

ROUTE TO

NET ZERO CARBON

ANNUAL REPORT 2025



FOREWORD

This is our sixth annual Route to Net Zero Carbon report, and I am proud to see us continuing to build on our unwavering commitment to tackling the climate emergency and creating a cleaner, greener, and fairer city for everyone.

We have changed the format of our report this year, to more clearly delineate our progress. The report is split into three sections, detailing our corporate emissions, city emissions, and climate resilience and adaptation respectively.

We are moving in the right direction as a city – our emissions are down 44.6% since 2005 and 3.8% since 2022. We will continue to be transparent about our progress on our net zero journey, declaring our environmental data publicly through the Carbon Disclosure Project.

This report highlights the work we have done, the partnerships we have forged, and the steps we will take next to accelerate our transition. One of our biggest successes this year is the completion of most of our successful retrofit programme, delivering energy upgrades to a total of 1,879 social homes. These improvements are expected to cut carbon emissions by 1,500 tonnes annually and reduce fuel bills by £650,000 per year, helping nearly 1,900 families out of fuel poverty.

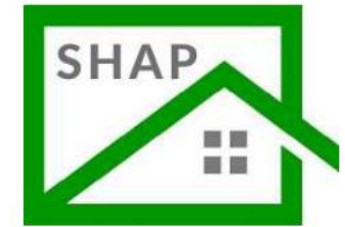
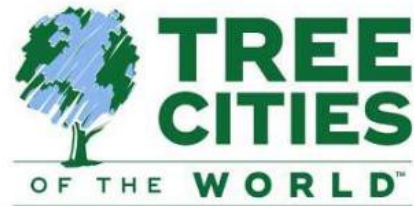
Excitingly, this year we were declared as the UK's first official Nature City, as part of a UK-wide programme working to bring access to nature to urban communities. We know that the journey to net zero is challenging, but it is also an opportunity to innovate, collaborate, and build a stronger economy that works for people and the planet.

I want to thank our residents, businesses, and partners for their continued support and engagement. We will continue to work together to lead on climate action and sustainability.

Councillor Majid Mahmood
Cabinet Member for Transport and the Environment



MEMBERSHIPS



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EXECUTIVE SUMMARY

Birmingham City Council (the 'Council') must play a leading role in reducing emissions and improving the city's resilience and ability to adapt to a changing climate.

We continue to make good progress in tackling our own greenhouse gas (GHG) emissions, by improving our data quality and using this to inform our work to support the city to reduce its emissions and improve the city's resilience. Since declaring a climate emergency in June 2019, our Route to Net Zero team has developed our ability to calculate and report on the Council's corporate GHG emissions, in accordance with the Greenhouse Gas Protocol standards, and has been working with directorate, services and teams across the Council to reduce our organisation's emissions.

Since our last report, we have expanded and refined our data gathering processes to improve the accuracy of our carbon accounting process. Birmingham City Council's Scope 1 and 2 emissions for the 2024/25 financial year were approximately 41,000 tCO₂e. Whilst higher than our 2023/24 accounts, the change in scope 1 and 2 emissions is a result of improved data collection and accuracy. The better our data is, the more comprehensive and accurate our emissions reductions activities can be.

We continue to improve our understanding of our scope 3 emissions which remain dominated by three activities: procurement of goods and services; Council housing; and the emissions to air from the city's energy from waste plant.

We report on the city of Birmingham's greenhouse gas emissions using national statistics (which have a 2-year publication lag), and the City of Birmingham's emissions for 2023 were 4,061 ktCO₂e, down 44.6% since 2005 and 3.8% from 2022. **This 44.6% carbon reduction is equivalent to 3,849 round trip flights from Birmingham to New York.**

The initiative and activities underway to reduce carbon emissions and improve resilience are presented within the relevant sections of this report. However, some of our most significant achievements over the last year include:

Corporate Emissions

- Nearing completion of the £24.8m Social Housing Decarbonisation Fund, improving energy efficiency in 1,879 homes, with over 900 of these being completed in 2025.
- Progressing fleet decarbonisation, including the replacement of 55 diesel vans with electric.
- Completing over 70 Environment and Sustainability Assessments (ESA) to ensure Council decision-making aligns with its environmental sustainability commitments.
- Establishing a dedicated Energy Management Team and the rollout of smart meters.

City Emissions

- Supporting 66 SMEs through the Sustainable Supply Chain Project, producing 43 decarbonisation plans.
- Awarded £342,595 in Business Energy Advice Service (BEAS) funding and 328 hours of sustainability related support delivered to businesses.
- Completing the EV Lamppost Trial with 560 lamppost chargers installed.
- Hosting the third Schools Model Conference of Parties (COP) event to increase our engagement with local schools on climate change.
- Winner of the prestigious Sustainable Food Places Silver Award.
- Awarded A- from [CDP](#) in 2025 – our 3rd consecutive A score.
- Delivering the solar together scheme: 310kW of solar installed, saving 58 tonnes of CO² annually.
- Pushing the Birmingham Local Plan forward, which includes a suite of policies covering climate mitigation, adaptation and resilience.
- Securing £46.055m from the WMCA for the Building's Retrofit Programme as part of the Integrated Settlement.
- Unlock Net Zero Awards 2025
 - › Winner of the Retrofit Project of the Year – Midlands and Wales for the Social Housing Decarbonisation Fund 2.1 scheme
 - › Finalist for Collaboration of the Year with EQUANS for Birmingham's Social Housing Decarbonisation Fund 2.1 scheme

Climate Resilience and Adaptation

- Leading the way with resilience and adaptation projects, including BLOSSOM (€10.2M Horizon Europe), CARMINE (EU adaptation governance), and WM Adapt (UKRI-funded).
- Birmingham declared the UK's first Nature City and retained Tree City of the World status.

The Route to Net Zero team has been successful in securing £47.4m of funding to be spent over the next 3 years.. The team has also arranged, attended and/or presented at numerous local, regional and national events, including London Climate Action Week, Energy Capital Partnership Conference, Tech UK's Regional Perspectives on Net Zero event, the Universities and Healthcare Estates Innovation Conference and the Care Commission Summit.

We take pride in the progress achieved so far and are committed to building on this momentum in the year ahead. Our focus remains on working collaboratively across the Council and with partners, stakeholders, and residents to deliver our environmental sustainability ambitions, cutting greenhouse gas emissions and strengthening Birmingham's resilience to climate change. We will continue to share and celebrate our successes.



CORPORATE EMISSIONS



INTRODUCTION

This chapter talks about our corporate greenhouse gas emissions. This covers all the emissions that result from the day to day operations of Birmingham City Council and its supply chain activities.

This chapter presents our corporate greenhouse gas emissions for 24/25 (our carbon footprint) and summarises activities underway to reduce our organisational impact.



The Council declared a climate emergency in June 2019, with a commitment to take action to reduce the city's greenhouse gas emissions, and to do so in a way which brings communities with us and reduces inequalities across the city.

In tackling the climate challenge, it is important that we take a 'dual' approach by addressing both climate mitigation and adaptation. Climate mitigation refers to actions aimed at reducing or preventing the emission of greenhouse gases. It focuses on tackling the root causes of climate change by minimising emissions and limiting the severity of future climate impacts. Climate adaptation involves adjusting systems and practices to cope with the current and expected effects of climate change. The infographic below shows examples of adaptation and mitigation activities and examples of activities that incorporate aspects of both.

This annual report is split into three distinct chapters:

- **Corporate progress** – covering our 24/25 corporate emissions and providing detail on the carbon mitigation activities underway to reduce our organisational impact.
- **City progress** – covering Birmingham City's emissions for 2023 (the most recent data available), alongside details of the carbon mitigation work underway in the city to reduce greenhouse gas emissions.
- **Climate resilience and adaptation progress** – measures we are taking at a corporate and city level to support Birmingham in becoming a more resilient and sustainable city to live and work.

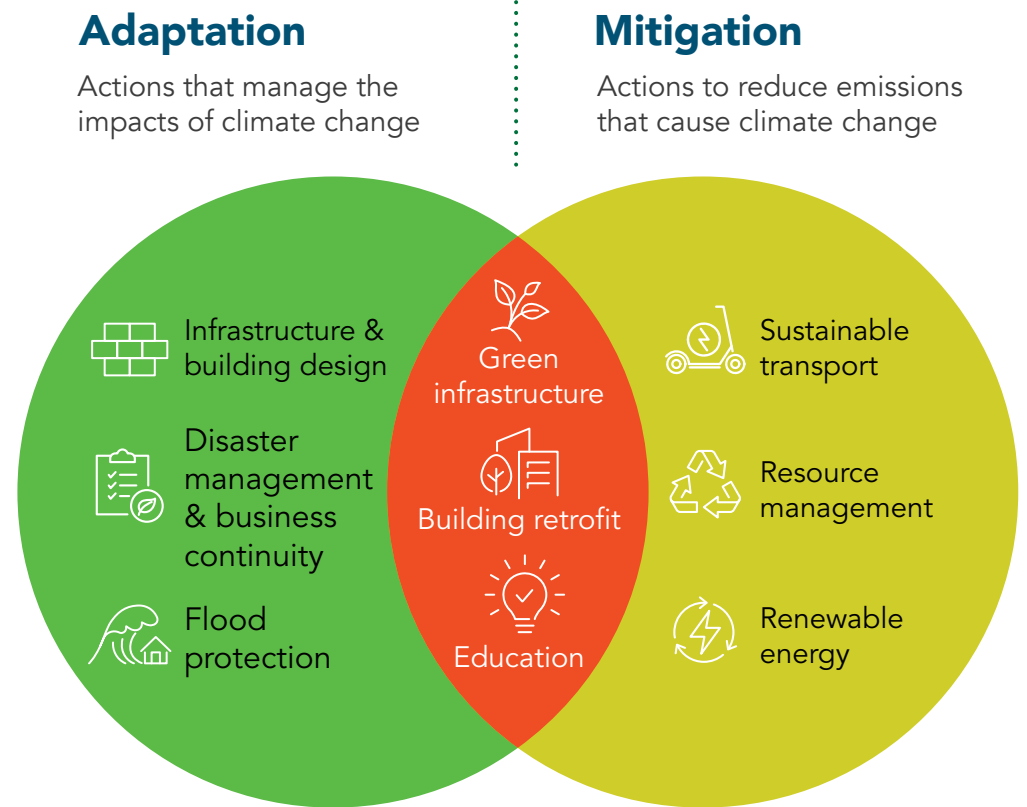


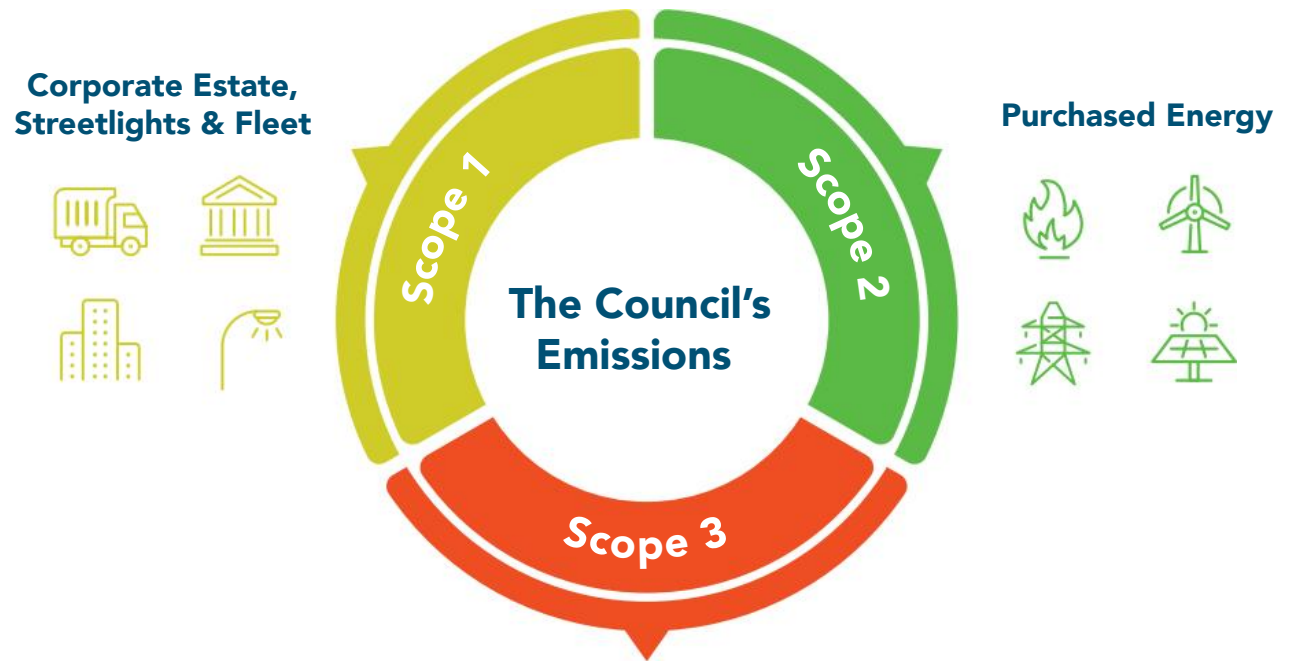
Figure 1: The infographic above shows how actions can contribute to climate change mitigation, adaptation, or both

CORPORATE EMISSIONS

Our Data

Our emissions can be split into 3 scopes:

- **Scope 1:** the direct emissions from sources which are controlled by the Council, including emissions from the combustion of fossil fuels in Council buildings' and vehicles.
- **Scope 2:** the indirect emissions arising from purchased energy for use in council owned assets including electricity and heat.
- **Scope 3:** All other emissions.



ALL upstream and downstream emissions occurring in the Council's value chain



Figure 2: Diagram showing how Council's emissions are categorised by scope

THE COUNCIL'S SCOPE 1 AND 2 EMISSIONS

The following section outlines our scope 1, 2 and 3 emissions for the 2024/25 financial year. More information on how we have calculated our greenhouse gas emissions can be found in appendix 1.

Since our last report, we have expanded and refined our data gathering processes to improve the accuracy of our carbon accounting process. Birmingham City Council's Scope 1 and 2 emissions for the 2024/25 financial year were approximately 41,000 tCO₂e. Whilst higher than our 2023/24 accounts, the majority of this increase is actually due to our improvements in data collection, which mean that we are now recording data we did not account for previously. This is positive, because the better our data is, the more comprehensive and accurate our emissions reductions activities can be.

The size and scale of the Council's building portfolio directly influences the amount of energy consumed. This year our corporate estate has used more energy which has led to an increase in emissions. This may have been caused by a number of factors such as building occupancy, longer opening hours or ageing infrastructure. In addition to this, each year, the quality of data improves, and this also contributed to the increase, as more sources of emissions were included, both in terms of fuel types and buildings. The inclusion of oil alone contributed 511 tCO₂e this year. We expect our data breadth and confidence to continue to improve each year as the Council's new Energy Management Team develop a comprehensive, real time understanding of the Council's energy use using smart metering.

The pie chart below shows how these direct emissions are split up at a high level.

Our Main Scope 1 and 2 Emissions Sources

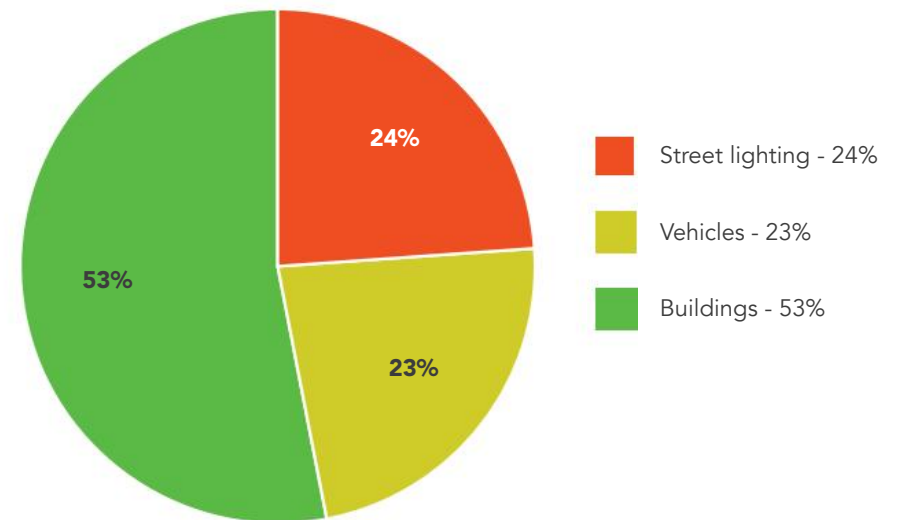


Figure 3: Pie chart breakdown of the Council's main scope 1 and 2 emissions sources

The pie chart clearly shows that Council owned buildings are the largest contributor to our scope 1 and 2 greenhouse gas emissions, at 53%. We can then break this down further, as seen in figure 4 below. This gives us insights on where we should be focusing our decarbonisation efforts.

Scope 1 and 2 Emissions by Source

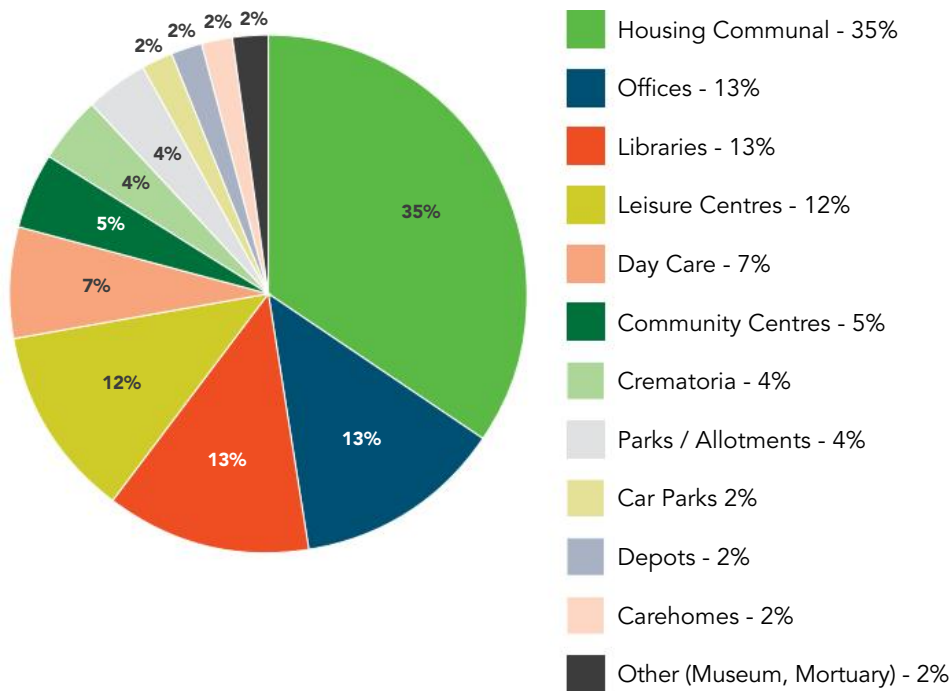


Figure 4: Pie chart breakdown of the Council's scope 1 and 2 emissions by source

Figure 5 below shows how our fuel emissions are split between electricity, gas and oil (for heating and lighting buildings and powering streetlights) and vehicle fuels (for operating the council's fleet). Government data shows that 2024 saw a new record set for renewable energy generation, accounting for 50.4% of generation. As the grid decarbonises, our emissions contributions from electricity will start to decrease, meaning gas, oil and vehicle fuels will make up the largest chunks of our emissions profile, making it increasingly important for us to reduce these emissions sources.

Our Emissions from Fuel

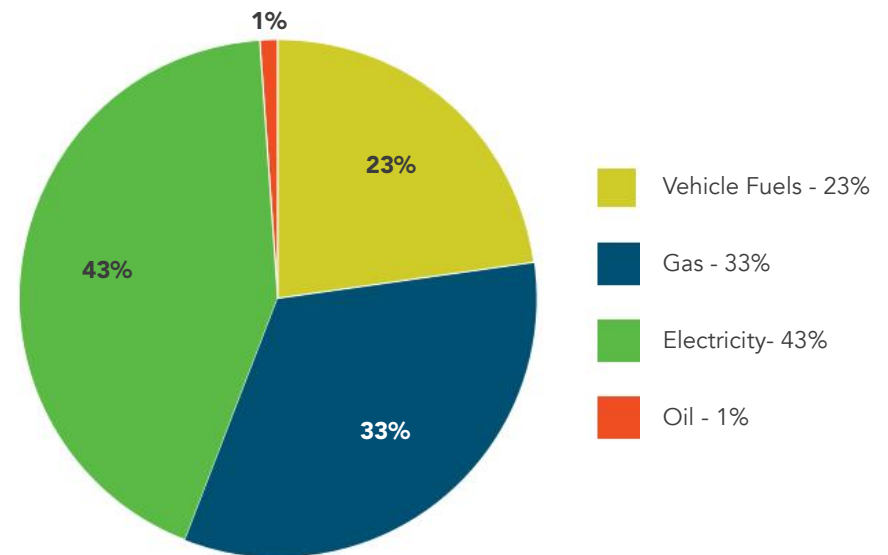


Figure 5: Pie chart showing how our emissions from fuels are distributed

Energy Management

Carbon emissions from the Council's electricity consumption makes up 43% of our scope 1 and 2 emissions. Energy management is a key first step in reducing energy consumption and carbon emissions. The following work is underway to tackle our emissions from our energy consumption.

Our Energy Team

In October 2024, Birmingham City Council formed a new Energy Team to monitor and manage electricity, gas, and water usage across its portfolio. The energy management and Route to Net Zero team work closely to improve information management and support a range of corporate energy initiatives. Decarbonisation plans are being developed for a number of corporate buildings and we are exploring opportunities for renewable energy generation.

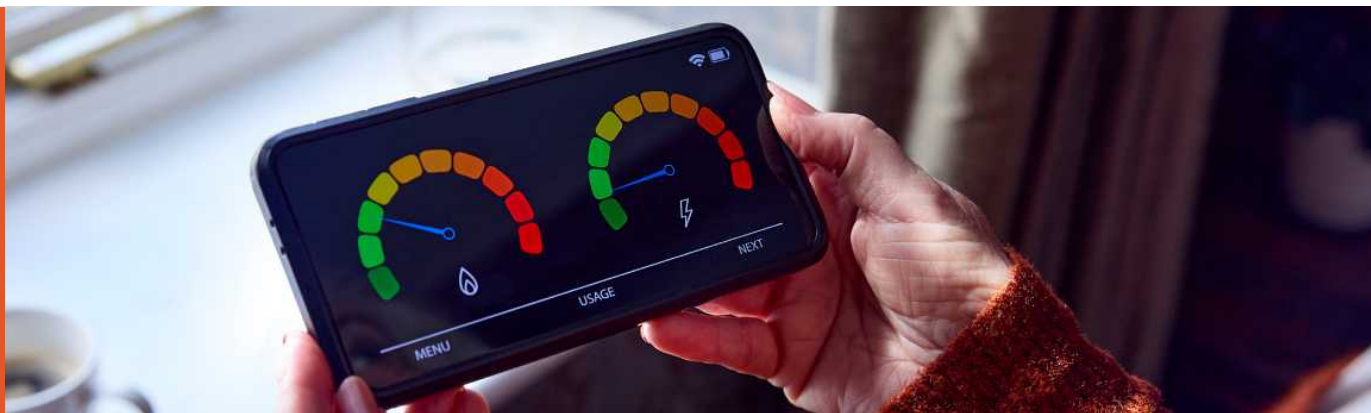
Managing our Energy Use

Working with Npower, a smart meter rollout is underway and will result in 1,000 electricity meter points to be surveyed and replaced. In addition to reducing estimated billing, the rollout will allow the energy team to benchmark and support energy reduction in high energy buildings or areas.

Managing our Fleet

Our fleet vehicles account for roughly 23% of the Council's scope 1 and 2 emissions. Our waste collection vehicles make up 92% of this. We have now established our Vehicle Management Service (VMS) board, which first met in May and monthly since. Over the last year the VMS has:

- Conducted a fleet validation exercise, 6 months after our main Fleet Amnesty Day to determine a more accurate fleet baseline.
- Been working closely with colleagues in Street Scene on procurement of a Fleet Management System (FMS) with a preferred supplier identified.
- Continued other additional fleet-related support for colleagues/ services across the Council, including support for the introduction of 55 electric vans in Housing Management, which equates to 73.3% of their total vehicle allocation. The carbon emissions impact of this will be reported in the 2025/26 report.
- Work underway for VMS to take oversight of 84 regulation and enforcement vehicles.
- Conducted ongoing engagement with other local authorities to share good practice – active in West Midlands Fleet Manager Group with Sandwell, Wolverhampton, Walsall.



Waste Fleet

The Council is taking several steps to reduce the emissions arising from our waste collection vehicles as they collect waste from across the city. We are transforming the waste collection service to fortnightly collections of residual waste and introducing weekly food waste collections in 2026/27. Over the last year the Council has purchased 151 new, lower emissions vehicles alongside the introduction of 20 electric vehicles into the waste fleet. In addition, the Council are exploring options for HVO fuel to reduce our vehicle carbon emissions.

Next steps

- Develop a Corporate Fleet Strategy with supporting policies and guidance.
- Continue to proactively seek funding opportunities to support decarbonisation of the Council's fleet.

LED Lamp Replacement

Birmingham's Highway function includes management of 2,500km of roads, 100,024 streetlights (116,420 lamps), and over 850 highway structures, such as bridges and subways, across the city. The electricity consumed by our Highways function accounts for roughly 24% of the Council's scope 1 and 2 emissions and streetlights are responsible for 95.5% of this, with subways and other street furniture making up the remaining 4.5%.

To date, we have replaced 44% of our streetlights to more energy efficient LED's. The remaining 56% of streetlights use sodium light sources which accounts for 77% of total Highways electricity consumption. Plans are underway to upgrade Highway Street Lighting to LED's on key routes across the city to reduce our energy consumption, carbon emissions and improve safety and security on active travel routes walking and cycling during night-time hours. This investment will allow the upgrade of an additional 9,700 lighting units. This is predicted to result in a 4,800 MWh reduction in energy consumption annually.

Alongside this investment we continue to optimise our streetlighting Central Management System (CMS), which allows the 'dimming' of lights and the 'trimming' of their operational hours, where it is safe and acceptable to do so. This reduces energy consumption further and provides additional benefits e.g. lower light pollution is beneficial for bats.



THE COUNCIL'S SCOPE 3 EMISSIONS

Our scope 3 emissions are much more difficult to account for, because they:

- Occur up and down our supply chains
- Are often outside of our immediate control
- Can be shared with others (e.g. contractors or suppliers)

Whilst difficult to gather data on, we do know that our scope 3 emissions are significantly greater than our direct emissions and are dominated by carbon emissions arising from:

- Procurement of goods and services
- Council housing
- The Council owned energy from waste plant

Procurement and Contracts

With an annual spend of just over £2bn, Birmingham City Council's procurement of goods and services are the greatest source of scope 3 carbon emissions, accounting for an estimated 40% of our total scope 3 emissions. Tackling these carbon emissions is a huge challenge, but also a huge opportunity because the Council has the scale and influence to drive net zero and sustainability through its procurement and commissioning supply chain and deliver better environmental outcomes for the Council, the city and the wider region.

In 2024-25 the UKSPF funded Sustainable Supply Chain project worked with 66 SMEs to produce 43 decarbonisation plans and to support them in applying for grant funding to reduce their organisational carbon emissions. Additionally, 96 SMEs attended training sessions on sustainability.



Council Housing Retrofit & Energy Efficiency

This year, Birmingham City Council completed the majority of its successful SHDF 2.1 retrofit programme, delivering energy upgrades to a total of 1,879 social homes with over 900 being completed this year. These improvements are expected to cut carbon emissions by 1,500 tonnes annually and reduce fuel bills by £650,000 per year helping nearly 1900 families out of fuel poverty.

Work is now underway with two ECO delivery partners, bringing significant investment to further improve energy efficiency. In 2025, 100 Council owned homes have been upgraded to EPC C, saving £2.5m from future Housing Revenue Account spend.

The Birmingham City Council Healthy Homes Strategy and Delivery Plan is being developed to guide all Council homes toward net zero. In the short term, it commits to achieving a minimum of EPC C across all social housing by 2028. Since Jan 2025, the number of homes rated EPC C has increased by over 5,000 homes, demonstrating early progress against the strategy.

BCC's Housing Stock's EPC Ratings

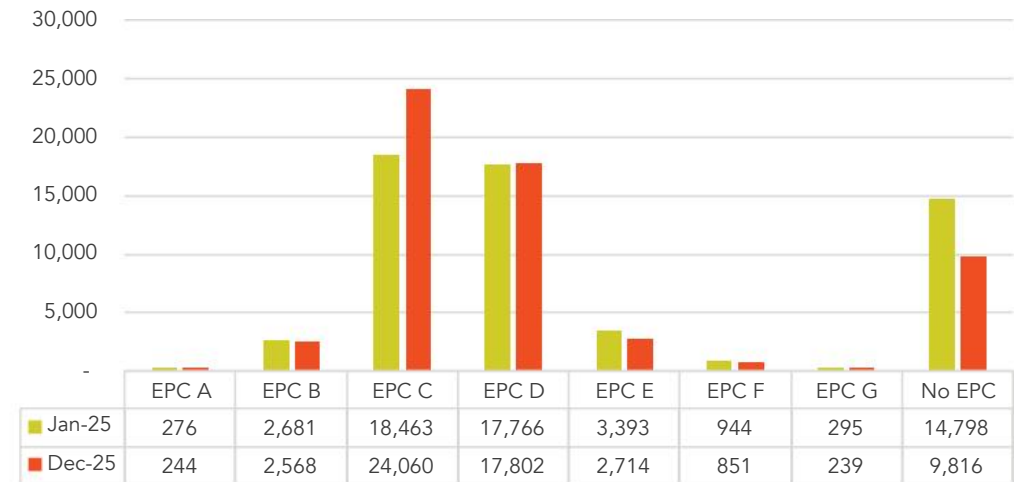
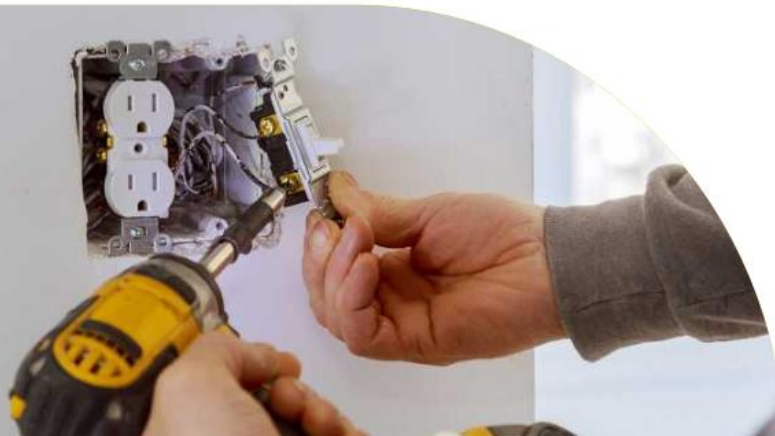


Figure 6: A graph showing BCC's housing stock's EPC Ratings

Under the Integrated Settlement, the Council has secured £24.8m from the WMCA's Warm Homes Social Housing Fund. This will support improvements to 3,600 homes by March 2028, with most works aligned to planned repairs or enabling additional energy improvement such as joining roof replacement with solar photovoltaic panel installation.



Other Scope 3 Emissions

In addition to tackling our 3 priority emissions contributors above, we are also taking steps to improve our understanding of other activities which contribute to our scope 3 emissions, and how the environmental impact of these activities can be minimised.

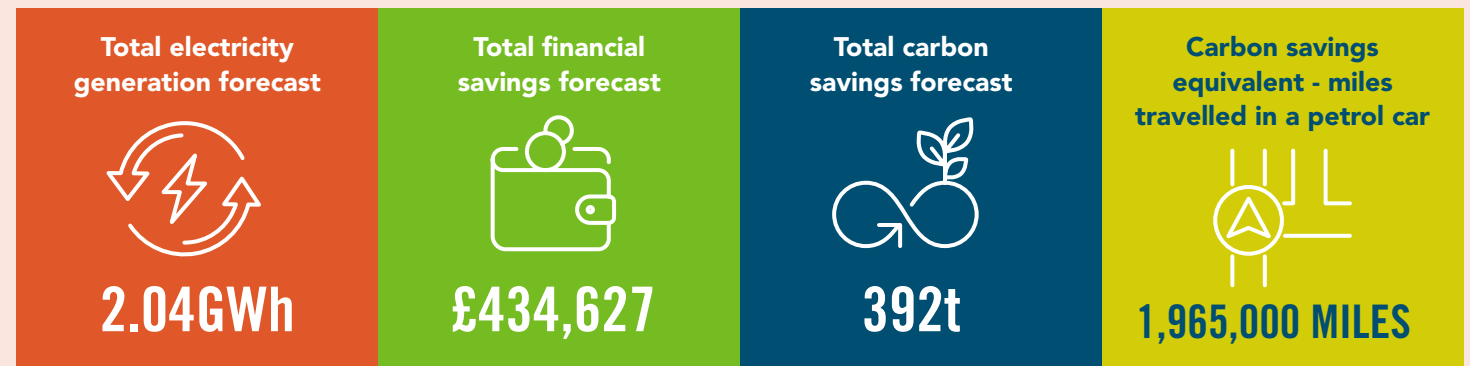
Schools

In 2025 240kW of solar was installed in 4 schools by Solar for Schools. (Hamilton, Adderley, Bellfield and Glenmead schools). Plans are in place for 4 schools to have decarbonisation plans as a precursor to replacing their gas boilers with low carbon technologies as part of the Public Sector Decarbonisation Scheme. Great British Energy have identified 3 schools in Birmingham for their solar programme and surveys are underway to assess suitability.



Case study: Bellfield Junior School

Bellfield Junior School has had solar panels installed and data their performance can be viewed [here](#). The solar panels are expected to have the following benefits based on a 25 year life time:



Commercial Estate

The City Council is the single largest owner of commercial property and land in Birmingham. We are working out what the emissions are from these buildings and looking at how we can reduce them. We are working with the Birmingham Wholesale Markets to explore opportunities for the installation of solar PV on the roof. The Council is also conducting market engagement on the development of a solar array on the Queslett landfill site.

Council Companies

Part of our scope 3 emissions come from companies partly or fully owned by Birmingham City Council. Given our influence over these organisations, we're keen to support them on their sustainability journey to drive down emissions.

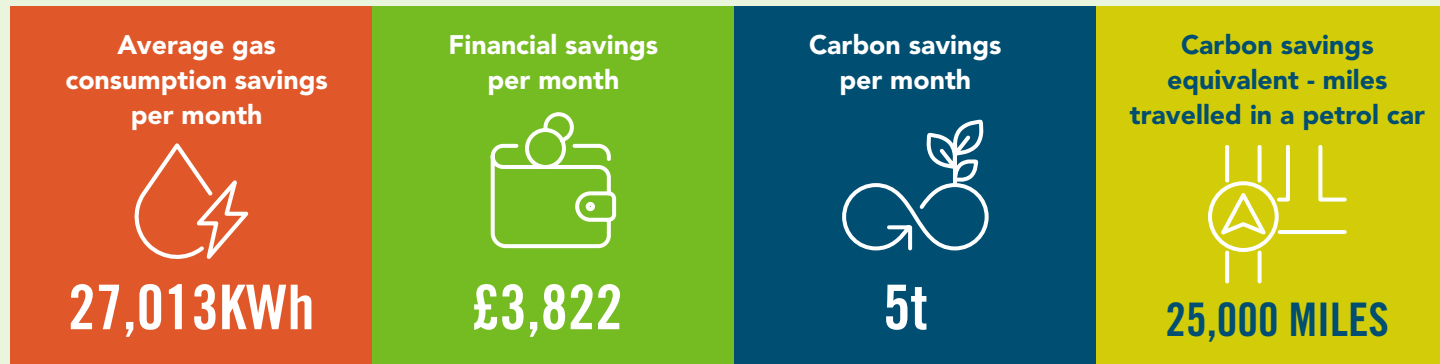
Shelforce are a Council owned company who manufacture high quality doors and windows for local authorities and private clients. Their double-glazed windows and well-insulated doors, manufactured in Birmingham, are key parts of our retrofit work in Council owned homes. We worked with **Shelforce** to review their business practices and identify ways to make their operations more energy efficient and to reduce their emissions.

The Council has also worked closely with **Acivico**, the Council's building design and management arm, to promote sustainability. By delivering Carbon Literacy Training for their senior leadership team in January 2025, we opened a discussion into how they can better promote sustainable measures for private sector clients, using their role as consultants to push for best practice.



Leisure Centres

After the Council successfully secured and used £296,550 of revenue grant from Sport England's **Swimming Pool Support Fund**, the City Council was awarded a further £250,000 under phase II, match funded with £118,643 from the **UK Shared Prosperity Fund**, totalling £368,643. The funding has been used to provide new efficient gas boilers and pool covers at Handsworth Wellbeing Centre. The boilers have already been installed and have been operational since the beginning of March 2025. Savings are already being seen with an 18% reduction in gas consumption:



Waste Treatment

Birmingham City Council owns Tyseley Energy Recovery Facility (ERF) which treats the 340,000 tonnes of residual waste which cannot be recycled from Birmingham residents to generate electricity to power 70,000 homes. This facility is a significant emitter of carbon dioxide (CO²) in Birmingham and is a key contributor to the Council's scope 3 greenhouse gas emissions. This facility maintains its R1 status, meaning

it is classified as an efficient recovery option by the Environment Agency. From 2028, emissions from Energy from Waste (EfW) facilities will be included in the UK Emissions Trading Scheme (ETS). To gather data for the scheme, carbon measurement equipment has been installed at the facility during 2025, which produces definitive reporting on the facility's fossil carbon emissions.

COUNCIL ENGAGEMENT

Achieving our corporate emissions targets will require all areas of the Council to work together. To support this engagement, the Council has developed a climate training programme for staff, strengthened net zero governance and capacity within the Council, and worked with regional and national partners to improve policy design and empower local authorities.

Creating a Net Zero Skilled Workforce

Since 2023, the Council has been providing Carbon Literacy Training via the Carbon Literacy Project for all employees. The day-long course builds a strong knowledge and understanding of the causes and impacts of climate change, what it means for local government, and how individuals can take meaningful action within their role, influencing positive change.

Carbon Literacy Training is an internationally recognised course used around the globe Carbon Literacy enables the Council to build skills and knowledge and help employees make new connections and identify environmental sustainability opportunities that otherwise may have gone unnoticed.



In 2 years, our Carbon Literacy Training programme has achieved the following:



150 STAFF ACCREDITED

Proudly certified as Carbon Literate



160 HOURS DELIVERED

Investing time in climate awareness



300 PLEDGES MADE

Real commitments to carbon reduction



166 TONNES OF CARBON SAVES

Estimated impact from staff actions

Figure 7: The impacts of our carbon literacy programme to date

Building Net Zero Governance and Capacity

As the largest local authority in Europe, enabling the whole Council to work together to respond to the climate emergency is crucial. The Council has implemented the following changes to support colleagues, improve the visibility of environmental sustainability in governance and delivery:

- Redesigned and embedded Environment and Sustainability Assessments into the Council's decision-making process, ensuring that every major decision has considered its environmental impact.
- Established a Vehicle Management System Working Group in May 2025 to coordinate the Council's management of its vehicle fleet, tasked with driving down costs, reducing fuel usage, and planning for low carbon alternatives.
- Recruiting an Energy Management Team to monitor and manage electricity, gas, and water usage at the Council to save costs and reduce emissions.
- Establishing a Healthy Homes board which draws together expertise from housing, Route to Zero, public health, and corporate communications to develop and deliver a strategy for the decarbonisation of homes of all tenures.
- Prepared a new risk relating to corporate net zero and climate resilience as part of the Council's new principal corporate and directorate risk management framework.
- Approved Corporate Plan which recognises the Council's key role in environmental sustainability and commits to corporate and city-wide activity during the 2025-2028 plan period.

Collaborating Across Government

Sometimes achieving a low carbon future for Birmingham and the Council requires changes at the regional and national level. Working in partnership with the West Midlands Combined Authority, the Core Cities Group, and with government departments we have helped make changes in the following ways:

- Influencing reforms to government retrofit programmes like the Energy Company Obligation by presenting evidence to parliamentary committees, submitting joint letters to ministers, and taking part in discussions with government departments.
- Working closely with the Department of Energy Security and Net Zero on a Heat Network Zoning programme and establishing a Heat Infrastructure Steering Group including the [WMCA](#) in order to provide local expertise and steering to national plans. Additionally, we are an active member in the regional Local Authority Heat Group.
- Lobbying government for new powers and reporting process, whilst coordinating efforts and sharing insights with other major UK cities through the Core Cities Network. This year this included responding to the Local Government Association's consultation on local government and legal responsibilities to act on climate change.
- Working with the [WMCA](#) Net Zero Directors group to influence the funding and powers that have been devolved to the region from government.
- As part of a Council-wide submission, responding to the Local Government Outcomes Framework consultation regarding energy, climate resilience and natural environment metrics.
- Actively participating in regional government-led Growth Strategy and Regional Energy Strategy consultations.
- Leading on the environmental sustainability content of Birmingham's Economy and Place Strategy.

CORPORATE EMISSIONS: FORWARD LOOK

Over the next year, we will continue to address the sources of our scope 1, 2 and 3 emissions.

Integral to this will be the City Council's allocation of £46.055m from the [WMCA](#) for the Building's Retrofit Programme as part of the Integrated Settlement which was accepted at June 2025 Cabinet. These funds are for improving the efficiency of local authority housing, public owned buildings and privately owned homes to reduce fuel costs and carbon emissions. The scheme seeks to ensure residents have warmer, more comfortable, more affordable homes. We anticipate fuel bill savings of £1m and 2,700 tonnes carbon savings annually.

We have a clear programme of work underway to tackle our fleet emissions. Work will continue on our LED replacement programme, with funding secured for the upgrade of approx. 9,700 lighting units. Our new energy management team is working hard to move all our contracts to a single framework for electricity and gas and get smart meters installed to enable targeted and measurable energy efficiency and decarbonisation measures.

Work is also underway to refresh the Environment and Sustainability Assessment (ESA) template and process. These changes will ensure that all Council decisions start to consider how negative impacts on the environment can be minimised, and any opportunities can be maximised. A new corporate decision-making pathway will play a key role in this, requiring draft ESAs to be completed during the project development stage. The earlier we consider the environmental impacts of our decisions, the more we can influence them.

Over the next year we will continue to work with schools, leisure centres, corporate estate and procurement to maximise carbon emissions reductions. We are actively recruiting for a new Corporate Sustainability Manager who will coordinate the development of an organisation-wide net zero plan.



CITY EMISSIONS



INTRODUCTION

This chapter talks about our wider city emissions. This covers all the emissions that result from activity within the local authority boundary of Birmingham.

We are playing a key role in working with stakeholders and residents across Birmingham and the wider region to tackle our city's greenhouse gas emissions. We can use this data to structure our approach to net zero.





OUR CITY'S EMISSIONS

The [Department for Energy Security and Net Zero](#) (DESNZ) publish [greenhouse gas emissions data](#) annually. The dataset provides the most reliable and consistent breakdown of greenhouse gas emissions across the country, using nationally available data sets going back to 2005. The most up to date data was released in July 2025 and covers 2005-2023. As this is the most up to date local authority source of greenhouse gas emissions data, we use this data to track progress in reducing the city's emissions.

In 2023 Birmingham's total greenhouse gas emissions were 4,061 ktCO²e which is a 44.6% reduction since 2005 and a 3.8% reduction when compared to 2022. This 44.6% carbon reduction is equivalent to 3,849 round trip flights from Birmingham to New York. Figure 7 shows how our greenhouse gas emissions have changed over time in ktCO²e.

Birmingham's per capita (per head) emissions have reduced by 69.2%, from 7.2 tonnes CO²e per person in 2005 to 3.5 tonnes CO²e per person in 2023. As shown in 'Figure 7', compared to the other core cities, Birmingham (3.5 tCO²e) has the 3rd lowest per capita emissions, after Bristol (3.0 tCO²e) and Liverpool (3.3 tCO²e).

COUNCIL EMISSIONS

Activities to reduce the Council's direct and indirect emissions

1-2% City Emissions

COUNCIL PLACE SHAPING

Using the Council's place shaping powers to facilitate net zero delivery

30-35% City Emissions

WIDER CITY PARTNERSHIPS

Partnering with city / regional stakeholders to deliver net zero

Approx 65% City Emissions

City of Birmingham Greenhouse Gas Emissions, 2005 - 2023

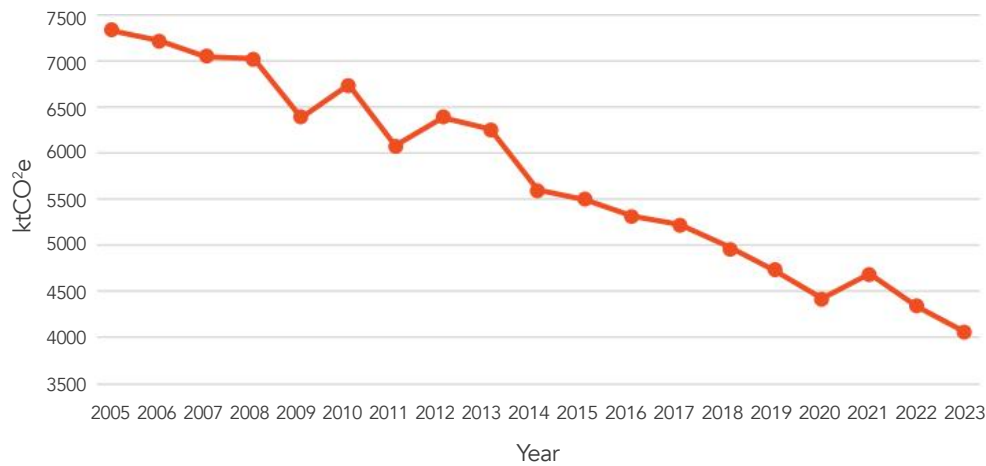


Figure 8: City of Birmingham's Greenhouse Gas Emissions 2005-2023

Core Cities Per Capita Emissions

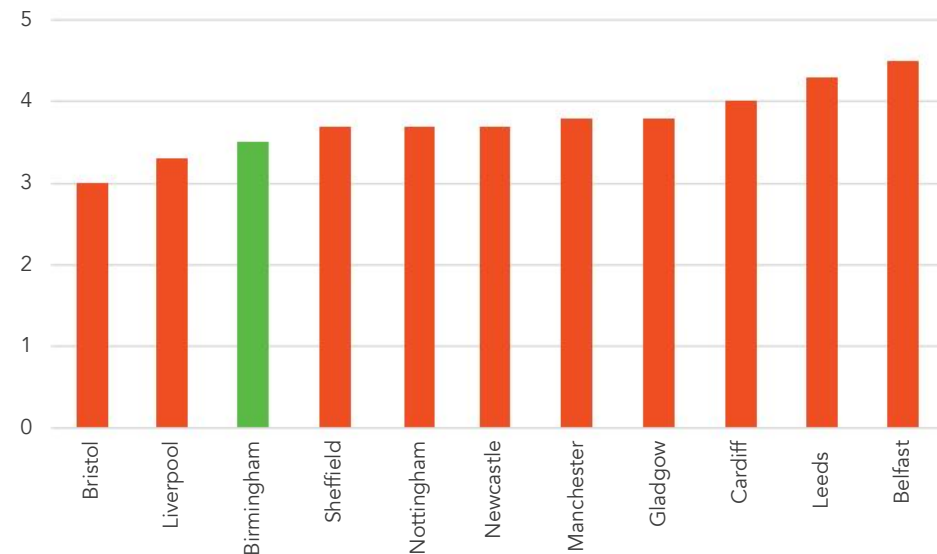


Figure 9: Core Cities Per Capita Emissions

Emissions by Sector

The pie chart below shows that transport (32%), domestic (29%) and industrial (14%) sectors make the greatest contribution to the City of Birmingham's emissions in 2023. This distribution of emissions is consistent with national trends, with transport being the largest emissions source in more than half of all UK local authorities.

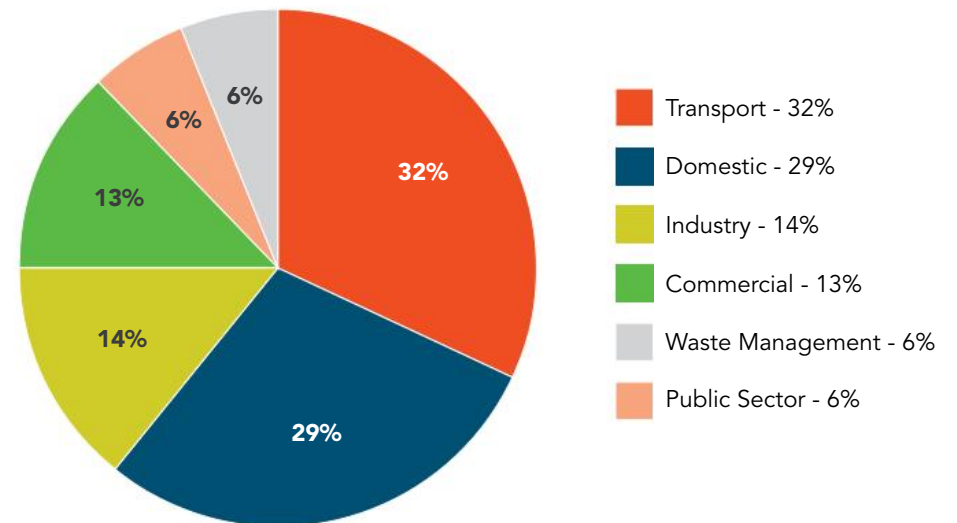


Figure 10: Birmingham City's emissions by sector

Whilst the Council cannot directly control these city emissions, the Council does have the ability to influence the emissions arising from buildings, transport systems, waste services and the natural environment, through its place shaping powers and activities. The section below outlines the work that is underway to tackle our city emissions.

REDUCING OUR CITY'S EMISSIONS

Local Plan Review

The [Birmingham Local Plan](#) (BLP) will support city wide decarbonisation across multiple sectors. The Council previously consulted on our 'preferred options' policy direction in summer 2024. These consultation responses have been analysed and have informed further changes that are to be included in the focused preferred options consultation taking place in Winter 2025, with a view to submit the plan examination in Autumn 2026.



Waste Management

The management of the city's waste - reducing the quantity of waste produced and increasing the recycling of waste streams across the city will support the reduction of waste emissions. Work is underway to develop a new Waste Strategy to 2040, which will focus on increasing the city's waste recycling and resource efficiency and seek ways to reduce carbon emissions in a cost-effective manner.

Increasing Waste Recycling and Resource Efficiency

The [UK Environment Act 2021](#) (the 'Act') will influence our city's management of waste by setting a statutory target to cut residual waste produced per person by 50% by 2042 and using Birmingham's circular economy such as our local paper and card recycling at a paper mill in the heart of Birmingham.

Waste Treatment

The Tyseley Energy Recovery Facility (ERF) processes the city's residual waste and generates electricity to power 70,000 Birmingham homes. The waste service focuses its efforts on seeking ways to reduce carbon emissions by improving the five recycling centres for residents, using a more efficient collection service, waste fleet and applying best practice in waste treatment technologies.

Domestic Retrofit

The Devolved Retrofit Pilot is a core function of the Integrated Settlement between government and [WMCA](#). Birmingham City Council has been allocated £10.3m [Warm Homes Local Fund](#) to retrofit 625 privately owned homes across the city. Based on need and deliverability, prioritisation has been carried out to identify the areas of the city where this funding will be focussed. This has led to two priority projects:

1. Balsall heath, Sparkbrook & Tyseley
2. Bromford and Castle Vale

The projects will see over 625 homes receiving insulation and clean energy technology leading to fuel bill savings of £153k per annum and a reduction in carbon emissions of 375 tonnes per year. The Balsall Heath project will include a whole street demonstrator project of 23 homes being improved to net zero using multiple streams of funding. These projects will be overseen by the Council and involve rigorous quality assurance processes and practices to ensure the best long-term outcomes for our residents.

At the end of 2024 the Council procured delivery partners to drive a strategic approach to delivering [the Energy Company Obligation](#) (ECO) scheme. Work has commenced with 2 partners and over 1000 applications have been received and 500 retrofit assessments completed.

Despite slow, initial uptake, this led to over 210 homes receiving measures to date. In the Autumn Budget government announced that, to help reduce fuel bills by removing Green Levies, the ECO programme would come to an end in March 2026. Whilst this was unexpected, it was also announced that a further £1.5bn would be added to the Warm Homes Plan budget to support fuel poor households through fabric-first retrofit. As part of the waste strategy review process, the Council is exploring opportunities to utilise waste heat from the facility to support new heat network developments.

The [WMCA](#) funded [Local Net Zero Accelerator](#) has started in Castle Vale where 50 homes will receive home energy assessments and work is underway with the community on setting up a community solar co-operative.

The Route to Net Zero team and City Housing directorate has established a cross-service Healthy Homes programme structure overseen by a Healthy Homes Board. This approach draws together expertise from housing, Route to Zero, public health, corporate communications and more to develop and deliver a strategy for the decarbonisation of homes of all tenures.

Transport

Electric Vehicles

The Council's [city-wide electric vehicle charging strategy](#) supports the rollout of EV charging infrastructure, enabling the uptake of electric vehicles. Whilst the overall number of charge points required for the city will depend on the scale of the change in people's travel behaviours and the modal shift achieved, the EV Strategy modelled the need for at least 40% modal shift in Birmingham by 2032 as an interim step towards achieving the central government's 2050 net zero targets.

We have begun collecting data on electric and hybrid vehicle usage in Birmingham. Between October 2024 and September 2025, the proportion of vehicle miles driven by electric vehicles increased from 2.72% to 3.75%. Over the same period, hybrid vehicles rose from 8.89% to 10.54% of total vehicle miles. These figures are based on vehicle tax class data collected from 170 sample points across the city and it is important to note that this growth is not uniform across the city. As part of this citywide transition the Council is working to increase our EV fleet – as outlined in the 'managing our fleet' section on page 12.

In partnership with Ubitricity, the Council has carried out a pilot deployment of 560 lamppost EV charge points across residential areas of the city where access to private off-street parking is limited or unavailable. This rollout was completed between 15th October and 21st May and represents the first project of its kind in the UK's second-largest city and is expected to set a new standard for on-street EV charging.

The launch of the new lamppost charge points also builds on our existing network of fast and rapid chargers that continue to be installed in locations within the city centre and in key locations across the city to support non-residential charging.



Figure 11: Councillor Majid Mahmood, Cabinet Member Transport and Environment with Stuart Wilson, UK Managing Director of Ubitricity at the launch of the Ubitricity lamppost charge point network

Healthy Streets

In March 2025, Birmingham City Council adopted its new [Road Harm Reduction Strategy and Action Plan, supporting the delivery of the Birmingham Transport Plan](#). The strategy formally adopts the [Healthy Streets Approach](#) to proactively tackle road harm risk and redesign streetscapes.

The Healthy Streets Approach will be applied to the whole transport system to help improve the quality of life for everyone in Birmingham and enable people to drive less. Healthy Streets is about designing streets for people and providing the kind of environment where people enjoy spending time. It uses ten evidence-based indicators to assess whether a road is safe and attractive to use. All transport schemes will be subject to a Healthy Streets Design Check to ensure that high standards are maintained across all parts of the city.



Figure 12: The Healthy Streets Approach



Environment & Transport Neighbourhoods Fund

The Council introduced the Environment & Transport Neighbourhoods Fund (ETNF) to reduce road harm, encourage active travel, and improve air quality, which is partially funded by Clean Air Zone net surplus revenues. Each Ward Member received funding to collaborate with officers on local schemes such as crossing improvements, traffic calming, parking restrictions, 20mph zones, and tree planting. Guided by Healthy Streets principles, these initiatives aim to make walking, wheeling, and cycling safer and easier and cut vehicle emissions. Many projects are already complete, with the majority scheduled for delivery by the end of the financial year.

In addition, facilities for people cycling were improved with the temporary cycle route on Bolton Road becoming permanent and a new cycle lane build from the A38 blue route to Moseley. Development work began on extending the A38 blue route from Selly Oak to Longbridge and on creating a new lane on the A45 Coventry Road.

Figure 12: Councillor Majid Mahmood awarding the Birmingham Women's and Children's NHS Foundation Trust with the Modeshift STARS certification (top) and at a testing event for the Millennium Point tram extension (bottom)



Public Transport

Led by Transport for West Midlands, a number of key public transport projects were progressed:

- The new stations on the Camp Hill Line (Moseley Village, Kings Heath, Pineapple Road) are substantially complete, and passenger services are due to begin in 2026.
- Metro extension to Millennium Point is substantially complete and has been tested with vehicles. Passenger services are due to begin in 2026.
- Work on the Cross City Bus project has progressed with delivery of new bus lanes in the city centre and consultation on bus priority measures on a number of routes.
- West Midlands Combined Authority have confirmed plans to move to a franchising model for bus operations over the coming years. This will enable them to set routes and fares and to reinvest any profits back into the network.

Clean Air Zone

The [Clean Air Zone](#) was introduced in June 2021 to tackle concentrations of the air pollutant nitrogen dioxide which were above the legal limit at a significant number of locations within the area covered by the Clean Air Zone. Since the introduction of the scheme the percentage of non-compliant vehicles entering the Zone have reduced from 15.2% in June 2021 to 3.8% in June 2025. In terms of actual vehicles there has been a reduction of around 72% in the average number of non-compliant vehicles (from 14,873 in June 2021 to 4,130 in June 2025).

There is also now a very high level of 'compliance' across all vehicle categories included in the Clean Air Zone (June 2021).



Clean Air Zone Statistics



- Cars **96.3%** (85.3%)
- Vans **91.4%** (68.7%)
- These two vehicle categories account for c. **90%** of all vehicles that enter the Zone
- HGVs **98.9%** (92.2%)
- Coach/bus **99.6%** (99.3%)

The scheme continues to deliver broader benefits through the revenues it generates.

All net surplus revenues generated by the scheme i.e. after its operating costs are covered, have to be used to facilitate the achievement of local transport policies - including ongoing improvement in air quality, supporting more active and sustainable forms of transport and supporting an overall reduction in carbon emissions. Up to the end of March 2025 allocations of net surplus revenues generated by the scheme stood at £92m with c. £22m of those allocations either fully or partially utilised.

Key schemes and projects include the following:

Investing in sustainable communities

- Brum Breathes and now ETNF fund (up to £4m over two years)
- Air quality monitors for schools (up to £1m)
- Support for Route to net zero team

Investing in active travel

- City centre pedestrianisation and connectivity (including Southside)
- Car free school streets
- Extension of the Big Birmingham Bikes programme

Investing in public transport

- Upgrades to University station and stations on the Camp Hill line
- Cross city bus

Investing in road safety

- 40mph to 30mph speed limit review (c. £1m)
- School crossing patrol support (£2.25m over three years)
- £10m towards the Road Safety strategy
- £3.6m to support the rollout of average speed enforcement cameras)
With an additional £2.7m provisionally allocated to reducing road harm risk and improving safety around schools and in local neighbourhoods through the implementation of physical measures.

Heat Networks

Birmingham City Council, in partnership with the **Department for Energy Security and Net Zero** (DESNZ), is pioneering city-wide heat zoning to accelerate the transition to clean, affordable heating. The 2025 Heat Network Zoning Opportunity Report identifies four strategic zones—Birmingham Central, Tyseley Central, North East Birmingham, and the Queen Elizabeth Hospital/University campus—as the most cost-effective areas to decarbonise.

This programme represents a billion-pound investment opportunity. From underground pipework and energy centres to smart controls and customer connections, the infrastructure will generate thousands of skilled jobs, stimulate supply chain innovation, and position Birmingham at the forefront of the UK's low-carbon economy. Backed by DESNZ funding, policy support, and advanced zoning methodologies, Birmingham is focusing on being ready to enable delivery at scale.

More than infrastructure, heat zoning is a catalyst for climate action, inclusive growth, and social equity. It promises lower energy bills, cleaner air through the removal of gas boilers, enhanced energy security, and new business opportunities.





Solar Together

Solar Together West Midlands is a tried and tested group buying scheme which makes the switch to clean energy as cost effective and hassle-free as possible. Homeowners express their interest and a reverse auction is held with solar contractors. A scheme was launched in March 2025 with Birmingham City Council, Solihull MBC, Sandwell MBC and Dudley MBC taking part. As a direct result of the scheme, there have been 70 solar pv installations and 60 batteries in Birmingham with a total installed capacity of 310kW.



Solar installations are growing rapidly across the city, with installed capacity increasing from 36.9MWh in 2022 to 54.4MWh in 2023 – a 47.4% increase.



CITY ENGAGEMENT

We know reducing Birmingham's emissions will not be possible unless everyone is able to play their part. No single organisation, business or individual can properly respond to climate change alone, so we need to make this journey together – in collaboration with the people of Birmingham and the organisations and businesses that serve them.

In 2024 we published our [Climate Change Engagement Framework](#) which builds on the Council's [Framework for Public Participation](#), and informs our approach to working with organisations, businesses, and communities in Birmingham.



Figure 14: Residents participate in yoga on Park(ing) day 2025

Partnering with Communities

The Council works with communities across Birmingham to empower residents to shape the city, recognising that lasting action must be locally driven and supported. There is a sizable amount of climate action happening, in Birmingham and the selection below gives an idea of the breadth of projects Birmingham City Council has supported:

- Community tree planting in partnership with Birmingham TreePeople, including the establishment of the 65 tree Benjamin Zephaniah Legacy Forest in Burbury Park and a further 68 trees planted in Newtown, Alum Rock and Nechells.
- To deliver on the 25-year City of Nature Plan, Birmingham City Council has established the Birmingham City of Nature Alliance. This brings together community groups, public bodies and environmental organisations to deliver nature-positive change. It prioritises community engagement through co-stewardship, giving residents a real role in shaping and caring for green spaces while ensuring benefits like health and wellbeing are shared fairly.
- Supported Park(ing) day on the 19th September, a day where car parking spaces were converted into parks in the Jewellery Quarter organised by the Council and the Jewellery Quarter BID.
- Working with various community groups across our retrofit programmes to encourage uptake.
- Working with residents to design and deliver retrofit and energy projects as part of the **Powering Up Castle Vale** Local Net Zero Accelerator.

- Supporting EcoBirmingham's Building Greener Communities Project in Springfield and Allens Cross by providing advice and guidance as well as free Carbon Literacy Training for the community groups involved.
- Working with Footsteps and Bahu Trust, and Ashden to deliver **£200k of grants for faith-led eco-projects** over three years.
- Birmingham has won a prestigious **Sustainable Food Places** Silver Award. In recognition of Birmingham's groundbreaking partnership working to promote healthy, sustainable and local food, tackle food poverty and diet-related ill-health, and support local growers and independent food retailers. The Sustainable Food Places Silver Award is national, evidence-based recognition and celebration of Birmingham engaging in UK wide best practice for a joined-up, citizen led approach to good food for all. The accolade was awarded for the innovative work delivered through the **Birmingham Food Revolution** and **Birmingham Food System Partnership**.



Working with Schools

Schools play a key role as energy consumers and educators. As a Council, we work with several Department for Education-funded programmes to help encourage school climate actions. These projects include **Lets Go Zero**, **National Education Nature Park**, and **Climate Ambassadors**, which work to support schools in reducing emissions, improve greenspaces, and improve climate education provision respectively.

Collectively, these projects have reached over 135 schools in Birmingham, with 96 schools receiving direct support, resulting in 29 newly created climate action plans this year. In addition, **free air quality monitors** have been rolled out to almost 200 Birmingham schools alongside car-free school streets and school travel ambassadors schemes delivered with **ModeShift** which are helping to make travel to school safer, healthier, and less polluting.

In addition to these schemes, the Council has helped bring alive international climate debates for local pupils through a Schools' Model United Nations COP event which ran in the Council chamber for its 3rd year in November 2025. The day saw 70 pupils role play as United Nations member states negotiating on climate policy before meeting with local employers to learn about green jobs and skills and then ending the day with a Q&A with decision makers about action in Birmingham.



Figure 15: Councillor Mahmood outside The Deanery CofE school promoting the schools air quality monitor programme – with Deputy Headteacher Miss Morris and Emma Colliste, the school's Eco team lead

Figure 16: Images from our November 2025 Schools Model COP

Business Sector Engagement

The Council works with local businesses to support their transition to more sustainable practices, recognising their vital role in achieving city-wide Net Zero goals. Some of the highlights of our business engagement work include:

- Delivering a Net Zero Sustainable Supply chain project to engage Council suppliers and SMEs through one to one sessions, group training and support to write decarbonisation plans.
- Circular Economy for Birmingham and Solihull (CEBAS) project – International Synergies were contracted to deliver resource matching for 162 SMEs. The waste from companies becomes other companies' raw materials which reduces costs and saves carbon.
- £342,595 in Business Energy Advice Service (BEAS) funding paid to 11 businesses. 69 businesses have applied for BEAS grant funding to date and 328 hours of sustainability related support has been delivered to businesses.
- Delivering the **UKRI** Fast Followers project in Tyseley and East Birmingham which involved working closely with 30 businesses to improve their sustainability and to equip them with the skills and knowledge to apply for future rounds of Net Zero grant funding.
- Working alongside education institutions and supply chains to support skills development and capacity building initiatives across key green growth sectors.
- Working closely with South and City College to engage local SMEs and support them to get involved as subcontractors in our Retrofit schemes, helping provide local employment opportunities and build the local economy. This engagement has included large meet the buyer events leading directly to local companies receiving work orders.





Public Accountability and Transparency

Being transparent about progress and challenges is crucial for maintaining public trust and demonstrating strong leadership on climate action. This year we've been working to improve this in the following ways:

- Updating the [Birmingham Environmental Data Handbook](#) on the City Observatory to share city emissions data and make it accessible.
- Declaring the city's climate change data through the [Carbon Disclosure Project](#) (CDP) since 2020, providing independent review of our progress. We scored an A score in 2023 and 2024 – the highest score available. In the most recent round of reporting, CDP has updated its scoring requirements and we have scored an A-. This is the second highest rating available and recognises Birmingham as a city that is taking bold leadership on environmental action and transparency.
- Reporting our progress across a range of climate activities through [Climate Scorecards UK](#).
- Publishing Environmental Sustainability Assessments as part of all cabinet reports, [publicly available to view online](#).
- We have won awards and accreditations– Birmingham has been declared as the [UK's first official Nature City](#), as part of a UK-wide programme working to bring access to nature to urban communities. We also maintain our recognition as a ['Tree city of the world'](#).
- Providing regular progress updates on our progress towards Net Zero in the annual reports and our [Bolder Greener email Bulletin](#).
- The team has also arranged, attended and/or presented at numerous local, regional and national events, including London Climate Action Week, Energy Capital Partnership Conference, Tech UK's Regional Perspectives on Net Zero event, the Universities and Healthcare Estates Innovation Conference and the Care Commission Summit.

Becoming a Sustainable Tourism Destination

A range of activity is underway to embed sustainability into our events and tourism sectors:

- **Green Tourism scheme** – funded tourism and event suppliers for accreditation, training and advice.



- Global Destination Sustainability Index – The Council continued its participation in the **Global Destination Sustainability Index** in 2025 for the third year running, which measures and benchmarks

the sustainability performance of tourism destinations. This year, our score increased from 44% to 52% - making us the 8th highest climber globally in our destination management gains. We've seen a marked improvement this year as we start to see the positive impacts from sustainable tourism initiatives launched in 2023.

- Support for sustainable major events - planning for the European Athletics Championships 2026 is underway and includes 'Delivering an environmentally conscious Championships' as one of the **3 key pillars in their delivery framework**.
- We have published new **sustainable event guidance** on our website. This is complemented by the new **sustainable tourism** information on the **Visit Birmingham** website and the **Sustainable Tourism Hub**, which we have been promoting to tourism and event businesses.
- We have increased the number of hotels with third party sustainability accreditation – with all major convention centres now registered.
- We've worked with the **West Midlands Growth Company** to incorporate a vision for sustainability and actions plan for tourism and events in their emerging Regional Visitor Economy Strategy Framework.



CITY EMISSIONS: FORWARD LOOK

A wide range of work is already underway across the city to influence and reduce Birmingham's emissions. We are moving in the right direction as a city – our emissions are down 44.6% since 2005 and 3.8% since 2022. We continue to be transparent about our progress on our net zero journey, declaring our environmental data publicly through the [Carbon Disclosure Project](#).

In summer 2026 our new local plan will progress to regulation 19 stage and we will conduct a consultation on our updated net zero and climate resilience policies. These policies will shape the environmental credentials of all future buildings in Birmingham. Our new Waste Strategy will shape our future waste system by focussing on increasing the city's waste recycling and resource efficiency and seek ways to reduce carbon emissions in a cost-effective manner.

We continue to push ahead with retrofit and the Council has been allocated £10.3m [Warm Homes Local Fund](#) to retrofit 625 privately owned homes across the city which will commence in 2026. In the transport sector our introduction of 560 EV Lamppost chargers, our Healthy Streets Initiative and the Environment & Transport Neighbourhoods Fund will support the shift to more sustainable modes of transport. We continue to engage with heat network zoning and backed by [DESNZ](#) funding, policy support, and advanced zoning methodologies, Birmingham is ready to deliver at scale.

Over the next year we will continue to build upon the amazing work completed in 2025 to work with communities, schools and businesses. The upcoming 2026 UEFA cup and European Athletics Championships provide the City an opportunity to demonstrate best in class delivery when it comes to sustainability.



CLIMATE RESILIENCE AND ADAPTATION



INTRODUCTION

Strengthening Birmingham’s climate resilience and adaptation measures is essential as the city faces growing risks from climate change—such as hotter, drier summers, warmer, wetter winters, and more frequent extreme weather events including flooding and heatwaves. These changes pose significant threats to infrastructure, public health, and biodiversity.

To better understand these risks, we have completed a comprehensive Climate Risks and Vulnerabilities Assessment, identifying the areas of the city that are most susceptible to climate impacts as part of the ongoing work around Environmental Justice. This chapter highlights the progress made over the past year in advancing climate adaptation and resilience.



IMPROVING CLIMATE RESILIENCE

Adaptation Update

The key activities and achievements over the last 12 months have been:

- Birmingham declared as the **UK's first official Nature City**, as part of a UK-wide programme working to bring access to nature to urban communities. We also maintain our recognition as a '**Tree city of the world**'.
- **East Birmingham Green Infrastructure Masterplan** is now published. East Birmingham was chosen to continue the Master Planning work because it contains many of the lowest scoring wards for environmental justice, including the corridor created by the six priority red wards identified under the Fair City theme in the City of Nature Plan. From this masterplan priority locations have been identified for green infrastructure interventions linked to climate resilience. These are being included in a natural capital investment prospectus as part of the **West Midlands Combined Authorities** (WMCA) Local Investment in Natural Capital programme (LINC).
- Our **Climate Risks and Vulnerabilities Assessment** ties climate change to health inequalities. We are working to improve performance on the deficit of green infrastructure, reduce flood risk, improve air quality and reduce surface temperatures.
- The 25-year City of Nature Plan links greenspace provision (equitable access to not only the open space but also the benefits of the ecosystem services) and quality of these spaces to improvements in physical health and well-being (poor functioning and poor quality green infrastructure can exacerbate the negative impacts of climate change).
- The Birmingham Urban Forest Master Plan does exactly the same, our **tree plotter mapping** and the **Woodland Trusts Tree Equity map** tie all these same data sets together with health and climate.

- Our adaptation lead also submits reports to the Health and Well-being Board (Public Health-led) on progress on the City of Nature Delivery Plan.
- The Extended General Biodiversity Duty (Environment Act 2021) requires us to submit a report to report to Government on all actions taken.
- The emerging Birmingham Local Plan incorporates consideration of climate risks and vulnerabilities, including overheating and flooding, into the core policies.
- The Council also has plans to create a publicly accessible public health dashboard.

BLOSSOM

BLOSSOM (Bridging Long-term Scenario and Strategy analysis: Organisation and Methods) is a €10.2M Horizon Europe-funded project developing bankable nature-based solutions to accelerate climate resilience. The City Council-led Birmingham pilot, part of a European collaboration involving over 25 partners, focuses on East Birmingham with green buildings, urban reforestation and energy retrofits. These co-designed solutions aim to cut emissions, boost sustainability and attract investment through innovative financing models like public-private partnerships and impact bonds.





Local Nature Recovery Network and Biodiversity Net Gain

The **West Midlands Combined Authority** (WMCA) is one of four areas chosen for the national **LINC programme**, funded by Defra with £1 million as part of the **UK's Green Finance Strategy**. The programme helps local leaders and partners attract large-scale investment to:

- Restore nature and improve habitats and biodiversity
- Tackle climate risks with nature-based solutions
- Improve water and air quality, reduce flooding, and support carbon capture
- Provide urban cooling and better access to green and blue spaces
- Address health inequalities linked to the environment
- Boost the region's green economy and support wider goals like Net Zero, Biodiversity Net Gain, and Levelling Up

LINC is helping public and third sector organisations become more investment-ready, supporting delivery of the West Midlands Natural Environment Plan.

Phase 2 funding has now been secured to develop a centralised natural capital trading platform, starting with investment opportunities identified in the East Birmingham Green Infrastructure Masterplan.

Figure 16: Sutton Park National Nature Reserve

Natural Green Rivers and Corridors

The **Natural Rivers and Green Corridors** was a European Regional Development Funded project aiming to enhance the River Rea catchment and surrounding habitats for all wildlife to enjoy. We have worked to minimise and mitigate the negative impacts of manmade interventions (by straightening channels and installing weirs and hard engineered banks) on the River Rea, Bournbrook and River Cole. We have now been awarded phase 2 funding and are continuing to re-naturalise and remove barriers from additional water courses from within the catchment of these rivers.

Figure 17: River Rea following channel reprofiling and removal of an engineered weir



CARMINE



The Climate-Resilient Development Pathways in Metropolitan Regions of Europe (**CARMINE**) bridges the local and regional scales by providing impact-based decision support services and multilevel climate governance supporting local adaptation, including both traditional and Nature-Based Solutions.

Both Birmingham City Council and the University of Birmingham are active partners in the project. CARMINE's overarching goal is to help the metropolitan communities of Europe become more climate resilient, by co-producing knowledge-based tools, strategies, and plans for enhanced adaptation and mitigation actions, addressing the Charter of the EU Mission on Adaptation to Climate Change by 2030. The project focuses on a 2030-2035 timeframe and with longer perspectives up to 2050. To achieve this goal CARMINE aims to:

- Co-create and co-develop decision-support services and guidelines for enhanced resilience and adaptive capacity, including early warning and disaster risk management systems.
- Cooperate closely with local to regional communities (stakeholders and users), decision and policymakers (local authorities) to co-develop cross-sectoral frameworks for adaptation and mitigation actions.
- Deliver science-based R&I roadmaps for multi-level climate governance supporting local adaptation assessments and plans. Both Birmingham City Council and the University of Birmingham are involved in the project.
- Develop decision-support services and guidelines to boost resilience, including early warning and disaster risk systems.
- Work closely with local communities, stakeholders, and policymakers to create cross-sector frameworks for climate action.
- Deliver science-based roadmaps for multi-level climate governance and local adaptation planning.

Resilient City Planning

Our [City Resilience](#) plan is regularly reviewed and policies updated. The City Resilience plan lists the major risks and the geographic areas likely to be affected as well as the local partners to engage. Advanced weather warnings are issued where known to residents. If damage is severe, the Council's emergency response teams protect property and lives. The following process is then followed:

- Evacuation process if required.
- Safety teams remove or isolate hazards.
- Very rapid response capability on stand-by.
- When safe to do so, residents return and or area is cleared of debris and/or danger.

Communications systems are vital to response and co-ordination. Our transport teams work on their Healthy Streets initiative also helps to build a more resilient city by prioritising materials, tree planting and design that maximises passive cooling and prevents overheating.

We are working closely with internal and external partners on key regeneration schemes across the city (such as Druids Heath, Ladywood and Smithfield) to ensure that we are building homes that are resilience to future climate change.

Flooding Resilience

The City Council has been working with [DEFRA](#) on their emerging new funding arrangements. DEFRA is due to change partnership funding arrangements in 2026 to 'reduce risk from, and increase resilience to, flooding and coastal erosion and deliver environmental outcomes that are intrinsic to meeting this ambition'. The changes to the funding arrangements should make it easier to attract investment in sustainable

drainage, natural flood management, property flood resilience and refurbishment of aged assets.

These changes will help to improve climate adaptation by incorporating wider sustainability benefits, not just outcome measures of properties better protected from flood risk. We anticipate to see wider benefits from the projects such as natural capital and environmental improvements such as:

- **Tourism and recreation benefits** - to promenades, footpaths and open spaces where damage is avoided.
- **Net carbon benefits** – through avoided carbon emissions decreased flooding of property and cars.
- **Heritage benefits** - where properties are better protected/damage is avoided.



Figure 18: New Public Realm Planting in Digbeth that incorporates Sustainable Urban Drainage and provides Parklets with trees for shading and urban cooling



ADAPTATION AND RESILIENCE: FORWARD LOOK

WM Adapt

WM-Adapt is a UK Research and Innovation (UKRI) funded research project led by the University of Birmingham in collaboration with the **West Midlands Combined Authority** (WMCA) and the Birmingham **Voluntary Services Council** (BVSC). WM Adapt aims to maximise adaptation to climate change in the West Midlands and beyond.

It focuses on driving climate change adaptation in the West Midlands through community engagement, climate risk assessment, and the establishment of a Regional Adaptation Network. So far, five out of 16 planned Climate Adaptation World Café events (facilitated conversations used to stimulate group discussion in café-like setting) have been held across the West Midlands.

We have made great progress over the last year, which has been nationally recognised after Birmingham was declared UK's first official Nature City and maintains Tree City of the World status. Work continues on our emerging Birmingham Local Plan which incorporates both adaptation measures, greening and climate risk considerations. We will continue to work on our flagship adaptation projects over the next year:

- **BLOSSOM:** €10.2M Horizon Europe project delivering green buildings, urban reforestation, and energy retrofits in East Birmingham.
- **LINC Programme:** £1M Defra-funded initiative to attract investment for nature recovery and climate resilience.
- **Natural Rivers & Green Corridors:** Re-naturalising River Rea and other waterways to improve biodiversity and flood resilience.
- **CARMINE:** EU project supporting climate-resilient pathways and governance for metropolitan regions.
- **WM Adapt:** UKRI-funded project driving regional adaptation through community engagement and a Regional Adaptation Network.

Over the next year, we have plans to develop a publicly accessible public health dashboard, which will include climate impacts. We will continue to work on building a climate resilient city through using our planning powers, community engagement, and innovative financing.

GLOSSARY

Term	Definition
Climate Change	Climate change refers to a large-scale, long-term shift in the planet's weather patterns and average temperatures.
Adaptation	Action that helps cope with the effects of climate change - for example construction of barriers to protect against rising sea levels, or conversion to crops capable of surviving high temperatures and drought.
Mitigation	Action that will reduce man-made climate change. This includes action to reduce greenhouse gas emissions or absorb greenhouse gases in the atmosphere.
Climate Resilience	The ability of a system, community or society exposed to climate hazards to resist, absorb, accommodate to, and recover from the effects of a hazard.
Carbon Dioxide (CO²)	Carbon dioxide is a gas in the Earth's atmosphere. It occurs naturally and is also a by-product of human activities such as burning fossil fuels. It is the principal greenhouse gas produced by human activity.
Carbon Dioxide Equivalent (CO²e)	Each greenhouse gas has a different global warming potential. The overall warming effect of a mixture of these gases is often expressed in terms of CO ² equivalent - the amount of CO ² that would cause the same amount of warming.
Fossil Carbon	Carbon derived from fossil fuel or other fossil sources.
Global warming	Global warming is the long-term heating of Earth's surface observed since the pre-industrial period (between 1850 and 1900) due to human activities, primarily fossil fuel burning, which increases heat-trapping greenhouse gas levels in Earth's atmosphere.

Term	Definition
Greenhouse Gases	Greenhouse gases (also known as GHGs) are gases in the earth’s atmosphere that trap heat. The gases act like the glass walls of a greenhouse – hence the name, greenhouse gases. Greenhouse gases consist of carbon dioxide, methane, ozone, nitrous oxide, chlorofluorocarbons, and water vapor. These are often simplified to Carbon Dioxide Equivalent (CO ² e)
Net Zero	Net Zero is about reducing and removing greenhouse gases to mitigate against increasing climate risk. The term net zero means achieving a balance between the greenhouse gas emitted into the atmosphere, and the greenhouse gases removed from it. This balance – or net zero – will happen when the amount of carbon we add to the atmosphere is no more than the amount removed. To reach net zero, emissions from homes, transport, agriculture and industry will need to be cut.
Scope 1	The direct emissions from Council activities, for example the emissions from the combustion of fossil fuels in Council buildings’ boilers and Council fleet vehicles.
Scope 2	The indirect emissions arising from the generation of purchased energy, which includes the emissions caused by Council consumption of purchased electricity, heat, steam, and cooling.
Scope 3	The other indirect emissions (not in Scope 2) from sources that the Council does not own or control, such as those from the procurement of goods and services, and our leased assets.
Renewable Energy	Renewable energy is energy derived from natural sources that are replenished at a higher rate than they are consumed, for example solar, wind or hydropower.



APPENDIX 1: GREENHOUSE GAS ACCOUNTING METHODOLOGY

Greenhouse gas (GHG) accounting is how organisations quantify their greenhouse gas emissions, and because these emissions are usually presented as CO₂ equivalents (CO₂e), based on their global warming potential, their emissions are often referred to as an organisation's carbon footprint. The [Greenhouse Gas \(GHG\) Protocol reporting guidance and standards](#) are the world's most widely used greenhouse gas accounting standards and provide the requirements and guidance for organisations preparing and calculating their greenhouse gas emissions.

In adopting these standards, we categorise our emissions into three scopes:

- Scope 1: the direct emissions from sources which are controlled by the Council, including emissions from the combustion of fossil fuels in Council buildings' boilers and vehicles.
- Scope 2: the indirect emissions arising from the generation of purchased energy, which includes the emissions caused by Council consumption of purchased electricity, heat, steam, and cooling.
- Scope 3: the other indirect emissions (not in scope 2) from sources that the Council does not own or control, such as those from the procurement of goods and services, and its leased assets.
- While the Council has control over its direct emissions, it has influence over its indirect emissions, and we have defined our organisational boundary for GHG accounting purposes using the 'Operational Control' approach. We have calculated our emissions using the UK Government Conversion Factors for greenhouse gas reporting. These emissions factors are updated annually and more information on how these are generated and can be applied is available on the [Department for Energy Security and Net Zero website](#).



