



Taking Climate Action:

Our Progress 2022

[Click to begin](#)

50MW Power Purchase Agreement solar farm in Dorset nearing completion.

Welcome



In sharing our story and highlighting the lessons learned, we hope that others will be able to develop and implement their own net zero and resilience strategies and, importantly, to determine where our – and their – actions could have wider and deeper impact.

The global race to net zero is not about cities and countries being competitors, but collaborators. We are one team, one people and one planet, racing against the most uncompromising opponent of all: time.

At the City of London Corporation, we want to work alongside a wide range of partners and stakeholders to learn, influence and act.

Engagement, transparency and accountability are critical values in our climate action. To ensure that we get things right, we are constantly challenging and appraising our work and plans. We do not have the luxury of time to get things wrong.

I admire the candour of the challenges this report brings out, many of which are problems shared between cities and countries across the globe. We will work locally, nationally and internationally to win this fight of our lifetime.

And even though the challenges ahead are many, and the solutions are not always at our fingertips, there should be no doubt as to our tenacity, our ingenuity and our resolve to succeed.

Markets, and the businesses and consumers that drive them, are shifting. COP26 was an encouraging turning point for private finance in delivering our global and domestic net zero goals.

The promises made by the investor community – exemplified by the Glasgow Financial Insurance Alliance for net zero (GFANZ) – are a clear expression of the industry's commitment to this agenda.

Through our Green Horizon Summit, organised with the Green Finance Institute at COP26, and this year's net zero Summit held in Mansion House, private finance mobilised and delivered the message loud and clear: investors see value in green initiatives, are active in this space, and believe in this future.

I look forward to creating that future with our partners in the Square Mile and beyond.

Vincent Keaveny
Rt Hon The Lord Mayor
of the City of London



At the City of London Corporation, we have a truly unique role to stand up for our City.

As the governing body of the Square Mile, we have a duty to our residents, our local businesses, and our visitors to provide excellent public services.

As representatives of the United Kingdom's financial insurance and professional services, a sector that employs 2.3 million people, two-thirds of which are outside

the capital, we want to strengthen our global and local offer.

This unique arrangement is the product of centuries of history and evolution.

This means that we face disparate challenges like few others, but that also mean we are a unique organisation with a unique ability to act. This report shows us where we need to accelerate these actions; particularly in the roles the Corporation plays in influencing how commercial buildings and investments are managed.

What unites the resident and the retailer, the financier and the family, is a desire to have their future and their children's future protected.

Because as we all know, we are in a desperate race against time to avert a climate catastrophe.

That means acting now to deliver change for our people and our planet. We have no other choice, there is no greater long-term challenge, and no more immediate need for change.

I am both pleased that we have made good progress against our first target in 2027. Equally I feel the urgency to address the challenges we face in meeting our commitments. And I call on all those in the Square Mile to examine what you can do to go farther and faster on climate action – to make commitments and to make actionable targets to reduce emissions and increase resilience. We stand ready to partner with all those who live, work and visit in our City.

Christopher Hayward
Chairman of the
Policy & Resources Committee,
The City of London Corporation

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Executive summary

Our Climate Action Strategy commits the City of London Corporation to achieving net zero carbon emissions in our own operations by 2027.

We also aim to become net zero carbon emissions across our investments and supply chain by 2040; and support the achievement of net zero for the Square Mile by the same year. Plus, we pledged to increase environmental resilience in the Square Mile.

This report marks the first comprehensive public account of our progress. It includes three key areas of success and three challenges we face as we move into the second year of our strategy, which is fully funded for the first six years. It aims to be an honest yet encouraging take on these successes and challenges and the work of the year ahead.

A full accounting of our progress to date which has been externally independently verified for Scopes 1 and 2 is now available on our public Climate Action Dashboard. This and our full strategy can be found at [Climate Action Strategy - City of London](#). This report and the Dashboard are reporting progress as of 31 March 2022 from the baseline year of 2018/2019 for the City Corporation unless otherwise indicated. Due to a time lag in the availability of LEGGI data for the Square Mile, the baseline is 2017 and the current position is 2019 unless otherwise indicated. The footprint at baseline and now has been supported by advisors Aon, Arcadis and Arup. The current position has been independently verified at the highest level available by Achilles.



OUR SUCCESSES:

- ✓ **We are making good progress against our 2027 target**
Our reduction in Scopes 1 and 2 emissions are on track
- ✓ **We are improving our transparency**
Our stakeholders can see our progress on our new Dashboard
- ✓ **We are investing in data**
Our data projects reveal both risks and opportunities



THE CHALLENGES WE FACE:

- ✓ **We must accelerate our work on commercial buildings**
Decarbonising buildings across the Square Mile needs collaboration and radical new partnerships to meet the target
- ✓ **We must accelerate our work on transport**
Our work increasing pedestrianisation and cycling lanes will help shift the pace of reducing transport emissions
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LOOKING AHEAD:

- ✓ **A year of capital interventions**
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- ✓ **A year of aligning standards**
Keeping the bar high across all types of property
- ✓ **A year of going local**
Taking action on the ground

Our ambition

In November 2019, the City Corporation set out on a fast-paced cross-organisation journey to develop an ambitious Climate Action Strategy.

Less than a year later, the Strategy was adopted as policy and a new and transformative programme of action began.

We set out three interlinked primary objectives for both the City Corporation and the Square Mile.

- 1 **SUPPORT THE ACHIEVEMENT OF NET ZERO EMISSIONS**
- 2 **BUILD RESILIENCE**
- 3 **CHAMPION SUSTAINABLE GROWTH**

We tied these targets to bold timescales, so our Climate Action Strategy commits us to achieving net zero carbon in our own operations by 2027.

We also aim to become net zero across our investments and supply chain by 2040; and support the achievement of net zero for the Square Mile by the same year. Plus, we pledged to increase environmental resilience in the Square Mile.

In October 2021 we set interim targets for net zero at the City Corporation so we could be held accountable to being on track. Targets below are stated as reduction in absolute emissions from the 2018/2019 baseline. Our plans are centred on reducing carbon emissions of our assets and activities, and do not rely on offsets.



We tied these targets to bold timescales, so our Climate Action Strategy **commits us to achieving net zero carbon in our own operations by 2027**

Our ambitious plan makes the City Corporation the first governing body in the UK to have a fully funded net zero commitment that covers all emissions.

Within the organisation, we approved an original funding envelope of £68 million to deliver the Strategy up to 2027.

Bridge House Estates (BHE) is an independent charity of which the City Corporation is the sole corporate Trustee. For the purposes of Climate Action, BHE and the City Corporation have partnered under the Strategy. This progress report covers emissions associated with BHE activities and investments. The Dashboard will reflect the data separately for BHE where possible.

Net zero by 2027 (Scopes 1 & 2) – Our net zero targets*



Net zero by 2040 across what the City Corporation buys, sells, invests in and leases to others (Scopes 1, 2 & 3 emissions)*



Net zero by 2040 in the Square Mile



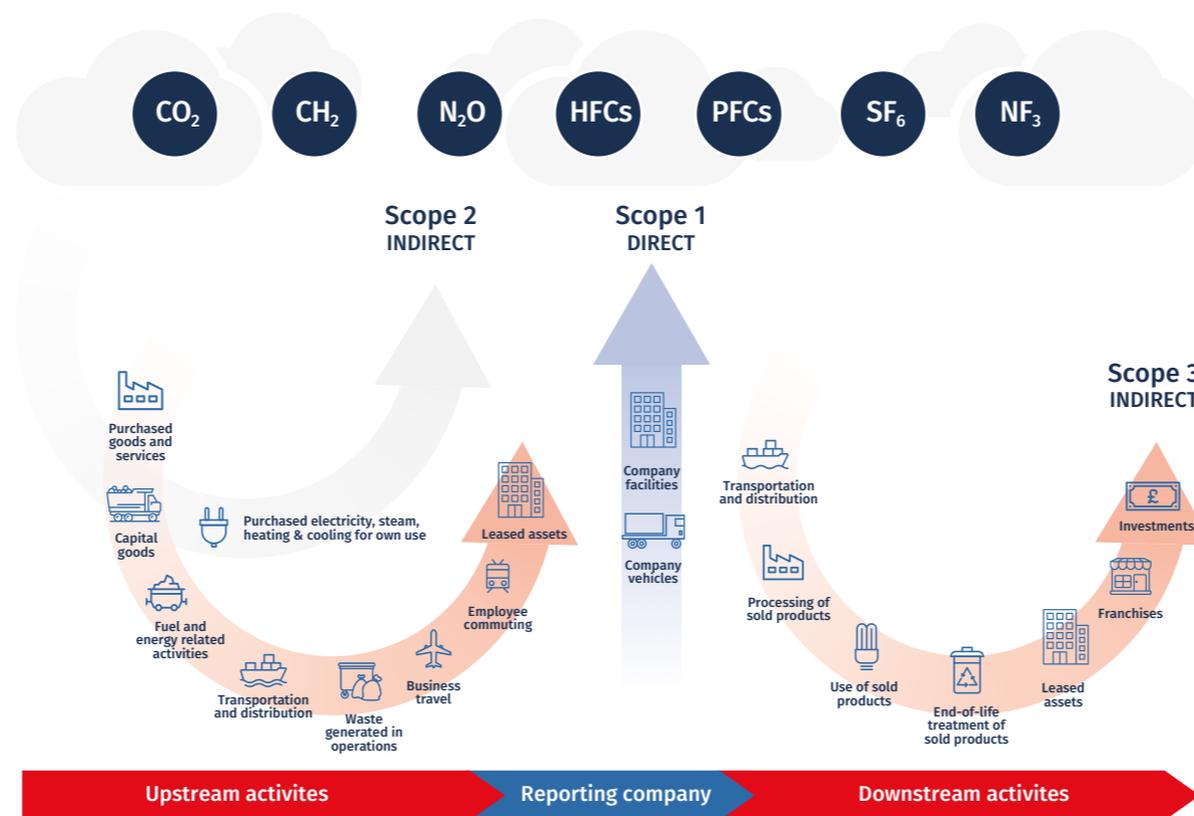
*Net emissions account for emissions produced combined with the carbon removals of our open spaces

Our approach to reporting

The City Corporation’s approach to net zero is based on the high standards set for Corporates by the Science Based Target Initiative (SBTi). Targets for the reduction of greenhouse gas emissions are considered “science-based” if they are in line with what the latest climate science says is necessary to meet the goals of the Paris Agreement (2015) – to limit global warming to well below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C.

We have included Scopes 1, 2 and all Scope 3 emissions to take ownership, show leadership and help make this standard practice. This can make it appear that we are greater emitters than our peers that have not included Scope 3. We will continue to work with our partners to improve understanding of Scope 3 data. We will also advocate for standardisation of reporting to ensure everyone addresses their total carbon footprint effectively.

Our approach for reporting on net zero for the Square Mile comes from the BASIC+ definition. It includes those from within the Square Mile from stationary energy, transportation and waste, as well as transboundary transportation, industrial processes and product use and the agriculture, forestry and land use sectors. It does not include emissions from investments.



Source: Greenhouse Gas Protocol, Technical Guidance for Calculating Scope 3 Emissions (version 1.0)



We report all our Scope 3 emissions and have a plan for reducing them.

We have used the Adaptive Pathways approach in our resilience planning. This focuses on establishing combinations of sequential measures – pathways – to mitigate the potential impacts of climate change in future decades.

We recognise this is a fast-moving space and closely monitor any updates. This year’s footprinting exercise has taken into account recent changes to recommended best accounting practice from the SBTi Corporate Net-Zero Standard (2021), such as the removal of an allowed exclusion of up to a third of Scope 3 emissions from longer term targets. It has also incorporated methodological improvements to data quality leading to the restatement of baseline emissions for some categories of emissions, including for the City Corporation’s downstream leased assets, financial investments, purchase goods and services and transboundary transport for the Square Mile. Interim targets will need to be reprofiled in late 2022 to account for the changes.

We are making good progress on our 2027 target

Our first focus has been to reduce our Scopes 1 and 2 emissions, as they come from buildings and other activities we have the greatest control over.

Our aim is to reduce these to below 16kt CO₂e by 2027 – the rate at which our open spaces remove carbon from the atmosphere each year.

Our baseline Scopes 1 and 2 emissions were 36.5kt CO₂e and we have reduced these by 31%, against a target of 33% (not including carbon removals or the reductions from procured renewable electricity). Our total floor space has reduced a little over this period, so taking this into account, our emissions per unit of floor area, has reduced by 30%. We have achieved this by putting in place a number of changes, including a programme of energy reduction interventions, changes to our building stock, and better control of our energy usage using the Building Energy Management System (BEMS). Interventions like these account for 21% of the reduction, with the remainder due to a degree of decarbonisation of the grid and reduced occupancy during the pandemic.



The 2022 position is encouraging progress and a helpful reminder to stay focused on our targets.

31%

We have reduced 31% of our emissions, against a target of 33%.

Case study: Seizing opportunity with the Public Sector Decarbonisation Scheme (PSDS)

The City Corporation was awarded a multi-million pound Government funding boost in early 2021 to help make our buildings more energy efficient.

We received £9.5 million from the Public Sector Decarbonisation Scheme administered by Salix Finance on behalf of the Department for Business, Energy and Industrial Strategy (BEIS). The scheme allows public sector bodies in England to apply for a grant to finance up to 100% of the costs of capital energy-saving projects.

The money was used to upgrade heating, cooling, ventilation and lighting and improve building controls and energy metering at our Guildhall headquarters, the Barbican arts centre, Guildhall School of Music & Drama and London Metropolitan Archives.

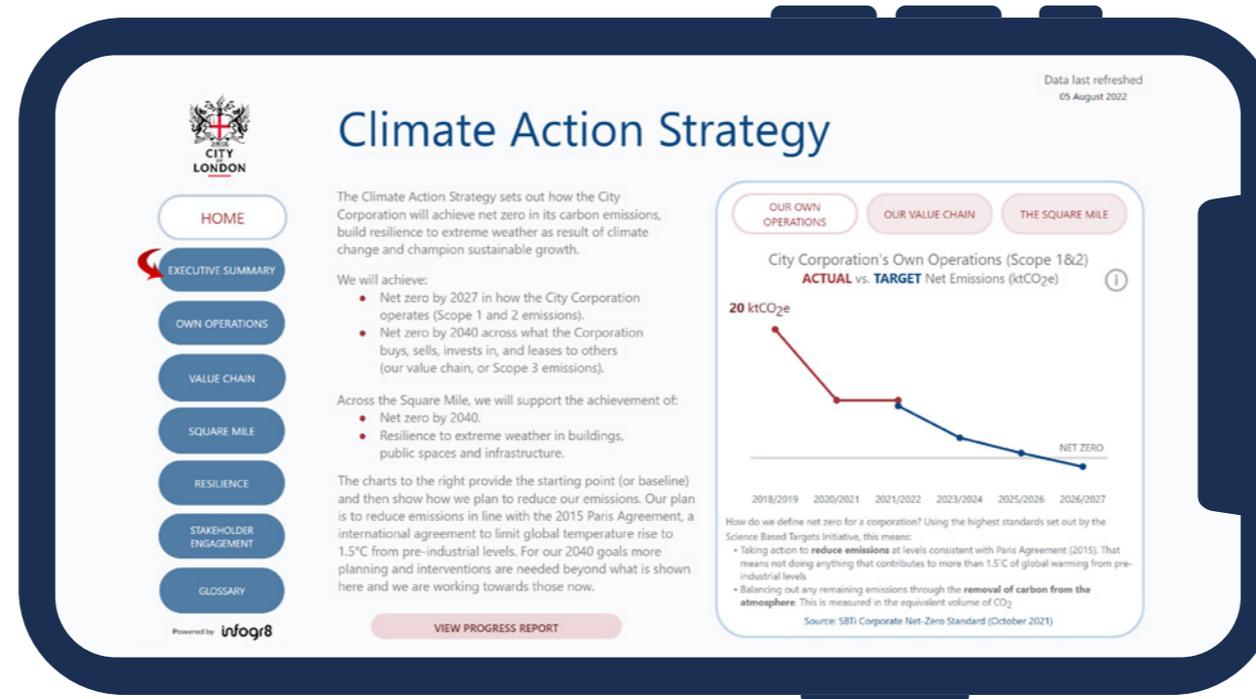
The measures deliver savings of around 1.652 kilotonnes of CO₂e and £875,000 a year. Early results have contributed significantly to our current headline reduction figure against our 2022 interim target on the 2027 net zero goal for the City Corporation.

We are improving our transparency



It was a key commitment to be transparent, through the regular monitoring and reporting of progress against the goals we set out.

Becoming more transparent was a key commitment in our Strategy. Achieving this involves the regular monitoring and reporting of progress against the goals we set out in our Strategy, including the use of interim targets. We have therefore developed a Climate Action Dashboard, which we are excited to launch in conjunction with this report. It is the first of its kind, and serves as a tool for internal and external stakeholders to view progress the City Corporation is making on our commitments as well as collective action in the Square Mile. It tracks 37 key performance indicators (KPIs), from kilometres of increased pedestrian priority to fund managers with science-based targets. It will be updated quarterly in its first year.



[View the Climate Action Strategy dashboard here.](#)

25

We are also working with our top 25 emitting purchased goods and services suppliers to reduce their carbon emissions.

37

KPIs are tracked to help us monitor our progress.

We are investing in data



Data is crucial to our understanding of progress and how we can best take action for the future. We have therefore collected key data and brought it together in the KPIs presented in the Climate Action Dashboard. We are also investing in better data systems and management that will help reveal both risks and opportunity with a particular focus on resilience and our buildings and financial investments. Importantly, we are sharing data and approaches to data publicly and with partners. In 2021, we published a disclosure of risks in our financial investments through our first Taskforce for Climate Related Financial Disclosures (TCFD) report.



The introduction of the Climate Action Strategy has provided another layer of endorsement and urgency for us at Skanska and the wider industry to develop better ways of measuring and reporting the impact of our activities in facilities management. As a key client to Skanska, the detail contained in the Climate Action Strategy from the City of London helps us to drive our investment into finding better ways and systems to monitor and measure our impact with a view to the end goal for us all in addressing climate change and reaching net zero carbon.”

Bill Smythe
General Manager, Skanska



View the Taskforce for Climate Related Financial Disclosures (TCFD) report online at: [Climate Action Strategy - City of London.](#)

Case study: Sigma

A crucial part of the data picture is energy usage in our buildings.

To monitor energy consumption across the City Corporation's assets, we introduced a system called Sigma in January 2022. Sigma is powered by Yellowfin BI, a simple analytics tool. Sigma allows the City Corporation to easily collect and organise data about energy costs and consumption. Further, carbon emissions are easily viewed on the platform as conversion factors are pulled from government conversion factors for greenhouse gas issued by BEIS. This information allows us to make decisions based on data, ultimately supporting the City Corporation's Climate Action Strategy projects and allowing sites to maintain visibility of financial and carbon savings. The data can also be used to support projects and influence behaviour change. Approximately 100 site users have been trained to use Sigma's Energy Viewer to date.



Case study: The Square Mile's digital twin city

The City Corporation's Climate Action Strategy is committed to making the Square Mile resilient to climate changes, which for the UK means warmer wetter winters and hotter drier summers.

To address this, the City Corporation is modelling a digital twin city of the Square Mile. The model will be used to run different climate change scenarios focusing on the Square Mile and support the identification of the specific assets with a heightened risk of impact.

To bring the twin city to life, we used City Corporation's data, the aerial survey company Verisk's data and tree data from Greater London Authority (GLA). We also used Thames Water's information and calculated the gutter capacity for the stormwater system. The model, built in Tygron, uses a Geodesign platform that offers the digital infrastructure support challenges related to spatial planning, combining (geo) data, models and applications. The Tygron model provides a visual representation of the current situation in the City, to be used to calculate the effects of extreme precipitation and extreme heat.

The model will integrate with the City of London Corporation's ground-breaking Thermal Comfort Guidelines, which won the Best Project for Sustainable Planning category at the prestigious Building London Planning Awards in 2021. The guidelines – believed to be the first of their kind globally – are used by the City Corporation when negotiating new developments as well as formulating planning policy.



Planning for and adapting to a changing environment has become all the more important as we begin to see more extreme weather events, more frequently. These guidelines are helping us assess and mitigate the climate risks to our local environment, making our public spaces comfortable and accessible for everyone to enjoy. We are harnessing technology and data for this world-leading initiative to ensure a more sustainable Square Mile for the people to live, work, study and visit here.”

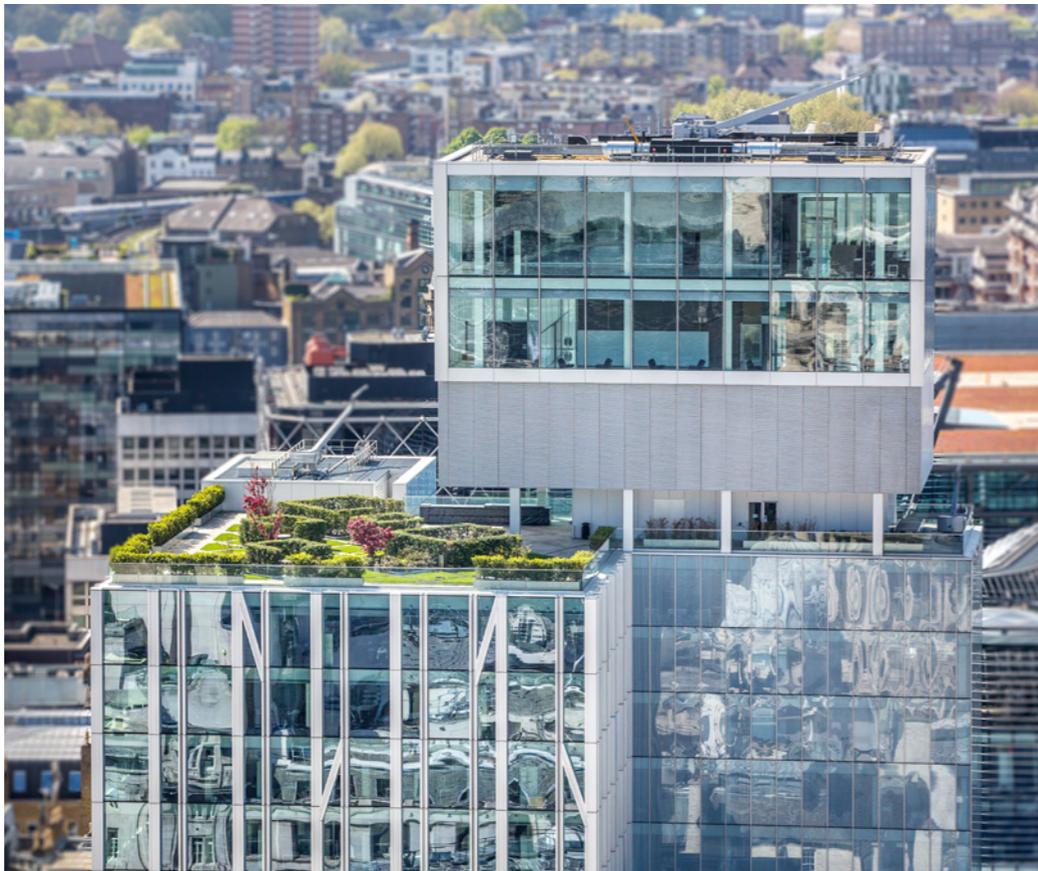
Shravan Joshi

Chairman of the City of London Corporation's Planning and Transportation Committee



In addition to these benefits, the modelling will also help mitigate health impacts where overheating may be an issue for residents and workers and improve occupant comfort and the internal environment. In future, we hope the model will serve as a useful planning tool for determining the location of sustainable drainage systems and green roofs, and limiting heat stress on buildings and common areas.

We must accelerate our work on commercial buildings

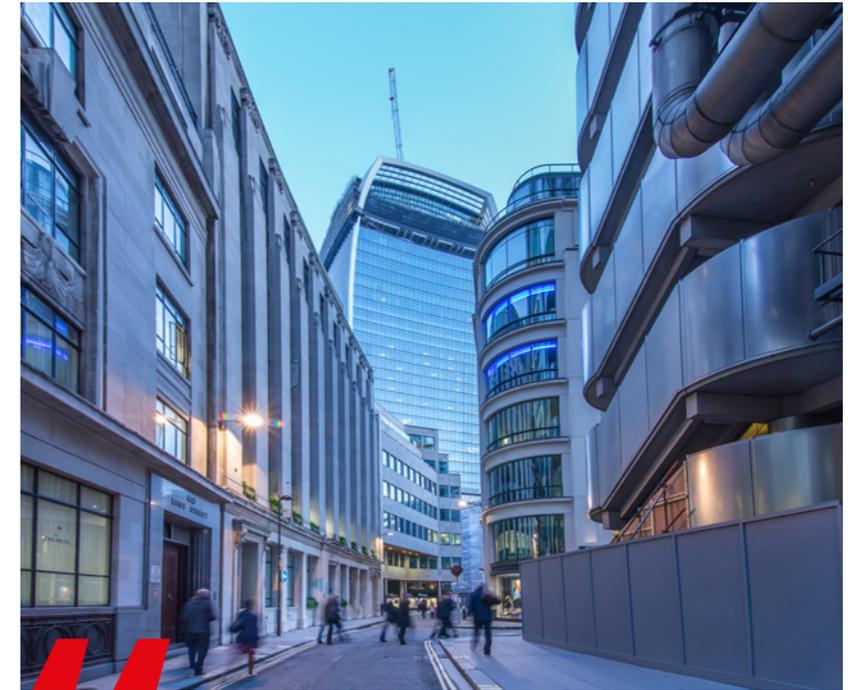


In the latest available City emissions data (2019), buildings and transport have remained the two biggest emitters, but commercial buildings now make up 65%. While we are pleased to have seen a reduction of 16% in this area, this still falls short of our planned progress against our interim targets for the City overall of 60% by 2025 and 73% by 2030.

We will be using our influence to raise standards for new builds and refurbishments, and inspire innovation through activities such as the historic building retrofit challenge scheduled in 2022. It is crucial that we pursue these efforts, but reducing emissions and increasing resilience in this area will require collective action from property owners and managers throughout the Square Mile.

16%

Commercial building emissions have reduced by 16% across the Square Mile.



The journey to net zero and sustainability of our existing commercial building stock in the UK has never been more important. To rise to this challenge, we need radical collaboration across the real estate sector to improve building performance, mainstream sustainability skills and transform the market. At Better Buildings Partnership we recognise the scale of this challenge and the leadership it will require to make tangible change.”

Sarah Ratcliffe CEO
Better Buildings Partnership

We must accelerate our work on transport



When we set out our Climate Action Strategy, it was clear that over 90% of emissions in the Square Mile derived from buildings and transport. Following an improved assessment methodology, in 2019, transport accounted for 25% and buildings 67% of emissions. It has been clear from the beginning that these will be the biggest challenges – and opportunities – in meeting the 2040 goal for the Square Mile.

So far, neither is decarbonising at the rates needed to meet the upcoming interim goal. In the latest set of available data (2019), transport emissions had reduced by 11% against a required trajectory of 13% in order to make the 2025 interim goal. However, emissions from transboundary transport, which relates to journeys coming in and out of the Square Mile and is the largest category of transport emissions, has reduced 5%. Emissions from electrical rail have reduced by 37% between our baseline and current available data (2019). We expect to see that measures that have been put in place since 2019 will start to be reflected in next year's data. These measures include increasing pedestrian priority and cycle lanes, and working with the GLA to coordinate the same across London.

5%

Journeys in and out of the Square Mile, the largest category of transport emissions, has reduced 5%.



Case study: Greening the City

The City of London, or Square Mile, is a world-leading financial and professional services centre and is thus one of the most densely built-up parts of London. With this in mind, the provision of roof terraces, green roofs and green walls has provided an opportunity to address requirements for public space and urban greening. In addition, green roofs and green walls have the potential to contribute to climate change adaptation by reducing surface water run-off and by improving building insulation, urban greening and biodiversity.

We particularly encourage green roofs that support biodiversity, and our latest reports show that between 2011/2012 and 2020/2021 the total number of green roof spaces increased from 58 to 142. These can provide recreational amenity and contribute to climate change mitigation and adaptation by reducing surface water run-off and mitigating flood risk, improving building insulation, and supporting urban greening and biodiversity and wildlife habitats. These benefits will be achieved by implementing sustainability measures such as planting diverse plant species, including bird and insect boxes, installing photovoltaic panels and rainwater storage tanks and others.

The City Corporation is looking to significantly increase urban greening through its City Plan, including through green walls and green roofs, and uses an Urban Greening Factor to require new urban greening. From 2023, the City will apply Biodiversity Net Gain principles, requiring development to deliver a minimum 10% uplift in biodiversity.

And our updated Biodiversity Action Plan will extend our commitment to biodiversity. The new plan is aimed at making the Square Mile more attractive to birds, mammals, insects and invertebrates – including house sparrows, peregrine falcons, bats, wild bees and stag beetles. We conducted a public consultation on Biodiversity in the Square Mile - City of London in 2021. The new plan runs until 2026.

The City of London Corporation manages over 200 green spaces in the Square Mile, creating a network of gardens, churchyards, parks, plazas and highway plantings.

There are ten Sites of Importance for Nature Conservation (SINCs) in the City, designated for their importance for wildlife and for people to experience nature. An additional three sites are due to be adopted via the draft City Plan 2040, which sets out what type of development the City Corporation expects to take place in future.



This plan aims to ensure that the City meets its obligations to protect and enhance the vast biodiversity in the Square Mile. This work is also interlinked with the vital climate action work we are undertaking. We need to look after these open spaces to support our diverse array of wildlife and habitats and ensure future generations can enjoy a biodiverse environment.”

Caroline Haines

Chair of the City of London Corporation’s Open Spaces and City Gardens Committee

Case study: Taskforce for a Sustainable Skyline

Research by UK Green Buildings Council (UKGBC) shows that construction and maintenance of existing buildings accounts for almost a quarter of the UK's greenhouse gas emissions. It is therefore important that the built environment sector reshapes its workforce to address technological and design changes. Doing so involves tackling significant skills gaps across the whole project lifecycle of designing, building, and maintaining Central London's sustainable commercial buildings.

To support this, we recently launched a three-year Skills for a Sustainable Skyline Taskforce, involving over 100 senior industry stakeholders from across the built environment sector. The Taskforce will define and address skills gaps across the full project lifecycle of sustainable commercial buildings in Central London boroughs.

A recent poll of over 100 industry professionals revealed that

91%

of respondents said the commercial built environment sector **lacks sufficient skilled workers** to achieve **net zero targets**;

80%

believed a **lack of workplace diversity** is an issue for the sector; and

87%

agreed that there is a **growing 'green skills' gap** in the commercial built environment.

The Taskforce will bring together employers, training providers and industry bodies from across the commercial built environment sector, as well as national and local government.



IT HAS THREE KEY FOCUS AREAS:

- 1 **Building the evidence base** on skills, qualification and training gaps for both current and future commercial buildings. This also includes identifying barriers to action and articulating the business case for investing in green skills.
- 2 **Delivering impactful interventions** which directly address the issues raised in the evidence piece. This may involve career and qualification pathways, unlocking financing for upskilling, planning policy, procurement rules etc;

- 3 **Delivering an industry engagement campaign** to promote reskilling and upskilling among the existing workforce, and raising career awareness amongst Londoners, including those from underrepresented backgrounds.

Further details, including a full membership list and details of how to support the work of the Taskforce, can be found at

➔ www.cityoflondon.gov.uk/GreenSkillsTaskforce

or by contacting

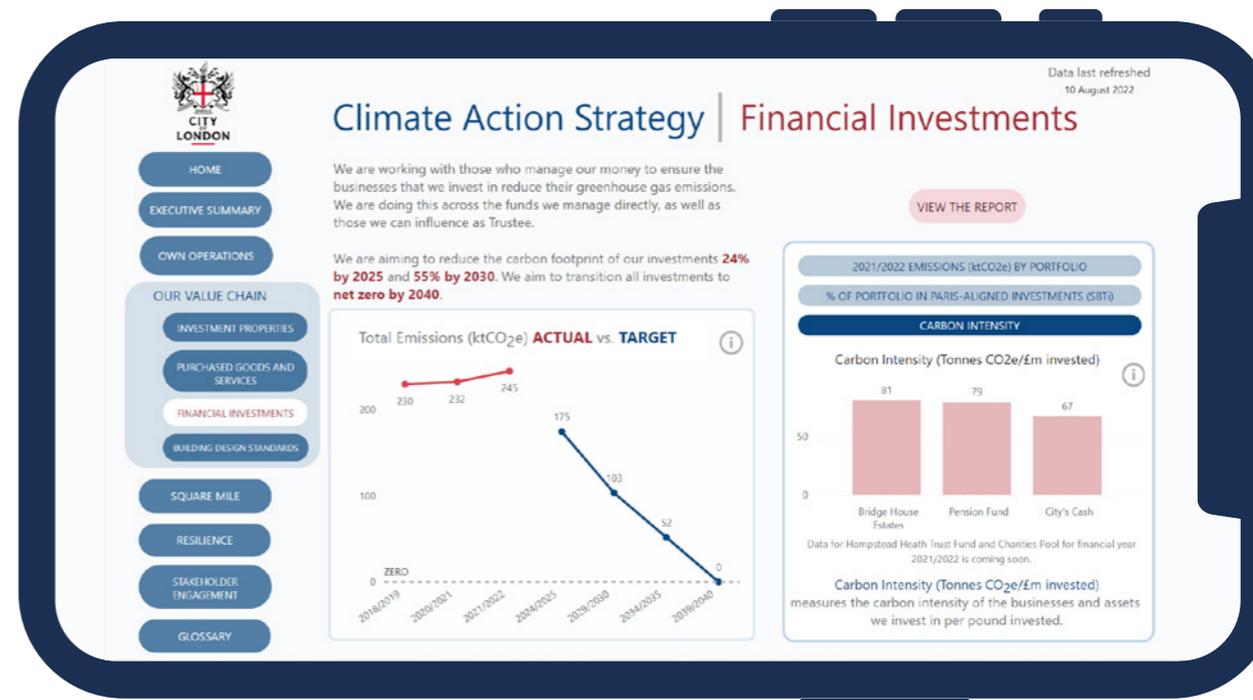
➔ SkillsforaSustainableSkyline@cityoflondon.gov.uk

We must accelerate our progress in financial investments

The absolute emissions from the City Corporation’s Pension Funds and City Cash funds as well as the investment funds held by BHE are increasing upwards by roughly 5% each year. We expected to see this in the short-term as our portfolios increase in value. As long-term investors we are engaging with our managers and holdings to support lasting change. However, we are closely watching our Carbon Intensity which is tonnes CO₂e of emissions per £m invested. It reduced by almost 20% between 2018/2019 and 2019/2021 but has come up again slightly in 2021/2022. Stranded assets are also on the rise with the biggest increase being seen in BHE funds: from 4.40% in 2021 to 6% in 2022.

Our fund managers must now accelerate action against our 2024/2025 target of a 24% reduction absolute reduction in emissions resulting from our financial investments. To facilitate this, we have brought in new hires to work with our fund managers on climate and diversity and inclusion.

20%
Carbon Intensity reduced by almost 20% between 2019 and 2021



[View the Climate Action Strategy dashboard here.](#)



We are wholly supportive of The City of London Corporation’s ambitious Climate Action Strategy. Artemis has made its own net zero commitments as a signatory of the net zero Asset Managers Initiative and will continue to work hard to ensure that the investments we manage of behalf of the City Corporation reflect its climate goals as the world transitions towards a low carbon economy.”

Victoria Heffer
Head of Institutional, Artemis Investment Management

Case study: Taking global action

Due to our reach, The City of London Corporation is able to align its climate action locally and globally. We hosted the net zero Delivery Summit in May 2022 in association with the COP26 UK Presidency 2022 and the Glasgow Financial Alliance for net zero (GFANZ). This was a hybrid event, with content livestreamed to a global online audience.

Delivered at the halfway milestone between COP26 in Glasgow and COP27 in Sharm El-Sheikh, the Summit focused on net zero delivery and the progress of key priorities for finance agreed at COP26 in Glasgow. It was a follow-on event from our Green Horizon Summit at COP 26 in Glasgow, which we hosted in partnership with the Green Finance Institute. And the previously held Green Horizon Summit at Mansion House in November 2020.

Hosted by The Lord Mayor of London, Vincent Keaveny, with participation by the COP26 and the GFANZ leadership, as well as financial and professional services (FPS) and business leaders, the summit drove three objectives:

- 1 **Maintain momentum** on key policy initiatives for finance from COP26;
- 2 **Present as best practice**, the role of FPS in helping the wider economy achieve net zero;
- 3 **Secure London's role** as a strategic leader on sustainable finance.

These critical discussions, took place against a backdrop of conflict in Europe and rising geopolitical tensions across the world. Senior international policymakers, experts and ministers looked at how current energy security challenges and disruption to supply chains could impact the net zero agenda and its implementation. They also explored how FPS is supporting net zero delivery across the wider economy, and how finance is being effectively mobilised to support the net zero transition in emerging markets, to build climate resilience in developing countries and secure a just transition to net zero.

Over the two days, the Summit featured a series of keynotes and 'In conversation' sessions with high-level international participants.

Four speaker panels discussed: net zero implementation, capital mobilisation to emerging markets and public policies to accelerate net zero.

A final session looked forward to COP27 and beyond, focusing on the milestones in the lead-up to the next conference in Sharm El-Sheikh and ambitions for finance initiatives there.



Speakers included Mark Carney, Co-Chair of GFANZ and UN Special Envoy for Climate Action and Finance; John Kerry, US Special Presidential Envoy for Climate Change; Mairead McGuinness, European Commissioner for Financial Services, Financial Stability & Capital Markets Union and Alok Sharma, MP, and COP26 President. Further detail and catch up can be found at NZDS | About (→ theglobalcity.uk).

The NZDS Summit is one of many City Corporation initiatives to mobilise private finance from the UK and globally towards the fight against climate change. Other such examples include the UK-China Green Finance Taskforce, Climate Financial Leadership Initiative with Bloomberg and our work to develop a Voluntary Carbon market in the UK. More detail can be found at 'Grow your business in the UK' (→ theglobalcity.uk).



Climate & Sustainable finance must be a driver to support real economy climate transitions and London as a leading financial hub is uniquely positioned to champion that. Convenings like the net zero Delivery Summit, curated by the City of London Corporation and partners, help provide clarity on actions taken and accelerate progress."

Rishi Madlani

Head of Climate & Sustainable Finance, NatWest Group

A year of capital interventions



51%

of our energy will come from our Power Purchase Agreement.

A programme of capital works identified in the first year of the strategy will be delivered in 2022/2023. Primarily focused on medium-term energy efficiency improvements in buildings, a works schedule is planned from September 2022 for 15 Corporate Assets and 150 investment properties and 14 housing estates including almost 5000 individual residential properties. These funded energy efficiency asset improvements will drive further progress towards our 2027 target, and combine with the Power Purchase Agreement (PPA) that comes online in September 2022 and a behavioural programme to support energy efficient usage of buildings.



Funded energy efficiency asset improvements **will drive further progress towards our 2027 target**

Case study: Creating shade and reducing overheating in the Square Mile

Ensuring a balance of focus on building and maintaining resilience against climate change that is already locked in is crucial. Recent hot weather in the UK has reinforced the importance of shade and cool spaces in the City.

Through the Cool Streets & Greening project, the City Corporation is taking action to improve the resilience of its streets, parks and open spaces to overheating, water stress and new pests and diseases.

Urban greening, including tree planting, can reduce the risks of overheating by providing additional shade through tree canopy cover, cooling roads, pavements and buildings and reducing temperatures at street-level. It can also help to improve the ambient temperature by up to 3°C through evapotranspiration (the evaporation of stored moisture through leaves and soil surface).

The City Corporation recently completed an avenue of trees along Vine Street, in an area previously deficient in green cover. These trees will not only grow to form a sheltered, green route, but the species have also been selected due to their resistance to tree pests and diseases that are affecting more traditional species such as London plane, ash and oak. We are also working to diversify our planting palette so that our green spaces and assets are more resilient to new or imported tree diseases, which may become more prevalent due to climate change.

To monitor the impacts of the greening programme, we installed temperature and humidity sensors at the existing mature trees at the sunken garden on Cheapside. Indicative data during the July 2022 heatwaves demonstrated that temperatures beneath the tree canopy were around 3°C cooler – and sometimes up to 8°C than at the more exposed weather station on the roof of the City of London School.

We will be expanding our data collection to include a City-wide network of temperature and humidity sensors. This will include tracking the number of days per year where street temperatures exceed 32°C to ensure our interventions are minimising overheating at street level. This is in addition to other monitoring, such as tracking the Urban Greening Factor (UGF) as a measure of the quality and quantity of the greening, sustainable drainage and biodiversity measures across our project sites.

The City is also trialling climate-resilient planting at a number of sites. For instance, we have recently replaced the riverside planters outside the City of London School with drought tolerant species in a variety of soils and mulches.

We will continue to build this evidence base around resilience and use it to guide our efforts to provide green infrastructure across the Square Mile and the City Corporation's open spaces.



3°C

The evaporation of stored moisture through leaves and soil surfaces has been shown to reduce air temperatures by up to 3°C.

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A year of aligning standards



When it comes to sustainability, we want to keep the bar high across all types of property in the Square Mile. We therefore plan to align standards for sustainable refurbishment and new building projects across our housing corporate and investment properties as well as for works coming through our planning approvals process. This will come to fruition in 2022/2023. By December 2022, we will have in place both corporate Design and Technology standards, a refresh of our housing standards and Supplementary Planning Guidance for the Square Mile.



We have a vision **to align standards for sustainable refurbishment and new building projects across our housing corporate and investment properties** as well as for works coming through our planning approvals process.

A year of going local



Our second year will be dominated by increasingly localised actions and engagement. Decarbonisation plans for housing and corporate properties will be drawn at site level. And capital works identified in the inaugural year will commence on individual corporate buildings and housing estates. We will produce a local energy plan for the Square Mile and are scoping a first of its kind PPA which would provide renewable energy to a group of Square Mile businesses. We are also scoping pilot scheme for ward level local action in the City.



We know **we need to mobilise efforts at a local level** to reduce emissions across the Square Mile.



Collaboration has been the key to unlocking the challenges of climate change as no entity can do this alone. Whether it be working across our resident community to understand occupier experience ... across industry such as our Skills for a Sustainable Skyline Taskforce future-proofing our workforce and tackling the skills shortage that threatens the net zero transition ... or across jurisdictions such as the Cities Commission for Climate Investment and other local authorities in London and the UK to secure necessary long-term finance for achieving net zero. Or across the globe at our net zero Delivery Summit. This work will be possible because we will do it together.”

Keith Bottomley
Deputy Chairman, Policy and Resources Committee

Case study: Leaf composting at Bunhill Fields



Friends of City Gardens is a volunteer-led community group that supports the City's gardens to enhance biodiversity and improve access to green spaces in the City. One of their community-driven activities, they implement on-site leaf composting where volunteers are responsible for the majority of the leaf collecting and compost production. They recently launched this activity at the City Corporation's garden, Bunhill Fields, pictured here.

Friends of City Gardens estimates that composting fallen leaves on-site and producing compost locally rather than sourcing it from external sites saves approximately 100kg CO₂e per annum. They have calculated this using the carbon emissions estimate of a new diesel van (161.2 gms CO₂e/km) given by the European Environment Agency, against the number of van round trips they normally make when they were not composting locally.

This is a remarkable example of how local organisations and communities can take climate action and collaborate with the City's Climate Action Strategy. By simply reviewing the carbon emissions from routine tasks and making small but cost-effective changes City residents and organisations can raise awareness and contribute to reaching net zero.

Initiatives like this bring people together to make positive change. We want to enable City residents and communities in shaping their own climate action plans. Organisations making a difference in the City of London are being invited to bid for grants such as the Neighbourhood Fund. [➔ Neighbourhood fund](#). This community fund administered by the City Corporation helps to ensure that developments in the City are having a wider positive impact on people who live, work and visit the Square Mile.

100kg CO₂e

saved through local leaf litter composting by the Friends of City Gardens.

Case study: Increasing Climate Literacy

One of the City of London Corporation's central objectives in delivering its Climate Action Strategy is increasing climate literacy for all stakeholders. Understanding the science behind climate change supports decision-making and practical action with the highest impact. Thus, making literacy a crucial part of our engagement with people and organisations businesses, communities and governments.

One such example is the Heart of the City course on offer to SMEs in the Square Mile. We commissioned this course to help small and medium sized enterprises (SMEs) on their journeys to net zero. It is delivered through workshops, masterclasses, online resources and expert mentoring. The programme content is split into four practical modules: jargon busting and demystification, building the business case, measuring carbon footprint and creating a net zero action plan. In the first 18 months, 88 businesses have participated in the course. As SME's represent 98% of the businesses of the Square Mile this is a key area of focus of engagement.

Another great example from the Square Mile comes from the City of London School for Girls. Economics teacher Aman Kanwar pictured here has developed a seminar-based course that provides an overview of the multi-dimensional challenges posed by climate change as well as possible solutions. This course has been piloted with three different audiences – A-level students, the parents of the students and City of

London employees – over the last few months of the year.

The next goal is to scale up the delivery of this course to all three audiences as well as versions for residents and the general public. In addition, new practical climate literacy modules are being developed with corporate and charitable partners with the aim of empowering participants to become agents for positive change. There are also plans in place to create gap year and summer placement opportunities so that students can continue to engage with climate change solutions outside the school.

88

SMEs signed up to the Heart of the City course on climate.



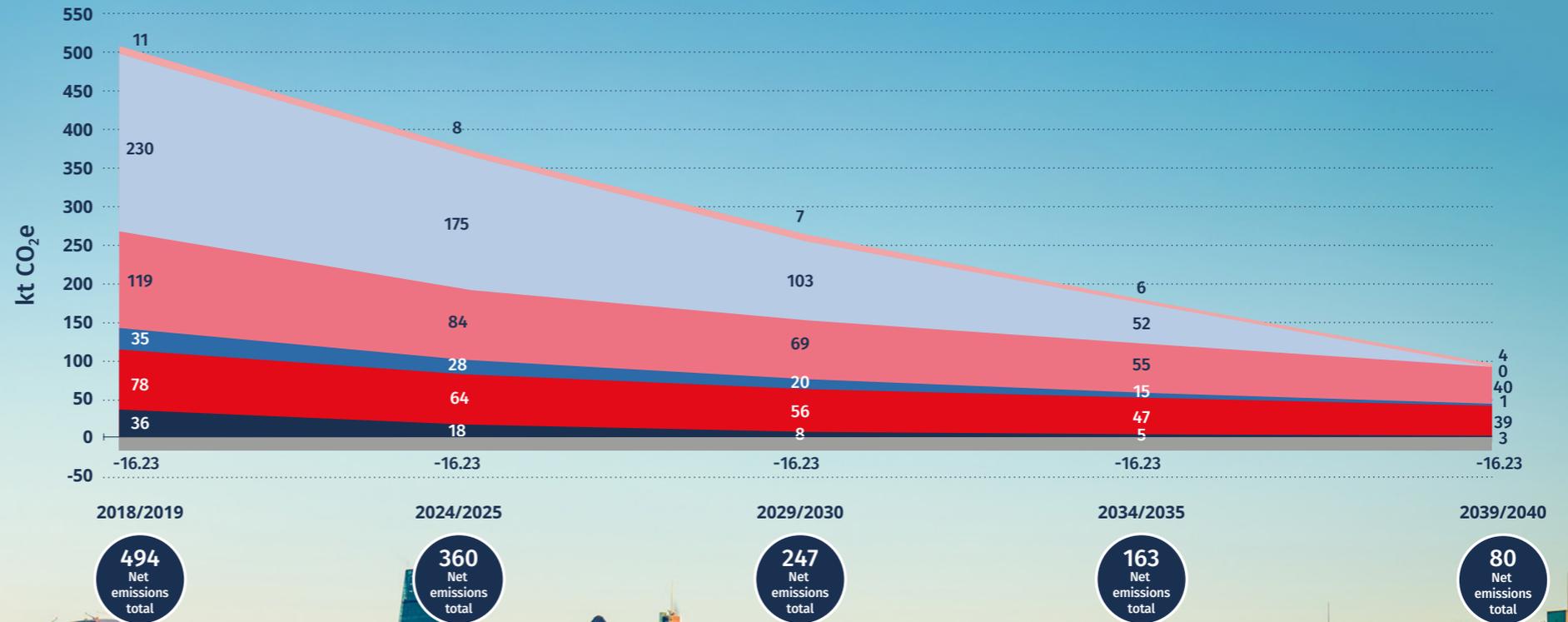
At Quantem, we believe in better and have striven to first calculate and then mitigate our carbon footprint, whilst supporting our clients do the same on their building projects. We've found the Heart of the City's climate course to be very helpful and supportive both in terms of personal support and IT learning platforms. Being part of the Heart of the City course has helped us focus and drive our net zero carbon plans and supporting a more sustainable Square Mile. So far, with the support of Heart of the City, we have calculated our carbon baseline, completed our carbon audit, identified our carbon mitigation strategy and set our target for reducing our carbon footprint with sound methodology informing this. We have already seen carbon savings yielded and continue to strive to do better. "

Chris Patrick
Partner, Quantem

City Corporation Journey to Net Zero by 2040

Net emissions by 2040 across the City Corporation's full value chain

- Scopes 1 & 2
- Scope 3 - Purchased Goods & Services
- Scope 3 - Capital Projects
- Scope 3 - Leased Buildings (IPG)
- Scope 3 - Financial Investments
- Scope 3 - Other
- Carbon Removals



Streamlined Energy and Carbon Reporting (SECR) – City Corporation

Table 1: Assessment summary

Date of assessment	July 2022
Baseline year	Financial Year 2018/19
Consolidation approach	Operational control
Boundary summary	All entities and all facilities either owned or under operational control of the City Corporation were included
Emissions factors	Conversion Factors for Company Reporting: 2018, 2020, 2021 (BEIS) Citigen District Heating and Cooling: 2018, 2020, 2021 (Citigen) 'UK full dataset 1990 - 2019, including conversion factors by SIC code' (DEFRA, 2022)
Assessment methodology	Greenhouse Gas Protocol (2004); ISO 14064-1 (2019)
Intensity ratio	Emissions per m ² floor area
External verification	Reasonable assurance provided against ISO 14064 Part 1 2018 by Achilles, for Scope 1 & 2 emissions (Financial Year April 1 2021 to 31 March 2022)

Table 2: Energy and emissions summary

	2018/19		2020/21		2021/22	
	Energy	Emissions	Energy	Emissions	Energy	Emissions
	MWh	tCO ₂ e	MWh	tCO ₂ e	MWh	tCO ₂ e
Scope 1 emissions						
Fuel combustion						
Buildings	41,541	7,910	35,646	6,676	34,774	6,473
Vehicles	1,860	456	1,552	647	1,699	615
Operation of facilities						
Fugitive emissions	-	1,000	-	262	-	434
Process emissions	-	-	-	-	-	-
Total	43,401	9,366	37,199	7,585	36,473	7,522
Scope 2 emissions						
Purchased electricity	86,741	24,554	65,686	15,314	66,306	14,079
Purchased heat	15,720	1,525	11,733	1,842	12,250	2,879
Purchased cooling	6,004	1,009	2,381	557	4,241	823
Purchased steam	-	-	-	-	-	-
Total	108,464	27,088	79,800	17,713	82,798	17,781
Scopes 1 & 2 emissions						
Total Gross Emissions	151,865	36,454	116,998	25,298	119,270	25,303
Percentage reduction from 2018/19	-	-	23%	31%	21%	31%
Carbon Removals						
Nature-based Carbon Removal	-	-16,230	-	-16,230	-	-16,230
Total Net Emissions	-	20,224	-	9,068	-	9,073

Table 3: Scopes 1 & 2 emissions intensity

	2018/19	2020/21	2021/22
	tCO ₂ e	tCO ₂ e	tCO ₂ e
Scopes 1 & 2 emissions (tCO ₂ e)	36,454	25,298	25,303
Buildings floor area (m ²)	967,624	964,984	957,007
Emissions intensity (kgCO ₂ e/m ²)	37.7	26.2	26.4
Percentage reduction from 2018/19	-	30%	30%

Table 4: Market-based emissions summary

	2018/19	2020/21	2021/22
	tCO ₂ e	tCO ₂ e	tCO ₂ e
Scope 1 emissions	9,366	7,585	7,522
Scope 2 emissions (market-based)	6,878	0	0
Gross Scopes 1 & 2 emissions	16,244	7,585	7,522
Reduction from baseline year	-	53%	54%

Table 5: Scopes 1-3 emissions summary

	2018/19	2020/21	2021/22
	tCO ₂ e	tCO ₂ e	tCO ₂ e
Scope 1 emissions			
Fuel combustion	36,454	25,298	25,303
Buildings	7,910	6,676	6,473
Vehicles	456	647	615
Operation of facilities	-	30%	30%
Fugitive emissions	1,000	262	434
Process emissions	-	-	-
Total	9,366	7,585	7,522
Scope 2 emissions			
Purchased electricity	24,554	15,314	14,079
Purchased heat	1,525	1,842	2,879
Purchased cooling	1,009	557	823
Purchased steam	-	-	-
Total	27,088	17,713	17,781
Scope 3 emissions			
1b. Purchased goods and services	78,446	60,233	71,281
2. Capital goods	35,097	28,733	33,649
3. Fuel and energy related activities	7,821	5,236	7,503
5.a Waste generated in operations	65	21	28
5b. Water	553	461	202
6. Business travel	683	49	208
7. Employee commuting	1,990	553	1,037
13. Downstream leased assets	119,305	100,436	95,355
15. Financial investments	229,811	232,414	244,977
Total	473,771	428,136	454,240
Scopes 1-3 emissions			
Total Gross Emissions	510,225	453,434	479,543
Percentage reduction from 2018/19	-	11%	6%
Carbon Removal			
Nature-based Carbon Removal	-16,230	-16,230	-16,230
Total Net Emissions	493,995	437,204	463,313

Square Mile Emissions Inventory Statement

Table 6: Assessment summary

Date of assessment	July 2022
Baseline year	Calendar year 2017
Boundary summary	All entities and all facilities within the geographic boundary of the Square Mile were included
Emissions factors	Conversion Factors for Company Reporting: 2017, 2018, 2019 (BEIS)
UKMRIO (University of Leeds, 2020)	Conversion Factors for Company Reporting: 2018, 2020, 2021 (BEIS)
Assessment methodology	Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (2014)
External verification	N/A
Assessment methodology	Greenhouse Gas Protocol (2004); ISO 14064-1 (2019)
Intensity ratio	Emissions per m ² floor area
External verification	N/A

Table 7: BASIC+ emissions summary

Reporting Category	Emissions Source	BASIC+	2017 ktCO ₂ e	2018 ktCO ₂ e	2019 ktCO ₂ e
Scope 1 emissions					
Stationary	Domestic	Y	5	5	6
	Commercial and industrial	Y	169	164	151
Transportation	On-road	Y	55	48	38
	Railways	Y	0	0	0
	Aviation and shipping	Y	7	6	6
	Off-road machinery	Y		1	6
Total (Scope 1)			236	224	207
Scope 2 emissions					
Stationary	Domestic	Y	7	6	6
	Commercial and industrial	Y	507	470	418
Transportation	On-road (electric)	Y	0	0	0
	Railways (electric)	Y	13	12	8
Total (Scope 2)			527	488	432
Scope 3 emissions					
Transportation	Out-of-boundary	Y	168	163	159
Energy	Transmission and distribution	Y	44	41	37
Waste	Out-of-boundary	Y	10	10	10
Wastewater	Processing	Y	25	25	25
Total (Scope 3, BASIC+)			247	239	232
BASIC+ emissions					
Total			1,010	951	870
Percentage reduction from 2017			-	6%	14%



About the City of London Corporation:

Our reach extends far beyond the Square Mile's boundaries and across private, public and charitable and community sector responsibilities. We bring an independent and non-party political voice and convening power. This enables us to promote the interests of people and organisations across London and the UK and play a valued role on the world-stage. In the context of climate action, this means we can support the achievement of net zero, build climate resilience and champion sustainable growth to achieve a truly sustainable City.

Visit [Climate Action Strategy - City of London](#) for latest information and to visit our [Climate Action Dashboard](#) for full data set and live progress updates. Contact us at climateaction@cityoflondon.gov.uk for comments, technical or general questions or offers of collaboration.