

# Sunderland Low Carbon Annual Report 2024/25

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## Executive Summary

- 0.1 Sunderland declared a climate emergency in 2019. This declaration committed the city of Sunderland to reduce its citywide emissions and help global temperature rise stay well below 2.0°C, pursuing 1.5°C by 2050, in-line with the Paris Agreement of 2015.
- 0.2 In 2020/21 Sunderland's 2030 Shadow Board prepared the Low Carbon Framework which set out Sunderland's approach to achieve citywide carbon neutrality by 2040. This was adopted by the partnership in December 2020. The Council endorsed the Low Carbon Framework in January 2021 and also adopted its Low Carbon Action Plan (LCAP), which set the target for the Council to become carbon neutral by 2030. The LCAP was reviewed, and an updated Action Plan was approved by Cabinet in July 2022. The Low Carbon Framework and LCAP are published on the [MySunderland website](#).
- 0.3 This report is the Council's fifth annual low carbon report since the Low Carbon Framework was endorsed and the LCAP was adopted. It estimates the Council's greenhouse gas (GHG) emissions for the 2024/25 financial year (with updates to previously published data where appropriate for accuracy purposes), as well as citywide carbon (CO<sub>2</sub>) emissions for Sunderland in the 2023 calendar year (the latest year for which citywide data is available).
- 0.4 The report sets out that the Council's scope 1 and 2 carbon footprint during 2024/25 was 7,756 tonnes of Carbon Dioxide equivalent (7,752 tCO<sub>2</sub>e), representing a 6.9% reduction from last year and a 61.5% reduction since the 2017/18 baseline. Scope 1, 2 and 3 emissions are defined in Section 4 of this report. The main source of emissions from Council operations in 2024/25 was liquid fuels for the vehicle fleet. While these emissions levels saw the largest reduction out of scope 1 and 2 this year (17%), and now account for 27% of total scope 1 and 2 emissions in 2024/25 (decreasing from 31% in 23/24), the vehicle fleet does continue to represent the greatest challenge for decarbonising the Council's operations as emissions have only decreased by 16% overall since the 2017/18 baseline year.
- 0.5 The Council continues to build as clear a picture as possible for its scope 3 inventory, building on the annual data report for 2023/24. Based on current data availability, the Council's scope 3 emissions for the 2024/25 financial year are estimated to be 92,054 tCO<sub>2</sub>e (92.23% of overall emissions, increasing from 74,417.48 which was equivalent to 89% in 2023/24). The main sources of scope 3 emissions for the Council are purchased goods and services, as well as leased assets – including emissions from leased Port, Council, TfC, and SCAS assets, as well as operational emissions for maintained schools, and vacant assets. A 2017/18 baseline comparison is not available for scope 3 emissions.

- 0.6 1,034,400 tCO<sub>2e</sub> were emitted citywide in 2023 (the latest year for which data is available from Government), representing a 1.1% increase from 2022 levels. It is important to note that emissions in 2020 - 2022 were significantly influenced by COVID-19. Emissions in 2023 were 11.3% lower than in 2019 (the most recent year data is available where emissions were not impacted by COVID-19) compared to 12% lower than 2019 levels in 2022. Against the 2015 citywide baseline, annual citywide emissions have now reduced by 27% overall.
- 0.7 The two highest emitters of city-wide CO<sub>2</sub> emissions in Sunderland in 2023 were the transport sector (emitting 340,494 tonnes CO<sub>2</sub>, mainly due to road transport) and the domestic sector (emitting 320,286 tonnes CO<sub>2</sub>, mainly due to domestic gas). A large increase was seen in industrial gas emissions (62%). Large year on year increases can be attributed to either the opening of, or changes within high gas consuming industrial sites. Further clarity is being sought on this data, however, which is based on meter level consumption data (estimated annual consumption based on meter reads), while recognising that specific detail may not be able to be accessed where it is commercially sensitive information. Should the data change following further review, the gas consumption data will be revised by DESNZ within their next release which is provisionally scheduled for December 2025. This data will then feed into the next release of UK local authority and regional greenhouse gas emissions statistics which is provisionally scheduled for June 2026.
- 0.8 Aligned with the Tyndall Centre carbon budget, the Tyndall Centre provide recommended interim city-wide targets – including base year decarbonisation targets and interim 5-yearly carbon budget targets. The current recommended interim targets for Sunderland, aligned with a 14.4% annual reduction in citywide emissions and a carbon budget of 8.2 MtCO<sub>2</sub> between 2020 – 2100, are to reduce CO<sub>2</sub> emissions by 61.5% by 2025 based on 2015 levels and to stay within a carbon budget of 2.8 MtCO<sub>2</sub> between 2023 – 2027 (previously of 5.6 MtCO<sub>2e</sub> between 2018 – 2022).
- 0.9 Sunderland met the first interim target for the city suggested by the Tyndall Centre for 2015-20 (a 16.1% reduction in annual citywide emissions). However, the city is not currently on track to meet its second recommended interim target of a 61.5% reduction against a 2015 baseline by the end of 2025 (which is aligned with a 14.4% annual reduction). As at 2023, city-wide emissions are currently showing a 27% reduction against the 2015 baseline.
- 0.10 Sunderland also met its first interim recommended 5-year carbon budget period target of 5.8 MtCO<sub>2</sub> between 2018 – 2022 (aligned with the city's carbon budget calculated by the Tyndall Centre of 8.2 MtCO<sub>2</sub> between 2020 – 2100). The city produced 5.5 MtCO<sub>2</sub> between 2018 – 2022, which was 0.3 MtCO<sub>2</sub> below target. This was in part due to emissions reductions targets being exceeded in the initial years within that 5-year period. Although we only currently have city-wide

data for 2023 it is clear that achieving the 2023-2027 carbon budget target (of 2.8 MtCO<sub>2</sub> for the current 5-year period) will be very challenging.

- 0.11 Significant challenges continue to slow progress against the ambitious carbon emission targets. These challenges include the complex and competitive funding landscape and the cost of low carbon technologies. Some suitable low carbon alternatives are not yet advanced enough to be deployed, such as with hydrogen or electric bin lorries. In addition, the effects of global events such as COVID-19 pandemic and international conflict have significantly impacted the costs and deployment of low carbon technologies. Overall, the advancement of low carbon technologies has been less rapid than projected when the Climate Emergency was declared.
- 0.12 The Council and its partners remain committed to tackling and adapting to climate change and striving towards carbon neutrality, as well as ensuring Sunderland residents are supported to adapt to the ever-changing climate. The Council will continue to take stock of the national landscape and direction, particularly in relation to relevant research and data and available funding, and align with the regional ambitions and activity of the North East Combined Authority as appropriate.
- 0.13 A summary of key activity and progress against each Low Carbon strategic priority area during this period is outlined in section 3 of this report. This includes: continued engagement, for example, through the young people's Environmental Green and Sustainable Group and initiatives such as EcoFest; investment to improve green infrastructure, including as part of the North East Community Forest and the Links with Nature project; support for retrofit works in homes and businesses, maximising external funding into Sunderland; the ongoing delivery of renewable energy generation schemes; delivery of a range of active and sustainable travel schemes and infrastructure; securing investment in the city's green economy; and progress on reducing waste and consumption including maximising community growing space and sustainable food sources.
- 0.14 The data and progress to date set out in this annual report will inform key areas to be prioritised moving forward both from a Council and city-wide perspective.

## 1. The Climate Emergency and the Paris Agreement

- 1.1 Sunderland declared a climate emergency in 2019. This declaration committed Sunderland to reduce its citywide emissions and help global temperature rise stay well below 2.0°C, pursuing 1.5°C by 2050, in-line with the Paris Agreement of 2015.
- 1.2 To understand what the Paris Agreement means for UK local authorities, science-based research was completed by the Tyndall Centre to calculate carbon budgets for each authority, which fit in line with the goals of the Paris Agreement. Through using the latest scientific consensus, the Tyndall Centre recommended that Sunderland:
- stays within a maximum carbon budget of 8.2 million tonnes for the period 2020-2100.
  - initiates an immediate programme of CO<sub>2</sub> mitigation to deliver cuts in emissions averaging a minimum of -14.4% per year from 2020, to deliver a Paris-aligned carbon budget;
  - reaches zero or near zero carbon emissions by no later than 2040.
- 1.3 Figure 1 shows the advised carbon emissions reduction pathway for Sunderland, recommending a rapid reduction in annual citywide carbon emissions, particularly within the next decade. It was advised that by 2020, Sunderland should aim for a 16.1% reduction in CO<sub>2</sub> emissions, relative to 2015 levels. After 2020, it was advised by the Tyndall Centre that citywide carbon emissions should then reduce by 14.4% annually, creating a second recommended interim target of a 61.5% reduction against a 2015 baseline by the end of 2025.

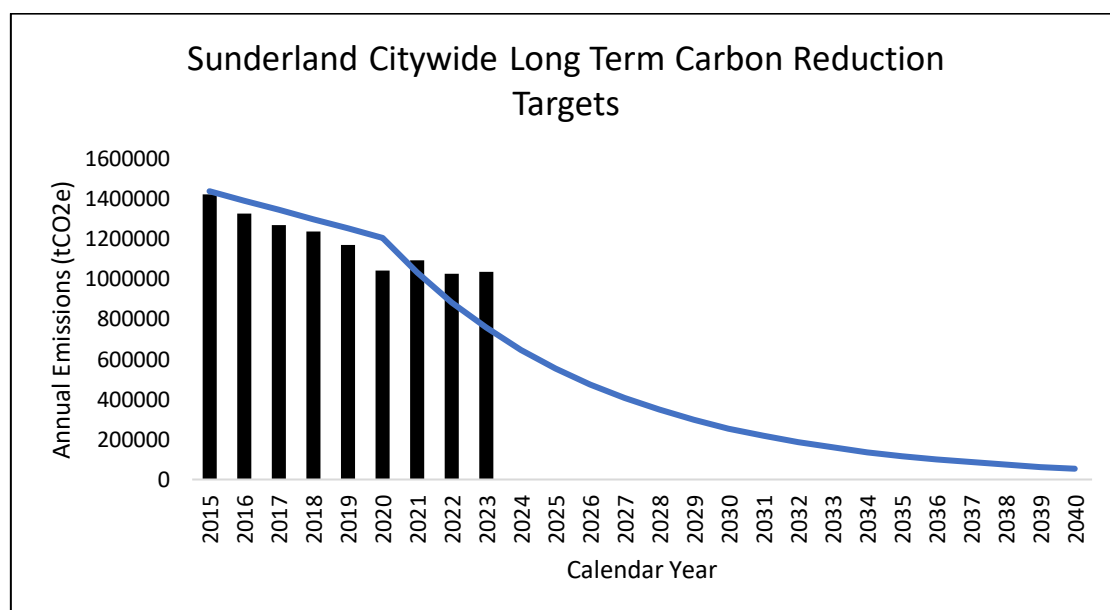


Figure 1 - Long term carbon reduction targets aligned with the carbon budget recommended by the Tyndall Centre (Tyndall Centre, 2024)

1.4. The Tyndall Centre report recommends that Sunderland stays within a recommended carbon budget of 8.2 million tonnes for the period 2020-2100 and, due to the data available at the time the report was published, 10.9 million tonnes for the period 2018-2100. The report informed the 2040 carbon neutrality target for the city. The Tyndall Centre also provides indicative recommended shorter-term carbon budgets and associated emissions reduction targets by a series of set dates to guide progress towards meeting the goals of Sunderland’s long term carbon budget. These recommendations are displayed in figure 2 and 3, and we are currently within the second target period for both. It is important to note that this carbon budget for the city does not include aviation and shipping, as they remain a part of the national carbon budget. The Land Use, Land Use Change and Forestry (LULUCF) sector, and wider greenhouse gas emissions are also excluded from this budget which focuses exclusively on carbon.

*Figure 2 - Interim carbon budget recommendations for Sunderland (Tyndall Centre, 2024)*

<b>Carbon Budget Period</b>	<b>Recommended Carbon Budget (Mt CO<sub>2</sub>)</b>
2018 – 2022	5.8
2023 – 2027	2.8
2028 – 2032	1.3
2033 – 2037	0.6
2038 – 2042	0.3
2043 – 2047	0.1
2048 – 2100	0.1

*Figure 3 - Interim 5-yearly annual emission reduction targets from a 2015 baseline recommended for Sunderland (Tyndall Centre, 2024)*

<b>Year</b>	<b>Cumulative Reduction in Annual Emissions from 2015 baseline</b>
2020	16.1%
2025	61.5%
2030	82.4%
2035	91.9%
2040	96.3%
2045	98.3%
2050	99.2%

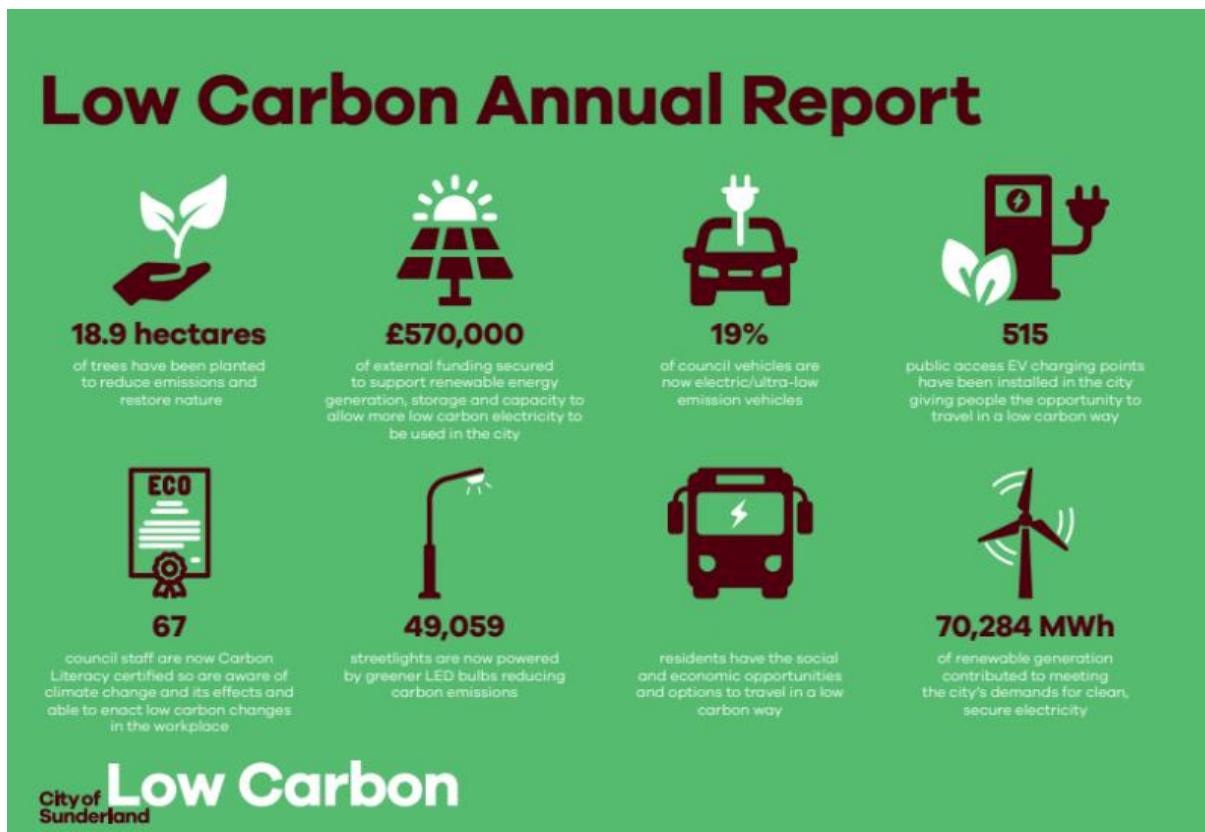
1.5 Progress in relation to the targets outlined in Figures 2 & 3 is set out more fully in section 5 of this report, with the first target achieved from both but the second and subsequent targets significantly more challenging.

## **2. Low Carbon Framework – a city-wide strategic approach**

- 2.1 In 2020/21 Sunderland's 2030 Shadow Board prepared the Low Carbon Framework which sets out the city-wide strategic approach for Sunderland to achieve citywide carbon neutrality by 2040. This was adopted by the Sunderland Partnership in December 2020. The Council endorsed the Low Carbon Framework in January 2021 and at the same time adopted its initial Low Carbon Action Plan, which set out the target for the Council to become carbon neutral by 2030. The Council subsequently reviewed and updated its Low Carbon Action Plan, which was approved by Cabinet in July 2022, drawing on the increased knowledge and understanding of the Council's emissions which continues to be developed.
- 2.2 Sunderland's Low Carbon Framework sets out 7 strategic priorities, which are reflected in the City Council's Low Carbon Action Plan. These strategic priorities are: Our Behaviour; Our Policies and Operational Practices; An Energy Efficient Built Environment; Renewable Energy Generation and Storage; Low Carbon and Active Transport; A Green Economy; and Reducing Consumption and Waste.
- 2.3 In addition to the above, Sunderland reaffirmed its commitments to UK100 by signing the renewed pledge in January 2022 with the support of partners across the 2030 Shadow Board. Signatories of this pledge are working collaboratively to ensure net-zero targets are reached as soon as possible. Signing the renewed UK1100 pledge further raised the ambition of Sunderland City Council's low carbon ambitions for its own operations, to achieve net-zero greenhouse gas emissions by 2030, and for the wider city to achieve net-zero greenhouse gas emissions by 2045 or as soon as possible.
- 2.4 This report is the fifth annual report since the citywide Low Carbon Framework was endorsed and the Council's Low Carbon Action Plan was adopted. The report builds on the [2023/2024 Annual Data Report](#) which is published on the MySunderland website.

### 3 Key Areas of Activity and Progress in Sunderland

Sunderland City Council reviews carbon emissions data annually, alongside city partners through the Shadow Board to ensure targeted action continues to be taken to reduce emissions across the city as well as within council operations, whilst also supporting communities across the city to save money, improve their health and wellbeing and receive the support they need to adapt to the changing climate.



The following case studies are a snapshot of the positive action being taken, often across the partnership, covering the seven strategic priority areas from the 2030 Sunderland Low Carbon Framework.

#### 3.1 Our Behaviour

A wide range of opportunities have been taken to engage with residents across the city, to enable them to understand the options available to enable them to live a sustainable lifestyle. Here's a snapshot of some of the activities which have taken place across the city.

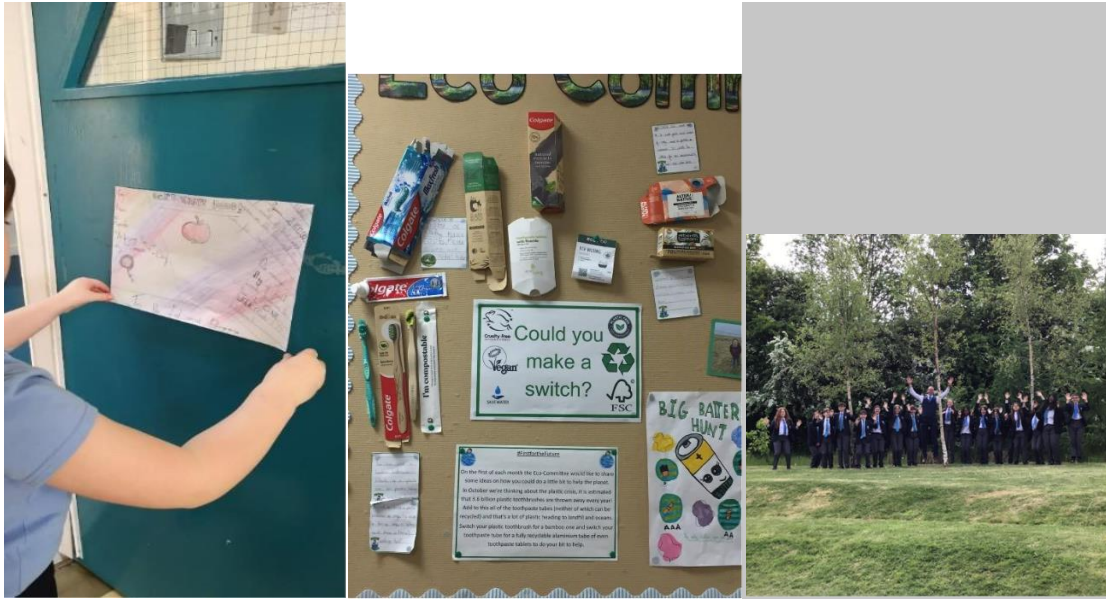
**74 young people** took part in an Earth Day event at Sunderland Museum & Winter Gardens, including an eco-trail, plant pledges, nature crafts, renewable energy investigations, and badge making- featuring Sunny Bee, Sunderland's sustainable mascot, who is featured throughout this year's report.



The **Sunderland Young Achievers' Awards** honour young people for their achievements, including environmental impact through the Young Environmental Champion Award.

**Winner (Left): The Link School's Year 10 Gardening Group**- students transformed an unused space into a growing area for wildlife and the school community.

**Highly commended (Right): The Eco-Committee at St Benet's Roman Catholic Primary School**- in collaboration with ReFuse Cafe from Chester-Le-Street, the committee focused on reducing food waste, seeing a 13% reduction in food waste.



## Climate Friendly Schools

**15 Sunderland Schools** involved in the Climate Friendly Schools programme, which has been supporting schools with audits, action plans, and eco-projects like tree planting and renewable energy exploration.

*(Photos - St Benet's RC Primary School and Kepier).*



**National Education Nature Park 2024-2025**

**22 Sunderland schools** received a total of **£231,000** through the National Education Nature Park grant during 2024/25, to transform grey spaces into green learning environments. (Top row photos - Kepier, Bottom row photos - Sandhill View Academy).



## Sunderland Healthy Schools Awards 2025 – launch of Low Carbon School Charter

Children and teachers from 12 Sunderland schools celebrated the Healthy Schools initiative at an award ceremony featuring the launch of the Low Carbon Charter Mark in July 2025. The **Low Carbon Charter Mark is now being rolled out across Sunderland schools** alongside the other Healthy School awards in partnership with Together for Children. The award encourages young people within the school to work together to develop sustainable plans which include **reducing energy bills for the schools as well as creating natural spaces and resources for the young people to enjoy.**

## Sunderland Schools Climate Conference 2025



In June 2025, following the previous conference in June 2024, **105 pupils and 35 staff from 22 Sunderland schools** joined a climate conference featuring interactive climate-themed activities, celebrating school achievements and expert engagement from **12 Organisations**.



**Wear Here 4 Summer** events during the Summer 2025, offered school-aged children a wide variety of sports, arts, cultural and learning activities, nutritious meals, cooking and nutrition education, and opportunities to socialise and make friends through an expanding network of clubs across the city. **1700 attendees across 5 events. A total of 692 residents engaged** in recycling information, energy saving advice, transport options and environmental activity, including upcycled bird feeders and planting.

In addition, the **Active Sunderland Family Fun** offered a range of activities to keep the whole family active and having fun together over summer. **A total of 290 residents engaged** in recycling information, energy saving advice, transport options and environmental activity, including upcycled bird feeders and planting.

## Carbon Literacy – training our workforce to support resident



During 2024/25, **67 Sunderland Council staff took part in Carbon Literacy training**. The training is about raising awareness of climate change and providing information on how to reduce emissions. The training is crucial to continue meaningful and effective climate action by equipping and empowering teams to be able to incorporate appropriate low carbon and climate adaptation practices into their service areas. Similar training has also been rolled out via I-Learn and made available to all staff across the Council, Together for Children and Sunderland Care and Support.

The staff from various service areas, took part in a range of activities aimed at inspiring new ideas and initiatives, developing innovative new learning processes, enriching their current understanding of climate change matters, and making pledges to reduce their carbon footprint in both a personal and professional capacity.

The staff who completed the course, are now recognised as 'carbon literate', meaning they have the appropriate knowledge and skills to deliver lasting impact, and the 'ability and motivation to reduce emissions on an individual, community and organisational basis'.

This is supporting the council's ongoing and ambitious efforts to deliver lasting organisational and city-wide change to benefit residents from across our communities as well as future generations to come.



## Green Business Toolkit

In January 2025, Sunderland Council launched its Green Business Toolkit. Businesses have free access to a self-service toolkit which is located online: Low Carbon: Green Business Toolkit - MySunderland. The Green Business Toolkit provides businesses with advice on measures to become more sustainable and reduce their impact on the environment, on funding opportunities, as well as signposts to external support, training and accreditation opportunities and case studies of Sunderland businesses. As of July 2025, the toolkit has had over 650 views.

Sunderland businesses can join the Sunderland Green Network for free, to obtain tailored support from the Council's Low Carbon team to calculate their carbon footprint and create a carbon reduction report from the data obtained. The network is also a place for businesses to connect and share best practice in sustainability with quarterly network meetings. As of August 2025, 15 businesses have signed up to the network, and together with the Council's Business Investment Team we will continue to increase awareness of the toolkit and network.



**Low Carbon: Green Business Toolkit**

Scan the QR code to obtain your free support & join the network now:

[lowcarbon@sunderland.gov.uk](mailto:lowcarbon@sunderland.gov.uk)

Social media: **#wearsustainable**

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## 3.2 Our Policies and Operational Practices

**Sunderland City Council submitted its annual disclosure to CDP (formerly Carbon Disclosure Project) in September 2024 and was again awarded A-List city status.** CDP is widely viewed as the gold standard for environmental reporting, and disclosure allowed the city to report the same information as over 1,100 other cities around the world.

Feedback from the city's annual submissions to CDP will continue to inform future activity by the Council and its partners as appropriate and help to ensure continued focus on protecting and enhancing the environment for Sunderland residents.



### **WWF One Planet City Challenge – National & Global Winner**

As a result of Sunderland's CDP submission the city is automatically eligible to enter the WWF One Planet City Challenge. In 2024, Sunderland was invited to participate in the 'We Love Cities' campaign in October 2024. **Sunderland was named as the UK's Winner and also global winner alongside Istanbul.**

Leading environmental charity World Wild Fund for Nature (WWF) also named Sunderland as one of the city's leading the global effort to combat climate change. The [OPCC](#) is one of the largest and longest-running climate challenges for local governments in the world. Since its inception in 2011, it has been highlighting leading examples of climate mitigation and adaptation from cities around the world.

The **WWF jury found Sunderland's approach to climate action to be ambitious, multi-dimensional and well-balanced**, scoring positively across all sectors. The judges also reserved special praise for Sunderland's "innovative 'Shadow Board' which highlights inclusive decision-making and offers a model for other cities to replicate."



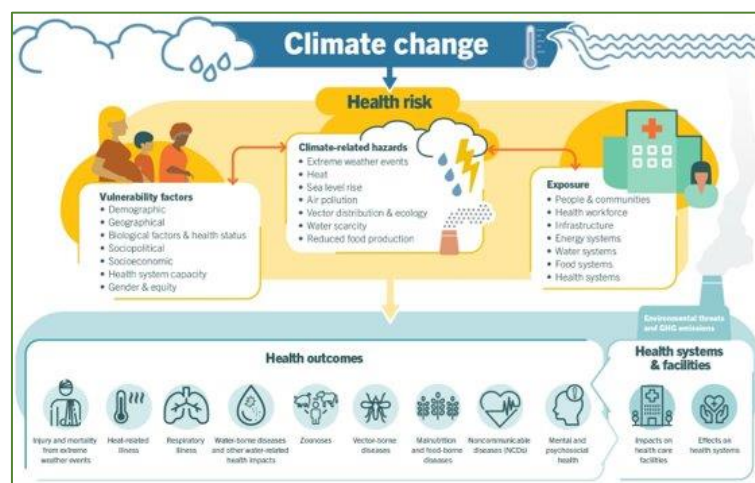
## Adaptation – working together to enable environmental sustainability, support our communities and protect the health and wellbeing of our residents

Sunderland has taken an inclusive approach from the outset to seek to reduce the risks of climate change impacting more significantly on our more vulnerable communities. The Council has continued to focus on supporting those residents in most need to inform delivery of interventions to ensure all residents benefit from investment which will support them to live in a changing climate. For example to retrofit their homes, planting trees and improving green spaces, decarbonisation and retrofitting businesses as well as continuously reviewing risks associated to where Sunderland’s most vulnerable communities live,

In addition to the Low Carbon Framework, Sunderland has developed a Climate Change Risk Assessment. The risk assessment is aligned to the UK Climate Risk Independent Assessment (CCRA3) Technical Report (2022). During the last year Council staff have worked within their service departments to confirm staff are aware of the risks associated with climate change to ensure their services continue to actively support Sunderland communities, and particularly those residents with multiple vulnerabilities. The city 2030 Shadow Board has also considered the risks associated with climate change and each partner continues to develop their own adaptation plans.

The risk assessment identifies climate risks across 4 categories: infrastructure; health, communities and the built environment; business and industry; natural environment and assets. These include risks to health and wellbeing, the delivery of health and social care and education, biodiversity, the landscape including soils and natural carbon stores, businesses both physically and through productivity decline, and risks to infrastructure including water supply, transport networks and energy demand.

These risks continue to be assessed, to determine which current policies are working towards reducing the risks. Potential gaps will be identified to understand where future risk reduction must be undertaken to ensure resilience to climate change for our most vulnerable communities. Priority actions to reduce the risks identified and their impact will be taken forward as part of a strategic and co-ordinated approach to adaptation, working both locally and regionally as appropriate.



## **Securing external funding to maximise outcomes for residents**

**Sunderland Council secured £24,937,041** between April 2024 up to September 2025 (when this report was produced) to support delivery of 12 projects and programmes within Sunderland. This funding is helping us to reduce our carbon emissions and, equally importantly, is helping us to secure alternative energy sources and reduce bills, enabling residents to be active, as well as improving and preserving our natural resources and green spaces creating benefits for residents from across our communities.

The above figure includes the following:

- £15.5m for the City Centre Heat Network from the Green Heat Network Fund,
- £5.8m Active Travel Fund grant for 2 x Cycle Route projects (Dame Dorothy and Ryhope) from the Department for Transport
- £1.5m Warm Homes Grant from the Ministry for Housing, Local Government and Communities
- £1.05m Public Sector Decarbonisation Scheme 4 (PSDS4) from the Department for Energy security and Net Zero
- £0.490m for Nature, Towns and Cities – Connecting Through Nature project from the National Lottery Heritage lottery fund in partnership with Natural England and the National Trust
- £0.34m Mayoral Renewal Fund from the Department for Energy security and Net Zero and the North East Combined Authority
- £0.09m Aquatic Centre from Sport England.

Sunderland Partners are also working together to maximise and secure external funding to retrofit properties. For example, Gentoo, the city's social housing provider, who manage properties for over 60,000 people in Sunderland have committed to all its properties having an Energy Performance Certificate rating of at least C by 2030. Between April 2020 and April 2024, £51 million has been invested in energy efficiency measures. By the end of March 2025, over 80% of Gentoo homes had an EPC rating of C or above. This includes energy efficiency improvement works wholly funded by Gentoo as part of their capital programme alongside improvements as part of part funded programmes such as Social Housing Decarbonisation Fund

## **Safer working for Council staff through the increased use of low carbon power tools**

Sunderland City Council is prioritising its transition from a reliance on traditional petrol-powered hand tools to electric alternatives in order to reduce harmful exhaust emissions and high levels of noise, and to reduce and eliminate damaging hand-arm vibration (HAV) exposure. The Council identified an opportunity to not only improve staff wellbeing and reduce the output of harmful emissions, but to increase operational efficiency as well. In early 2025, new and emerging technologies were demonstrated

to the council's operations teams, meeting the criteria to perform as well as, or better than, their diesel equivalents. By investing carefully in rechargeable electric grass-cutting equipment for summer usage, the same battery systems can be repurposed for winter use to power tools like hedge trimmers, strimmers, blowers, and chainsaws, further reducing environmental impacts and the risk of HAV exposure for staff.

By enabling and expanding access to low-carbon, safer equipment, Sunderland City Council is reinforcing its commitment to both environmental sustainability and workforce wellbeing. This proactive approach not only reduces the Council's carbon footprint but also supports safer working conditions by lowering exposure to noise, emissions, and vibration.

By increasing the use of low-carbon equipment, Sunderland City Council is delivering tangible benefits to residents. Cleaner, quieter electric tools help improve air quality and reduce noise pollution in public spaces, contributing to a healthier and more pleasant environment. At the same time, safer equipment enhances the wellbeing of Council staff, ensuring more efficient and sustainable service delivery. This forward-thinking approach not only supports the city's climate goals but also sets a positive example for businesses, communities, and future generations, positioning Sunderland as a leader in environmental responsibility and public sector innovation.



### **Planning with people and the planet in mind – Integrated Impact Assessments in Sunderland**

Sunderland City Council uses Integrated Impact Assessments (IIA) as a key consideration in decision-making to ensure that choices around services, infrastructure, and spending are inclusive, equitable, and environmentally responsible. During 2024/25, the IIA has been strengthened to align with the Council's Low Carbon Action Plan, embedding sustainability, alongside considerations around health inequalities into every stage of decision-making. This ensures that environmental considerations, such as carbon emissions, energy use, transport options, biodiversity, and climate resilience, are assessed alongside social and economic impacts. The IIA also supports evaluation of how decisions may influence behaviour change, energy efficiency, renewable energy uptake, active travel, waste reduction, and the growth of Sunderland's green economy. This is designed to identify and mitigate any negative impacts as well as maximise the opportunities for positive impacts benefits

## **Enhance our Green Infrastructure and natural spaces across the city**

### **£400k investment into Sunderland from Trees for Climate, via the North East Community Forest during 2024/25**

In the 24-25 planting season **11,173** trees were planted across Sunderland, including **425 standard trees, 102 orchard trees and 1.65km of hedging across 23 sites.**

The trees were planted across a variety of sites including 6 greenspaces across the Coalfield area as part of the Links with Nature project, 4 schools, and 8 sites in Millfield, an area of the city with low tree canopy cover and greenspace. To complement the tree planting 0.23 hectares of wildflowers and 160,000 bulbs were also planted. Community volunteers helped to plant many of the trees at Copt Hill, Flint Mill, Redburn and sites in Millfield. The hot summer and significant lack of rainfall has been very stressful for the new trees but the NE Community Forest funding includes funding for watering and replacement of failed trees and so we are confident that in the longer term all planting will be successful.

The following points below share the range of benefits that these trees are creating:

**262 trees** were planted by the Council's Environmental Services team to replace dead or damaged trees, and the remaining planting was funded by Trees for Climate.

**Nature and biodiversity** - The tree and hedgerow planting will improve biodiversity across the city, particularly on sites which habitats are degraded. New hedgerows will provide vital wildlife corridors linking other habitats.

**Flood Mitigation** – increased protection against flooding in areas of high surface water or close to watercourses

**Heat stress** – increased shade when sun is high and temperatures are intense.

**Improved School grounds** – hedge planting has helped create privacy for schools and trees will provide shade and create a calm learning environment for children.

**Community engagement:** Community planting events allowed local people to get involved in improving their local greenspaces.

**Health and Wellbeing:** New tree planting has created visual improvements to greenspaces and it is hoped that this will be a contributing factor in people using them more and therefore gain health benefits from being outside in nature. At Herrington Country Park, 52 orchard trees have been planted to create a community orchard with wildflowers to provide fruit and an opportunity for community connection.

Standard trees at Hetton Lyons Country Park (left) and new hedgerow at Redburn (right)



**Links with Nature is a project which is improving 12 sites within the Coalfield area of Sunderland**, creating a network of greenspaces where people and wildlife can thrive. The two-year project (July 2024 to July 2026) is being delivered by a partnership of Durham Wildlife Trust, Sunderland City Council and Wear Rivers Trust and combines restoring habitats and increasing biodiversity on the sites alongside a varied activity programme of volunteering, green social prescribing, engagement and wellbeing activities to improve health and wellbeing of local residents through actively linking with nature. The project is improving access to greenspaces through the installation of new footpaths & signage and by making the spaces more accessible it enables and encourages more residents to access nature. The engagement and volunteering activities led by the project has helped residents connect with their local greenspaces and enjoy the health and wellbeing benefits that come spending time in nature.

Progress in the first year (July 24 to July 2025) of the project has included:

- 5,124 metres of footpath improvements
- The planting of 6,146 trees
- 120 metres of new boardwalks
- 3,520 volunteer hours invested by 100 volunteers
- 16 new wetlands created
- Nearly 900 people attending events, walks or nature-based activities
- The addition of 14 gates and stiles, plus a new footbridge.

As well as Improving quality of greenspaces within the Coalfield area, this project has inspired the city's **Nature Towns and Cities project - Connecting through Nature**, which will bring benefit to nature and residents across the city. The Council secured funding from the Lottery and Healthy City Grant in July 2025, to deliver the project over the next three years. The City Council's bid to the Nature Towns and Cities Programme was one of only 19, benefitting 40 towns and cities nationally, to be awarded funding.

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Nature based crafts and group activities & new footpath at Elemore Vale

## **Sustainable regeneration - Seaburn Play Park - £1.5 investment**

Sunderland City Council and Siglion Developments has created an accessible play park of regional significance in Seaburn, Sunderland, designed to attract visitors from across the North-East and beyond. The park sets a benchmark for inclusive, engaging, **sustainable** and future-ready public play spaces and is Sunderland's first fully inclusive play area, combining natural, sensory, and digital play to encourage children of all abilities to play and learn alongside wildlife and nature. The Play Park opened to the public in Spring 2025.

### **Key Features**

- Bespoke natural play equipment designed to be wheelchair-accessible, enabling children of all abilities to play together. A sustainable construction approach that enhances local biodiversity and ecological value.
- Collaborative design process with local school children

### **Signature Elements**

- Pyramid Slide
- Elevated tree walkways and bridges
- Bespoke climbing walls
- Traditional play such as swings, roundabout and seesaws
- Natural and sensory play and landscaping

### **Digital Integration**

- Rainbow Arch, Interactive digital play equipment
- Free public Wi-Fi to enhance connectivity and engagement

### **Sustainability & Aesthetics**

- Use of natural materials
- Planting schemes tailored to the coastal environment

## Green & Ecological Solutions Delivered

- 250 linear metres of native beech hedgerow planted
- 28 trees planted
- 20 linear metres of living green retaining wall
- 500 m<sup>2</sup> of scented wildflower meadows within the play area
- 100 linear metres of culverted stream re-profiled
- 550 m<sup>2</sup> slope naturalised with marginal and wildflower planting



## Reclaimed Feature Timbers and repurposed materials

- All reclaimed timber is FSC Recycled 100%
- Surplus paving, picnic tables, and seating from Sunderland City Council stores were reused in the project



### 3.3 An Energy Efficient Built Environment

SCC continues to support local business and community organisations through the BREEZ 2 and BREEZ3 projects, co-funded through Sunderland's UK Shared Prosperity Fund (UKSPF) programme. The primary objective of BREEZ is to support SMEs and community organisations to upgrade old, inefficient heating, lighting and insulation systems with new, energy-efficient upgrades. BREEZ provides 50% grant funding towards microgeneration (e.g., Photovoltaics) and upgrades for business process equipment. From January 2024 to March 2025 BREEZ supported 84 local businesses and 35 community organisations.

£513,191 of grant funding was allocated which attracted £609,130 match funding from grant beneficiaries. A grand total of £1.12m was invested in cost effective energy efficiency measures reducing carbon emissions by 333 tonnes a year whilst also significantly and sustainably cutting the energy bills of beneficiary organisations over the lifetime of the energy efficiency measures installed.

The following case study highlights one of the business support projects.

#### **Sustainable Energy upgrades at The Highfield Hotel with Support from Sunderland Council's BREEZ Project**

The Highfield Hotel, a family-owned, award-winning establishment in Sunderland. As part of its commitment to high-quality service and sustainability, the hotel has consistently sought ways to minimize its environmental impact. To achieve this, the hotel turned to Sunderland City Council's BREEZ (Business Renewables and Energy Efficiency Sunderland) project for assistance in upgrading its energy systems.

#### **The Challenge**

The Highfield Hotel's reliance on hot water systems for guest accommodations and hotel operations made them a significant energy consumer. The hotel's existing water heaters, while functional, were outdated and inefficient, leading to increased energy consumption and higher operating costs. Furthermore, the hotel's commitment to sustainability necessitated a solution that would reduce its carbon footprint.

#### **The Solution**

With support from the BREEZ program, The Highfield Hotel replaced two outdated water heaters with high-efficiency condensing boilers. Condensing boilers are known for their superior efficiency, as they recover more heat from exhaust gases, translating to greater energy efficiency and lower operating costs. The BREEZ project provided grant funding to support this initiative, enabling the hotel to implement these energy-saving measures.

### **Key Benefits:**

The implementation of the new condensing water heaters has yielded several significant benefits for The Highfield Hotel:

- **Significant Energy Savings:** The new boilers have substantially reduced the hotel's energy consumption for water heating, with an anticipated cost reduction of at least 25%.
- **Reduced CO2 Emissions:** The increased efficiency of the new systems has led to a decrease in the hotel's carbon emissions.
- **Improved System Reliability:** The new boilers offer enhanced reliability and require less maintenance, minimizing service calls and downtime. These units are expected to have a lifespan of at least 15 years.
- **Enhanced Environmental Reputation:** By upgrading to energy-efficient technologies, The Highfield Hotel has strengthened its commitment to sustainability, which is increasingly important to environmentally conscious guests.

### **Working with Local Expertise**

In alignment with its commitment to supporting the local economy, The Highfield Hotel partnered with EMS, a Sunderland-based company, to execute the project. EMS's expertise in the hospitality sector and the specific needs of the hotel ensured a smooth and efficient installation process.

### **The Role of Sunderland City Council's BREEZ Project**

The BREEZ project, co-funded through Sunderland's UKSPF programme played a crucial role in making these energy-saving upgrades possible. Beyond providing financial support, the project offered valuable guidance on the most effective energy-saving technologies available. Without the BREEZ funding, the cost of replacing the water heaters would have presented a significant financial obstacle, potentially delaying the hotel's efforts to improve energy efficiency and reduce operating costs.

With the financial support and guidance provided by Sunderland City Council's BREEZ project, The Highfield Hotel has successfully modernized its water heating systems, resulting in reduced energy costs and a lower carbon footprint. These upgrades not only align with the hotel's commitment to sustainability but also provide long-term financial savings, enhance operational efficiency, minimize unexpected maintenance costs, and enhance the hotel's reputation among eco-conscious guests.



The successful delivery of BREEZ 2 in 2024/25 has enabled the council in 2025/26 to secure an additional £241,000 of UKSPF grant funding to deliver BREEZ 3 and support even more local businesses and community organisations. From April 2025 to date the BREEZ 3 project continues to deliver outcomes and is currently actively engaged with a further 56 new applicants with over £50,000 of grants already offered for investment in energy efficiency measures.

### **Warm Homes Local Grant**

**In February 2025 Sunderland City Council was awarded £1,500,000 of Warm Homes Local Grant (WHLG) over 3 years to retrofit a minimum of 150 of the least efficient, low-income privately owned properties across the city.**

The Warm Homes Local Grant (WHLG) is a government-funded scheme delivered by Local Authorities to tackle fuel poverty and cut domestic energy bills. By installing solar panels, insulation and high-efficiency heating systems into the least efficient low-income properties in Sunderland helps to ensure WHLG eligible households achieve energy bill savings that alleviate fuel poverty meaning bills savings are recycled into the local economy whilst also creating a healthier and happier household environment. If the Council exceeds its delivery targets, there is potential to increase the level of funding from April 2026 to March 2028.

WHLG helps to ensure homes are healthy living environments, thermally comfortable, efficient and well-adapted to energy price volatility. Sunderland City Council's WHLG delivery contractor procurement process also ensures the project is delivered locally to support the green economy, local supply chains, and maintain skilled jobs for local tradespeople.

Sunderland has comparatively higher levels of lower income households experiencing the impact of fuel poverty so by focusing on lower-income households, and areas of high economic deprivation, upgrades made to the housing stock will support our most vulnerable communities across the city.

### **Decarbonisation of Assets – improving energy efficiency**

The Council has received Public Sector Decarbonisation Funding over the last 3 years. This has been used to decarbonise heating, ventilation and hot water systems in a number of our most energy intensive buildings. In addition, the funding has also been used to fund solar PV and LED lighting schemes.

The Council has received Swimming Pool Support Funding to install solar PV at 2 leisure centres. Further funding has also been received via the Workplace Charging programme to install EV infrastructure at key operational sites. This external funding has complemented the Council's own funding for improving the energy efficiency of our buildings and street lighting and installing EV Infrastructure.

### 3.4 Renewable Energy Generation and Storage

**£570,000 of external funding** has been secured to support renewable energy generation and storage and increase installed capacity during 2024/25.

Since late 2022 Sunderland City Council has installed approximately 1.6 MW(p) of solar PV at 11 sites, including schools such as Hetton Primary and Barnes Juniors Dining Block. This investment also includes in excess of 3MWh of associated battery storage. These solar panels will generate approximately 1440 MWh per annum and save an anticipated 324 tonnes of carbon and reduce cost by £400,000 per annum.

Additional funding was also agreed by Sunderland City Council (August 2024) to enable additional solar PV to be installed at operational buildings and schools.



Hetton Community Pool, Tennis and Wellness Centre with support from Sunderland Council has received a £410,00 grant from a national Sport England grant to add LED lights, solar PV and a battery storage unit. This will allow solar energy to be used to power the Centre, including heating the pool, lowering the building's carbon footprint, and creating savings on energy costs. Construction is now complete and the 431 solar panels became operational in March 2025. The Council continues to support the installation of Solar PV across the city's leisure centres, community buildings and businesses working collaboratively to secure external funding.

The Council successfully **secured £345,000 grant funding from the Mayoral Renewable Energy Fund in conjunction with the North East Combined Authority(NECA) during the summer 2025 to install solar PV arrays in up to 14 grant maintained primary schools** supporting the schools to reduce their energy bills and increase their resilience to the changing climate. The Council is also working with schools, NECA and Government through the Great British Energy Solar Partnership to maximise funding opportunities to accelerate the installation of solar and other energy efficiency interventions.

## Heat network progress – working with 1Energy

The Council has continued to progress development of renewable energy in the city centre, as well as district heating opportunities citywide.

A revised Green Heat Networks Fund (GHNF) application was submitted to GHNF Round 8 and the Council secured a further £225K (Jan 2025), towards commercialisation and £16.9M construction grant for towards Phase 1 of the project; focused across City Council buildings and those of key strategic partners, market developments and an increased customer awareness has increased the expected Phase 1 heat load, while increases in construction estimates has increased the capital cost. Following further detailed desktop analysis of mine workings beneath the city centre, the Coal Authority consider Wearmouth Colliery among the top mine source heat targets in the country.

Regrettably the cost of pilot boreholes remains prohibitive within the current budget, owing to increases in construction and steel prices, however operational wells remain within the expected budget range of the wider district heating project. Based on the further detailed review the Coal Authority and drilling experts indicated that target quality and records negate the need for pilot wells, although the risk profile continues to prove difficult from a commercial aspect.

In parallel, for the wider Sunderland Central district heating project; the Council has since concluded its revised and first of its kind procurement strategy, seeking a funder/operator to formally engage come onboard at the commercialisation stage and enter into a Joint Development Agreement (JDA).

The Council has awarded preferred bidder status to 1Energy Group Limited (March 2025 to Oct 2025) and their financial partner Asper Investment Management, with whom it will enter into the JDA, contract details are being finalised with the Department for Energy Security and Net Zero to account for the GHNF-R8 funding. The finance from Asper is categorised as a “Dark Green” (Article 9) Fund, representing the highest ESG standards. Commercialisation work has recommenced and progressing to detailed design, with engagement with key anchor load customer progressing well.

**Partners in Sunderland are also plugging in** and by the end of 2024 the **University of Sunderland had installed almost 1,000 kWp of solar arrays across 8 buildings**, with more planned. They can produce more than 870,000 kWh of electricity each year. The University has also completed heat decarbonisation plans to help inform the strategy for moving away from fossil fuel for heating. Eco Campus Silver (Environmental Management System) has been achieved, with plans to achieve Gold level by the end of 2025, and a food waste stream has been introduced across campuses and halls of residence.

**Bus shelters** across the city are also having solar panels installed with 58 of 72 shelters now completed (August 2025). Bauer Outdoor Media have also introduced free-standing advertising units to the city centre, with new, high-tech 'Wafterlite' digital units, which are thinner and 50% more energy efficient than the existing digital screens.

### 3.5 Low Carbon and Active Transport

**Active Sunderland Walking Programme** has been in place since 2010 and is well-established and promoted across the city.

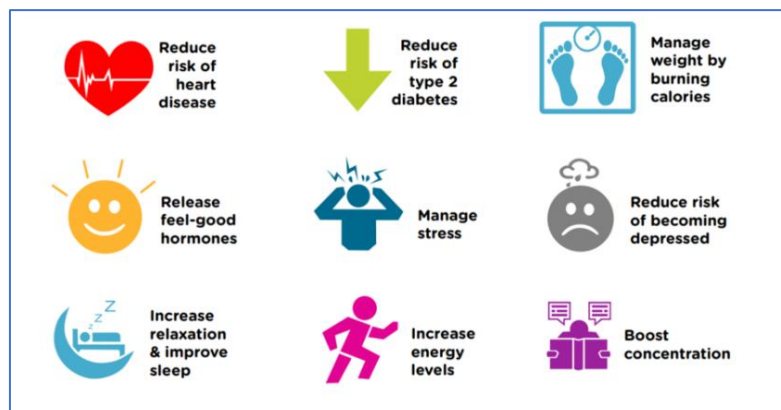
It offers a variety of walking opportunities across the city including health walks, Nordic walking and community led walks. The walks are suitable for all ages, fitness levels and abilities; they generally last an hour. The programme is led by a group of dedicated, volunteer walk leaders who take responsibility for maintaining safe, friendly and welcoming walks.

Through working with community groups and promoting the benefits of walking regularly, the number of residents walking, whether for leisure or active travel, continues to grow, and promoting walking remains a key Active Sunderland priority going forward. **In the last 12 months there have been 6,794 attendances at the 13 weekly walks across the city.**

The Active Sunderland Walking Programme supports residents to be active, create social connections, reduce social isolation, drive economic benefits for local business and create a welcoming and safe environment for residents across the city to participate in walking as free, low impact activity. It encourages residents to actively travel and reduce their reliance on vehicles. This in turn, reduces carbon emissions and improves air quality for residents. Walking also encourages residents to use the wide range of green infrastructure we have in Sunderland, such as parks, walk trails and cycle routes.

Walking groups offer more than just a chance to get active—they provide a vital opportunity for residents, particularly older adults, to connect with others, build friendships, and reduce feelings of social isolation. What often begins as a simple weekly walk can grow into something much more impactful.

As participants gain confidence and form stronger social bonds, many begin to organise additional walks, exploring new routes, and even planning weekends away to places like the Lake District to take on more challenges. These experiences not only improve physical health but also foster a sense of purpose, belonging and adventure. The main physical and mental health benefits from walking for residents include:



**The North East Transport Plan (NETP)** which was adopted by the NE Elected Mayor and Cabinet in March 2025. The Plan sets out priorities and forms the basis for bids and requests for funding for transport investment in the North East up to 2040.

The plan is structured around five key areas:

- journey planning and customer support
- ticketing and fares
- expanding infrastructure and making it more resilient
- enhancing safety, especially for women and girls
- improving links between different modes of transport

The Transport Plan is supported by a number of focused strategy documents:

**Making the Right Travel Choice** - Making the Right Travel Choice Strategy encourages car users to switch one journey a week to a more sustainable travel option.

**Bus Service Improvement Plan** - North East Bus Service Improvement Plan (BSIP) outlines the region's ambitions and investment plan to make buses a more attractive alternative to private vehicles. The numerous measures proposed include improvements to timetables and fares, extensive priority measures on roads and at junctions to speed buses up – including two new Park & Ride sites, a set of affordable fare “caps” that work across all buses and Metro services, known as the Mayor's fares, for many young people and simplified and improved information.

Sunderland City Council is working with Nexus and bus operators to improve bus service infrastructure and bus services by introducing low/zero carbon bus vehicles, real time information and integrated ticketing. Sunderland City Council is also working with neighbouring local authorities to enable cross boundary ticketing and Wi-Fi improvements, making the bus a more attractive choice. In a joint project between the Council, Nexus and NECA, a new bus route was created in July 2024, funded by the North East Combined Authority as part of the Bus Service Improvement Plan. This service strengthens links with Sunderland Royal Hospital, the International Advanced Manufacturing Park (IAMP), the Nissan car plant, Sunderland city centre, and Jarrow and Hebburn town centres.

Consultation on two corridor-based interventions in Sunderland is now complete. These interventions provide improved bus stop safety and accessibility measures on the A690 (Durham Road) and A183 Chester Road with a total investment of approximately £3.1m. Further detail regarding specific sustainable transport schemes currently being delivered in Sunderland can be found throughout the [BSIP](#). Measures include modernising traffic signals in the region, providing bus priority signals at junctions and real time journey information on corridors such as the A690 in Sunderland. This will reduce congestion affecting public transport and improve air quality.

A programme of improvements to outdated bus stops which do not meet current accessibility and safety standards is also underway with locations in Sunderland identified for intervention.

**Zero Emission Vehicle Strategy** – North East Zero Emission Vehicle (ZEV) Strategy aims to deliver reliable public ZEV charging infrastructure across the North East wherever people need it.

**Active Travel Strategy** - North East Active Travel Strategy aims for walking, wheeling and cycling to become the natural first choice for short everyday trips.

In 2025 Sunderland received £200,000 in Active Travel Capability Funding to plan and design schemes, and to deliver a programme of Cycle training, Cycle loan and share schemes, Cycle maintenance training, Cycle security measures and to promote Active travel more widely.

**Rail and Metro Strategy** - North East Rail and Metro Strategy sets out how rail and Metro can play a key role in achieving our region's shared transport vision and objectives. In July 2024 £8.5m of funding was approved at regional level to progress an Outline Business Case for the Washington Metro Loop by March 2027, and to produce a Strategic Outline Business Case for the Southern part of the Leamside Line.

A **Local Cycle and Walking Infrastructure Plan** has been developed by Sunderland City Council, and this document sets out a strategy and delivery plan to improve Cycling and Walking networks in the city. **16km of new high-quality cycle routes** are programmed for construction by March 2027, **with a total investment of £23.2m**. In 2025, schemes were completed at Dame Dorothy Street and European Way providing 4.6km of new segregated cycle routes with an investment of £6.4m

In 2024 the North East successfully secured £19.5m of investment through the Levelling Up Fund for a **Transport Decarbonisation package**. This multi-million-pound investment will greatly enhance zero carbon options for local people, delivering up to 52 new high-quality electric buses which will travel on some of the region's most heavily congested routes, alongside 92 new Electric Vehicle (EV) chargers – many at key destinations such as Park and Ride sites – to encourage multimodal journeys. It is hoped expanded EV charging infrastructure will encourage more people to consider switching to a zero-emission vehicle where possible. In December 2024, 20 new Electric buses were introduced in Sunderland on the E1, E2 and E6 routes between Sunderland, Whitburn and South Shields. 10 twin electric charging points were installed at Stagecoach's Sunderland depot to serve the vehicles which carry approximately 30,000 passengers every week. Visit My Sunderland for more information [Electric Vehicles \(EVs\) - MySunderland](#)

To increase the choice of charging options to our residents Sunderland City Council successfully trialled five Residential Charging Hubs during 22/23 and plan to increase availability city wide. In addition, the council have commenced a trial for EV channel charging. If residents don't have a driveway, and wish to charge from home, a **home EV channel** for charging is the approved method of getting a charging cable from home charger to EV at the kerbside across a public footpath. The channel is installed into the footpath by the council's highways contractor for use by the homeowner making the application. The homeowner uses the channel by lifting the lid and simply inserting their own electric charging cable into the channel and then closing the lid. Sunderland has now successfully installed 21 channels (as at Sept 25) and is one of the first in the region to adopt this support approach for residents.



***“Full credit to the team as it looks fantastic, please pass on my thanks as it’s clear they are taking a lot of pride and care in their installations” local resident***

### 3.6 Green Economy

**JATCO investment announced in Sunderland**– a global automotive automatic transmission manufacturer – announced investment in January 2025 of up to £48.7m to establish JATCO UK Ltd in Sunderland, at IAMP, which is set to create up to 183 highly skilled jobs. This represents a major investment as the city continues to build on its leading role in manufacturing Electric Vehicles with a key new supply chain company choosing to locate here in Sunderland.



#### **Wastefront Break Ground on £100m Tyre Recycling Plant**

##### **£100,000,000 of Private Investment**

In February 2025, Wastefront announced that it had officially broken ground to commence work on its project to establish a £100m tyre recycling facility at the port of Sunderland. Once fully operational, the plant will process 10 million end-of-life tyres annually – making it the largest facility of its kind in Europe – converting them into tyre-derived oil for refining into Sustainable Aviation Fuel and other sustainable fuels. With around 55 million tyres reaching the end of their life per year in the UK, Wastefront's fully circular process will address a pressing waste issue.



## **Housing Innovation Construction Skills Academy (HICSA)**

Sunderland Council and Sunderland College (Education Partnership North East) have been working closely with industry to develop the Housing Innovation Construction Skills Academy (HICSA) at Riverside Sunderland which will provide customised education and training opportunities, linking to Research & Development to ensure the skills of the region meet the future needs of industry in relation to modern methods of construction (MMC) as well as enabling retrofit operations when it opens in September 2025. The partnership includes close cooperation with Sunderland-born architect George Clarke's Ministry of Building Innovation and Education (MOBIE).

HICSA will enable high quality **training for people from the city and wider region** to deliver decarbonisation programmes for the city's existing homes and neighbourhoods that will improve energy efficiency, help reduce city-wide emissions from domestic energy, help keep residents warm in winter months and will lead the way with training modern methods of construction.

In August 2025 it was announced by the Department for Education that HICSA will be one of 10 Construction Technical Excellence Colleges in the UK.



### 3.7 Consumption and Waste

#### Support communities to grow their own food and benefit for community gardening

**Community spirit blossoms in Mowbray Park** - Funded with the support of £180,000 from the Sunderland UKSPF programme during 2024/25, the project has transformed an underused corner of Mowbray Park into a creative, active and vibrant growing space for the whole community to share and enjoy. The Mowbray Park Community Garden was set up with the aim of creating a space where the whole community can come together to learn new skills, learn how to grow food sustainably and spend time in nature and make connections.

Since work got underway, a number of edible crops, including strawberries, have already been harvested after being grown from seed with the help of community volunteers and local schoolchildren.

Local people have been involved in the community garden right from the start, from helping to shape its design to having a say in the plants they wanted to see growing there. It's very much a garden which has been created for the community by the community, with the help of skilled community development workers who have worked on similar projects in the past. There are lots of ways for people to get involved with the garden whether or not they enjoy gardening or have any experience. Regular drop-in sessions are held every Tuesday for people of all ages and abilities. There are also activities during the school holidays alongside a community art programme which is creating art that is installed and displayed in the garden.



There are many other community gardens across the city, delivered through the voluntary and community sector, working in partnership with other Shadow Board partners such as the University of Sunderland at their A Space 2 Grown community garden and through Gentoo's annual Ready Set Grow gardening competition. Many of the gardens support the Sunderland annual EcoFest to promote their work and activities and encourage new members to benefit from their community offer.



Sunderland Council is also supporting Allotment holders to maximise the growing opportunities with hints and tips. All information went live onto the Council's website in early 2025 and is now also shared with Allotment holders when they take over the management of their plot.



## **Saving money for our Schools reducing water consumption**

The Council and our water retailer Wave have partnered with 'SaveMoneyCutCarbon' to help schools and academies reduce water usage, lower costs, and improve sustainability. A pilot project at St Benet's Primary School in Sunderland was undertaken during the Summer of 2025 to inform the wider scheme and St Benet's Primary has reduced consumption by an initial 11% with further scope for additional savings.

The Council has since raised awareness of the scheme through targeted engagement, based on knowledge of water usage with a further 13 schools to participate and benefit from The Big Blue Eco Booster scheme. As the scheme is part funded by Northumbrian Water the scheme is at no cost to schools and is worth an estimated £1200 to each school.

## Donate Digital Campaign

The Donate Digital Campaign was launched to address the growing challenge of e-waste and digital exclusion in Sunderland and was delivered as part of the Community Digital Health Hub project funded through the UKSPF programme. The campaign aimed to provide access to digital devices for vulnerable residents, promote digital inclusion, and reduce environmental impact through ethical recycling. The North East has one of the lowest rates of digital inclusion in England. Affordability was the biggest barrier to digital inclusion, with many residents needing additional support to go online. Events included both 'Talk to a Tech' events and 'Pop in and Drop Off' services.

Between August – October 2024 a total of 1,074 devices were received, with 124 suitable for rehoming. In addition to its social impact, e-waste is a growing environmental concern, with many electronic devices containing valuable but hazardous materials. Without proper disposal, toxic metals can contaminate soil and water. Through this campaign, a total of 950 devices were ethically recycled, leading to a CO<sub>2</sub> saving of 58,228.7 kg. The recycling process supported by BornGood, a Sunderland-based business who support organisations by repurposing, recycling, reselling, or donating their old or unwanted equipment, also recovered valuable materials, including copper, aluminium, gold, and steel, reducing the demand for new raw materials and minimising environmental harm.

The campaign successfully provided devices to 80 people across Sunderland, following a thorough data sanitisation process. Refurbished devices were redistributed to individuals based on need — focusing on affordability, connectivity, and digital confidence. For example, a family from Sunderland were thrilled to receive a laptop donation from Pallion Action Group. The laptop will enable them to carry out job searches, browse the internet, and watch videos. Additionally, their two children can now complete their homework on the laptop, thereby significantly improving their daily lives.



## Belly Bugs resource is free to Sunderland primary schools and early years settings

The Council's school meals service during 2024/25 continued to work in partnership with Public Health to promote the national Belly Bugs campaign in primary schools. Belly Bugs is based on the latest scientific research into healthy gut microbes and emphasises a more plant-based diet. Fourteen schools took part in the initial Belly Bugs pilot, with 7 schools involved in an external evaluation. A recipe booklet including recipes from the pilot was developed, along with Belly Bug character stickers and circulated to participating schools. The Belly Bugs evaluation continues to receive national recognition, referencing the work in Sunderland. The Belly Bugs concept continues to develop, and the new revised programme is available to schools including free lesson plans, throughout 25/26 academic year.

The campaign is supporting the reduction in obesity-related diseases through improved knowledge of nutrition, aiming for less reliance on ultra processed, high fat, salt, sugar products, reducing waste and improving general health and wellbeing



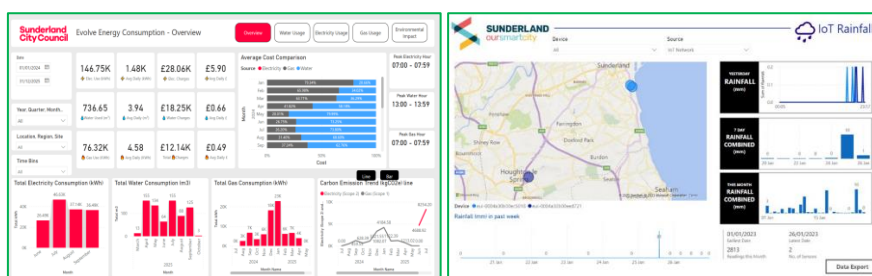
**Sunderland Smart City** - We have deployed a range of sensor-based applications to reduce waste and increase efficiency

**Environmental** – monitoring air quality, rainfall and flooding events and introduced Smart Bins

**Transport** – monitoring road temperatures & traffic flows as well as monitoring networks demonstrating the increase in sustainable modes of transport such as walking and cycling.

**Social Care** – Smart homes and supported living

**Energy** – energy management and carbon reduction



## 4. Reporting Sunderland City Council emissions

Sunderland City Council, alongside individual city partners through the Shadow Board are working to measure and report greenhouse gas emissions in-line with the Greenhouse Gas Protocol Corporate Standard and the goals set out in the city-wide Low Carbon Framework.

### 4.1 Emission Scopes

The Council's emissions are categorised into three scopes:

- Scope 1 emissions refer to direct emissions from owned or controlled sources, for example the combustion of fuel;
- Scope 2 emissions include emissions from the generation of purchased energy, for example electricity purchased from the National Grid; and
- Scope 3 emissions refer to all indirect emissions which occur in the value chain of a reporting company, for example employee commuting and emissions from purchased goods.

4.1.0 The Council keeps under review application of its organisational boundary for carbon accounting and reporting, including assets within scope for the 2030 organisational target (Council scope 1 and 2), value chain and leased assets (Council scope 3), and 2040 citywide carbon-neutral targets.

4.1.1 Prior to the 2023/24 financial year, the Council accounted for carbon emissions in a different way for Together for Children (TfC) and Sunderland Care and Support (SCAS) as property / facilities budgets were set up differently for the two Council-owned companies. Originally, the Council categorised its own assets as well as Together for Children (TfC) as scope 1 and 2 as the budget for property / facilities management was held centrally by the Council. The Council's value chain / scope 3 boundary at that stage included Sunderland Care and Support (SCAS), alongside schools and vacant assets, reflecting that SCAS held its own property / facilities budgets and the Council therefore does not control the budget spend in these cases, and therefore has less direct influence on reducing these emissions.

4.1.2 As a reminder, for the 2023/24 financial year onwards, reporting on SCAS has been moved to be included alongside TfC in the Council's operations (scope 1 and 2 emissions), on the basis that SCAS is a wholly-owned company of the Council in the same way as TfC. It is considered that emissions by SCAS and TfC should now be treated the same, despite the difference in budget arrangements, and both in line with the Council's target.

4.1.3 In April 2024, a further comprehensive review of the Council organisational boundary information was undertaken to ensure it continues to accurately reflect the structure and operations of the Council. The review was carried out in line with the Greenhouse Gas Protocol guidance and considered any changes in ownership, control and operational activities. The property stock

was then reviewed in detail to ensure each building was positioned and accounted for correctly within scope.

- 4.1.4 From 2024/25 onwards, it was agreed that maintained schools would remain in scope 3, but academised schools would be moved out of scope, due to the independent financing of academies. Maintained school emissions will now also be highlighted collectively in reporting to increase clarity of data.
- 4.1.5 As a reminder, with regards to the Port of Sunderland, all portfolio assets were originally classed as being part of the Council. More detailed analysis of energy supplies and consumption at the Port has however become possible over time as the Council has continued to build its understanding and knowledge of energy infrastructure, consumption and emissions sources. From 2023/24 onwards, the Council has identified Capstan House / the Gatehouse / and Port Control as Council scope 1 and 2 emissions with these facilities being within the scope of the Council's ambitious 2030 carbon-neutral target. This is based on the Council's ownership of these facilities and the associated energy consumption, irrespective of wider emissions from businesses operating within the Port. All other energy consumption within the Port is classified as scope 3 emissions from downstream leased assets, falling outside the Council's carbon-neutral 2030 target but within the 2040 citywide carbon neutral target. This is because these assets are leased to other companies, and emissions from them are considered operational emissions for the lessee companies.
- 4.1.6 The Council's scope 1 and 2 emissions from 2024/25 consist of Council, TFC, SCAS and defined Port assets (core operations) including:
- Gas consumption in buildings
  - Liquid fuels for the vehicle fleet
  - Generation of purchased electricity for streetlighting in the city
  - Generation of purchased electricity in buildings
- 4.1.7 The Council reports on the following sources of scope 3 emissions:
- Purchased goods and services
  - Water supply and treatment
  - Energy- and fuel-related activities (including electricity transmission & distribution in addition to well-to-tank emissions)
  - Business travel (including air, rail, grey fleet and hotels)
  - Leased assets (including energy and fuel consumption for maintained schools (not including academies), some vacant assets, leased Council, SCAS and TfC assets and the Port outside of the Council's direct influence).
  - Employee commuting and working from home emissions
- 4.1.8 There are several likely sources of emissions currently excluded from the Council's emissions inventory. Fugitive emissions (for example, from refrigerant

gases, air conditioning and heat pumps) are currently excluded from scope 1 due to data not currently being available. This may be considered in the future, although it is anticipated that emissions from this source will have a minimal impact on the Council's overall footprint. The Council continues to refine its emissions inventory on an ongoing basis, to be able to provide a more complete picture of performance each year. Where this results in amendments to figures reported in previous years (increases or decreases), these will be captured and records updated for accuracy and transparency. This was the case, for example, with data analysis in relation to fleet which was initially calculated and reported based on mileage and subsequently updated to be calculated and reported based on fuel consumption.

## **4.2 City Council - Greenhouse Gas Emissions Inventory**

- 4.2.1 Figure 4 sets out Sunderland City Council's greenhouse gas emissions across each of the areas on which data is currently reported. Historically, it shows that scope 1 emissions have generally been reducing at a slow rate (with 2024/25 levels finishing 23.3% below the 2017/18 baseline). Scope 2 emissions reduced year-on-year from the 2017/18 baseline up to 2023/24 which then saw a 1.5% increase due to an increase in the carbon intensity of UK electricity generation, however this year scope 2 emissions decreased by 4.8% against 2023/24 levels, and 76.1% against the 2017/18 baseline. Overall, scope 1 and 2 emissions decreased by 6.9% from 2023/24 to 2024/25 and 61.5% from the 2017/18 baseline.
- 4.2.2 The Council is also continuing to develop its scope 3 datasets, in line with the Greenhouse Gas Protocol. Based on the current data available, scope 3 emissions for the Council are estimated to have accounted for 92,054 tCO<sub>2</sub>e (92.23% of overall emissions, increasing from 74,417 tCO<sub>2</sub>e which was equivalent to 89.94% in 2023/24). Focus on scope 3 emission sources (our indirect emissions) will continue as we move forward, understanding overall emissions levels through our value chain more fully and as we embed an increasingly robust monitoring process.

Figure 4 – Sunderland City Council's Greenhouse Gas Emissions Inventory, 2024/25

Scope	Source	Annual Emissions (tCO <sub>2</sub> e)								Trend from previous year	Trend from base year
		2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25		
Scope 1 <sup>2</sup>	Gaseous fuels	3,004.73	3,152.08	3,241.08	3,241.93	2,851.78	2,584.09	2,079.73	2,119.21	↑1.9%	↘29.5%
	Liquid fuels (fleet)	2,556.84	2,972.05	2,569.91	2,554.71	2,616.39	2,569.84	2,589.06	2,148.53	↘17.0%	↘16.0%
	<b>Total scope 1</b>	<b>5,561.57</b>	<b>6,124.13</b>	<b>5,810.99</b>	<b>5,796.64</b>	<b>5,468.17</b>	<b>5,153.93</b>	<b>4,668.79</b>	<b>4,267.74</b>	↘8.6%	↘23.3%
Scope 2	Purchased electricity (buildings)	5,072.04	3,848.68	3,188.66	2,504.42	2,198.08	1,848.12	1,844.63	1,726.43	↘6.4%	↘66.0%
	Purchased electricity (streetlighting -all)	9,526.37	4,907.04	3,025.12	2,335.85	2,125.40	1,755.70	1,814.25	1,758.35	↘3.1%	↘81.5%
	<b>Total scope 2</b>	<b>14,598.41</b>	<b>8,755.72</b>	<b>6,213.78</b>	<b>4,840.27</b>	<b>4,323.48</b>	<b>3,603.82</b>	<b>3,658.88</b>	<b>3,484.78</b>	↘4.8%	↘76.1%
Scope 3	Purchased goods and services	NA	NA	33,712.22	51,886.21	73,018.29	36,941.25	62,323.65	84,792.36	↑36.1%	NA
	Water supply and treatment	47.61	79.10	81.03	61.78	28.81	25.66	22.57	18.35	↘18.7%	↘61.5%
	Fuel- and energy-related activities	4,976.24	3,296.55	2,502.83	2,177.85	2,734.44	2,326.91	2180.85	2072.2	↘5.0%	↘58.4%
	Business travel	236.64	282.36	280.86	151.70	218.82	235.20	326.80	379.65	↑16.2%	↑60.4%
	Employee commuting	NA	2,849.35	3,288.32	2,803.98	2,967.50	2,865.80	1918.88	1918.88	NA	NA
	Leased assets <sup>4</sup>	13,993.03	11,400.43	10,776.90	9,164.23	9,076.84	8,004.95	7,644.68	2872.77	↘62.4%	↘79.5%
	<b>Total scope 3<sup>3</sup></b>	<b>NA</b>	<b>NA</b>	<b>50,642.16</b>	<b>66,245.75</b>	<b>88,044.74</b>	<b>50,400.28</b>	<b>74,417.48</b>	<b>92,054.21</b>	↑23.7%	NA
Totals	<b>Total scope 1 &amp; 2</b>	<b>20,159.98</b>	<b>14,879.85</b>	<b>12,024.77</b>	<b>10,636.91</b>	<b>9,791.65</b>	<b>8,757.75</b>	<b>8,327.67</b>	<b>7,752.52</b>	↘6.9%	↘61.5%
	<b>Total scope 1, 2 &amp; 3<sup>1</sup></b>	<b>NA</b>	<b>NA</b>	<b>62,666.93</b>	<b>76,882.66</b>	<b>97,836.39</b>	<b>59,158.03</b>	<b>82,745.15</b>	<b>99,806.73</b>	↑20.6%	NA
Maintained Schools <sup>5</sup> (inc. in Scope 3 above)	Gaseous Fuels								1647.67	NA	NA
	Purchased Electricity								703.46	NA	NA
	Liquid fuels (fleet)								47.76	NA	NA

<sup>1</sup> Calculations for emissions from the vehicle fleet have been amended since the 2021/22 annual carbon report and the calculation is now based on direct fuel consumption instead of mileage. This is more accurate although has led to emissions from the fleet being reported as higher than in previous reports.

<sup>2</sup> For the 2023/24 financial year, SCAS has been moved to the Council's operations (scope 1 and 2 emissions), on the basis that SCAS is a trading body of the Council, along with the Port's Capstan House / the Gatehouse / and Port Control.

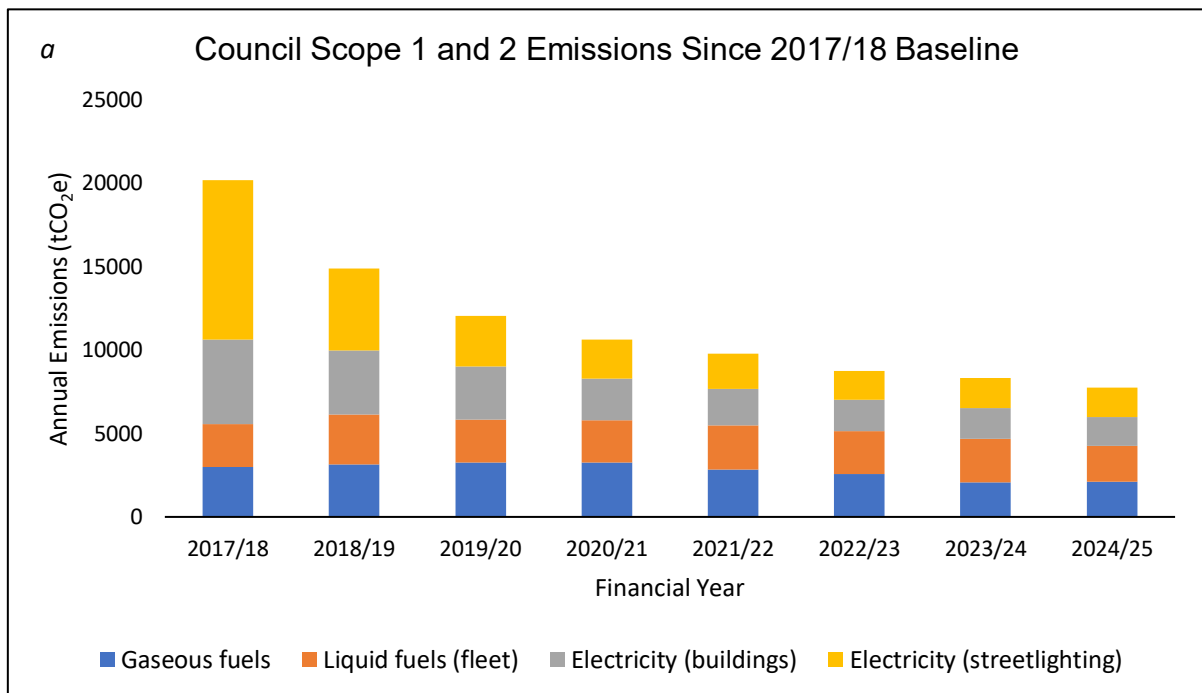
<sup>3</sup> Some scope 3 emissions show to have increased over time, due to some datasets not being fully available for previous years (purchased goods and services, employee commuting and business travel). The Council is continuing to build and refine systems for data collection.

<sup>4</sup> For the 2024/25 financial year, a review of the property portfolio was undertaken meaning leased assets now includes Council, TfC, SCAS & Port properties, only maintained schools, vacant leisure assets, and no longer includes Fire & Rescue assets.

<sup>5</sup> From 2024/25, emissions from maintained schools will be reported to increase clarity. The emissions are still included in the leased assets category within scope 3.

### 4.3 Scope 1 and 2 Emissions

4.3.1 Figure 5a shows the trend for the Council's scope 1 and 2 emissions since the 2017/18 baseline. Figure 5b shows each source of the Council's scope 1 and 2 emissions as a percentage of overall scope 1 and 2 emissions.



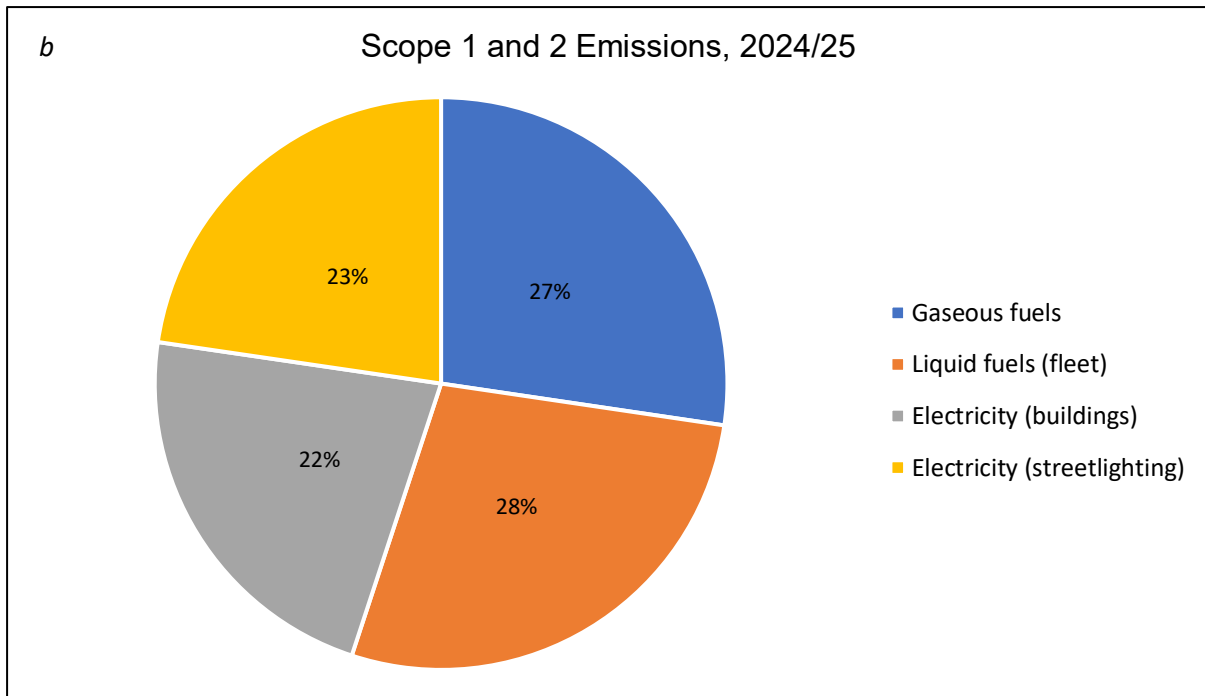


Figure 5a&b – Scope 1 and 2 emissions by category since the 2017/18 baseline (a) and each category as a percentage of the overall Scope 1 and 2 emissions for 2024/25 (b).

- 4.3.2 As set out in the overview within Section 1, annual scope 1 and 2 emissions reduced by 575.15 tCO<sub>2</sub>e (6.9%) from 2023/24 to 2024/25 and by 12,407.46 tCO<sub>2</sub>e (61.5%) since the 2017/18 baseline. In recent years, approximately half of the carbon reduction achieved has been due to the decarbonisation of electricity from the National Grid.
- 4.3.3 The main source of scope 1 and 2 emissions from Council operations in 2024/25 was liquid fuel for the vehicle fleet, emitting 2,149 tCO<sub>2</sub>e. The vehicle fleet continued as the primary source of the Council's operational greenhouse gas emissions this year, after overtaking gas consumption in 23/24. However, liquid fuels for fleet saw the largest reduction in emissions this year, decreasing by 17% - further details in para 4.3.5.
- 4.3.4 Gas consumption accounted for 27% of Council scope 1 and 2 emissions in the 2024/25 financial year, having increased by 1.9% on 2023/24 levels. Bishopwearmouth Crematorium remains the largest consumer of gas across the Council's estate as shown in Figure 6 and the Council is actively looking to reduce emissions in this area as part of planned investment as well as at the Museum & Winter Gardens as part of redevelopment proposals. A small proportion of the Council's buildings account for a significant proportion of its gas consumption, with the top 10 sites emitting 71% of the Council's gas emissions in 2024/25, decreasing from 73% in 2023/24, and 80% from the top 7 sites in 2020/21 prior to the relocation from the Civic Centre to City Hall.

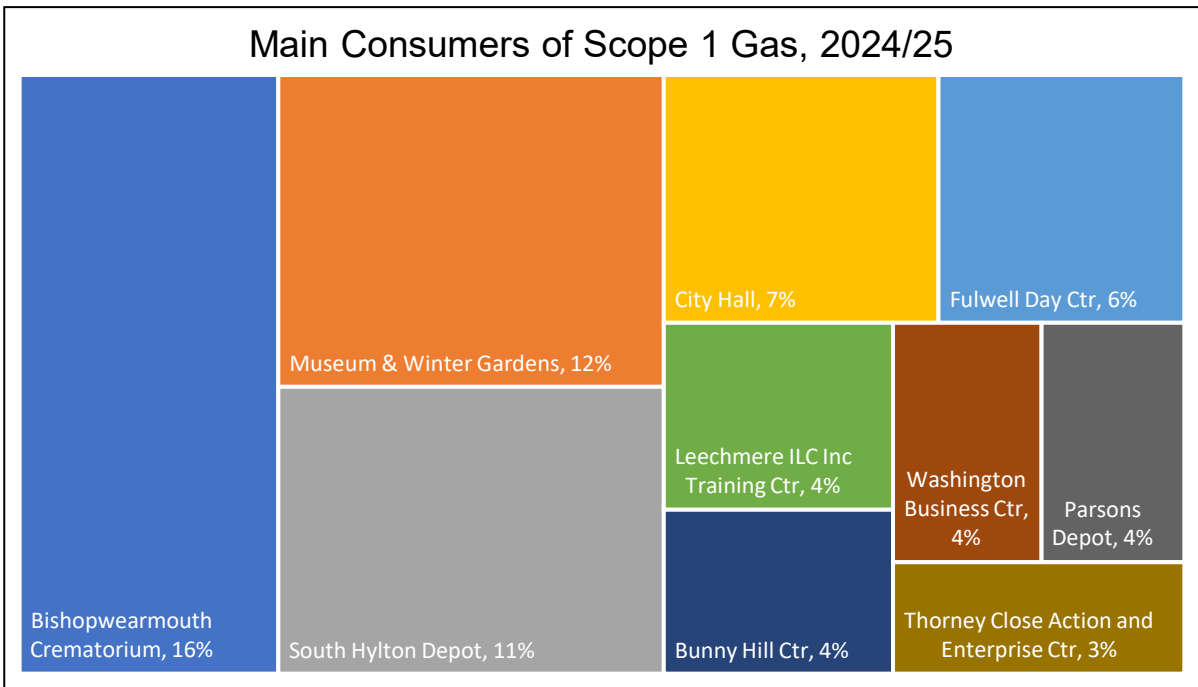


Figure 6 - Main consumers of scope 1 gas, 2024/25<sup>1</sup>

4.3.5 Emissions levels from the vehicle fleet saw the largest reduction out of scope 1 and 2 this year (17%) and also account for 27% of total scope 1 and 2 emissions in 2024/25, decreasing from 31% in 23/24. As evidenced in figure 7, most emissions come from diesel HGVs which is recognised as a hard-to-treat emissions source within the context of current technology strengths, energy availability and financial constraints. It should also be noted that emissions from electric vehicles deployed within the Council’s fleet are currently recorded elsewhere (within scope 2 purchased electricity emissions) and therefore not reflected in Figure 7 below. As the Council continues to improve energy management and data monitoring processes, it is hoped that a figure for emissions from electric vehicles within the fleet can be measured and reported

<sup>1</sup> In previous years, the Council counted all emissions from City Hall despite only operating in a percentage of the building. From 2024/25, only a percentage of total City Hall emissions will be counted in scope, based on the percentage occupied by the Council, TfC and SCAS annually.

separately in future years. This will become increasingly important as additional Electric Vehicles are included within the fleet.

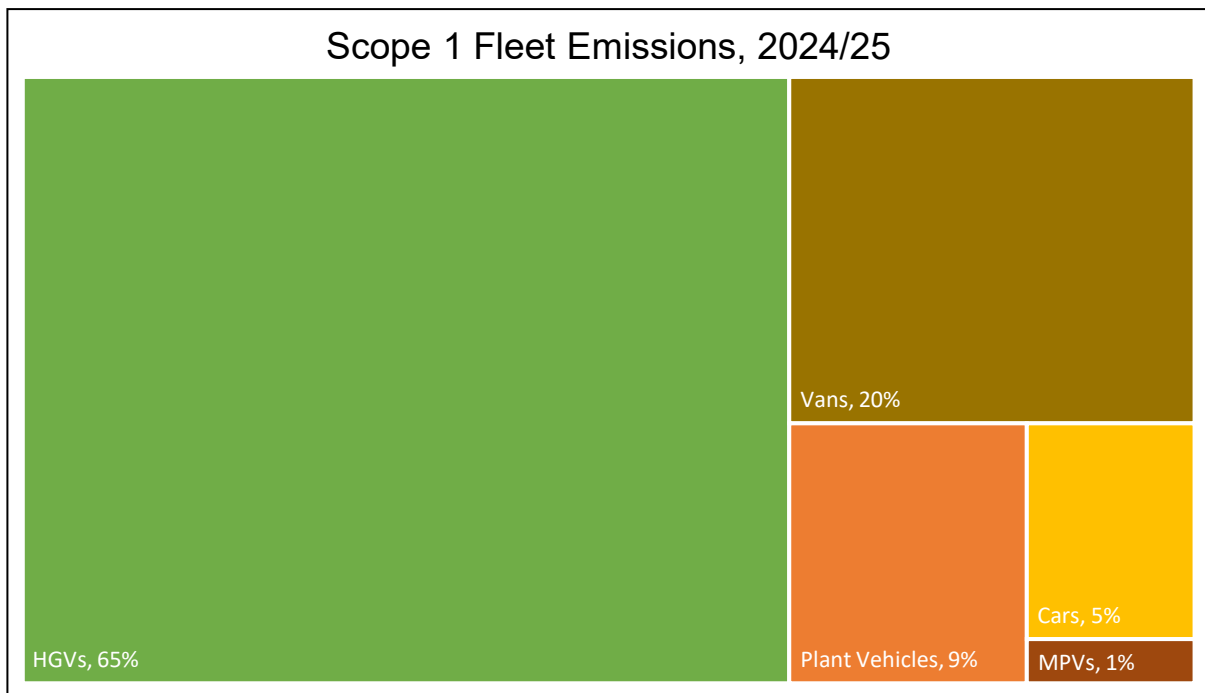


Figure 7 – Emissions from liquid fuels for the vehicle fleet by vehicle type, 2024/25

- 4.3.6 Greenhouse gas emissions arising from the generation of purchased electricity by the Council have continuously reduced since 2017/18 (excluding in 2023/24 where a slight increase was seen due to an increase in carbon intensity of the National Grid). This has been partly due to the decarbonisation of the National Grid, and partly due to reduced energy consumption from both streetlighting and Council buildings. The reduction in the Council’s emissions from electricity this year will have been amplified by the UK’s electricity being the cleanest ever in 2024, after phasing out coal and with renewable inputs more than doubling. As a result of this, the carbon intensity of the UK’s electricity in 2024 was 70% lower than in 2014.
- 4.3.7 Electricity from streetlighting, festive lighting and traffic signals currently accounts for 23% of Council scope 1 and 2 emissions. Following the successful rollout of citywide LED streetlighting between 2016/17 - 2021/22, saving 21,000 MWh, and 4,724 tCO<sub>2</sub>e annually (based on 2023 carbon intensity factors for electricity and transmission and distribution), the Council has progressed LED lighting to street lit signs. Further LED lighting upgrades to parks, associated buildings and traffic signals are ongoing and will deliver additional carbon and energy savings and all streetlights will be LED by end of 2025.
- 4.3.8 Electricity from Council buildings currently accounts for 22% of Council scope 1 and 2 emissions. As observed with gas, a small proportion of the Council’s

operational estate accounts for a relatively large proportion of CO<sub>2</sub>e emissions from electricity in buildings, with the top 10 sites accounting for 59% of CO<sub>2</sub>e of the Council's emissions from electricity. The main consumers of scope 2 electricity are shown in figure 8. Work to migrate the data centres to an alternative location alongside a cloud migration programme will reduce emissions from the ICT centre which is currently the Council's largest source of electricity emissions.

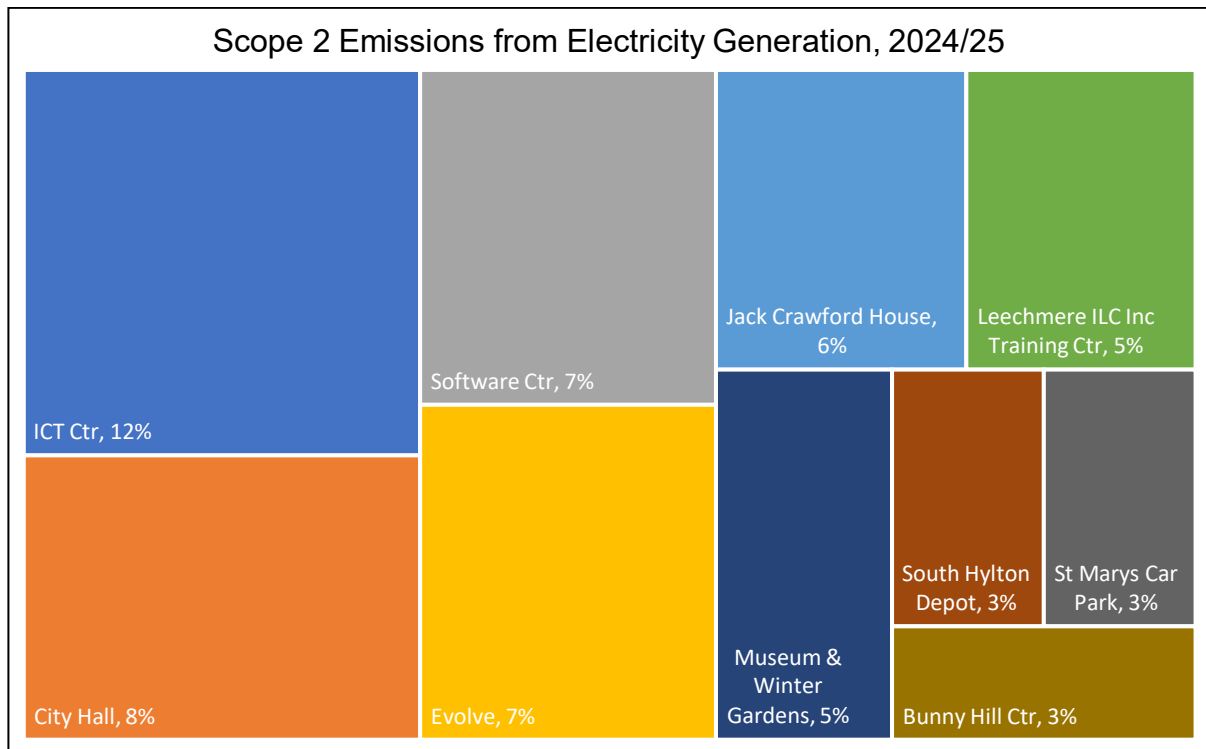
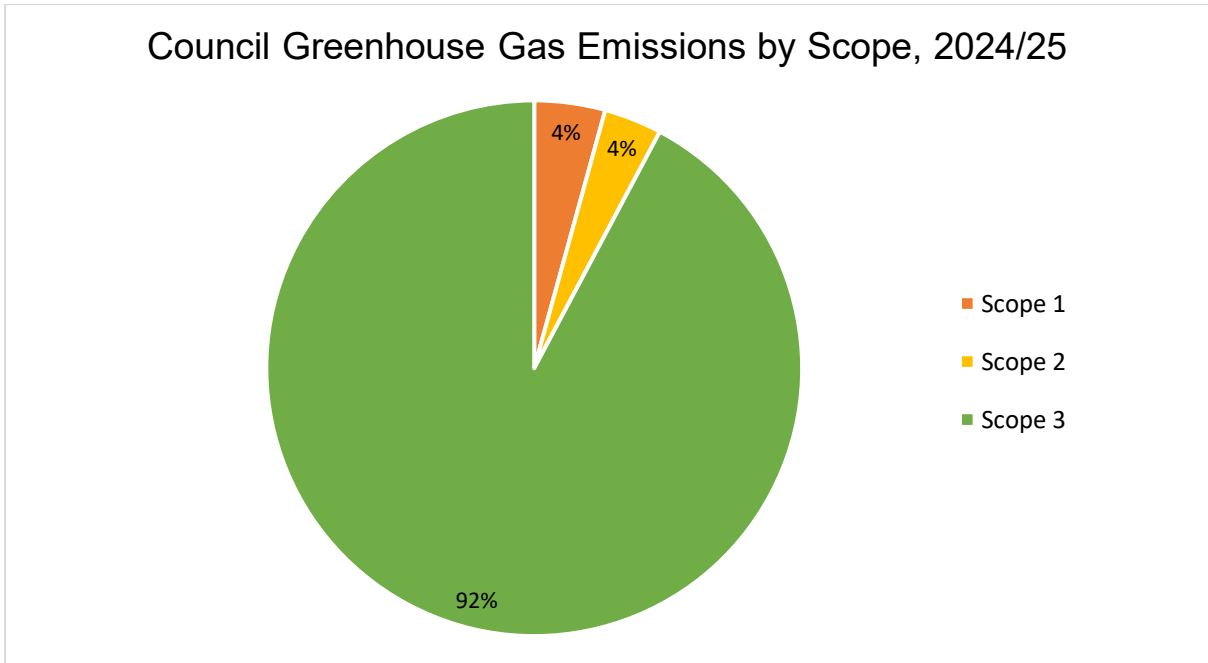


Figure 8- Main consumers of scope 2 electricity, 2024/25.<sup>2</sup>

<sup>2</sup> In previous years, the Council counted all emissions from City Hall despite only operating in a percentage of the building. From 2024/25, only a percentage of total City Hall emissions will be counted in scope, based on the percentage occupied by the Council, TfC and SCAS annually. Also from 2024/25, a proportion of electricity usage will be deducted from the ICT Centre, based on usage from storage racks which are leased out externally.

## 4.4 Scope 3 Emissions

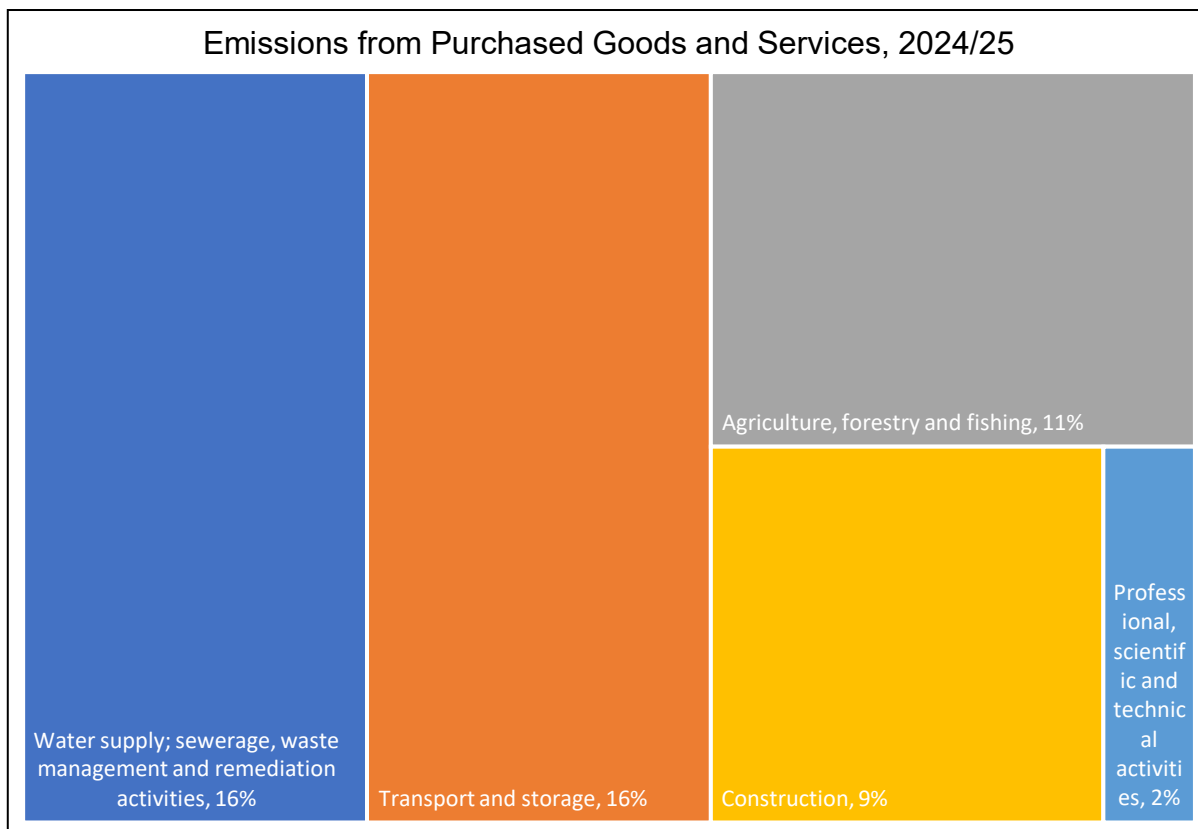
- 4.4.1 The Council is continuing work to develop its scope 3 inventory on an ongoing basis to ensure it can be as transparent as possible about the full picture of its carbon footprint, as we continue to develop and increase our access to data in relation to these emissions. It should be noted that for most companies and organisations, scope 3 emissions are much greater than the sum of their scope 1 and 2 emissions, however it is more challenging to collect accurate data and organisations generally have less control over them.
- 4.4.2 It is not currently mandatory to report on scope 3 emissions, however it is likely that scope 3 legislation will become stricter in future years. It is also important to note that the majority of scope 3 emissions for the Council can also be classed as another organisation's scope 1 and 2 emissions, although this does not detract from the Council seeking to report them as good practice or its ambitions to address these emissions to reduce them to a minimum. This should increase our ability to drive change within our value chain. In addition to the Council having set an ambitious target for carbon neutrality by 2030 across scope 1 and 2 emissions, the Council will work towards setting a reduction target for scope 3 emissions in the future.
- 4.4.3 The Council's scope 3 emissions are estimated to form 92% of overall emissions, as shown in figure 9. It is important to note that as work progresses to continue to reduce Scope 1 and 2 emissions, the relative percentage of emissions for which Scope 3 accounts is expected to continue to increase. Purchased goods and services make up most of the Council's estimated scope 3 emissions, accounting for a large majority of emissions. This is reflected in delivery of the Council's Action Plan through work underway, including with regional colleagues, in relation to procurement.
- 4.4.4 Leased assets also contribute significantly to the Council's scope 3 emissions, due to purchased electricity generation and gas consumption in maintained schools, leased buildings, and some vacant assets. Commuting and home working make up 2% of the Council's estimated scope 3 emissions, primarily due to the reliance on the private car for commuting. Fuel and energy-related activities make up 2% of the Council's scope 3 emissions, primarily due to well-to-tank emissions. Water supply and treatment and employee business travel make up the remaining 1% of scope 3 emissions. These emission sources are evaluated in more depth throughout this report.



*Figure 9 - Council greenhouse gas emissions by scope, 2024/25*

The remainder of this section covers emissions for each of the Council's scope 3 categories in turn, setting out the key trends from 2017/18 to 2024/25.

4.4.5 Purchased goods and services are a significant source of indirect greenhouse gas emissions for the Council, accounting for 92% of the Council's estimated scope 3 emissions, and 85% of overall emissions (Scopes 1, 2 and 3 combined). Within that context, as shown in figure 10, a handful of carbon-intensive categories form a significant proportion of estimated emissions from purchased goods and services. These are shown separately in Figure 10 below, excluding energy related emissions (well to tank emissions, and emissions from leased assets which are shown in figures 11-12 and 14).



*Figure 10 - Emissions from Purchased Goods and Services, 2024/25<sup>3</sup>*

- 4.4.6 For many organisations, emissions from purchased goods are one of the main sources of scope 3 emissions. The Council estimated a baseline figure for purchased goods and services for the first time in 2020/21 using Environmentally Extended Input-Output data (EEIO). This method involves using spend data for the previous financial year and applying carbon intensity factors based on industry averages across different sectors. Although there are limitations to the EEIO data method, it allowed us to provide an approximate estimation of the most carbon intensive areas, which was an important first step. One limitation of this method is that it produces figures which are highly influenced by spend and, consequently, this method may not therefore be as accurate as direct data from suppliers of purchased goods. Since 2020/21, the Council has procured software, which allows the organisation to undertake this process with more confidence and accuracy. As a result, the 2020/21 baseline figure for purchased goods and services was disregarded due to uncertainties over its reliability, and data is now compared simply on a year on year basis.
- 4.4.7 Using the specialist software procured, the Council aims in the future to move towards a 'hybrid' approach, where spend data is gradually phased out by direct data from suppliers, beginning with the most carbon intensive sectors from the spend-based estimations. This software may also assist these suppliers as they seek to reduce their own carbon footprint. The Council's

<sup>3</sup> Emissions from purchased goods and services have been calculated by mapping the Council's annual spend against the 16 Standard Industrial Classification (SIC) codes from Companies House ([Standard industrial classification of economic activities \(SIC\) - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/organisations/companies-house/about/standard-industrial-classification-of-economic-activities-sic)).

Low Carbon Team and Procurement Team will continue to work together closely, to seek to reduce carbon emissions within the purchased goods and services sector.

4.4.8 The leased assets category includes buildings identified as scope 3, classed as those which are in the Council’s portfolio but not in its direct financial control. This includes maintained schools, nurseries, assets leased at the Port of Sunderland and some vacant assets, as well as some leased SCAS, Council and TfC assets. SCAS was previously reported within this category but as of 2023/24 it is now classed as under the Council’s financial control (as set out in paragraph 4.1.3). Emissions from leased assets fell in the 2024/25 financial year, as shown in figures 11 and 12, though much of this will be due to the review of the property portfolio which resulted in the removal of Fire and Rescue assets and academised schools (see paragraph 4.1.5). Within this context, leased assets emissions from electricity generation decreased by 66% since the previous year, emissions from gas decreased by 61% and emissions from liquid fuels decreased by 17%. Emissions related to schools decreased by 63%, as the category went from including 104 schools and academies to 46 maintained schools.

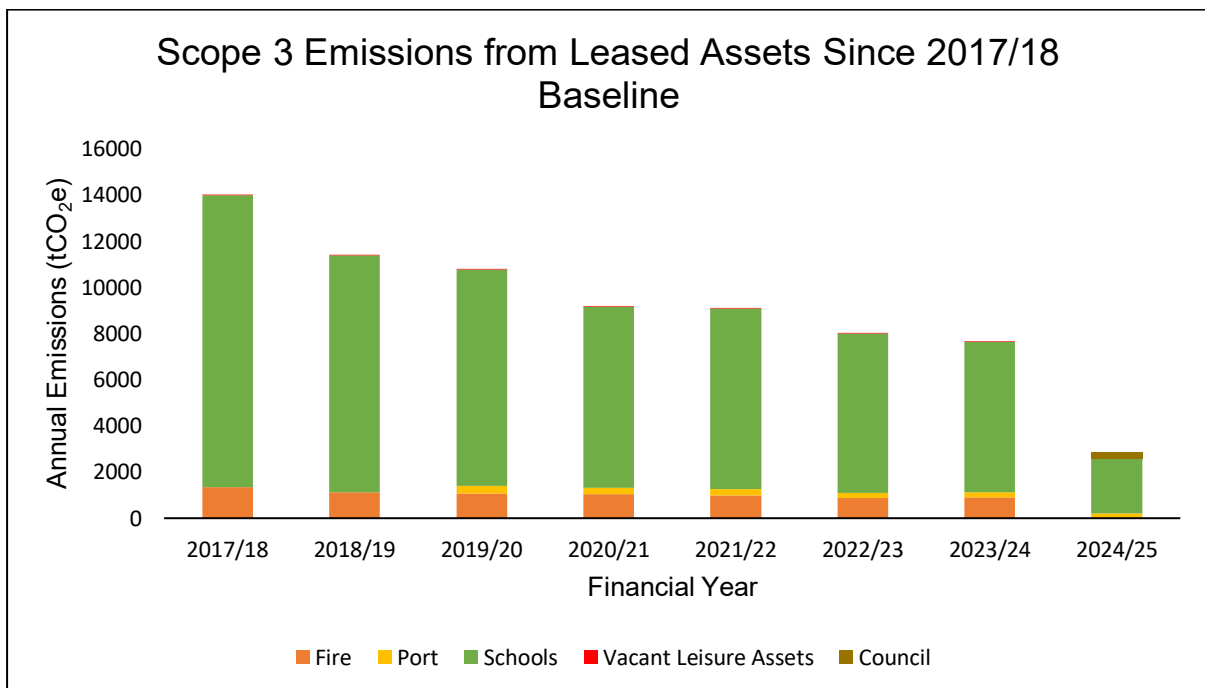


Figure 11 - Scope 3 emissions from leased assets.

<sup>1</sup>Data for the Port is not available before 2019/20.

<sup>2</sup>2024/25 saw a review of the Council’s property portfolio. The detailed review identified Fire & Rescue assets, which had previously been reported but are reported as standard by Fire & Rescue themselves, no longer sat within scope, only maintained schools are counted (previously maintained and academies), and some Council, TfC and SCAS leased assets are now counted in scope 3.

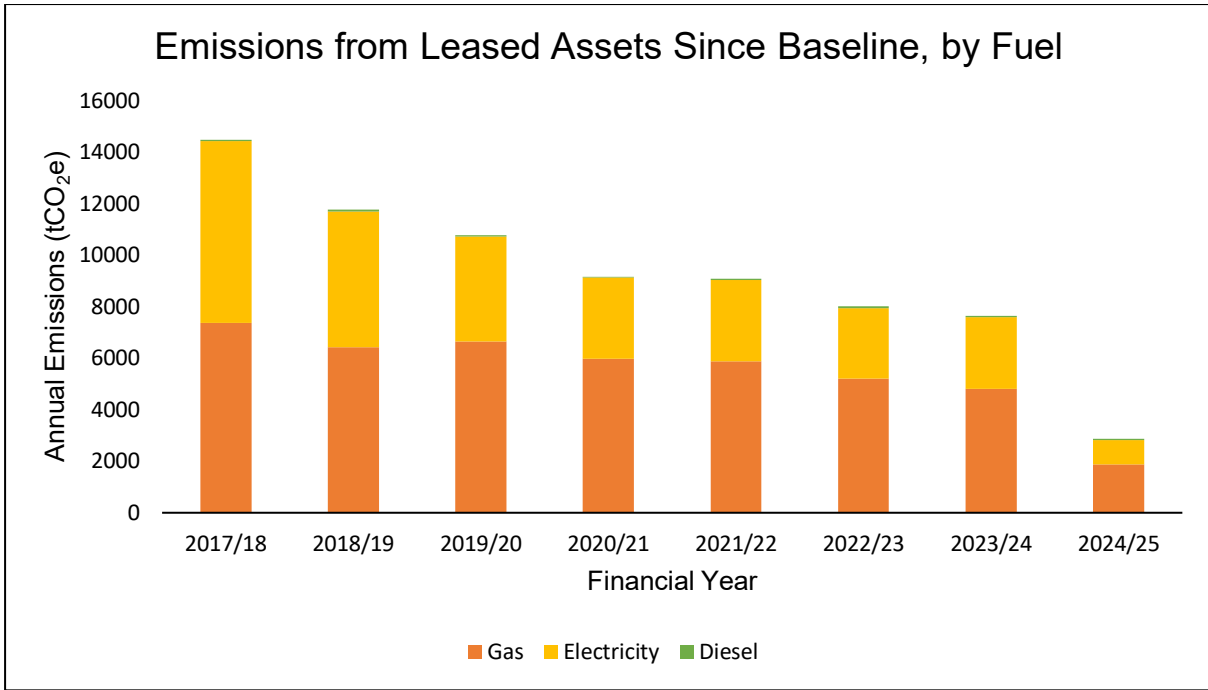


Figure 12 - Annual scope 3 emissions from leased assets, by fuel

4.4.9 Annual business travel emissions are shown in figure 13. Emissions from business travel have been increasing since 2020/21, which was the lowest point for emissions from this source across the previous 6 years and heavily linked to the COVID-19 pandemic, with people primarily required to work from home. Once restrictions were lifted, more meetings have increasingly taken place in person and staff gradually returned to travelling more regularly between workplaces, events, stakeholder and partner premises among other locations for work leading to increased distance travelled. The Council is continuing to build systems for collection of data on business travel, and this increased data collection is reflected in the trends shown to date. We will continue to refine the data moving forward. Emissions from the Council's electric vehicle mobility hub is accounted for in scope 2 'purchased electricity' and it should be noted that increasing use of these electric vehicles by staff has the potential to replace some business travel mileage in grey fleet vehicles as we move forward, transitioning to a less carbon intensive mode of travel.

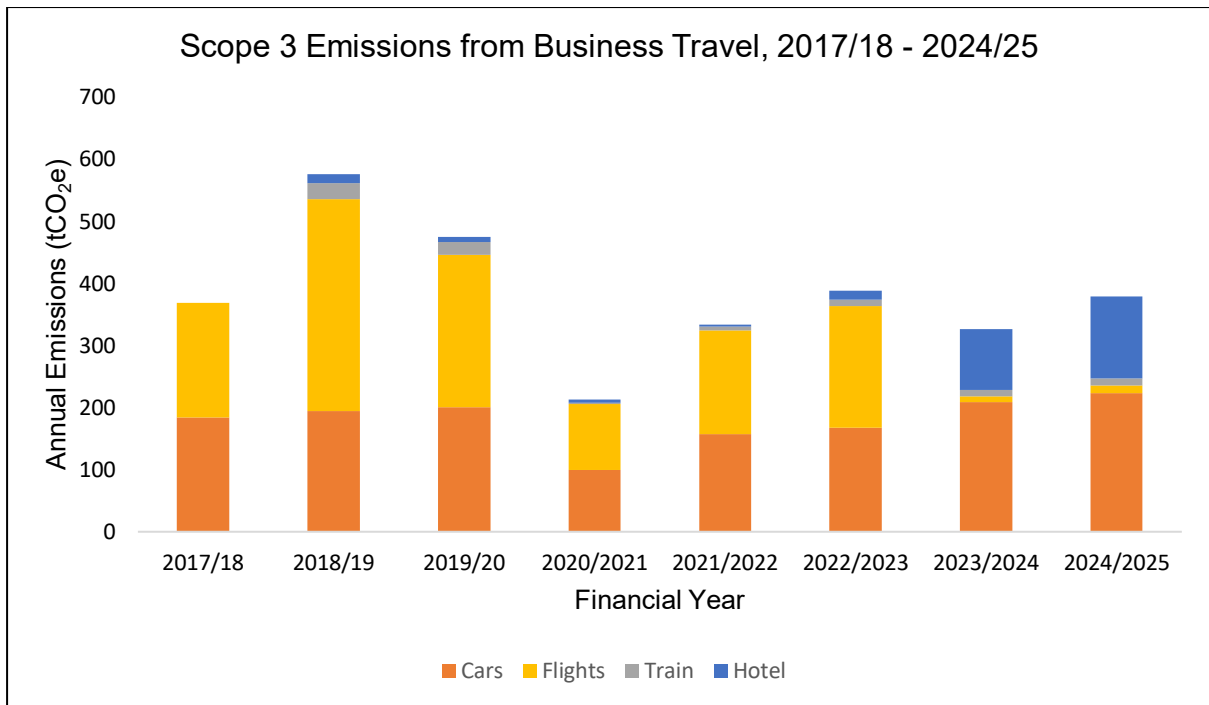


Figure 13 - Scope 3 emissions from business travel, 2017/18 - 2024/25

4.4.10 Emissions from fuel and energy-related activities include electricity transmission and distribution as well as well-to-tank emissions (all greenhouse gas emissions from the production, transportation, transformation and distribution of a particular fuel). Figure 14 shows that emissions from energy- and fuel-related activities steadily declined between 2017/18 and 2020/21, with a low peak during the COVID-19 pandemic. Emissions then increased in 2021/22 before beginning to reduce again. This year, emissions have reduced by 5% since 2023/24, and 58.4% overall since the 2017/18 baseline. Each source of well-to-tank emissions has witnessed fluctuations. Emissions from electricity transmission and distribution have been continually declining, linked to the decarbonisation of the national grid.

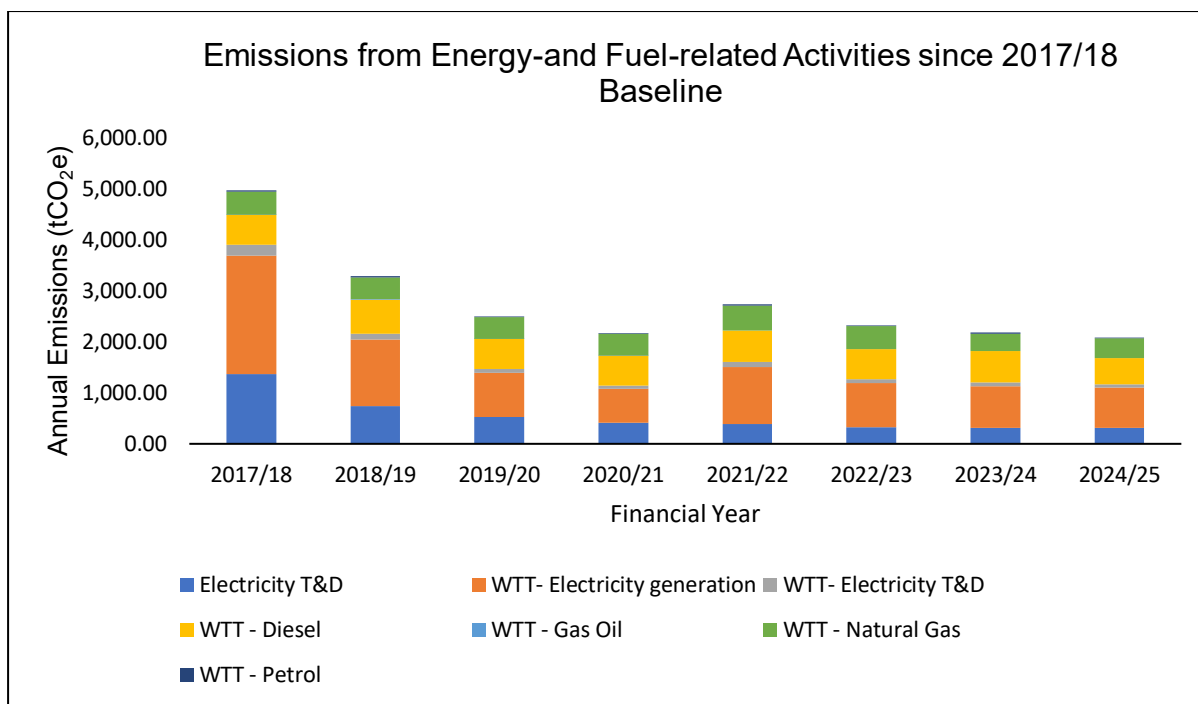


Figure 14 - Scope 3 emissions from energy- and fuel-related activities, 2017/18 - 2024/25

4.4.11 Emissions from employee commuting covers both the emissions from staff travel to and from work via various modes of transport as well as the emissions from home working as an alternative to commuting. In 2018/19, the Council did not estimate emissions from home working, as this would have reflected the working patterns of a very small number of colleagues. However, during the 2020/21 and 2021/22 financial years, most staff worked at home full time due to the COVID-19 pandemic, meaning it was therefore more appropriate to measure emissions from home working. The Council now analyses both home working and employee commuting emissions, in line with the hybrid working approach the Council has adopted since the pandemic. Figure 15 shows that emissions from employee commuting have been fluctuating since data was first recorded in 2018/19. However, since home working became a significant modal share within the employee commuting dataset (2020/21), annual emissions for employee commuting have been lower overall than previous years. This indicates home working will remain beneficial to the Council's carbon footprint unless the modal share of petrol and diesel cars for commuting is significantly reduced and replaced by active and low carbon transport including EVs and public transport.

4.4.12 This year, the annual staff travel survey, which forms the basis of the employee commuting data, was conducted later than usual. This means the data for the 2024/25 period is not available, so the employee commuting category was not able to be updated. The 2023/24 data was used again for this report.

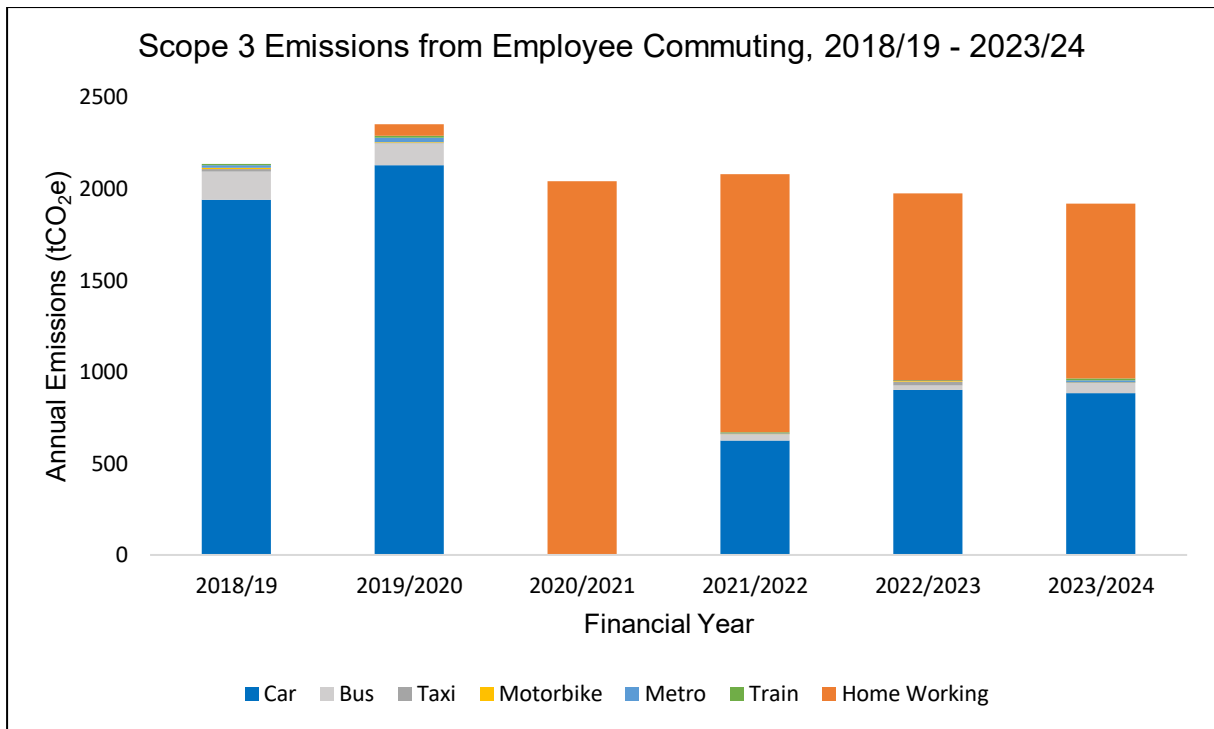


Figure 15 - Scope 3 emissions from employee commuting, 2018/19 - 2023/24

4.4.13 Figure 16 shows the annual emissions from water supply and treatment in Council buildings. Water-related emissions have been fluctuating in recent years, which is directly related to consumption. Since the COVID-19 pandemic, water consumption has decreased by 77% since peaking in 2019/20. This is largely influenced by the Council's move towards flexible and agile working, with many staff spending part of the week working from home.

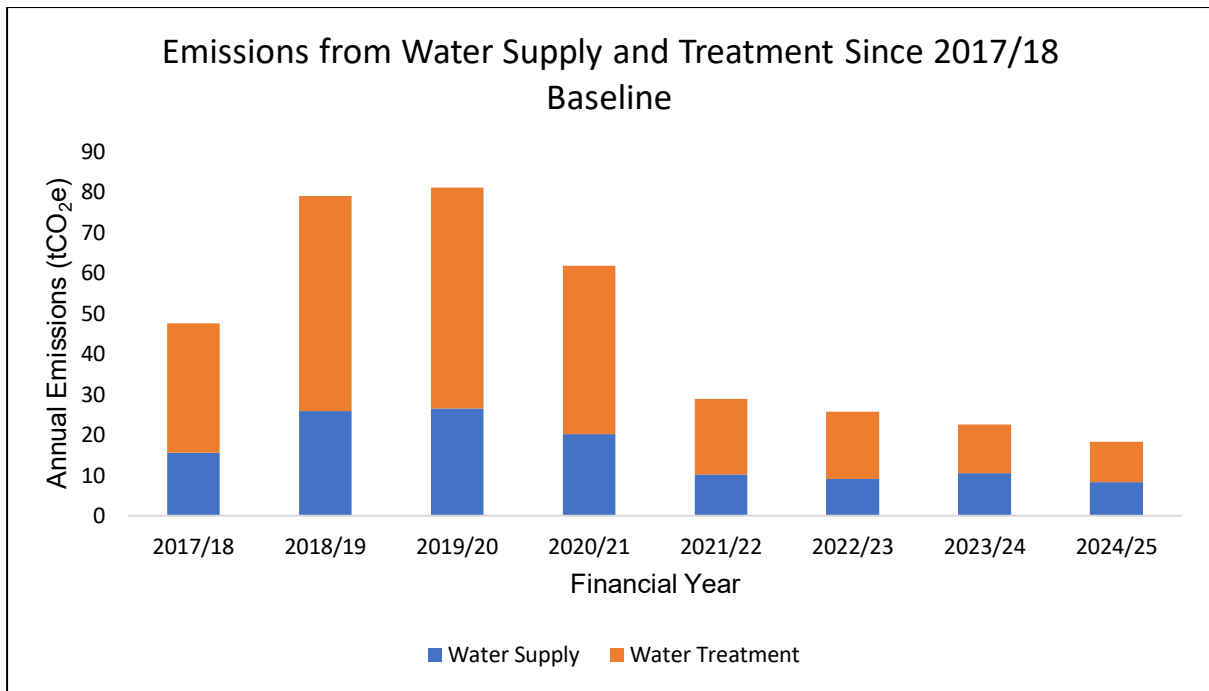


Figure 16- Scope 3 emissions from water supply and treatment, 2017/18 - 2024/25

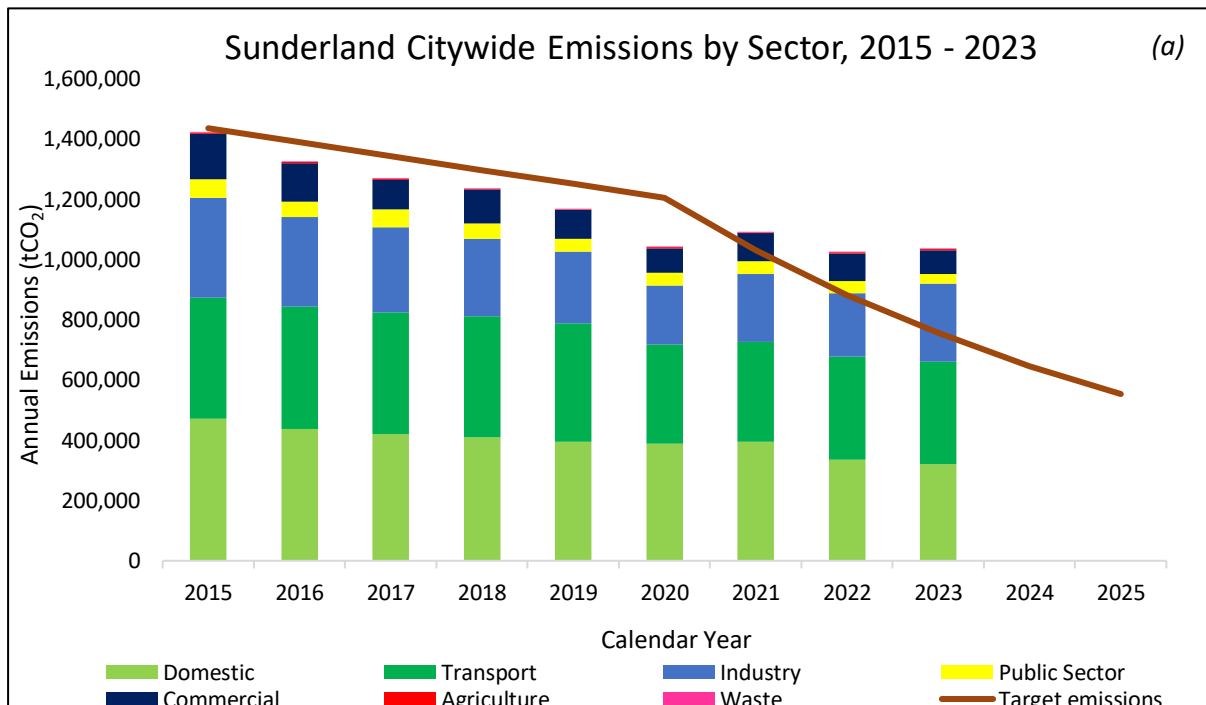
4.4.14 Data relating to emissions from waste generated from within the Council’s estate is currently not available. Pursuing the evolution of the Council’s commercial waste & recycling service into a charge-by-weight collection model through its recent investment in new technology and digital functionality is a key priority. This initiative aims to provide improved value, and information, to the council, in terms of its own waste emissions as well as to its trade customers, based on the weight and type of waste removed, and significantly incentivise improvements in recycling.

## 5 Sunderland Citywide Carbon Emissions

To enable partners across Sunderland to continue to support each other in delivering against the city-wide Low Carbon Framework and maximising the benefits of investment and interventions, within the limited resources available, it is important that we all understand the emissions across the city as a whole and where those emissions are coming from. The following overview enables partners and residents to understand the latest available data at city level in relation to the emissions by each of the sectors listed in 5.1.1 below. This knowledge will help partners to continue to ensure that action taken – both individually and collectively – as we move forward addresses the highest areas of emissions, helps protect our environment from the impact of climate change and supports our most vulnerable communities.

### 5.1. Overview

5.1.1 The 2023 Department for Energy Security and Net Zero (DESNZ) update for citywide emissions estimates was released in July 2025 and represents the most recent carbon emission data available at city level. The data shows that 1,034,400 tCO<sub>2</sub> were emitted within the scope of influence of the local authority in Sunderland in 2023. This consists of emissions from the industrial, commercial, public, domestic, agriculture, transport and waste sectors. Sunderland’s citywide emissions since the 2015 baseline are shown on figure 17.



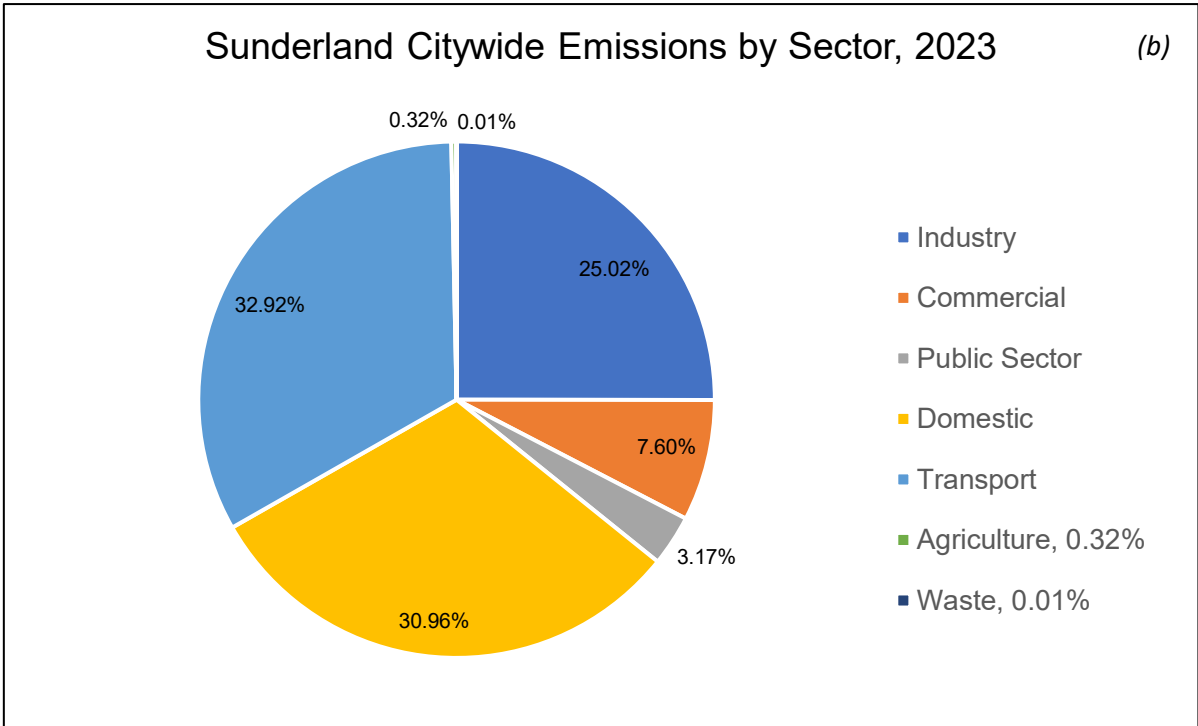


Figure 17- (a) Sunderland citywide emissions and targets, 2015 – 2023 and (b) and each sector as a percentage of the overall emissions for 2023.

5.1.2 In 2023, Sunderland emitted a net 1,034,400 tCO<sub>2</sub> (within the scope of influence of the local authority), representing a 1.1% increase from 2022 levels, mainly due to a large rise in emissions from industry (22%), which is being driven by industrial gas use. Large year on year increases can be attributed to either the opening of, or changes within high gas consuming industrial sites. Further clarity is being sought on this data, however, which is based on meter level consumption data (estimated annual consumption based on meter reads), while recognising that specific detail may not be able to be accessed where it is commercially sensitive information. Should the data change following further review, the gas consumption data will be revised by DESNZ within their next release which is provisionally scheduled for December 2025. This data will then feed into the next release of UK local authority and regional greenhouse gas emissions statistics which is provisionally scheduled for June 2026. Overall city-wide emissions in 2023 were 11.3% lower than 2019 levels (the most recent year data is available where emissions were not impacted by the COVID-19 pandemic) compared to 12% lower than 2019 levels in 2022. Against the 2015 citywide baseline, annual citywide emissions have now reduced by 27% overall.

5.1.3 Although Sunderland achieved its first interim recommended science-based target of a 16.1% reduction between 2015 – 2020, Sunderland is not currently on track to meet the second recommended interim citywide decarbonisation target of 61.5% by 2025, based on a 2015 baseline. The city will therefore need to reduce annual emissions rapidly over the forthcoming years if it is to achieve the target set out in the city-wide Low Carbon Framework.

5.1.4 Due to targets being exceeded in previous years, Sunderland met its first interim recommended 5-year carbon budget period of 5.8 MtCO<sub>2</sub> between 2018 – 2022 (aligned with the carbon budget of 8.2 MtCO<sub>2</sub> between 2020 – 2100). The city is not on track, however, to meet its second interim 5 – year carbon budget of 2.8 MtCO<sub>2</sub> between 2023 – 2027. The full range of interim targets set by the Tyndall Centre are set out in section 2.

5.1.5 Figure 18 shows how citywide emissions per sector have changed since the previous calendar year (2022) and the 2015 baseline. Emissions from most sectors decreased in 2023 compared with the 2022 calendar year, except for industry and agriculture which increased, and waste management which remained the same. With the exception of emissions from waste management, emissions from all sectors have decreased overall since the 2015 city baseline. Some sectors are undergoing emissions reduction at much higher rates than other sectors in the city. Domestic energy and transport have historically been the two major emitters of CO<sub>2</sub> in Sunderland (a pattern which continued this year) and accounted for over two thirds of annual citywide CO<sub>2</sub> emissions in 2023.

*Figure 18 - Citywide emissions for 2023 (tCO<sub>2</sub>e) and trends per sector since 2022 and the 2015 baseline.*

Sector	2023 Emissions	Trend since 2022 (previous year)	Trend since 2015 (baseline)
Industry	258,792	↗22.15	↘21.59
Commercial	78,590	↘14.71	↘47.54
Public	32,826	↘17.07	↘46.02
Domestic	320,286	↘4.50	↘31.94
Transport	340,494	↘0.24	↘15.28
Agriculture	3,277	↗4.66	↘18.22
Waste management	93	0.00	↗3.33

5.1.6 The remainder of this section focuses primarily on emissions from the highest emitting sectors which are domestic and transport, followed by industry, setting out the position from 2015 to 2023 and considering current performance in relation to the relevant 5-year overall carbon budget reduction target.

## 5.2. Transport emissions

5.2.1 Figure 19 shows how the transport sector (the highest emitter) is performing against each of its 5-year carbon budget targets set by the Tyndall Centre (against the 2015 baseline). Emissions from the transport sector in 2023 decreased very slightly by 0.24% compared to 2022, and the transport sector is behind its apportioned 2023 target for decarbonisation. Emissions have decreased by 15% since the 2015 baseline, with reductions of 14-16% overall for road transport, and this year a reduction of 3% for other transport. Emissions for the transport sector are, like 2022, below target when profiled on a proportionate basis against our overall carbon budget.

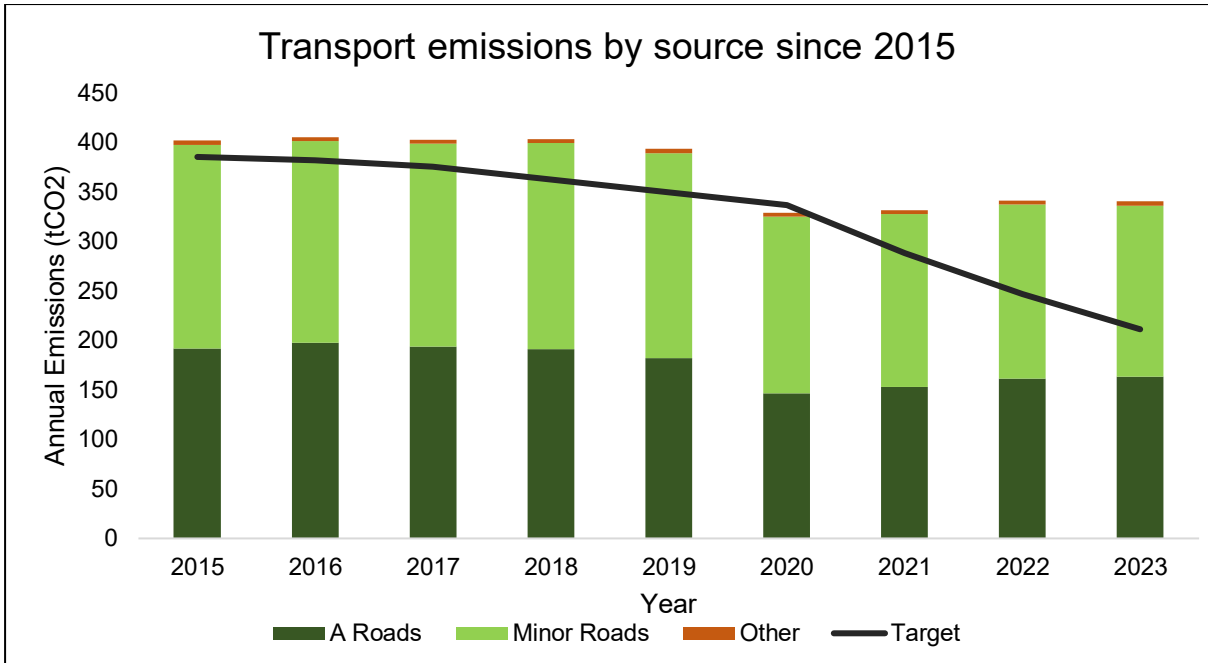


Figure 19 - Transport emissions by source and progress comparison against an equal share of the carbon budget

5.2.2 In relation to comparison data, as can be seen in figure 20, the decrease in emissions from transport from 2022 to 2023 mainly follows the regional and national trend. The sector saw a very slight decrease in emissions both regionally and nationally from 2022 to 2023, with Sunderland and the UK both seeing a marginally higher reduction than the North East.

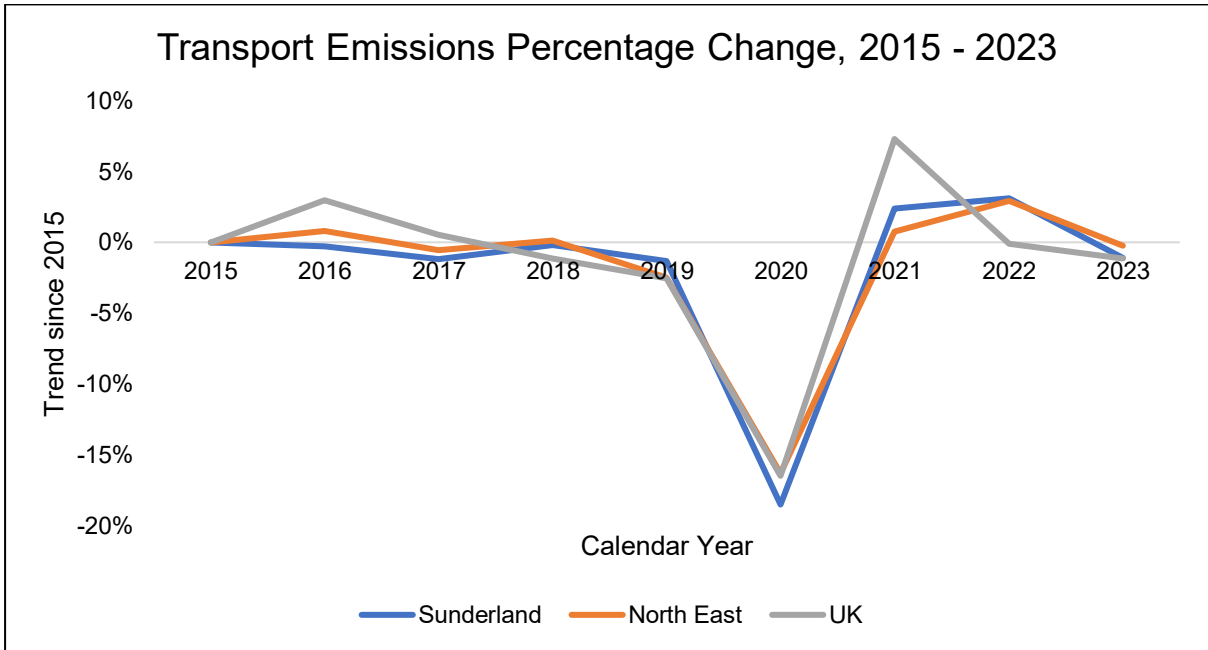


Figure 20- Annual decarbonisation trend for transport emissions since 2015 for Sunderland, the North East and the UK

### 5.3. Domestic emissions

5.3.1. Figure 21 shows how the domestic sector (the city's second highest emitter) is performing against each of its 5-year carbon budget targets set by the Tyndall Centre (against the 2015 baseline). Emissions from the domestic sector in 2023 decreased by 4.5% compared to 2022 levels, and by 32% since the 2015 baseline. Reductions overall have been driven by electricity, with a 59% reduction since the 2015 baseline. Emissions from domestic gas were 19% lower than the 2015 baseline and other domestic emissions (which account for a much smaller amount of emissions) have reduced by 38%. Emissions for the domestic sector are, like 2022, below target when profiled on a proportionate basis against our overall carbon budget.

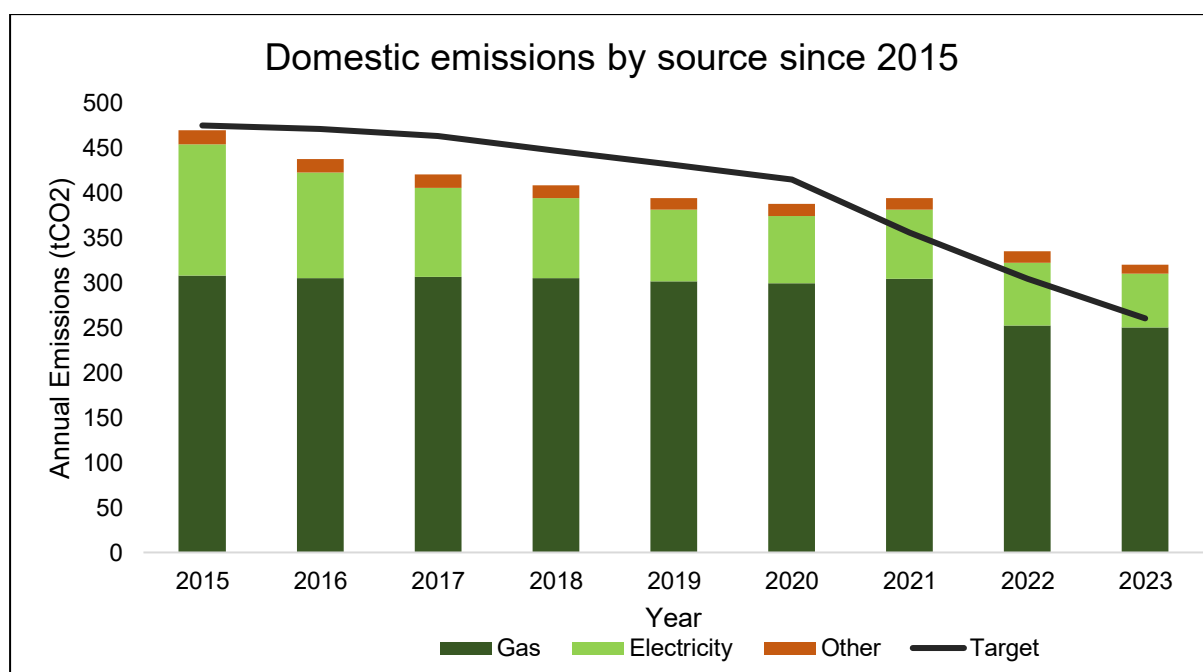


Figure 21 - Domestic emissions by source and progress comparison against an equal share of the carbon budget

5.3.2. In relation to comparison data, as can be seen in figure 22, the domestic sector has decarbonised at a similar rate to both the North-East and national average. The decrease in emissions from this sector from 2022 to 2023 follows both the regional and national trend.

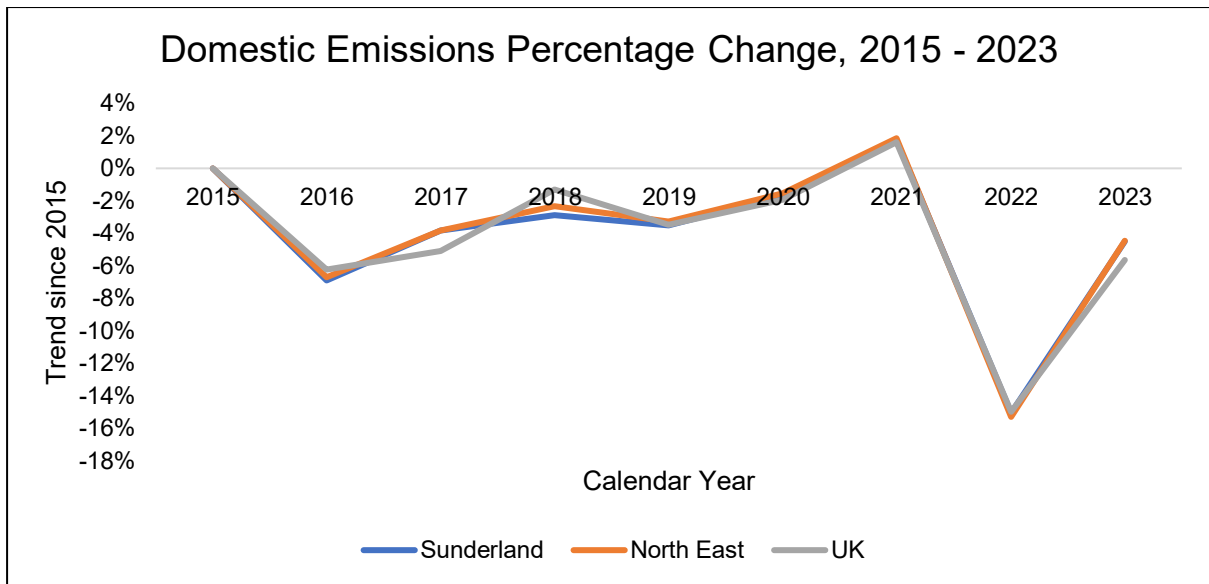


Figure 22 - Annual decarbonisation trend for domestic emissions since 2015 for Sunderland, the North East and the UK

#### 5.4. Industry emissions

5.4.1. Figure 23 shows how the industrial is performing against each of its 5-year carbon budget targets set by the Tyndall Centre (against the 2015 baseline). Emissions data from the industrial sector in 2023 shows an increase of 22% compared to 2022 and the sector is behind its apportioned 2023 target for decarbonisation. Reductions were driven up by a sharp increase of 62% in industrial gas emissions in 2023 compared to 2022, and 40% compared with the 2015 baseline. due to a large rise in emissions from industry (22%). Large year on year increases can be attributed to either the opening of, or changes within high gas consuming industrial sites. Further clarity is being sought on this data, however, which is based on meter level consumption data (estimated annual consumption based on meter reads), while recognising that specific detail may not be able to be accessed where it is commercially sensitive information. Should the data change following further review, the gas consumption data will be revised by DESNZ within their next release which is provisionally scheduled for December 2025. This data will then feed into the next release of UK local authority and regional greenhouse gas emissions statistics which is provisionally scheduled for June 2026.

5.4.2. Emissions from 'other' sources in industry also experienced an increase, rising 4% compared to 2022, but still showing a decrease of 45% since the 2015 baseline. Electricity emissions however decreased by 15% since 2022, and 54% since the 2015 baseline.

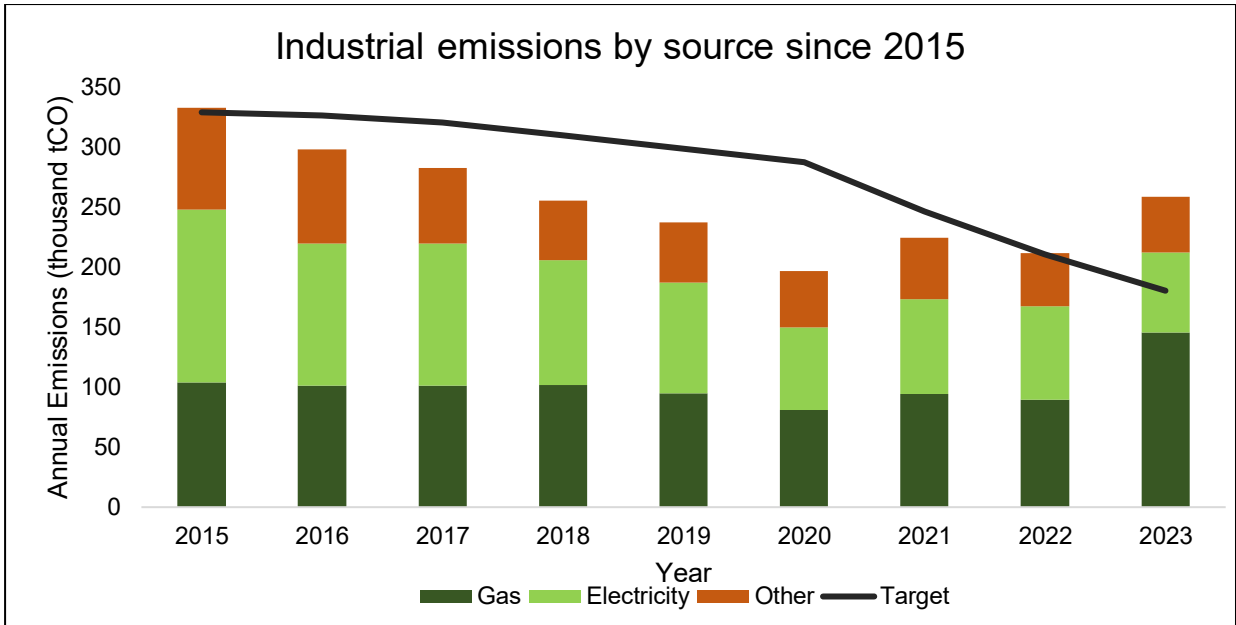


Figure 23 - Industrial emissions by source and progress comparison against an equal share of the carbon budget

5.4.3. In relation to comparison data, as can be seen in figure 24, Sunderland's industrial emissions have experienced an increase while the North East and UK continued to see a percentage decrease in emissions between 2022 to 2023. Previously, Sunderland's industrial sector had decarbonised at a faster rate, however this has not been the case since 2020.

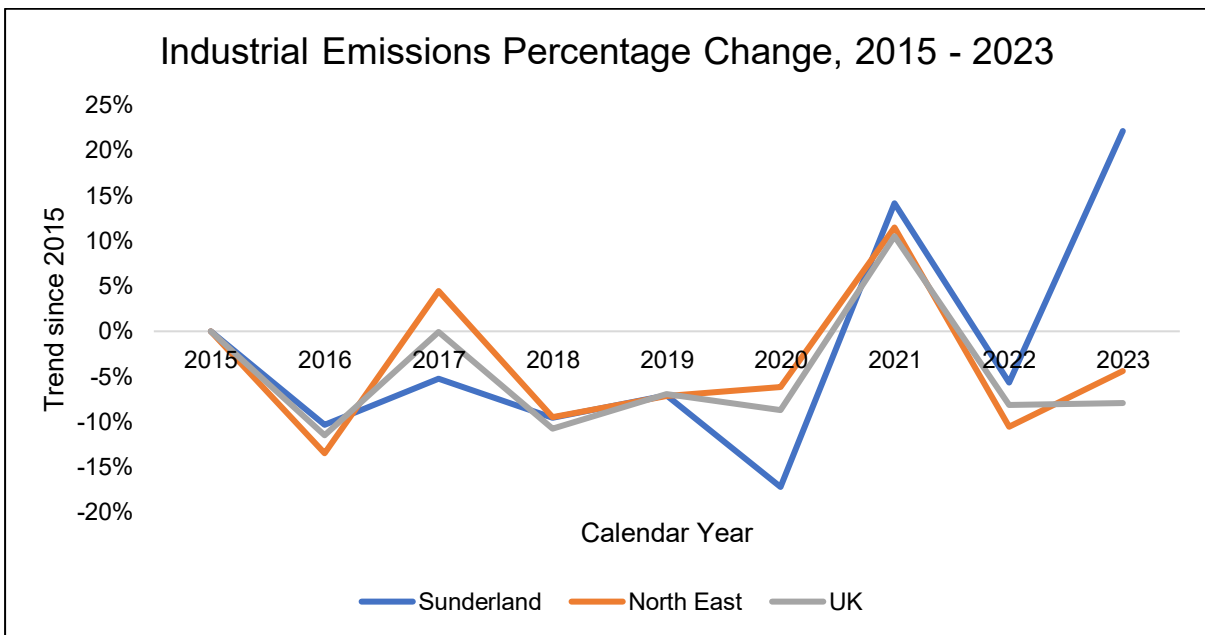


Figure 24 – Annual decarbonisation trend for industrial emissions since 2015 for Sunderland, the North-East and the UK

## **5.5. Other citywide emissions**

5.5.1. Emissions from the commercial sector in 2023 decreased by 15% since 2022 and by 48% since the 2015 baseline. Public sector emissions decreased 17% on 2022 levels and 46% since the baseline. Waste management emissions in Sunderland stayed the same in 2023 as 2022 and have increased by 3% since the 2015 baseline. Emissions from the agriculture sector are at a very low level in Sunderland but are reported for completeness. Agriculture emissions saw an increase of 5% on 2022 levels but have decreased by 18% since the 2015 baseline.

## 6. The Year Ahead

Sunderland has set ambitious targets, both as a city and as a City Council, in seeking to play its part in tackling climate change, while adapting to the changing climate and increasing environmental sustainability across our communities. We recognise that delivering against these ambitious targets is challenging and that significant Government and private sector investment will be needed to maximise the progress that can be made.

The data set out in sections 4 and 5 provides a clear focus as we prioritise actions for the year ahead within the resources available.

For the Council the area of greatest challenge is the vehicle fleet, alongside continuing to increase energy efficiency across the operational estate. As a city, transport and domestic energy remain the greatest sources of emissions, with the potential for activity in these areas to not only reduce emissions but to help improve health and wellbeing as well as reduce household expenditure. A focus on working with businesses to become increasingly sustainable and reduce industrial emissions will also be important.

Together with its partners, the Council will continue to actively source and secure external funding and investment aligned with priorities focused on creating benefits in the short and medium term for residents in communities across the city, and seeking to improve the quality of the surrounding environment. Using a combination of specialist knowledge, the necessary data & intelligence, targeted engagement, close partnership working, and focused project and programme management we will look to secure funding and investment for:

- Decarbonising the built environment;
- Tackling Fuel poverty
- Renewable energy generation and storage;
- Active and low carbon transport;
- Reducing consumption and waste;
- Growing the green economy including skills and training;
- Adapting to climate change and enhancing the natural environment.

The Council's plans and organisational priorities will continue to evolve in line with the ambitions of the City Plan, including a clear focus on enabling the wider benefits of carbon reduction and climate adaptation specifically in relation to energy efficiency, health and wellbeing and access to nature.

Work will also continue with Public Health as part of the Healthy City Plan linked to the building blocks of health. This will focus on continuing to build understanding and knowledge of the risks to the city's environment and communities as a result of changes to the climate, as well as to consider the pro-active approach needed by the partners including the Council to anticipate, and be able to appropriately adapt, in the face of these changes within the context that the communities likely to be impacted most are the city's more vulnerable communities.

## 7. Appendix

### A – Summary of Changes to Methodology / Data Availability

<b>Emission Source</b>	<b>Summary of Changes</b>
Gas consumption	No change
Vehicle fleet	No change from 2023 - Consumption data is fuel consumption
Purchased electricity generation	No change
Purchased goods and services	No change
Leased assets	Brings together 'scope 3 gas', 'scope 3 electricity' and 'scope 3 vehicle fleet' from previous annual reports
Employee commuting	No change
Business travel	No change
Fuel and energy related activities	Along with transmission and distribution, now includes datasets for well-to-tank emissions

### B – Glossary of Terms

<b>Term</b>	<b>Definition</b>
Carbon Budget	An amount of carbon dioxide that a country, company, or organisation has agreed is the largest it will produce over a particular time period.
Carbon Footprint	The amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organization, or community.
Carbon Intensity	The amount of carbon by weight emitted per unit of energy consumed.
Carbon Neutral	Making or resulting in no net release of carbon dioxide into the atmosphere.
Climate Emergency	A situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it.
DESNZ	The Government Department for Energy Security and Net Zero.
Environmentally Extended Input Output	Environmentally extended input output (EEIO) models estimate energy use and/or greenhouse gas (GHG) emissions resulting from the production and upstream

	supply chain activities of different sectors and products within an economy. The resulting EEIO emissions factors can be used to estimate GHG emissions for a given industry or product category. EEIO data are particularly useful in screening emission sources when prioritising data collection efforts. For this report, EEIO data was used to calculate emissions from purchased goods and services in the 2024/25 financial year.
Fugitive Emissions	Fugitive emissions from refrigeration and air conditioning result from leakage and service over the operational life of the equipment and from disposal at the end of the useful life of the equipment. The leakage of refrigerant gas is a small but significant source of GHG emissions because of a high Global Warming Potential associated with these GHGs.
Greenhouse Gas Protocol	Greenhouse Gas Protocol provides standards, guidance, tools and training for business and government to measure and manage climate-warming emissions.
Grey Fleet	A grey fleet vehicle is one owned and driven by an employee for business purposes. The employee is reimbursed on a pence per mile basis for using their private vehicle on business journeys. Vehicles used by employees under cash allowance schemes are considered grey fleet too.
Low Carbon Framework	The citywide Low Carbon Framework focuses activity around seven strategic priorities, putting people at its heart - changing our behaviours, changing our organisational policies and practices, and setting out five thematic areas under which work will be taken forward. These focus on the built environment, green economy, low carbon energy generation and storage, consumption and waste, and low carbon and active transport.
Low Carbon Action Plan	The Council's Low Carbon Action Plan sets out how the Council will seek to deliver strategic priorities of the Low Carbon Framework as an organisation. The Action Plan is structured around the same seven strategic priorities as the Low Carbon Framework. Individual partner organisations are each developing an Action Plan if they have not already done so
Paris Agreement	The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties at COP 21 in Paris, on 12 December 2015 and entered into force on 4 November 2016. Its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.
Scope 1	GHG emissions directly from operations that are owned or controlled by the reporting company.

Scope 2	Indirect GHG emissions from the generation of purchased or acquired electricity, steam, heating, or cooling consumed by the reporting company.
Scope 3	All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.
Tyndall Centre	The Tyndall Centre is a partnership of universities bringing together researchers from the social and natural sciences and engineering to develop sustainable responses to climate change. The Tyndall Centre work with leaders from the public and private sectors to promote informed decisions on mitigating and adapting to climate change.
Upstream Purchased Goods	All upstream (i.e., cradle-to-gate) emissions from the production of products purchased or acquired by the reporting company in the reporting year.

