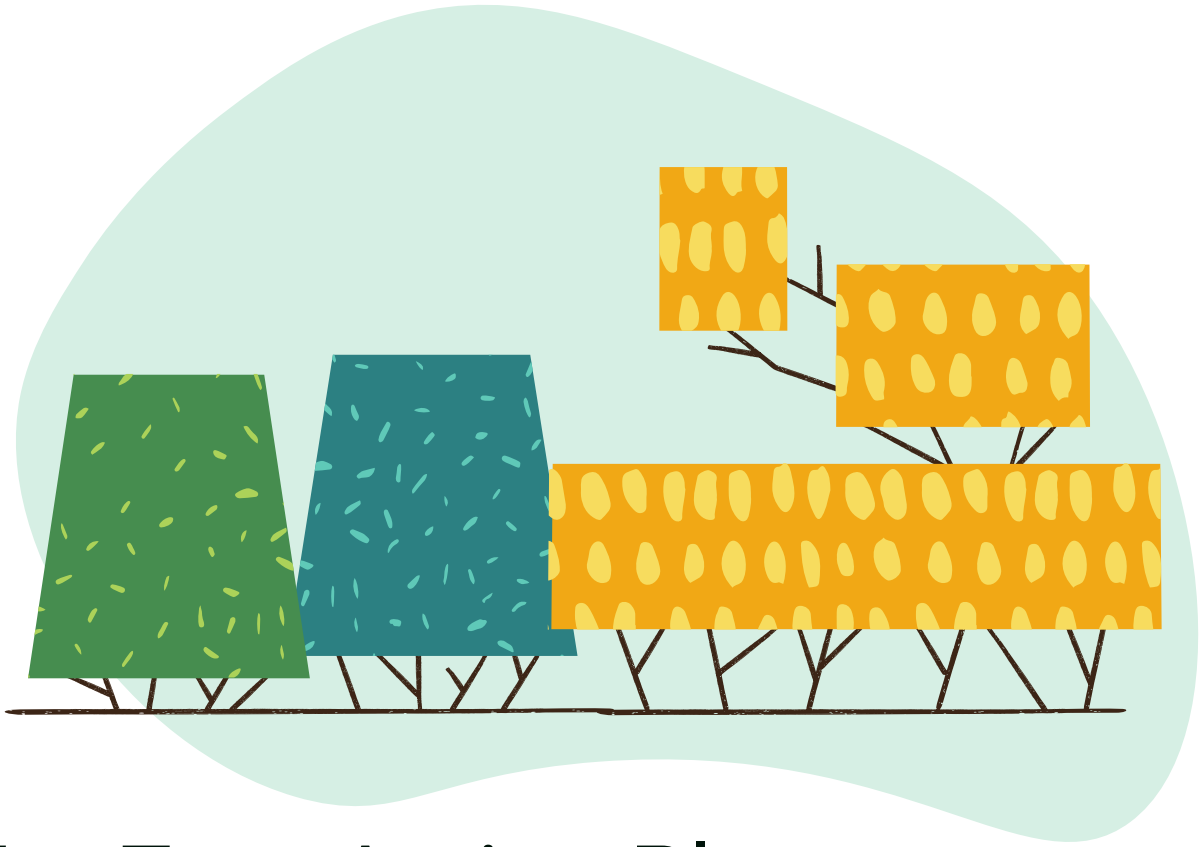
Pathway to a

CARBON NEUTRAL

Council by 2027



Net Zero Action Plan

Annual Performance Report

Bromley

THE LONDON BOROUGH

CONTENTS

EXECUTIVE SUMMARY

We know that Bromley is a fantastic place to live and work, where everyone can lead healthy, safe, and independent lives. We also know that the local level is where we must collectively implement the strategies and projects, which allow us to meet national policy objectives.

Building on years of good work, this Net Zero Action Plan Performance Report charts the planned activities of the Council in reducing our organisational emissions to achieve our ambitious target of Net Zero by 2027. This is the fourth year of reporting and continues to reflect Bromley's ambition and sincerity in leading by example for others to transition to Net Zero. By focusing on the Council's own organisational emissions across seven priority areas, we report on the 2022/23 progress. We have continued to reduce emissions, and continue to achieve co-benefits including:

- financial savings
- energy efficiency
- improvements to our beautiful woodlands, parks and green spaces

Meeting Net Zero is a challenge we must rise to, to avoid the worst impacts of a changing climate. We also have a responsibility to future generations for leaving the environment in a better way than when we inherited it.

This is more important now than ever. With the release of the Intergovernmental Panel on Climate Change (IPCC) 6th Synthesis Report 2023 [1][2] stating that:

> *"Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with more frequent and extreme weather events affecting "every region across the globe".*

Climate change risk is already listed on our corporate risk register. With the challenges experienced due to COVID-19, and more recently the war in Ukraine alongside energy price rises, effective recovery includes embedding carbon reduction, energy efficiency and adaptation across all Council services.

[1] *CLIMATE CHANGE 2023 Synthesis Report, Summary for Policymakers – IPCC 20 March 2023*
[2] *10 big findings from the 2023 IPCC Report on Climate Change, https://www.wri.org/insights/2023-ipcc-ar6-synthesis-report-climate-change-findings – World Resource Institute 20 March 2023*

We continue to seize opportunities such as applying for Government grant funding to support decarbonisation projects and aim to continue our contribution to meeting our climate goals and emissions reductions.

Many ambitious projects are already underway and the headline figures which illustrate our progress thus far include:

56% reduction

An overall 56% reduction in carbon emissions (4,063 tCO_2e) achieved against a 2018/19 baseline.

60% reduction in LED streetlighting

60% reduction in carbon emissions (1,729 tCO_2e) achieved against a 2018/19 baseline, because of LED streetlighting upgrades.

100% green tariff energy contract

The decision to procure 100% green energy with REGO backed certificates for electricity.

Woodlands and Trees

Woodlands and Trees Project Board established to deliver joint carbon reduction and greenspace objectives.

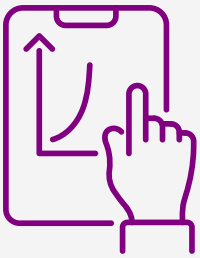
ABOUT THIS PLAN

Building on years of good work, this Net Zero Action Plan Performance Report charts the planned activities of the Council in reducing our organisational emissions to achieve our ambitious target of Net Zero by 2027.

This plan is split into four distinct chapters:

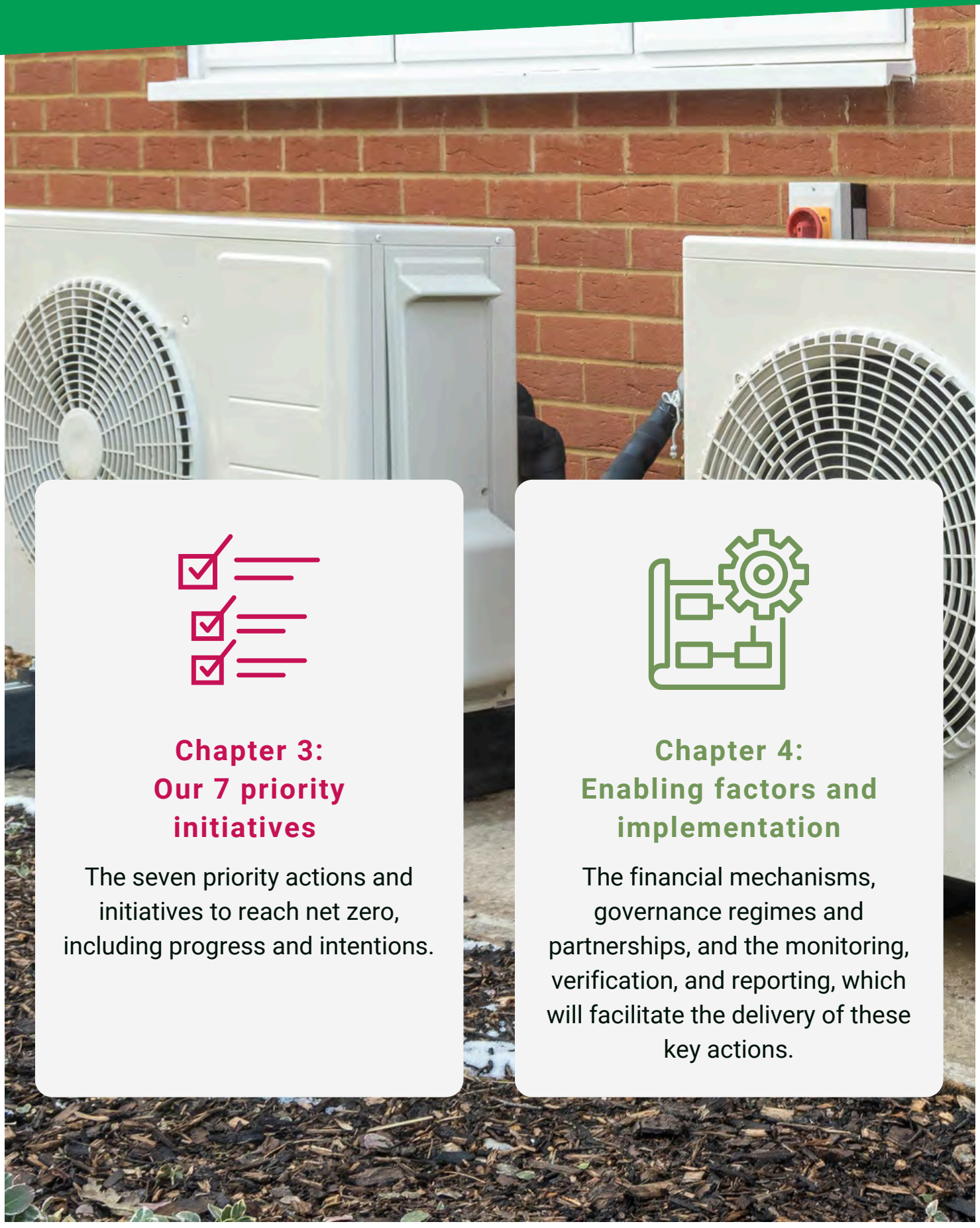
Chapter 1: Emissions update

The emissions comparison between year 3 (2021to 2022) and year 4 (2022 to 2023).



Chapter 2: Our approach

The key drivers and principles that guide this Net Zero Action Plan.



Chapter 3: Our 7 priority initiatives

The seven priority actions and initiatives to reach net zero, including progress and intentions.

Chapter 4: Enabling factors and implementation

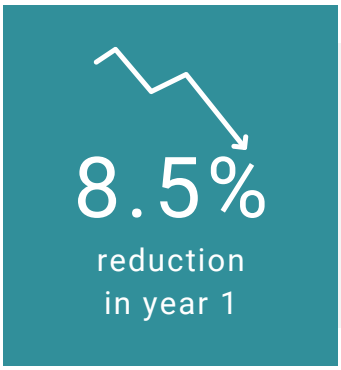
The financial mechanisms, governance regimes and partnerships, and the monitoring, verification, and reporting, which will facilitate the delivery of these key actions.

Chapter 1

EMISSIONS UPDATE

This table highlights the change in tonnes of CO_2e emitted by sources under the control of the Council. The table also illustrates the percentage change in emissions between our year 3 progress report (2021/22) and this year, year 4 (2022/23).

Source	Year 3 tCO_2e/yr	Year 4 tCO_2e/yr	Percentage change tCO_2e/yr
Buildings	1,999.6	1,893.1	-5% ↓
Street lighting	1,487.2	1,158.8	-22% ↓
Council fleet	18	8.6	-52% ↓
Waste	0.8	2.0	+154% ↑
Water	2.8	3.1	+9% ↑
Paper	10.7	8.7	-18% ↓
Business travel	127	59	-54% ↓
Total (tCO_2e/yr)	**3,646.2**	**3,133**	**-14%** ↓

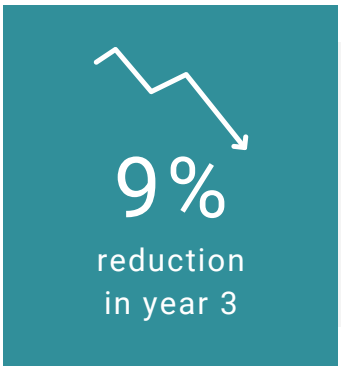


Year 1

In year 1 (2019/20) the net zero profile emissions totalled 6,584 tCO_2e, equivalent to an 8.5% reduction against 2018/19 baseline emissions (7,196 tCO_2e).

Year 2

In year 2 (2020/21) the net zero profile emissions totalled 3,985 tCO_2e, equivalent to a 45% reduction against the 2018/19 baseline and a reduction of 39.5% on year 1 (2019/20).

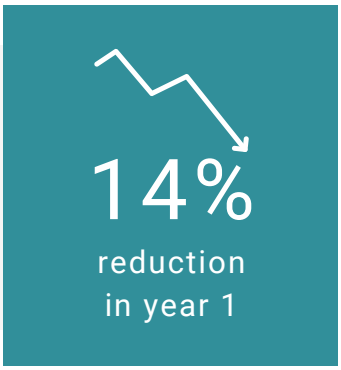


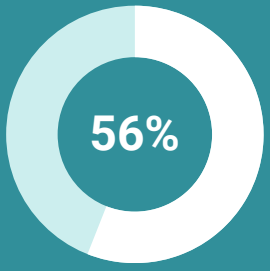
Year 3

In year 3 (2021/22) the net zero profile emissions totalled 3,646 tCO_2e, equivalent to a 49% reduction against the 2018/19 baseline and a reduction of 9% on year 2 (2020/21).

Year 4

In year 4 (2022/23) the net zero profile emissions totalled 3,133 tCO_2e, equivalent to a 56% reduction against the 2018/19 baseline and a reduction of 14% on year 3 (2021/22).





Overall reduction against the 2018/19 baseline in year 4

Year on year emission reductions continue to be achieved. The large reduction in emissions (49%) achieved in Year 2 (2020/21) from previous years was predominately because of Covid-19 impacts. A rebound in emissions post-pandemic did not occur and emissions are lower than the base year.

Greenhouse Gas Assessment

The Greenhouse Gas (GHG) Accounting Tool developed by Local Partnerships, working with the Local Government Association, is used to calculate the Council's emissions. This tool provides a straightforward and consistent approach to calculating carbon emissions. The tool produces summary tables and charts to enable us to understand our most significant sources of emissions, which can then be used to prioritise actions to reduce carbon emissions.

The same methodology in applying assumptions to year 1 (2020/21) data through to calculate each year's emissions have been used to estimate the reduced water, waste, paper use and business travel.

The tool continues to be updated by 'Local Partnerships' and improved accuracy of reporting will be progressed where possible.

Local Partnerships Greenhouse Gas Accounting Tool:
https://localpartnerships.gov.uk/resources/greenhouse-gas-accounting-tool/

Working Practices

Emissions related to building use (electricity, gas, waste, water, paper etc.) have not increased to pre-Covid times. There has been an overall emission reduction from 2021/22 of 14%.

Noticeably during the pandemic most Council staff worked from home for a prolonged period. Through the lockdown periods this meant that staff occupancy at Council offices remained at around 10% of pre-Covid levels. Since Covid a hybrid working arrangement has been put in place, with staff working at home for some of their working week and spending as a minimum at least two days in the office.

Overall emissions from gas and electricity used for our buildings and street lighting has reduced. Whilst the amount of electricity usage for buildings has decreased from the previous years, the grid electricity emissions factor has also reduced.This is related to the proportion of renewable electricity in the grid steadily rising over the years, and the resultant associated reduction in carbon emissions from grid electricity.

Similarly, streetlight LED upgrades have continued with the resultant reduction in electricty usage.

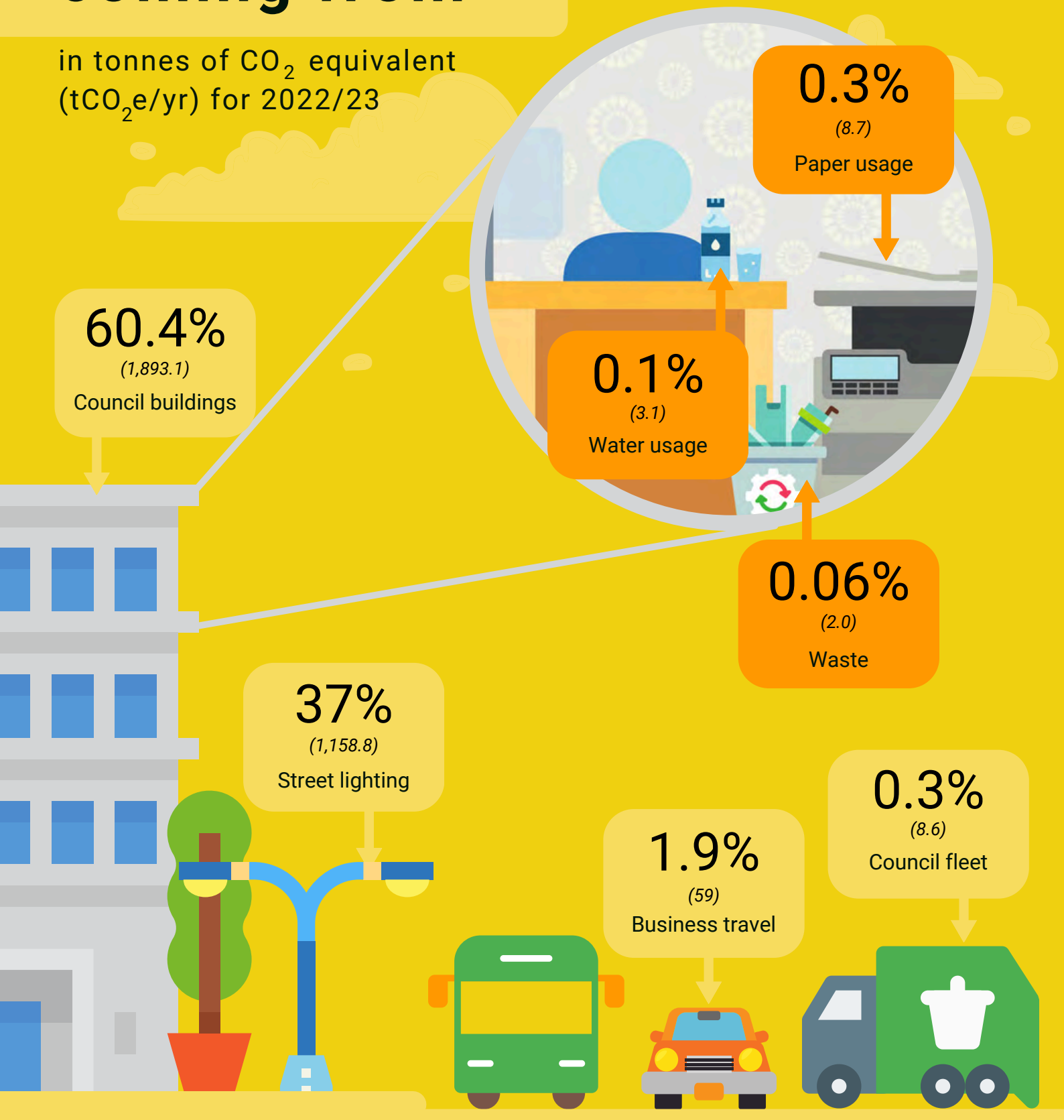
In terms of gas usage from heating council owned buildings this also saw a small reduction albeit of 1% only.

In terms of waste, only waste generated from the Civic Centre site is measured. This has increased over the last two years with staff returning to the office after Covid but is still below the baseline year. The increase could in part be due to better accounting but also to the Council's decision to 'declutter' and move towards a paperless system.

The Councils fuel use for its own fleet has decreased significantly. This in part is due to fuel for certain parties now recharged to clients and therefore not within Bromley's organisational emissions. Likewise, there has been improved accuracy of reporting, plus the fleet is gradually moving to electrification. The use of the 'winter gritting fleet' has also changed, with newer cleaner vehicles in the fleet. Emission is also depended on the severity of the winter season.
In this year 4, business travel showed a significant decrease in mileage, which could not be accounted for. In part this may be due to staff ensuring they co-ordinating and group their visits to reduce mileage and more on-line meetings. In addition, business travel recording moved to a different systems operation's platform. Whilst every effort was made to ensure accurate data retrieval for carbon accounting some retrieval errors may also have occurred.

Where our emissions are coming from

in tonnes of CO_2 equivalent (tCO_2e/yr) for 2022/23



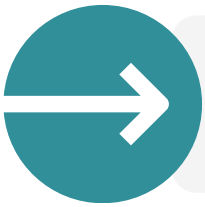
Summary

This chapter has provided a progress update on the changes to our emissions profile between year 3 and year 4 of this action plan.

Before reading any further, please refer to the Net Zero Action Plan [3] (Year 1) and Year 2 and 3 progress reports to refresh on the policy context, as well as the scope of our reporting to fully understand what the plan is and is not. To reiterate:

It is an organisational plan covering strategies to reduce emissions created by Bromley Council

It is not an action plan to quantify and lay a roadmap for the reduction of emissions across the whole borough



The next chapter will outline the key principles which guide the delivery of this plan.

[3] Carbon Management Programme Update, Report ES20201, Executive 6 October 2022

Chapter 2

OUR APPROACH

Key drivers in Bromley

Our adopted approach to meeting net zero in organisational emissions is guided by three key drivers:

Renewable energy and energy efficiency (REEE)

Global energy use accounts for two thirds of all emissions. That is why REEE is the foundation of our NZAP. It is the gateway to reducing our overall energy demand on the national grid as far as possible. Moving away from fossil fuel-based energy, towards a green energy supply.

Leadership by example

Bromley Council aim to set an example, leading the way in reducing the emissions of our organisation, while we continue to guide residents, businesses, and communities to do the same.

Co-benefits

The Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) defines co-benefits as being; “the positive effects that a policy or measure aimed at one objective might have on other objectives”. Although the measures detailed in this NZAP are aimed at emissions reductions, where possible the plan seeks to positively influence other objectives across the Council.

For example, the planting of woodlands and street trees will allow for a small amount of CO to be captured but at the same time supports biodiversity and can improve air quality.This aligns with objectives of the Council’s Air Quality Action Plan, the Open Space Strategy, and objectives in Bromley’s local planning document.

Likewise improving building energy efficiency through retrofits and installing on-site renewable energy generation on buildings, not only supports carbon reduction but also leads to green job creation, skills development, and economic growth.

Public health benefits from active travel can also be realised. The Co-Benefits of Climate Action - Accelerating City-level Ambition from CDP 2020 (CDP was established in 2000 as the *Carbon Disclosure Project*).

Priority actions

Various factors have informed the proposed projects which we will implement to achieve net zero by 2027, such as:

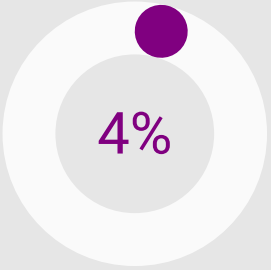
- The potential carbon, energy and cost savings of initiatives.
- Available funding.
- The priorities identified in terms of mobilising medium to large scale projects.

In line with best practice, we aim to reduce our emissions as much as possible, then offset any remaining emissions. Seven priority initiatives have been agreed:

Primary initiatives **1 to 4**

Aim to reduce emissions to potentially deliver a 96% reduction

Secondary initiatives **5 to 7**



Aim to offset the remaining 4% of emissions

Chapter 3

OUR 7 PRIORITY INITIATIVES

Reduction
against the 2018/19 baseline

Street Lighting LED

Phased upgrade of remaining 10,000 non-light-emitting diodes (LED)

Reduction

24 to 27%

Energy efficiency

Priority site refurbishments and Automated Meter Readers (AMR) installed

Reduction

5 to 10%

Renewable energy

Purchase power from renewable energy generator

Reduction

Up to 96%

Zero Emissions Fleet

100% Zero emissions fleet and accompanying infrastructure

Reduction

Under 1%

Alternative Technologies and Renewables Investment

Establish portfolio of renewable investments

Offset

TBC

Parks and Greenspaces

Natural carbon offsets and co-benefits

Offset

Less than 1%

Certified Carbon Offsets

Purchase UK based carbon credits

Offset

TBC

Offset

Initiative 1

STREET LIGHTING LED UPGRADES

2026 target

Phased upgrade of remaining 10,000 non-LEDs

Intermediary target

Feasibility assessment for upgrade of remaining street-lights before the end of 2022.

Cost

£4.5 million

Emissions reductions

6 to 9%

In 2022/23 electricity consumption from Bromley's 28,000 streetlights accounted for 37% of the Council's carbon emissions. With a 15% reduction in energy usage from the 2021/22 reporting year. Bromley's streetlights total around 28,000, of which the majority have now been upgraded to LED. 3,207 LED conversions took place in the finance year 2022/23.

Key actions

A phased upgrade programme for updating the remaining non-LED lights is continuing. It is worth noting that the remaining columns will predominantly be 6m columns with relatively low wattage lamps, therefore offering lower energy savings compared to the old high wattage lanterns used for the 10m and 8m columns. The remaining approx. 1800 streetlights will be converted in 2023/24.

Action is being taken to complete the streetlight upgrades by 2024.

Progress

In October 2020 a project begun to upgrade a further 4,200 traffic route streetlights (10m and 8m columns) to LEDs with dimming capability and photocells – installation of all remaining streetlights is expected to complete in 2024. Apart from the benefits of improved light quality for both pedestrians and road users, this latest project is set to achieve the following:

- Annual cost saving: -£380k
- Annual carbon saving: -600 tCO_2e
- Project payback: 3 years

Initiative 2

BUILDINGS (ENERGY EFFICIENCY)

2027 target

Priority site refurbishments complete and AMR meters installed

Intermediary target

Feasibility assessments and energy audits undertaken before the end of 2025.

Cost

TBC (audit dependent)

Emissions reductions

5 to 10%

In 2022/23 energy consumption from the operation of Council buildings accounted for 60.4% of total emissions - this compares to 54.8% in year 3 (2021/22), 48.7% in year 2 (2020/21) and 58% in year 1 (2019/20). The emissions from buildings have risen as the percentage contribution from the streetlight and fleet vehicles and business mileage emissions has reduced. To realise future cost/energy/carbon savings it is imperative that the Council continues to improve the energy efficiency of the estate and move towards the use of low carbon energy sources for heating whenever feasible.

As more buildings (heating) and vehicles switch towards electricity, it becomes increasingly important to ensure that electricity is supplied by renewable sources to not only relieve pressure on the national grid, but to also provide security of electricity supply and protect against electricity price increases.

Key actions

Undertake a full energy audit of the top 10-15 most energy intensive buildings to identify energy efficiency opportunities.

Develop an energy efficient upgrade programme for the priority sites.

Ensure any site refurbishments and new build projects incorporate low carbon design elements and solar photovoltaic (pv) installation wherever viable.

Continue the rollout of the Automated Meter Reading (AMR) installation programme to achieve more accurate and timely billing and energy monitoring capability.

Progress

The design and installation of a solar PV system on the rooftop of the Civic Centre's North Block building as mentioned in previous progress reports is not continuing, due to estate rationalisation with the move to a new Civic Centre instead being progressed.

Due to staff changes an energy audit of the top 10-15 most energy intensive buildings will start in the finance year 2024 as part of the operational property repair programme work. Based on the energy efficiency assessment findings, a planned upgrade programme will be developed that will in turn inform accurate carbon savings. The outcomes from the audits will be able to be used to inform any future applications to the governments Salix 'Public Sector Decarbonisation Grant' programme. A significant factor in any future upgrade programmes is cost of the works and potential future upgrade works and connection costs to the electricity grid network.

Roll out of the AMR installation has progressed and remains a priority focus for the Utilities manager appointed to the post in July 2023. To date 26 electricity and 20 gas SMART/AMR meters have been fitted. The installation programme will help us to achieve more accurate and timely billing and energy monitoring capability and will enable us to achieve better results when tendering supply contracts.

The Council's net zero target is focused on scope 1 and 2 emissions for gas and electricity usage respectively, where the Council is the bill payer. Nevertheless, improvements to buildings such as maintained schools and libraries is on-going. For example, the West Wickham Library refurbishment project due for completion in 2024 will have heating (and cooling) using air source heat pumps and solar PV system. The scheme also includes a comprehensive energy management system integrating natural ventilation into the forced heating and cooling installation to ensure that its running costs, and the resultant CO2 emissions, are as low as possible.

Initiative 3

100% RENEWABLE ENERGY

2027 target

Purchase power directly from a renewable energy generator

Intermediary target

Green electricity and gas contract secured by 2021

Cost

TBC

Emissions reductions

Up to 96%

The most effective solution for reducing emissions is a rapid shift to 100% renewable electricity.

In 2022/23 electricity associated emissions accounted for 59% of the Council's total net zero profile emissions, whilst gas emissions accounted for 33%.

Procuring 100% renewable energy therefore offers the most impactful opportunity for carbon reduction – a potential 96% reduction – by allowing the Council to discount all our energy emissions.

Two main options exist for switching to renewable energy sources:

Renewable Energy Guarantee of Origin certificates (REGOs) -

- The REGO regime, issues a certificate for each megawatt hour (MWh) of renewable electricity produced by a generator (companies that generate the electricity).
- REGO certificates are most often used to help energy suppliers, (companies that purchase the electricity from generators and then sell it to the user i.e. the council who is a user of electricity), demonstrate the proportion of electricity they purchase from generators that is made using renewables.
- REGOs can also be traded separately from the renewable electricity in respect of which they were issued.
- Using REGOs to reduce 'Scope 2' emissions is a more questionable method, and the REGO scheme does nothing material in and of itself to support new renewable generation.

Purchasing electricity with the attached REGO certificates from a supplier is a preferable approach, rather than purchasing REGO certificates separately to the energy supply. However, purchasing REGO's from an already established renewable energy supplier, in general does not enable new renewable supplies to be developed. There is an on-going debate around additionality and whether REGOs lead to increased renewables generation (i.e. where demand translates into new sources of green, renewable energy being built), which is considered a key requirement for being able to report zero emissions for energy.

Power Purchase Agreements (PPAs) -

This is a direct agreement with a renewable energy generator. These types of agreements typically allow for further investment that directly leads to increased renewable generation. However, PPAs are more complicated to set up and tend to be for longer contractual periods (e.g. 10-15 years). Usually, also require large energy users and hence for local authorities will in the main only be possible as a consortium with other local authorities.

It should be noted that in March 2023[4] renewables provided 43.8% of electricity generation by Major Power Producers.

Green Gas –

Likewise, as for electricity for gas, Renewable Gas Guarantees of Origin (RGGOs) can be issued by the Green Gas Support Scheme GGCS which will contain information on the type of green gas produced, the feedstocks used, and sustainability criteria that have been met. Any 'green' gas produced is injected into the gas grid where it mixes with fossil fuel. Green gas is biomethane and accounts for a very small proportion of the gas in our grid. The rest is natural gas. Green gas is more expensive than renewable electricity and there is less of it around.Green gas can in part come from a renewable source and the rest of the green gas claim would be from carbon offsetting.

Key actions

Review green energy options for both gas and electricity when the existing energy contract nears expiry, including PPA options to purchase directly from a renewable energy generator.

[4] Energy Trends and Prices statistical release: 30 March 2023 – www.gov.uk/government/statistics/energy-trends-and-prices-statistical-release-30-march-2023

Progress

In October 2020 the Leader of the Council made an executive decision that the Council proceeds with the procurement of green energy. In October 2020 the Council switched to purchasing REGO-backed renewable energy from Haven Power, and green gas from Total Gas & Power. Unlike many energy suppliers who supply a mix of both green and brown energy, Haven Power only supplies 100% renewable energy.

At the time of writing the Council are awaiting a response from the GLA and London Councils regarding their position on REGO-backed electricity from 100% renewable suppliers. Whether this will allow the Council to credibly discount our electricity emissions. If not, it is likely that we will need to switch to a PPA in the future at contract renewal.

The Councils Group Electricity contract is currently with 'Ecotricity' which ends in 2024 and is a fixed price supply contract.Ecotricity's certificates are logged under their trading entity – The Renewable Energy Company. 'Ecotricity', is considered as a pro-active green energy company. Group Gas Contract is with 'SEFE' and ends in 2025 and is a flex supply contract.

Initiative 4

ZERO EMISSIONS FLEET

2027 target

100% Zero emissions fleet and accompanying infrastructure

Intermediary target

Install minimum of five electric chargepoints at main depot by 2023 and the rest by 2026

Cost

TBC

Emissions reductions

Under 1%

Council fleet refers to vehicles directly managed by the Council but not vehicles used by the Council's contractors (e.g. Veolia for Waste Services). The fleet operated directly by the Council is very small and includes 3 EV's with one van in Environmental Health & Public Protection and two hatchback cars in the Highways Division. These are used on highway inspection duties around the borough.

We also operate two plug-in hybrid Mayoral cars which are based at the Civic Centre and for a small number of other pool cars etc, these are hybrids as a 'stepping stone' away from diesel/petrol powered fleet.

Our gritters are owned by the Council but are operated by our contractor as part of the Highways contract.

Although the Council's fleet only accounts for less than 1% of the Council'semissions, this is deemed an important initiative for helping to advance the use of zero emissions vehicle in the broader context. Also, the benefits of zero emissions vehicles extend to improving air quality, which feeds into Bromley's Air Quality Action Plan objectives.

Key actions

Install electric chargepoints at the main depot to enable electrification of the Council's own fleet and the next fleet of refuse collection vehicles, if electric becomes the industry standard for HGVs over hydrogen.

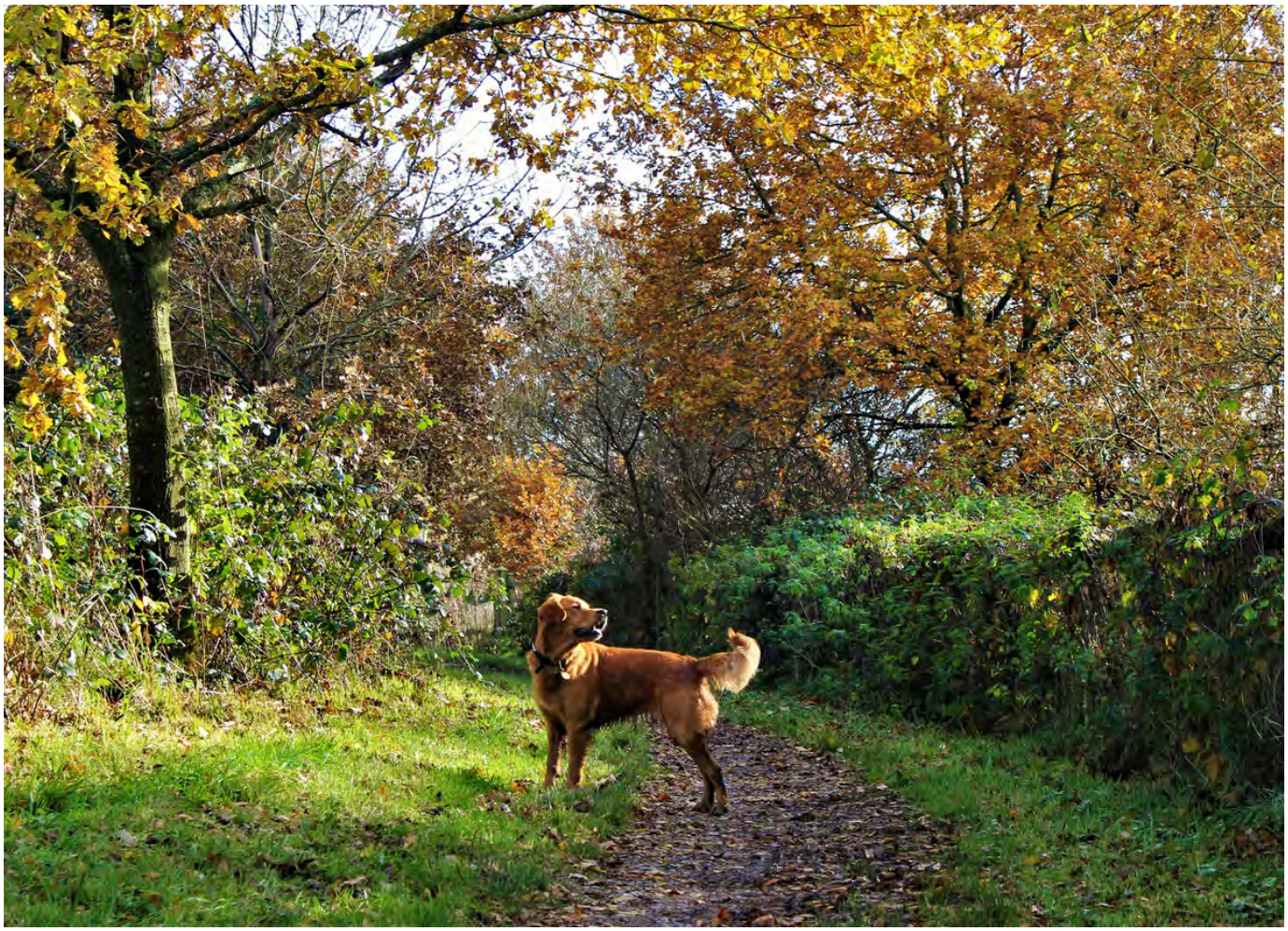
Switch to a 100% Zero emissions fleet.

Progress

An electric charging pilot for vehicles parked on street will take place following approval by Members. This pilot expands upon the existing 42 fast and rapid chargers across Bromley's roads and in Bromley's car parks. These charge points have seen increasing use over recent year and now is the time to pilot other charge point options. Up to 44 charging points will be installed at selected locations across the borough.

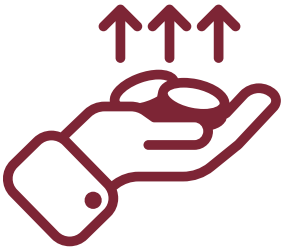
A Gul-e pilot scheme will also be progressed which provides a secure and convenient home charging option for those who don't have access to a driveway. This is achieved by the placing of a specially built gully under or beside resident's garden paths, leading out to the roadside where their cars are parked. This can only be accessed by the resident, ensuring reliable car charging access from their home without causing a trip hazard to the public or adding to street clutter.

These borough wide pilot projects will evaluate the range of different and emerging electric vehicle charging solutions and their performance before a decision is made to expand provision further.



Initiative 5

ALTERNATIVE TECHNOLOGIES AND RENEWABLES INVESTMENT



2027 target

Establish a portfolio of renewable Council owned, or joint owned, investments

Intermediary target

Annually horizon scan for UK-wide investment and partnership opportunities

Cost

Tbc

Emissions reductions

Tbc

Following the government's recent announcement for the UK to become a world leader in clean wind energy and all homes to be powered by renewable energy by 2030 it is envisaged that renewable investment opportunities will increase during the course of this plan, allowing organisations to either use the generated electricity themselves, offset their emissions, or create a revenue stream.

Key actions

Explore commercial renewable investment opportunities as and when they materialise.

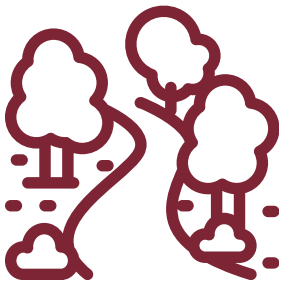
Explore joint partnership opportunities with other Councils.

Progress

Bromley may be able to accommodate some ambitious renewable projects. The aim is to carry out early-stage feasibility assessments to determine the suitability for renewable opportunities in the Borough, with the Council also monitoring the market for opportunities elsewhere.

Initiative 6

WOODLANDS, PARKS AND GREENSPACES



2027 target

Establishment and/or enhancement of Council green spaces for natural carbon offsets and co-benefits

Intermediary target

Feasibility assessment to begin in 2021

Cost

Tbc

Emissions reductions

<1% by 2027

Tree planting is a medium to long term solution for carbon sequestration because young trees absorb small amounts of carbon during their early years. In the context of the Council's net zero target, a significant number of trees/ saplings would have to be planted across vast acres of land to make an impact. Tree establishment also comes with its challenges – a robust maintenance programme to stimulate healthy growth, and tree/site protection is vital for its success.

However, the Council recognises the value and many benefits that greenspaces, parks and woodlands provide to residents and natural ecosystems, and the need to protect and enhance them for future generations. As more and more carbon is sequestered over time, this initiative will help the Council maintain its net zero target post 2027 and reduce borough wide emissions.

Key actions

Produce a new Tree Management Strategy.

Consider offsetting opportunities associated with registering new tree planting under the government approved Woodland Carbon Code.

Quantify/compare carbon sequestration levels for native trees, grasslands, wild meadows, hedgerows, verges.

Conduct feasibility assessments for shortlisted Council-owned sites deemed suitable.

Deliver suitable projects in a cost-efficient manner, maximising grant funding opportunities where possible.

Progress

The Council's Arboriculture team produced the Tree Management Strategy 2023 to 2027.

The 'Treemendous' tree planting programme commenced in 2021/22 and to date 4,642 trees have been planted. With 3052 planted prior to 2022/23 and during the 2022/23 planting season, 1590 trees were planted with 1250 adding to the total tree count and an additional 340 replacing felled trees.

The trees planted have been carefully selected for the locations to complement the existing trees already on site or to improve and diversify the species of trees in that area. Species suitability and the "right tree, right location" approach has been adopted.

Every newly planted tree benefits from an aftercare programme. With all new trees, regular watering is needed to help them successfully establish, especially during warmer weather in the summer months. Watering is undertaken by our contractors, but importantly our amazing Tree Friends (www.bromley.gov.uk/TreeFriends) who are volunteers help the council's tree team maintain a healthy tree stock across the borough.

Bromley's Parks and Greenspaces Team will continue to review funding opportunities and apply for appropriate grant funding as the opportunities arise.

The Woodlands Establishment Board is progressing three identified sites within the borough, which include Edgebury, Kemnal and World's End Lane, that are underused and suitable for woodland creation. With a small amount of funding from the Forestry Commission's Woodland Creation Planning Grant the Board will develop a Woodland Creation Design Plan. Local communities will also be consulted. The council will also apply for further funding for the planting and maintenance of these new woodlands.

Initiative 7

CERTIFIED CARBON OFFSETS

2027 target

Purchase UN certified and/or verified voluntary carbon credits, based in the UK

Intermediary target

Annually horizon scan for UK-wide carbon offset opportunities from 2024

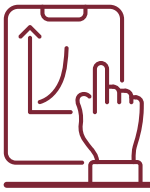
Cost

Tbc

Emissions reductions

Tbc

Purchasing certified carbon offset credits remains a last resort option for offsetting any residual carbon emissions that cannot viably be offset through initiatives 5 and 6. If the Council does exercise this option the preference will be for a UK-based project, typically involving tree planting, new woodland creation or peatland bog restoration, with the added benefit of protecting an areas biodiversity.



Key actions

Research suitable UK-based carbon offset projects.

Purchase offset credits in an honest and transparent way.

Progress

The Carbon Management Team will look to identify the most appropriate and cost-effective carbon offsetting credits further into this plan, once all of the above initiatives have been fully appraised.

Summary

This chapter laid out the initiatives which will be used to deliver our NZAP. Many of these reduction projects are already underway, while more of the offset projects are currently being researched. Pending member approval, feasibility, and financing, we will look to mobilise these projects over the next few years. By 2025/26 we will have a clearer idea of the residual emissions that we need to offset.

Chapter 4

ENABLING FACTORS AND IMPLEMENTATION

Enabling factors

To progress projects and the proposed actions as set out in the Net Zero Action Plan requires finances to be in place, formal decisions to be made alongside governance as well as partnerships both internally and with external partners. Some of the finance mechanisms are explored in this chapter.

Financial factors

Currently, it is difficult to know the amount of funding required for the Council to reach its 'Net Zero' target by 2027. Some initiatives such as the LED streetlight upgrades have almost been completed, with only a few residual upgrades required. Feasibility assessments are also due to be undertaken to identify and help inform the most viable and cost-effective projects/initiatives to take forward in terms of building energy efficiency and renewables measures. Likewise, energy costs and procurement of green energy with 'additionality' is kept under review.

With the energy price rises over the past few years and energy security a high priority for the country, focusing on energy efficiency measures to reduce energy usage is essential. Likewise, actions that allow for payback through invest to save measures are an important aspect of the NZAP. Therefore, the financial options available to the council to support the delivery of these actions continues to be kept under review.

The key funding streams are outlined over the next two pages:

Key # Internal to Bromley # External funding

1 Carbon Management Recycling Fund (£500k)

Supported by £250K from the Salix Recycling Fund, a ring-fenced fund in the form of a conditional repayable grant which is matched by the participating authority to create a low carbon fund, to pay for low carbon projects across the estate. In the main this fund has been committed to the street lighting LED upgrade project. As the upgrades have been completed the energy savings made have been repaid into this fund to allow for further invest-to-save projects.

2 Public Sector Decarbonisation Scheme

First announced in September 2020, the UK Government's Public Sector Decarbonisation Scheme provides grants for public sector bodies to fund heat decarbonisation and energy efficiency measures in non-domestic buildings. The scheme is managed by the Department for Energy Security and Net Zero (DESNZ) and is delivered by Salix Finance.

3 The Mayor of London's Energy Efficiency Fund (MEEF)

An investment fund, established by the GLA in 2018, supporting projects that deliver new low carbon technology or upgrade existing infrastructure to help achieve the Mayor's ambition to make London net zero by 2030. These include making buildings and infrastructure more energy efficient and ensuring they are supplied with clean sources of heat and power and supporting low carbon transport in the capital. MEEF has access to £500m of financing that can provide funding for up to 100% of the capital cost of a project.

4 Carbon Offsetting Funds (s106 contributions)

The Carbon Offsetting Funds (COF) is related to major developments required to reach a certain level of onsite carbon reduction. If the development falls short of achieving net zero-carbon, the developer is expected to make a cash-in-lieu contribution to the relevant Local Planning Authorities' carbon offsetting fund. This fund is ring fenced for the sole purpose of delivering carbon reduction projects across the Borough. Projects paid for out of this fund must deliver tangible carbon savings. For example, the fund has been used to support the 'Domestic Energy Efficiency Advice and Referral Service', commencing in 2021/22.

5 The GLA's "accelerator" frameworks

This scheme was developed by the Mayor of London to help make London's non-domestic public buildings and assets more energy efficient and lower emissions and save public money. The aim is to finance projects in their development stage, such as the commissioning of feasibility studies and consultation services. With this enabling financial mechanism, the Carbon Management Team envisages more viable projects in the future at no cost to the Council throughout the project's development stage. This mechanism is also designed to deliver projects at pace by streamlining the process to achieve financial and carbon savings earlier.

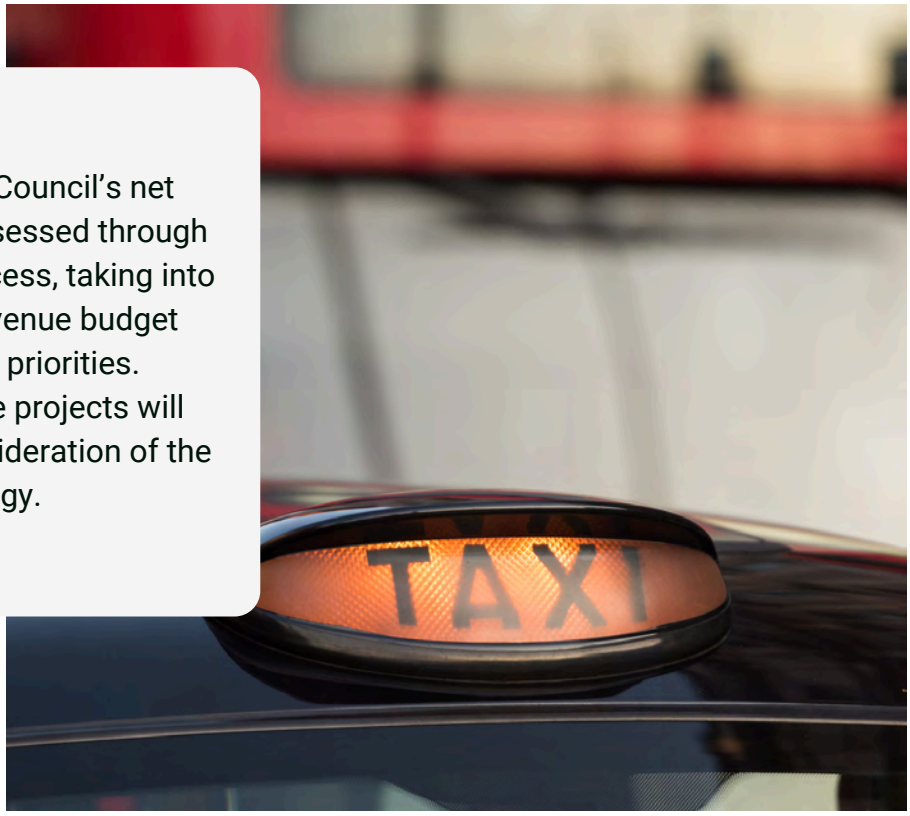
6 Carbon Neutral Fund

In recognition of new investment being required to achieve our net zero target, as part of approving the 2020/21 revenue budget the Council agreed to establish a Carbon Neutral Fund. This will provide pump-priming funding of £0.875m for new initiatives to reduce the Council's carbon footprint whilst reducing its long-term energy costs.

7 The Council's Capital Programme Funding

For future energy efficiency initiatives as part of the Environment Work Programme, such as building refurbishment, further street lighting upgrades, and renewable energy projects.

Each initiative to achieve the Council's net zero target will need to be assessed through a detailed business case process, taking into account available funding, revenue budget savings and other investment priorities. Savings generated from these projects will need to be factored into consideration of the Council's future budget strategy.



Governance and partnerships

Achieving net zero emissions will be ongoing, remain ambitious and subject to change as technology evolves, the regulatory environment changes, and more government funding becomes available.

Hence, continual review will be required to ensure the action plan is on track. While the key driver behind our 2027 net zero target relates to the regulatory changes of June 2019, it is important to recognise the influence of the wider landscape on our organisational NZAP.

Bromley's Green Recovery Working Group (GRWG)

The impact of coronavirus on Council services, residents, businesses and the delivery of future Council projects cannot be understated. This is why the Council established a GRWG to align the Council with national aspirations to place climate and ecological policy at the heart of an economic and socially resilient recovery from COVID-19.

The first meeting of the Council's GRWG was held in December 2020. The group will be used to explore areas where the Council can be more aspirational and will set out a strategy and subsequent action plan that aligns with existing corporate functions. Importantly it will provide a platform for internal discussion and promote a more environmentally and socially sustainable borough (whilst strengthening the Council's financial resilience). It will demonstrate leadership to partners, stakeholders, businesses and the public, forming a basis for lobbying government. Some of the areas of focus of the GRWG include retrofit programmes, transport, consumption emissions, renewable energy procurement, green infrastructure.

Whilst work across the organisation on recovery post covid has continued, due to staffing impacts the GRWG itself was paused and is due to restart in 2024.

Whilst 77% of Britons are concerned about climate change, according to the 2023 Ipsos Political Monitor, councils receive no core funding for climate action, and compete for short-term pots of funding that come and go over time, taking up resources and creating uncertainty. Hence, elevated lobbying power will be required to demand greater financial support to Councils, enabling us to reduce our organisational emissions and those of the borough as a whole.

TEC-LEDNet Priority Areas

The London Councils' Transport and Environment Committee (TEC) and the London Environment Directors Network (LEDNet), comprise London's local government environment leaders. In November 2019 they committed to pooling their experience, expertise, resource sand working together, to pursue seven priority areas, necessary for delivering on London's climate ambitions,through the publication of a TEC-LEDNet Joint Statement: Climate Change.

Priority area number 4 of the Joint Statement, Renewable power for London, was focused in securing 100% renewable energy for London's public sector. This aligns with the Council's ambition to achieve carbon neutrality by 2027, through the purchase and supply of renewable energy to council owned estate. The remaining six action areas require significant investment and the engagement of individuals and businesses, through to national government.

Local councils, including Bromley, are already starting to positively influence the remaining TEC-LEDNet action areas, for example, supporting the roll out of electric vehicle (EV) charging infrastructure. This will help to achieve ambition number 3 in the Joint Statement to halve petrol and diesel road journeys between 2020 and 2030. However, this is outside the scope of Council's organisational NZAP. More detail on borough-wide emissions, as well as all organisational emissions, procured services and other projects will follow in the forthcoming carbon management programme reports.

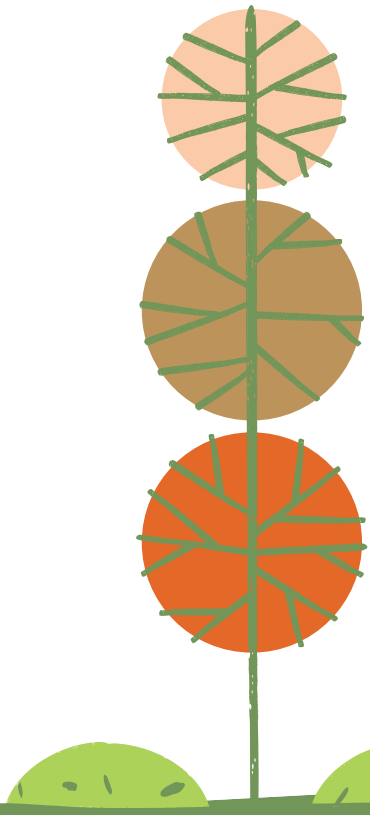
Monitoring, verification and reporting

Performance against the Council's2027 Net Zero Carbon target will be closely monitored, measured and reported by the Carbon Management Team.

Each new initiative will be quantified in terms of carbon, energy and financial savings, and show before and after statistics to help assess project performance.

Carbon Management Performance (CMP) reports are provided to the Director of Environment and Public Protection at the Departmental Management Team (DMT) meetings. This report will include information pertaining to the progress of projects and other relevant carbon reduction work.

The Carbon Management Team will report biannually to the Environment Portfolio Holder (the Council Member responsible for environment) on the progress made towards the Council's net zero target. We will also report annually to the Environment and Community Services Policy Development and Scrutiny (PDS) Committee.



Approval to spend the Carbon Neutral Fund on suitable projects will be sought through the Executive Committee as and when required.

The annual Bromley's GHG Emissions Performance report will continue to quantify the Council's performance in reducing their emissions and provide yearly progress statistics against the net zero target. It will include project specific information and report on actions taken to help reduce both scope 3 and borough-wide emissions, ensuring that reporting is accurate, complete and transparent (via the Council's website).

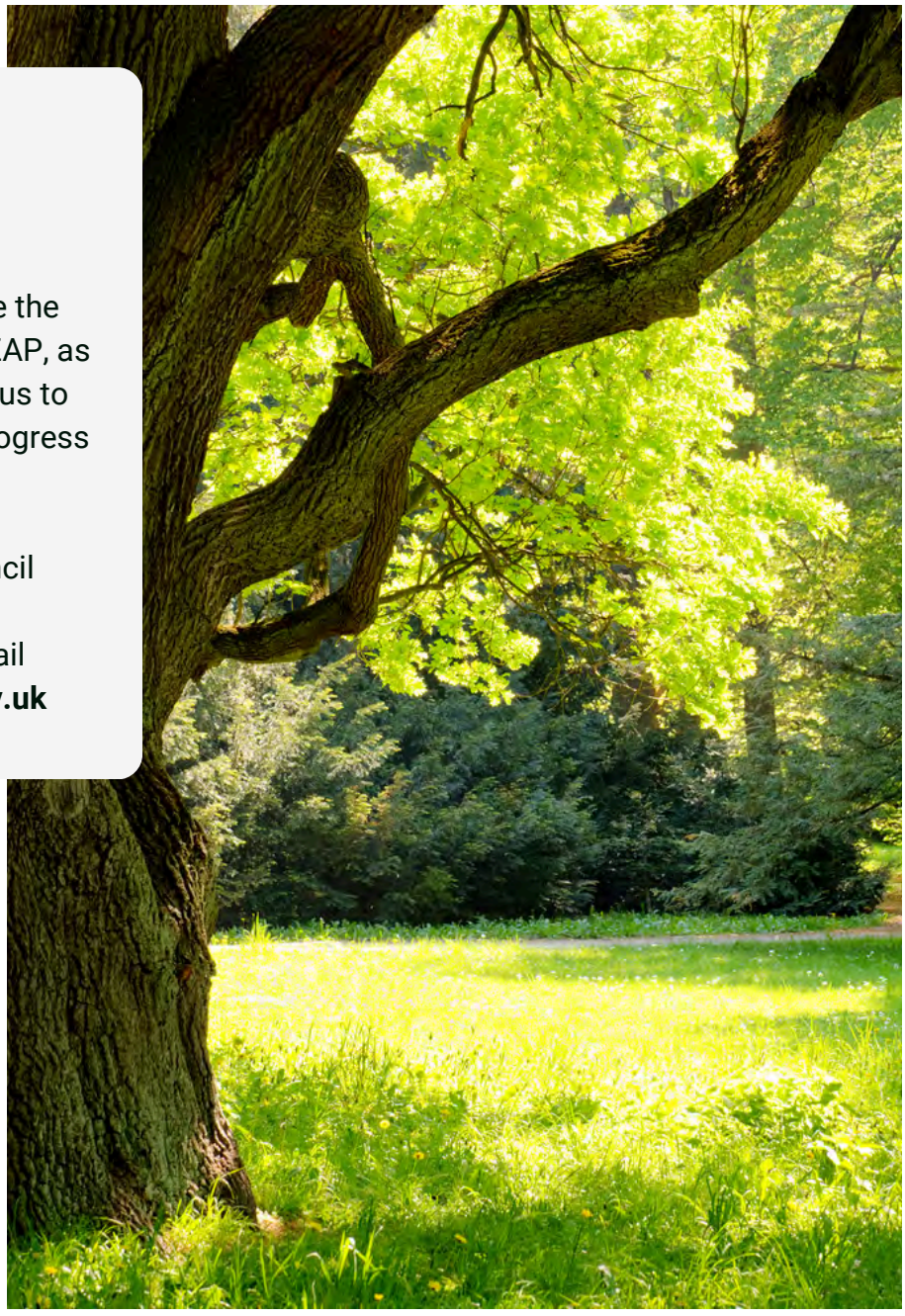
Existing obligations

When reporting on their emissions, local authorities are advised to use the international guidance on accounting and reporting, known as the Greenhouse Gas Protocol. This guidance will apply to reporting carried out under the Net Zero Action Plan; in the same way it is incorporated into our carbon management reports. The Greenhouse Gas Accounting Tool used by this Council and which has been developed by Local Partnerships, working with the Local Government Association, provides a straightforward and consistent approach for councils seeking to calculate their own carbon baseline and follows the Greenhouse Gas Protocol.

Summary and further information

This chapter detailed the mechanisms which will enable the delivery of initiatives in our NZAP, as well as those which will allow us to measure their success and progress towards net zero by 2027.

For more information on Council activity regarding emissions reduction projects, please email **ClimateChange@bromley.gov.uk**



GLOSSARY

Automated Meter Reader

Automatic Meter Readers (AMRs or SMART Meters as they are sometimes known) provide suppliers with a cost-effective solution to obtaining meter readings that would otherwise need to be physically read. They are also capable of providing end users with information to help monitor and control energy consumption.

Carbon emissions

The shorthand for carbon dioxide emissions, or CO_2, usually produced by the burning of fossil fuels. Within this report Greenhouse Gas Emissions (GHG) are also reported in units of carbon dioxide equivalents (CO_2e). This allows the impact of each of the seven main greenhouse gasses to be expressed in terms of the amount of CO_2 that would create the same amount of warming, allowing easy comparison of the impact of different emission types.

Throughout this report, all greenhouse gas emissions are given in terms of carbon dioxide equivalent.

Carbon management programme

Bromley Council's dedicated programme of work to reduce carbon emissions.

Carbon neutral

Means that any CO_2 released into the atmosphere from a company's activities is balanced by an equivalent amount being removed. In theory a company could choose to offset all its emissions and not take action to reduce the emissions.

Carbon offsetting

Reducing emissions or capturing carbon in one sector, to compensate for an inability to reduce emissions in another sector. In accordance with the GHG mitigation hierarchy, carbon offsets must be a last-resort strategy and should not substitute other climate change mitigation measures.

Carbon Offset Fund

A fund that receives s106 contributions from developers who submit applications to build major developments that fall short of carbon standards. This money is then used to support carbon reduction projects in Bromley.

Carbon sequestering/sequestration

Capturing carbon through long-term storage methods. An example would be to plant more trees.

Decarbonisation

The process for the removal or reduction of carbon dioxide (CO_2) output into the atmosphere.

Energy efficiency

The amount of useful energy produced per unit of fuel. For example, loft insulation keeps the useful warm air in the home, increasing the energy efficiency of the building.

Electric Vehicle (EV)

Electric vehicles are those which use electric motors to drive their wheels. They derive some or all their power from large, rechargeable batteries. Also know as battery electric vehicles, BEV.

Greater London Authority (GLA)

The regional governance body of London.

Greenhouse gas emissions (GHG)

The gases that trap heat in the Earth's atmosphere, an excess of which are increasing global average temperatures i.e. global warming. In the context of this action plan, it usually refers to carbon dioxide but can also refer to other gases such as methane. This is why we report our emissions in units of carbon dioxide equivalents (CO_2e). Further information on the UK greenhouse gas emissions can be found at *https://assets.publishing.service.gov.uk/media/6424b8b83d885d000fdade9b/2022_Provisional_emissions_statistics_report.pdf*

Intergovernmental Panel on Climate Change (IPCC)

The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for a ssessing the science related to climate change. There are currently 195 member countries in the IPCC (*www.ipcc.ch/about*). The IPCC prepares comprehensive Assessment Reports about the state of scientific, technical and socio-economic knowledge on climate change, its impacts and future risks, and options for reducing the rate at which climate change is taking place.

LED lighting

Light Emitting Diode. A more energy efficient form of lighting when compared to standard bulbs. They do not get as hot and release more of their energy as light.

Net Zero Carbon

The aim of reducing carbon dioxide emissions as much as possible, and if any residual emissions are produced, they are offset by carbon capturing processes.

Payback period

A period of time in which the value of a loan, or budget must be repaid to the lender.

Power Purchase Agreement (PPA)

A long-term contract under which a business agrees to purchase electricity directly from a renewable energy generator. Power Purchase Agreements provide financial certainty to you and the project developer. PPAs therefore help to deliver more renewable energy, saving CO_2.

Procurement

The process of acquiring goods and services, which a Council chooses not to run internally, through fair and competitive bidding processes in an open market.

Scope 1 Emissions

Direct emissions that occur from activities such as burning gas in boilers to heat homes and businesses or emissions from petrol/diesel used in vehicles we own.

Scope 2 Emissions

Indirect emissions that occur from activities such as buying in electricty and using that electricty to power our buildings.

Scope 3 Emissions

Indirect emissions that are related to an organisation's activities but occurring from sources not owned or controlled by the organisation. For example, adult social care providers, contracted by Bromley to undertake that service, will produce emissions through their company activity.

However, Bromley Council do not legally own, or control the emissions arising from this contractor's activities.

Solar photovoltaic (pv) system

Solar pv panels convert sunlight into electricity, which is a renewable form of energy. Renewable energy comes from sources that are constantly and naturally renewed.

Pathway to a

CARBON NEUTRAL

Council by 2027

Net Zero Action Plan and Annual Performance Report Year 4 - 2022/23

Produced by:

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THE LONDON BOROUGH

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