Reporting Approach

This report follows the Government's guidance on how to measure and report greenhouse gas emissions as outlined in the [Environmental Reporting Guidelines \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk) using the GHG protocol and DESNZ released conversion factors to calculate annual emissions.

2.4 Organisational Boundary

There are several approaches organisations can take when reporting annual greenhouse gas emissions. The Council follows the Financial Control approach, which means all energy, water, and fuel related sources in which the Council pays the bill for are included. As such, the scope of the Council's annual greenhouse reporting covers:

- Electricity and gas consumed in buildings and sites in which the Council is the energy bill payer (e.g. emissions from operational buildings and other sites such as office buildings, depots, leisure centres, car parks, sports pavilions, public conveniences, and other miscellaneous sites).
- Fuel consumption from fleet vehicles, non-road going vehicles and plant.
- Miles or kilometres travelled in staff-owned vehicles and estimated to be travelled in public transport for business purposes.
- Water consumed in Council operational buildings and other miscellaneous sites within the scope of the Council's influence and operations.

2.5 Operational Scopes

Total scope 1, 2 and some scope 3 emissions covering the areas outlined in the organisational boundary have been measured. Scope 3 sources have been included based on whether the Council is deemed to have control over the operation/activity in question – there are currently no plans to expand scope 3 reporting.

Scope One	Scope Two	Scope Three	Not included
Fuel used to heat buildings (e.g. natural gas and gas oil)	Purchased electricity for buildings and other electricity consuming sites (e.g. offices, leisure centres, depots, car park and public conveniences).	Electricity (transmission and distribution factors)	Perfluorocarbons (PFC), hydrofluorocarbons (HFC) and sulphur hexafluoride (SF ₆)
			Staff commuting
		Business mileage by car and public transport	Emissions from Council operational waste deposited in landfill sites

		Fuel used in council vehicle fleet and to power non-road going vehicles and plant such as lawnmowers and, chippers.	Emissions from Leased commercial properties or housing stock where tenants are paying energy/water bills.
		Water consumed (supply and treatment)	Emissions from production and delivery of fuel to power stations or transport fuel stations.
	Half-hourly metered and non-half-hourly metered electricity supplies (i.e. HH, P272 meters and Unmetered Supplies)	Fuel used in waste collection vehicle fleet	Emissions from goods and services purchased and employed to conduct council business and operations. Council financial investments.

Table 2: Operational scopes

2.6 Assurance Statement and Governance

Energy and water data is validated and managed via a market leading energy bureau database (Team Sigma), and for half-hourly sites, energy data is cross-checked with our monitoring platform, Stark. Team members managing the energy and carbon reduction programme at the Council include a trained ISO 14064 Lead Auditor and a CIBSE affiliated Chartered Engineer.

Overall governance for the delivery of a net zero Council sits with the Cabinet Member for Planning and Zero Carbon Oxford. Officers working to deliver the target are answerable to the Net Zero Steering Group, which is made up of senior members of Council staff.

3. 2024-25 Emission Summary

3.1 Reporting Period

1 April 2024 – 31 March 2025.

3.2 Update on Reporting Boundaries

Following discussions with the Local Government Association (LGA) emission reporting advisors, the Council has decided to remove Temporary Accommodation and Vacant Corporate Sites from its emissions reporting boundary for the purposes of the Net Zero by 2030 target. While energy consumption and associated emissions from these sites will continue to be monitored and recorded, they will no longer be included within the Council's core reporting scope or decarbonisation target. This decision has been taken in line with the third-party guidance, which highlighted that the Council has particularly low levels of operational control over these site categories due to the nature of their use. As a result, their inclusion within the Net Zero target was not considered appropriate under standard emissions reporting principles.

3.3 Update on Emission Scope Categorisation

Following a review of emissions reporting methodology undertaken with external consultants, fuel consumption associated with the Oxford Direct Services (ODS) fleet has been reclassified from Scope 1 to Scope 3 emissions within the Council's greenhouse gas (GHG) reporting framework. This change reflects the fact that ODS is responsible for procuring and paying for fleet fuel directly. In line with the Greenhouse Gas Protocol reporting principles, emissions arising from this fuel use are therefore more appropriately categorised as Scope 3, as they occur from activities undertaken by a separate organisation rather than from sources directly controlled by the Council.

However, despite this recategorisation, the Council has chosen to retain the emissions within the overall boundary of its GHG reporting. This recognises the significant level of influence the Council continues to have over fleet-related emissions. The Council purchases fleet vehicles and leases them to ODS, providing a strong opportunity to influence vehicle replacement programmes, support the transition to electric vehicles, and drive wider fleet decarbonisation. Retaining these emissions within the Council's reported Scope 3 footprint ensures transparency and reflects the Council's ability to influence emissions reductions in an area that remains important to the achievement of its wider carbon reduction objectives.

3.4 2024-25 Emission Summary

A summary of underlying GHG emissions for the current reporting year (2024/25) is outlined in Table 3 below. The top three emitters for the 2024-25 period were:

1. Gas for heating
2. Purchased electricity
3. Fuel use in fleet

2024/25	Total Consumption Units	tCO2e
Scope 1		
Gas consumption (kWh)	10,710,394	1,958
Total Scope 1		1,958
Scope 2		
Purchased Electricity (kWh)	7,161,494	1,482
Total Scope 2		1,482
Scope 3		

Electricity - Transmission and distribution	7,161,494	131
Leased assets - fleet use diesel	577,711	1,451
Leased assets - fleet use petrol	5,907	12
Average petrol car (miles) - unknown fuel	58,012	15
Passenger travel – train, national rail (km)	148,596	5
Passenger travel – average local bus (km)	35,533	3
Water supply(m3)	80,272	12
Water treatment(m3)	80,272	14
Total Scope 3		1,647
Totals		5,088

Table 3: Underlying GHG emissions for the period 1 April 2024 to 31 March 2025

3.3 Heating Degree Days

Heating degree days (to base 15.5 °C) in Oxfordshire for the 2024/25 reporting were 1919 (compared to 1770 for 2023/24). Heating degree day figures (to base 15.5°C) have been referenced for each reporting year as a rough indication of the severity of the heating season. Heating degree days are a measure of how much (in degrees), and for how long (in days), the outside air temperature was below a certain level. They are commonly used in calculations relating to the energy consumption required to heat buildings¹. This is not a precise assessment on a building per building basis accounting for heating loads, building fabric and other factors that may influence heating related consumption but solely used as an indicator of general heating demand. A lower degree day number indicates a less severe heating requirement and may have an influence on quantity of gas used or electricity if used for heating.

3.4 Comparison to Previous Reporting Years

Scope	Source	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
1	Gas Consumption	3,008	3,138	1,758	2,802	2,464	1,959	1,958
1	Gas Oil	94	86	92	86	4	4	0
1	Kerosene	10	10	11	0	0	0	0
1	LPG	0	0	0	0	0	0	0
3 (was 1)	Diesel	1,986	1,869	1,715	1,786	1,545	1,817	1,451
3 (was 1)	Petrol	42	42	20	21	16	18	12
1	HVO	0	0	0	0	1	0	0

¹ <https://www.degreedays.net/introduction>

2	Electricity - Purchased	2,259	1,995	1,210	1,442	1,723	1,617	1,481
3	Electricity - Transmission and Distribution	193	169	104	128	157	140	131
3	Average Petrol Car - Unknown Fuel	22	19	19	9	11	9	15
3	Passenger Travel - Train, National Rail	3	3	3	0	0	2	5
3	Passenger Travel - Average Local Bus	1	1	1	0	0	0	3
3	Water Supply	41	30	17	14	11	7	12
3	Water Treatment	84	62	36	26	18	8	14
Total		7,741	7,425	4,985	6,314	5,995	5,581	5,088
% decrease on previous year			-4%	-32%	+26%	-5%	-6%	-8%
Scope 1		5,140	5,146	3,595	4,695	4,032	3,798	1,958
Scope 2		2,259	1,995	1,210	1,442	1,723	1,617	1,482
Scope 3		342	284	180	177	198	166	1,647

Table 4: Summary of annual underlying GHG emissions (tCO₂e) for period 1 Apr 2018 to 31 March 2025

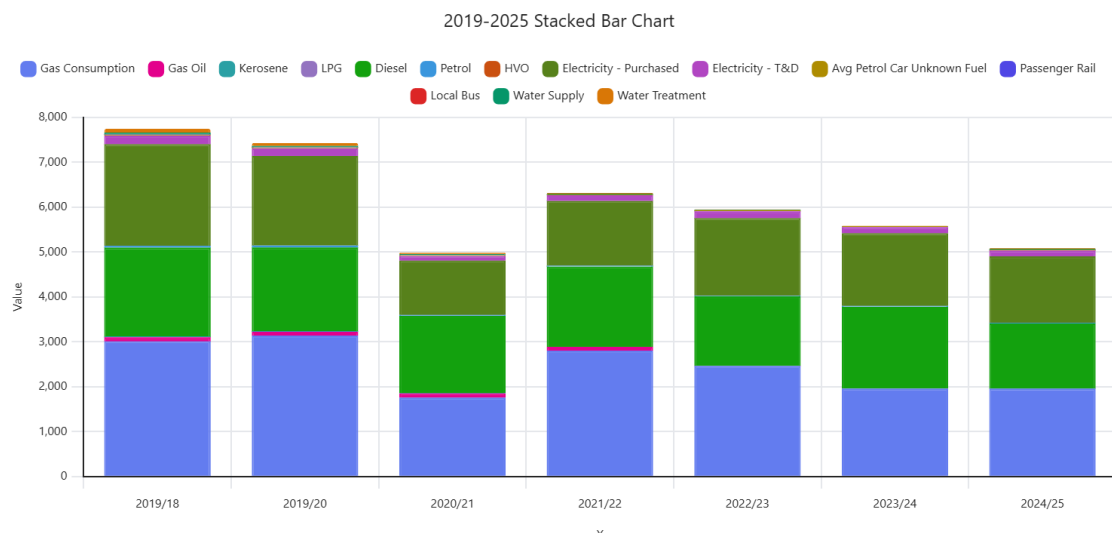


Chart 1: Bar chart showing GHG emissions (tCO₂e) from all three scopes for the past six reporting years (2018/19 to 2023/24).

3.5 Progress Against Target



Chart 2: Net Zero by 2030 progress and required trajectory. The blue line highlights the underlying emissions progress. The dotted green line shows the trajectory required to meet Net Zero.

In the Carbon Management Plan covering this reporting period (2021 - 2030), the Council CO₂ reduction target for 2022/23 is to reach Net Zero Carbon by 2030. Considerable progress towards this target has been made, with this reporting year (2024-25) seeing a 31% decrease against the set baseline year (2019-20).

The 2024/25 reporting year has seen continued progress in the Council's carbon management journey. Total greenhouse gas emissions from the Council's estate and operations were 5,088 tCO₂e, representing an 8% reduction compared with the previous reporting year. However, this reduction is largely attributable to changes made to the Council's reporting boundary during the year, specifically the removal of Temporary Accommodation and Vacant Corporate Sites from the reporting scope. These changes were made following external advice and to ensure greater alignment with established greenhouse gas reporting principles. Had these site categories remained within the reporting boundary, overall emissions would have been broadly consistent with 2023/24 levels, with little reduction recorded. This can be explained by a number of factors, most notably the significantly higher number of heating degree days experienced during 2024/25 compared with the previous year, which increased demand for heating across the Council's estate. While the headline reduction should therefore be viewed in the context of these methodological changes, the Council has continued to make progress on decarbonisation through ongoing investment in energy efficiency and low-carbon technologies, which we anticipate will be realised in terms of carbon emission reduction in later reporting years.

3.6 25/26 Key Achievements .

Within the 2025/26 financial year, the Council has continued to progress a range of strategic decarbonisation initiatives across its estate. Key projects have included work on the development of a proposed city centre heat network, through which Council-owned buildings could be potential heat offtakers. This project represents a significant

opportunity to decarbonise heat at scale and support the wider transition to low-carbon energy infrastructure across the city.

Alongside this, there has been an increased focus on the Council's communally heated residential building stock, in preparation for the introduction of the Heat Network Technical Assurance Scheme (HNTAS). In support of this, the Council has successfully secured funding through the Heat Network Efficiency Scheme (HNES) to undertake optimisation studies across five buildings, helping to improve performance, reduce emissions, and ensure compliance with forthcoming regulatory requirements. For those buildings that have not secured HNES funding, the Council is also proactively self-funding HNTAS readiness reviews to ensure a consistent approach to compliance and performance improvement across its portfolio. In parallel, feasibility studies have been progressed to assess the potential for ground-source heat pump installations across a number of communally heated blocks, supporting the longer-term transition to low-carbon heating solutions and for all other gas using buildings heat decarbonisation studies are in the process of being completed prior to the financial year end. Once all studies are completed the Council will have a robust site-by-site understanding of the appropriate intervention needed to decarbonise its entire 'pay the bill' stock and the level of investment required to support this programme.

3.7 Lookahead

Oxford City Council remains committed to driving emissions reduction and continuing progress towards becoming a net zero Council. Key planned activities for 2026/27 include the following:

- A continued focus on heat decarbonisation across the Council's estate, including ongoing partnership work to progress the development of a potential city centre heat network.
- Commissioning and progressing a comprehensive programme of heat decarbonisation studies across the Council's depots, community centres, sports pavilions, and leisure centres. A number of these studies have already been awarded, and this programme will provide the Council with a complete, costed picture of the investment required and the scope of works needed to fully decarbonise its operational estate.
- Building on recent activity within communally heated residential buildings, the Council will continue to prepare for and respond to the introduction of the Heat Network Technical Assurance Scheme (HNTAS), including delivering funded optimisation work and Council-led readiness activity to ensure compliance and improved system performance.
- Continued delivery of a pipeline of decarbonisation projects through a combination of external grant funding and internal investment, alongside a focus on maximising the performance and value of existing low-carbon technologies across the estate.