Pathway to a

CARBON NEUTRAL

Council by 2027

Net Zero Action Plan

Annual Performance Report

Year 3 - 2021/22

Bromley

THE LONDON BOROUGH

CONTENTS

EXECUTIVE SUMMARY

We know that Bromley is a brilliant place to live, work and play.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 third report brings forward our 2029 target by two years to 2027, reflecting Bromley's ambition and sincerity in leading by example for others to transition to Net Zero. By focusing on the Council's organisational emissions across seven priority areas, we report the 2021/22 progress towards one of the most ambitious organisational targets set by a London Council, which not only reduce emissions, but realise co-benefits including:

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

Meeting Net Zero is a challenge we must rise to, not only because we must fulfil our statutory duties, but because we 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's (IPCC) 6th Assessment Report stating the "unequivocal" human influence on global heating; more frequent and extreme weather events affecting "every region across the globe"; climate change risk being added to our corporaterisk register; and in light of an exceptionally difficult 2020/21 due to COVID-19, we must recover from the effects of the pandemic in a way which further embeds sustainability in Council services.

This is imperative in future-proofing Bromley from the effects of climate change, seizing opportunities i.e. Government grant funding to support decarbonisation projects and continuing our contribution to climate goals and emissions reductions.

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

33% reduction

in carbon emissions (3550 tCO_2) achieved against a 2018/19 baseline

£380,000 savings

a year, through the most recent round of LED streetlighting upgrades

100% green energy

The decision to procure 100% green energy for gas and electricity supplies

Woodlands and Trees

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

ABOUT THIS PLAN

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

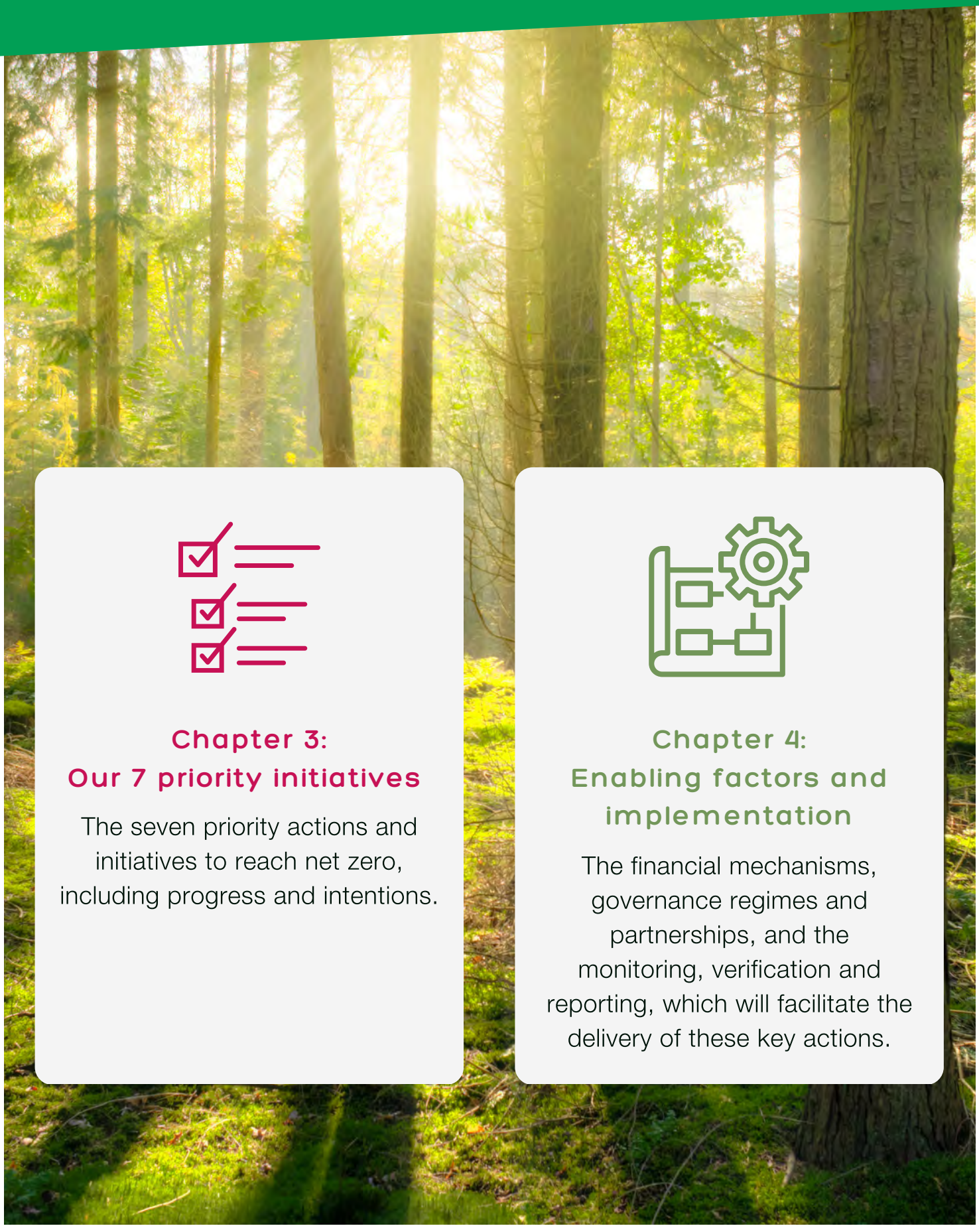
This plan is split into four distinct chapters:

Chapter 1: Emissions update

The emissions comparison between year 2 (2019 to 2020) and year 3 (2020 to 2021).

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

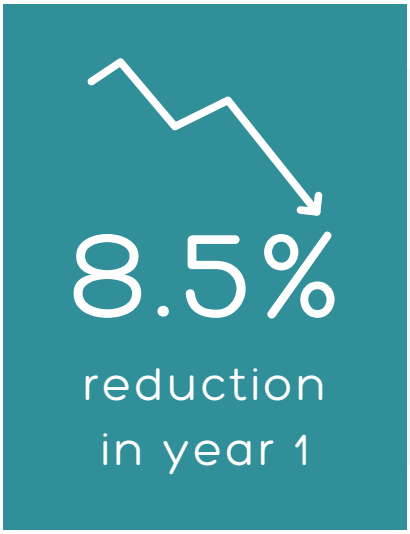
The financial mechanisms, governance regimes and partnerships, and the monitoring, verification and reporting, which will facilitate the delivery of these key actions.

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 1 progress report (2019/20) and this year, year 2 (2020/21).

Source	Year 2 tCO_2e/yr	Year 3 tCO_2e/yr	Percentage change tCO_2e/yr
Buildings	1,942.5	1999.6	+3%
Street lighting	1,889.2	1,487.2	-21%
Council fleet	48.2	18	-62%
Waste	2.5	0.3	-88.0%
Water	7	3	-60%
Paper	10.7	10.6	-0.3%
Business travel	87.3	127	+46%
Total (tCO_2e/yr)	**3,985**	**3,646**	**-9%**

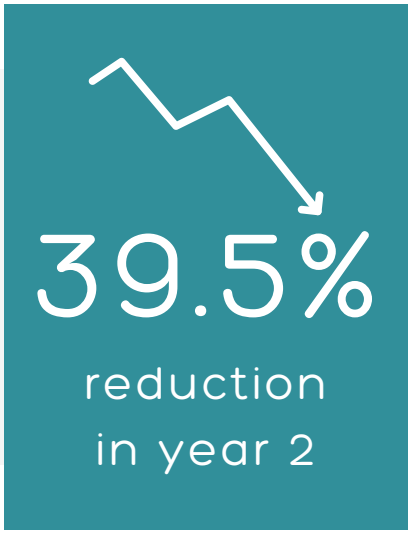


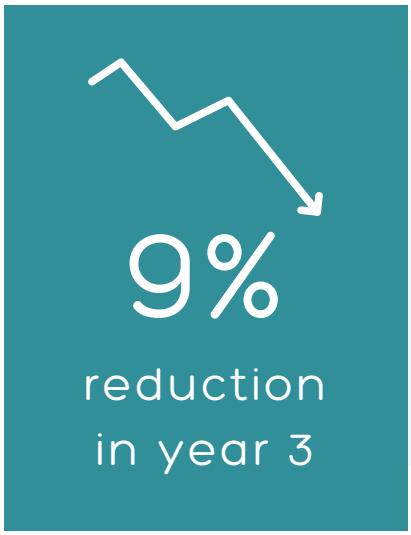
Year 1

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 e, equivalent to a 49% reduction against the 2018/19 baseline and a reduction of 9% on year 2 (2020/21).

The large reduction in emissions (49%) achieved in year 3 (202/21) is prodominantely a result of COVID-19 impacts on Council operations and the subsequent slow recovery (such as returning full time to office working).

However, other factors have also helped to influence a continued reduction in emissions:

COVID-19 pandemic

Noticeably the pandemic resulted in the majority of Council staff working 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. Office occupancy has slightly increased from the previous year as the majority of staff continue to work from home or have since implemented a hybrid arrangement. Emissions related to building use (electricity, gas, waste, water, paper etc. are expected to increase in future reporting years when office working hours will increase due to a return of the workforce.

Therefore, the same methodology in applying assumptions to year 1 (2020/21) data to calculate year 2 (2020/21) emissions were also used to estimate the reduced water, waste, paper use and business travel for year 3. Please see the Year 2 report for more information.

Compared to year 2, remote working and reduced staff occupancy levels throughout 2021/22 had a marginal impact on emissions arising from office use, as the impacts of Covid are still being felt. Fleet has decreased significantly as fuel for certain parties is now recharged to clients and therefore not within Bromley's organisational emissions.

It was expected that water would have increased given the modest increase in office occupancy levels. However, the emissions factor used to calculate emissions arising from water consumption have more than halved, meaning that the same amount of water used in year 3 would emit less than half the emissions it would have in year 2. This is primarily down to grid decarbonisation and water infrastructure improvements.


62% Council fleet


60% Water usage


0.3% Paper usage

The sources reporting an increase in emissions were those associated from increased building usage due a moderate return to work (increased energy and waste consumption).

In year 2 business travel decreased significantly due to COVID-19, though not as much in percentage terms as emissions from other sources such as waste, paper, and water. This is attributed to drivers that claim mileage (e.g. those in Public Health and Protection), who did not have their services curtailed due to restrictions. However in year 3 business travel has increased as face-to-face site visits conducted by those in Public Health and Public Protection have partially resumed as covid restrictions have lifted.

↑ 3% Energy consumption from buildings

↑ 175% Office waste

↑ 46% Business travel

Irrespective of the continuing impacts of a significant occupancy rate reduction and the modest annual increase against the previous year, emissions from the Council's buildings still have a significant baseload consumption due to several factors:

- they still required low level heating (especially during the winter months to prevent damp)
- servers still needed to operate in back offices
- lighting was still required for security, deep cleaning and work purposes

Therefore, emissions reductions were not as steep in percentage terms (when compared to baseline), as those for other sources (e.g. waste, paper, water).

Flexible working

The COVID-19 pandemic catalysed flexible working for the majority of council staff, with staff occupancy rates expected to remain at around 50% for the foreseeable future. A hot-desking strategy is currently being implemented and this will likely result in an increase in emissions as the infrastructure is rolled out and the arrangement matures.

Paperless office and digitalisation

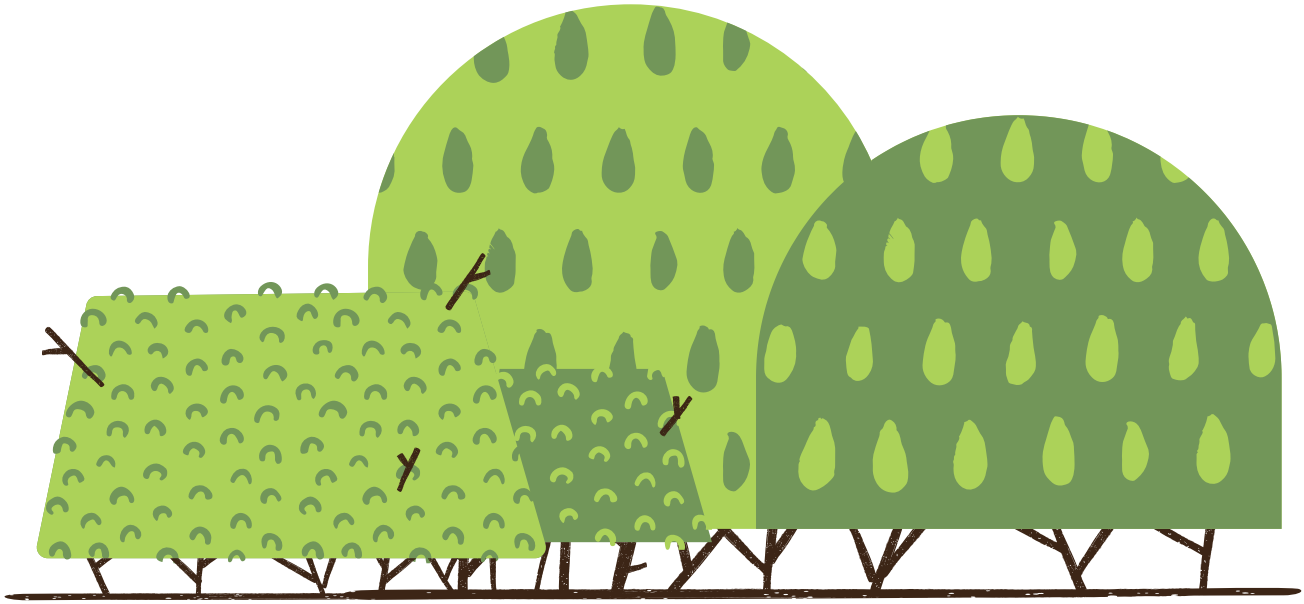
As the Council continues to push ahead with its paperless office environment (supported by a wide digitalisation exercise), it is expected that paper emissions will remain low post-COVID

Council emissions and trends

Electricity emission factors are expected to continue to decrease over time (as seen most evidently for the water emissions factor) as more national grid electricity is generated from renewables and fossil fuels are phased out. This will help lower emissions from electricity consumption. However, there remains significant uncertainty over the rate of this change, hence why strong action to implement energy efficiency measures will remain imperative for achieving carbon neutrality by 2027.

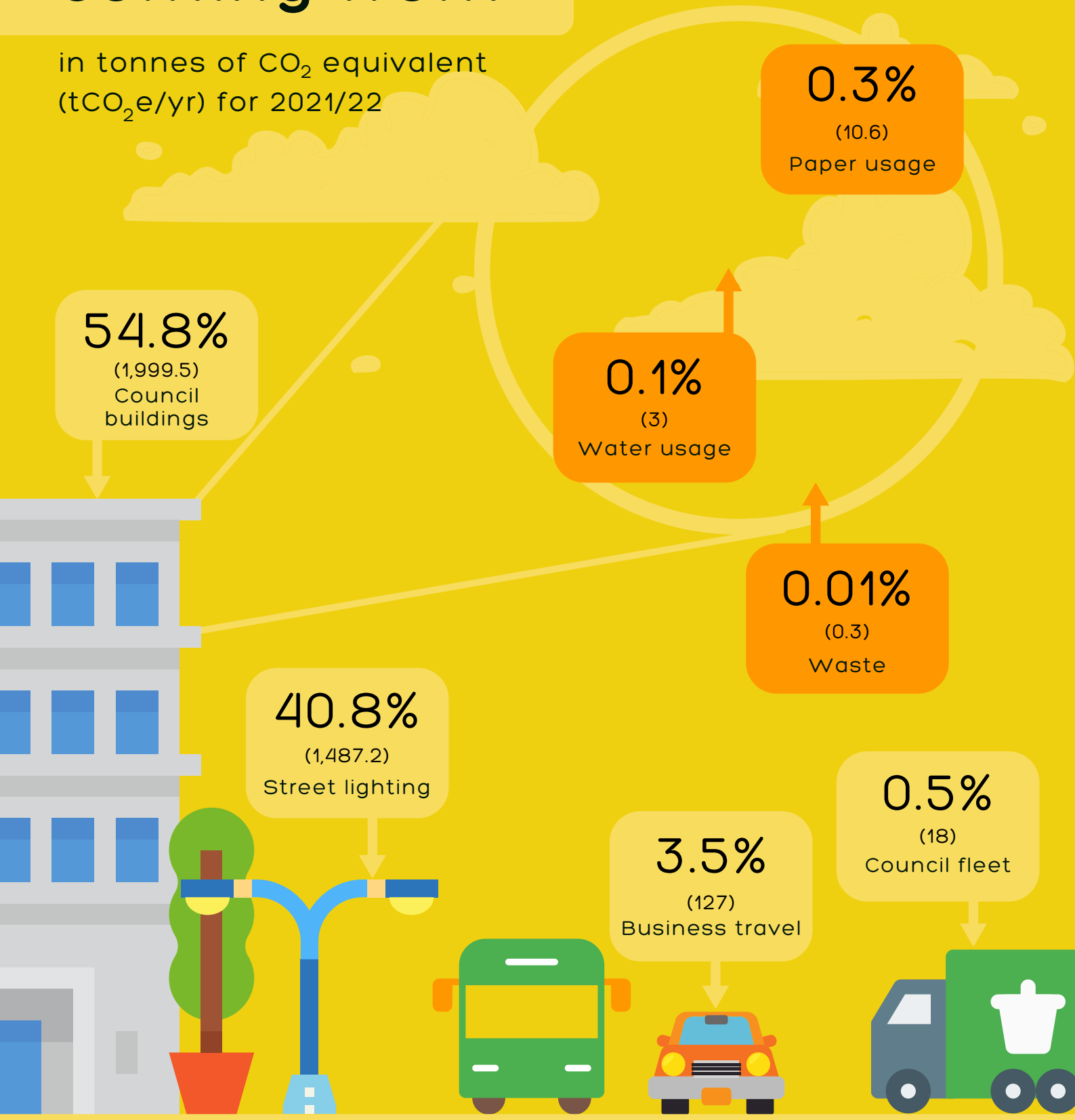
Progress on initiatives

The 21% reduction in emissions from streetlighting is attributable to progress made on Initiative 1 (i.e. the replacement of 3,638 old lanterns with energy saving LED lanterns). See Initiative 1 for further information.



Where our emissions are coming from

in tonnes of CO_2 equivalent (tCO_2e/yr) for 2021/22



Summary

This chapter has provided a progress update on the changes to our emissions profile between year 2 and year 3 of this action plan.

Before reading any further, please refer back to the Net Zero Action Plan and Year 1 and 2 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.

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)

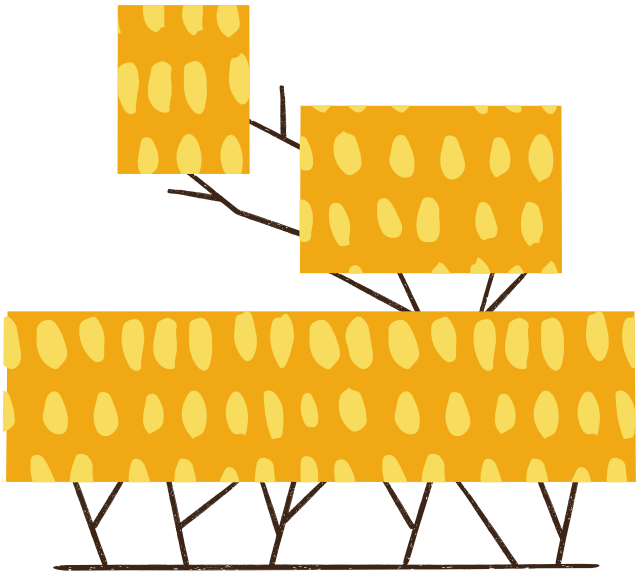
Global energy use accounts for two thirds of all emissions. That is why REEE is the foundation of our NZAP. It is the gateway to reducing our overall energy demand on the national grid as far as possible. This simultaneously reduces energy costs, while moving away from fossil fuel-based energy, towards 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 Fifth 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 act as a natural way to capture CO_2. If planned correctly this measure could also be used to support biodiversity and support improvements in 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 i.e. Bromley’s Local Plan.



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 through seven priority initiatives:

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

£4.5million

Emissions reductions

6 to 9%

In 2021/22 electricity consumption from Bromley's 28,000 streetlights accounted for approximately 40.8% of the Council's carbon emissions. Bromley's streetlights total around 28,000, of which there are now only approx. 6,300 remaining to upgrade to energy efficient LEDs.

Key actions

Develop/deliver a phased upgrade programme for updating the remaining 6,300 non-LED lights. 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. However, an initial assessment suggests that the potential annual carbon and cost savings could be 347 tCO2e and £165k respectively.

Action is being taken to accelerate this programme to a 2024 target.

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 is expected to complete shortly. Due to COVID-19 lockdown measures, the production/ supply of the new lights was impacted, consequently delaying the original planned installation date. 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 2021/22 energy consumption from the operation of Council buildings accounted for 54.8% of total emissions - this compares to 48.7% in year 2 (2020/21) and 58% in year 1 (2019/20). This change to the Council's total emissions profile is primarily a result of COVID-19. And no discernable trends can be identified over these three years because of the impacts of the pandemic. 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.

Roll out an Automated Meter Reading (AMR) installation programme to achieve more accurate and timely billing and energy monitoring capability.

Progress

During 2020/21 the Carbon Management Team (CMT) developed a business case for the design and installation of a solar pv system on the rooftop of the Civic Centre's North Block building that will help supply the Council with its own generated electricity. The CMT are currently seeking approval for the project which could serve as a template for developing further solar rooftop projects across the Council's estate.

An exercise to assess the Council's most energy intensive properties in 2020 was delayed due to COVID-19 restrictions. Bromley's Energy Manager is now aiming to deliver a planned assessment of the estate in 2022, in line with the council's broader strategic property appraisal and develop a programme to install AMR meters at strategic sites. Based on the energy efficiency assessment findings, a planned upgrade programme will be developed that will in turn inform accurate carbon savings.

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 2021/22 electricity associated emissions accounted for 67% of the Council's total net zero profile emissions, whilst gas emissions accounted for 29%.

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

Two main options exist for switching to renewable energy sources:

Renewable Energy Guarantee of Origin certificates (REGOs) -
can be purchased from energy suppliers that certify the electricity coming from the renewable energy element of the national grid - approximately 25-30% of the national grid's electricity comes from renewables (not to be confused with zero-carbon electricity that includes nuclear).

Power Purchase Agreements (PPAs) -
a direct agreement with a renewable energy generator. These types of agreements typically allow for further investment that directly leads to increased renewable generation.

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.

Key actions

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

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.

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. In particular, whether this will allow the Council to credibly discount our electricity emissions. If not, itis likely that we will need to switch to a PPA in the future at contract renewal.

In the meantime, the Council is currently procuring its new energy contract for the next two years. The recent market shocks to fuel prices have seen average bills increase by over 200% in the past 12 months and prices are expected to continue to rise until at least May 2023. The increase in costs obviously make any pipeline energy efficiency schemes more attractive in terms of payback times and the financial savings accrued. But this may also have some bearing on the make up of green energy tariffs in general, something which, given the current flux of the market, is difficult to determine the impact from both a financial and carbon point of view.

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 vehiclesdirectly managed by the Council but not vehicles used by the Council's contractors (e.g. Veolia for Waste Services). The remaining fleet operated directly by the Council now consists of a mixture of light vehicles, minibuses operated at three educational establishments, and several pool cars. Our gritters are owned by the Council but operated by our contractor as part of the Highways contract.

Although the Council's fleet only accounts for less than 1% of the Council's emissions, 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 soon 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.

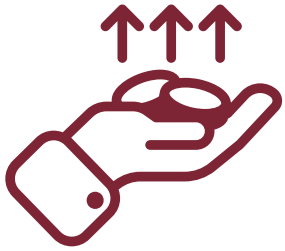
Up to 45 charging points will be installed at selected locations across the borough, including the installation of innovative gully charging technology at around 14 locations which could reduce 'street clutter' if successful.The pilot will evaluate the range of different and emerging electric vehicle charging solutions and their performance before a decision is made to expand provision further.

Around three or four supplies of different electric vehicle models will be included in the pilot, working with just over 50 residents who have already agreed to be part of the trial. The outcome of the trial will help determine the borough's future electric vehicle charging direction.

It is envisaged the charging points will be installed later this year with the pilot evaluation beginning shortly after when enough data is available from the trial.

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.

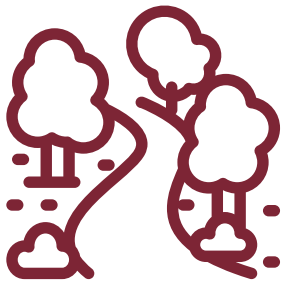
Explore joint partnership opportunities with other Councils.

Progress

Bromley may be able to accommodate some ambitious renewable projects. Early stage feasibility assessments are being undertaken 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 ten year 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 are currently producing a new Tree Management Strategy to take forward from 2021 onwards.

Bromley's Parks and Greenspaces team are currently preparing applications for a range of woodland and other habitat grants to manage the rare and priority habitats overseen by our contractor's Bromley Countryside Team. In addition, a few large projects are being prepared ready for funding applications along with a range of smaller ones.

The Carbon Management Team has begun joining up its carbon mitigation objectives with the Parks & Greenspaces and Arboriculture teams, their respective service providers, the public, and councillors to develop and implement a holistic strategy that is able to satisfy cross service objectives.

A Woodlands Establishment Board has been created to drive forward rewilding projects (woodlands, grasslands, and meadows) that will deliver carbon reductions against the Council's NZC target. The project board has shortlisted sites located within the borough for further suitability for woodlands creation. The board intends to take advantage of significant national grant funding to access arboricultural expertise for biodiversity impact assessments, woodlands management plan development, initial planting and establishment, annual maintenance and more.

The Council has currently shortlisted four sites located across the borough, totaling over 20 hectares of underused land. The Council is currently appraising these sites which will be funded and supported the by Forestry Commission's Woodlands Creation Planning Grant. The grant will sign-off on a bespoke woodlands management plan which will allow the Council to apply for funding for planting and maintenance to ensure tree maturity. This will also include funding for verifying the woodland's carbon sequestration figures.

We will adopt the "right tree, right location" approach and the species' suitability for planting in specific areas will be determined at a later stage. This will subsequently inform the many variables required for the carbon calculations such as age, attrition rate, hardwood/softwood, etc. We therefore cannot provide an estimated sequestered amount of carbon atthis time but will be in a better position to do so if our grant funding applications are successful and allow us to proceed to the next stage.

A different proposal to invest £1.35million to planting an additional 5000 street trees in the next four years is scheduled to commence in Autumn 2021. It is the largest single investment in trees in the borough's history. It will utilise existing tree pits where a tree had been planted previously, contributing to air quality objectives and emissions reductions.

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

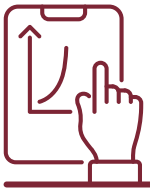
Cost

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.



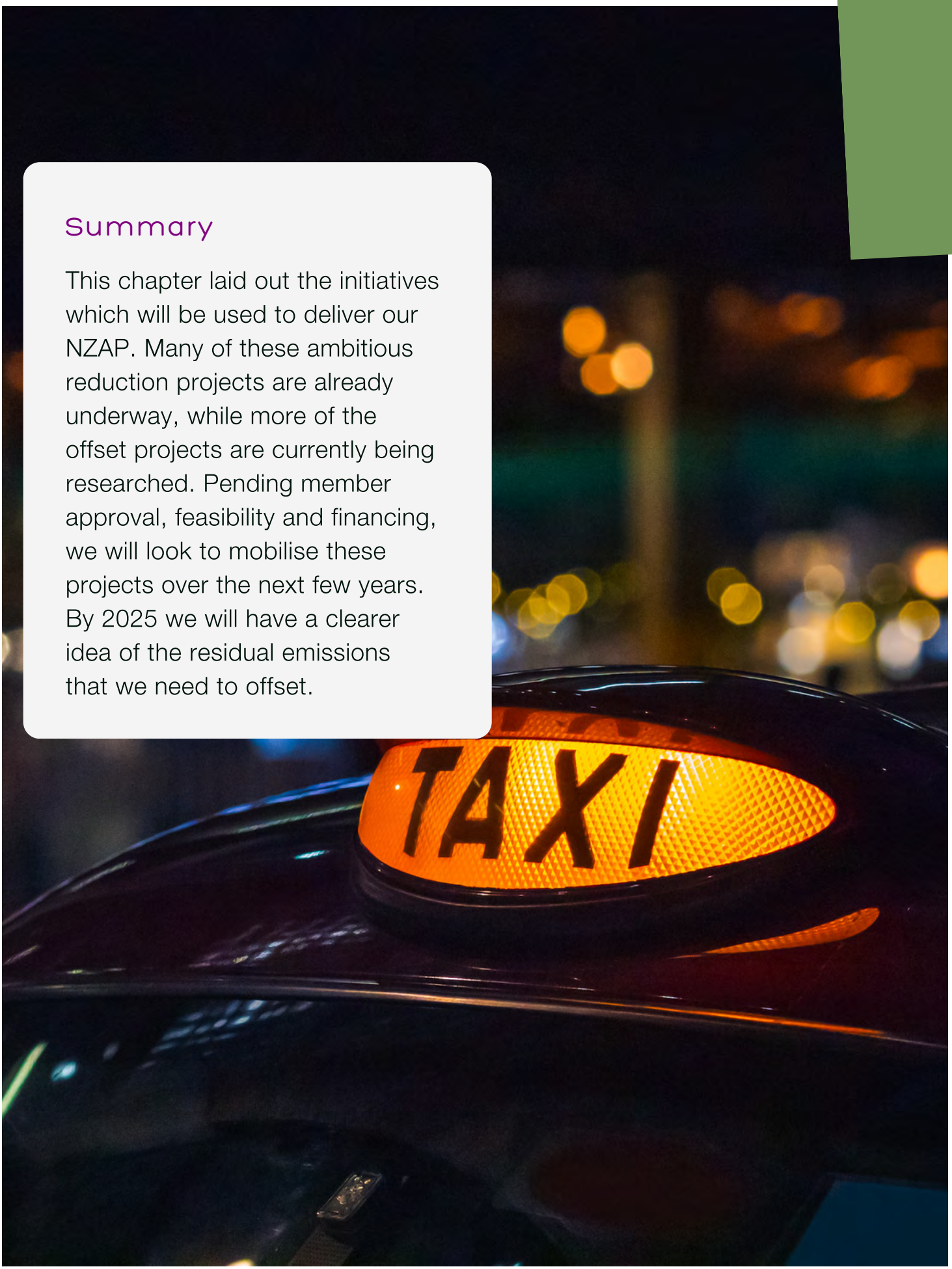
Key actions

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 the ten year 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 ambitious 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 we will have a clearer idea of the residual emissions that we need to offset.

Chapter 4

ENABLING FACTORS AND IMPLEMENTATION

Enabling factors

Implied at the end of the last chapter there are a network of financial mechanisms and decisions, as well as governance and partnerships, required to enable the progression of projects in our NZAP. Some of these mechanisms are explored in this chapter.

Financial factors

At this point in time it is difficult to know the amount of funding required for the Council to become a carbon neutral Council due to the uncertainty of which projects will be most suitable. However, feasibility assessments are being conducted to identify and help inform the most viable and cost-effective projects/initiatives to take forward.

Given the inflationary crisis that the country is currently facing, particularly exacerbated by the extreme inflation felt by the energy sector, investment currently entails more risks given the instability felt across many sectors and the supply chains that they rely on. Having said that, energy the savings generated from efficiency projects are now much more generous and the payback times are significantly sorter. This is therefore an opportune time for invest-to-save projects in particular and Officers will focus their priorities around insulating the council from these price shocks as much as possible. This will subsequently make more money available for other services in a time where budgets are stretched.

Fortunately, more financial options have become available over time as the government introduces further green deals to accelerate national and regional decarbonisation.

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

Key # Internal to Bromley # External funding

1 Carbon Management Recycling Fund (£500k)

Although the total fund amount has been committed to a street lighting LED upgrade project, as soon as the works are completed (estimated to be Spring 2021) the Council will start paying back the fund from the energy savings. Hence, the fund will start building up again, and the money will be made available for further invest-to-save projects.

2 Public Sector Decarbonisation Scheme

The scheme replaced the Salix Energy Efficiency Loan Scheme (SEELS) and allows public sector bodies (PSBs) to apply for a grant to finance up to 100% of the costs of capital energy-saving projects that a) deliver stimulus to the energy efficiency and heat decarbonisation sectors, supporting jobs and b) deliver significant carbon savings within the public sector

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

An investment fund, established by the GLA, which will help achieve London's ambition of being a zero carbon city by 2050. MEEF has been developed with Local Authorities as a core sector given their leadership in the low carbon development industry. MEEF has access to £500m of financing that can provide funding for up to 100% of the capital cost of a project. Features include a minimum investment size of £1m and fixed term interest rate. As well as funding individual projects MEEF can also fund estate wide maintenance and refurbishment.

4 Carbon Offsetting Funds (s106 contributions)

The release of Carbon Offsetting Funds (COF) are based on the cost of reducing a tonne of carbon.This is currently set by the GLA at £95 per tonne of CO2. It is to be used on a variety of carbon reduction projects across the borough. Projects can include energy efficiency measures on council property and street lighting. The current available balance is approximately £240,000, with £248,000 committed to various projects and over £1M in approved planning applications.

5 The GLA's "accelerator" frameworks

These aim to finance projects in their development stage, such as the commissioning of feasibility studies, consultation services, public engagement etc. 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 iterative, 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 has 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.

The Green Recovery Working Group has now developed 10 key subgroups which will focus expertise and action around key themes. Including but not limited to: retrofit programmes, transport, consumption emissions, renewable energy procurement, green infrastructure etc. These groups will report more frequently than the overarching board and will have representation from Officers from their respective departments. The Green Recovery Working Group broadly follows the TEC-LEDNet Priority Areas (see below).

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, resources and working together, to pursue seven priority areas, necessary for delivering on London's climate ambitions, through the publication of a TEC-LEDNetJoint 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 remainingTEC-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 between2020 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 (CMP3) report. In addition, the Carbon Management Team are beginning to engage with consultants to map out a suitable borough-wide emissions reduction strategy. This will provide the guidance and a roadmap for the whole borough to work towards carbon neutrality before 2050, with the emphasis on partnerships and collaboration between all stakeholders in Bromley and beyond, to realise this goal.

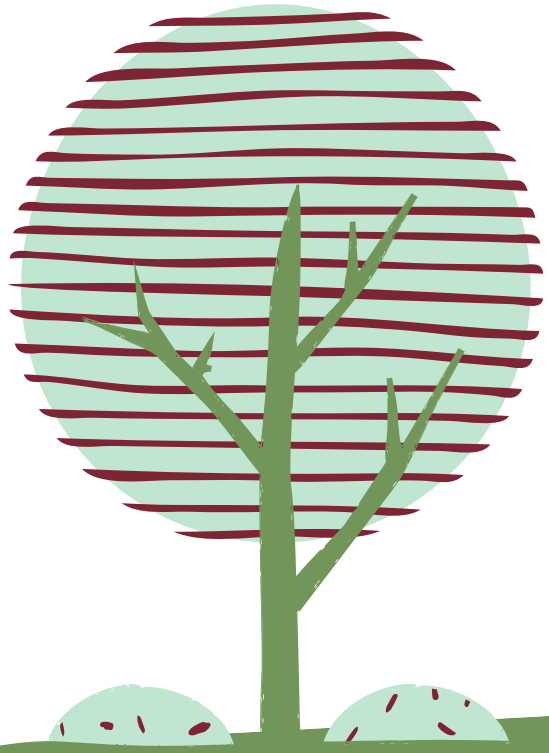
Monitoring, verification and reporting

Performance against the Council's 2027 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 on a monthly basis 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 GHG protocol. This guidance will apply to reporting carried out under the NZAP, in the same way it is incorporated into our CMP reports.

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 reads 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.

Carbon management programme

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

Carbon neutral

The aim of having no carbon dioxide emissions produced.

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 offsetting

Reducing emissions or capturing carbon in one sector, to compensate for an inability to reduce emissions in another sector.

Carbon sequestering/sequestration

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

Decarbonisation

The process of removing all energy sources that produce carbon emissions from the energy grid.

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 of their power from large, rechargeable batteries.

Greater London Authority (GLA)

The regional governance body of London.

Green energy

Any energy source that does not produce a high amount of carbon dioxide emissions, preferentially producing none at all. Often synonymous with renewable energy.

Green house 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.

Intergovernmental Panel on Climate Change (IPCC)

The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change.

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 having no carbon dioxide emissions produced, and if any are produced, that 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 .

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 petrol/diesel vehicle emissions.

Scope 2 Emissions

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

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 light from the sun into electricity as a form of green energy.

Pathway to a

CARBON NEUTRAL

Council by 2027

Net Zero Action Plan and Annual Performance Report 2021/22 – Year 3

Produced by:

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Bromley
THE LONDON BOROUGH

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