

Enfield Climate Action plan



DRAFT FOR PUBLIC
ENGAGEMENT
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ENFIELD
Council





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Foreword

Our planet is facing an existential threat from climate change.

The Intergovernmental Panel on Climate Change report in 2018 served as a warning to the world about the urgent need to act on climate change to prevent catastrophic consequences for our community in Enfield and communities around the world.

Two years on and we continue to witness increasing climate change. The transformation is taking hold in unprecedented wildfires in Australia, floods in Venice, droughts in New Zealand and devastating storm surges in the UK. Without action these will be just the start of a process that could prove unstoppable by human activity.

The emergency is real and the action to remedy it must be local, national and global. In response to rising awareness and justified protest, Enfield Council has declared a climate emergency.

This draft strategy is our response to that declaration.

The Council will be carbon neutral by 2030 but we must innovate to do this, taking bold and sometimes unpopular action to tackle the impact of climate change. Whilst the focus in this initial strategy is on reducing the Council's own emissions, additional emphasis is given to borough wide activities – transport, housing and green spaces.

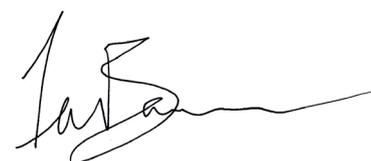
Residents have the right to expect swift and decisive action, but the truth is we cannot do this alone. We must ensure our partners are brought with us and we must engage with our residents, Councillors, MPs and regional government in the delivery of this strategy.

We need financial intervention and effective measures but frustratingly this government is not acting fast enough to meet its own climate targets. The problem we face is vast and multi-faceted, there will be costs and inconveniences inherent in the changes that we have to make – we all have to work together.

Our aim as a Labour administration is to create a lifetime of opportunities in Enfield. By our actions, large and small, and those of our community, we will play our part in combating climate disaster and make sure future generations can take advantage of those opportunities.

I hope you will take the time to comment on this draft strategy and it inspires you to take action within your community.

My thanks to Councillor Nesil Caliskan, Leader of Enfield Council, Councillors Chris Bond, Mahym Bedekova, Katherine Chibah, the Young Mayor Okan Gurhan, Deputy Young Mayor Christevie Ngoma, and all members of the Climate Change Task Force for their invaluable input towards this strategy.



Ian Barnes

Deputy Leader of
Enfield Council

*Chair of the Climate
Change Task Force*

Our vision

We have signed a Climate Emergency Pledge, which commits us to:

- **Make Enfield Council a carbon neutral organisation by 2030**
- **Divest the Council from investment in fossil fuel companies**
- **Only use environmentally friendly products where we are able to do so**
- **Make our supply chain carbon neutral through ethical procurement**
- **Work with local partners and communities and positively promote changing behaviours in Enfield to limit activities scientifically linked to climate change**

This plan sets out how we will deliver on this pledge.



Climate action

To deliver on our pledge, we have developed a plan for climate action in the following areas:

 1 The Council's operations	 5 Energy
 2 Travel	 6 Natural landscape
 3 Buildings	 7 Influencing others
 4 Waste	 8 Financing the action.

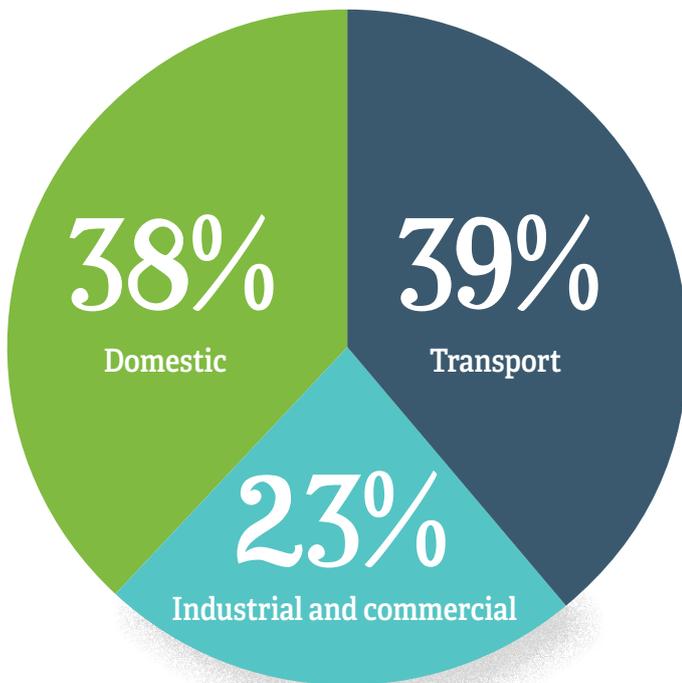
This plan sets out the action we will take in each of these eight areas. The first area – the Council's operations – sets out how we will reduce the Council's own emissions to zero and we have set targets for how we will achieve this.

The actions we are taking to influence reduction in emissions across the whole borough are set out in the other areas of our plan. Although we have not set targets for reducing emissions across the whole borough at this stage, this is something we expect to be able to do in future, following further developments in national legislation, regulation and policy. We expect this to develop in the coming years as a result of the Government's Net Zero target for the UK.

We will review our plan every two years, which will enable us to refine and develop our own targets as things change at a local, national and global level.

Enfield's emissions

Borough-wide emissions calculated by Department of Business, Energy and Industrial Strategy (BEIS), 2017



Category	Value
Industrial and commercial	255 ktCO ₂ e
Domestic	424 ktCO ₂ e
Transport	446 ktCO ₂ e

This chart shows the emissions produced from transport, industrial and commercial buildings and from domestic buildings across the whole of Enfield. These are Government figures that are collected for all local authorities across the UK, showing the emissions produced by all activity within the area – not just those the council is responsible for. Given the level of car ownership and the population size, we would expect to see this distribution of emissions.

Over the past decade, carbon emissions from the whole borough have decreased by 21.3%, despite our population increasing by 8% .

This is because of the increasing share of renewable power in the electricity grid, and the increased efficiency of vehicles and machinery.

Calculating the Council's emissions

Between September and November 2019, Enfield Council calculated a new baseline to measure the footprint of our operations. The baseline will be the carbon emissions number against which we will measure our progress over the next 10 years.

A carbon footprint is the total amount of emissions an organisation will emit in the delivery of its objectives. This may be in the form of energy use or an organisational fleet. We measure our carbon footprint over 3 areas:

SCOPE 1 – Carbon that is emitted directly from the council's gas usage and vehicle fleet.

SCOPE 2 – Carbon that is emitted from electricity usage in council buildings and street lighting.

SCOPE 3 – Carbon emissions from sources that the council does not own or control. This includes emissions associated with business travel, procurement, waste and water. It also includes emissions from energy used by residents in council homes.

We have previously only reported our scope 1 and 2 emissions. Recognising the severity of the climate crisis and the need to work with our partners and across the borough, for the first time we are establishing the carbon footprint of our scope 3 emissions as well. Whilst we are focusing on reducing scope 1 and 2 to zero by 2030, with support and financial assistance from Government, we also have an important role to play in reducing scope 3 emissions as well.

To make sure that the data is as complete as possible, we are using the financial year of 2018/19 as our baseline, collating data between the 1 April 2018 to 31 March 2019. To calculate our carbon footprint we have used our own data multiplied by the Government derived carbon factor for that particular emission to give the tonnes of carbon dioxide emitted. The calculation we apply is:

$$\text{Energy (kWh)} \times \text{carbon factor} / 1000 = \text{tonnes of carbon dioxide equivalent}$$

Our emissions for 2018/19 totalled **21,907 tCO₂e**. This is our new 'baseline', which we need to get to zero by 2030.

By way of comparison:

21,907 tCO₂e is the equivalent of one person flying from London to Singapore and back 22 times²

Greggs Bakery, which has a large distribution centre in Enfield, has a global corporate footprint is 101,208 tCO₂e.³

This total provides the baseline for most areas of direct council activity. We have attempted to calculate our Scope 3 emissions for the first time. These include emissions over which we do not have direct control and so the data is harder to identify and analyse. Scope 3 emissions can be the most difficult to calculate and contain a higher degree of uncertainty than scopes 1 and 2. Further work will be undertaken during 2020 to more accurately calculate scope 3 emissions.

The **21,907 tCO₂e** is broken down by scope as follows:

SCOPE 1 – those emissions arising from the council's gas and fleet usage

Category	Tonnes of CO ₂ e emitted
Gas Council offices and supported accommodation	2044
Gas Maintained Schools	4763
Gas Libraries, halls and leisure facilities (excluding leisure centres)	1922
Fleet Diesel	2470
Total	11,199

SCOPE 2 - Carbon that is emitted from electricity usage in council buildings and street lighting

Purchased electricity	8230
Street lighting	2478
Total	10,708

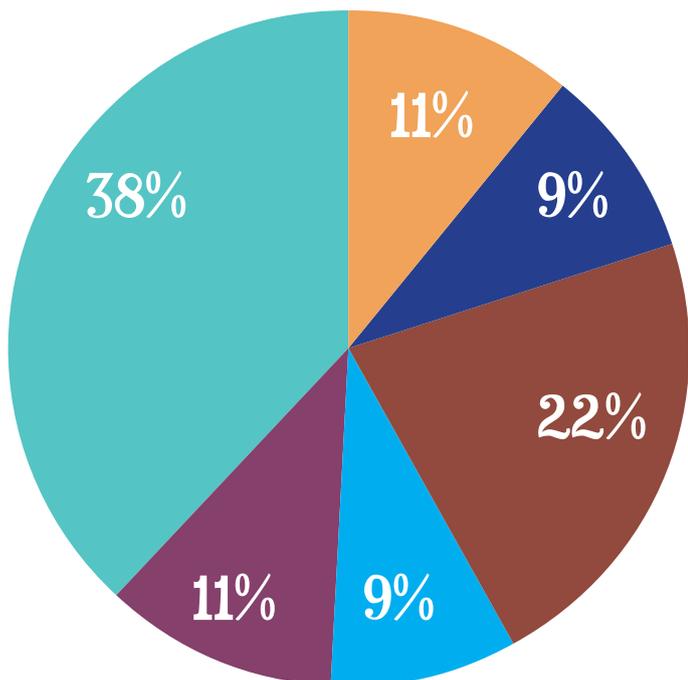
² www.icao.int/environmental-protection/Carbonoffset/Pages/default.aspx

³ Delivering our Strategy, Greggs plc Annual Report and Accounts, 2018

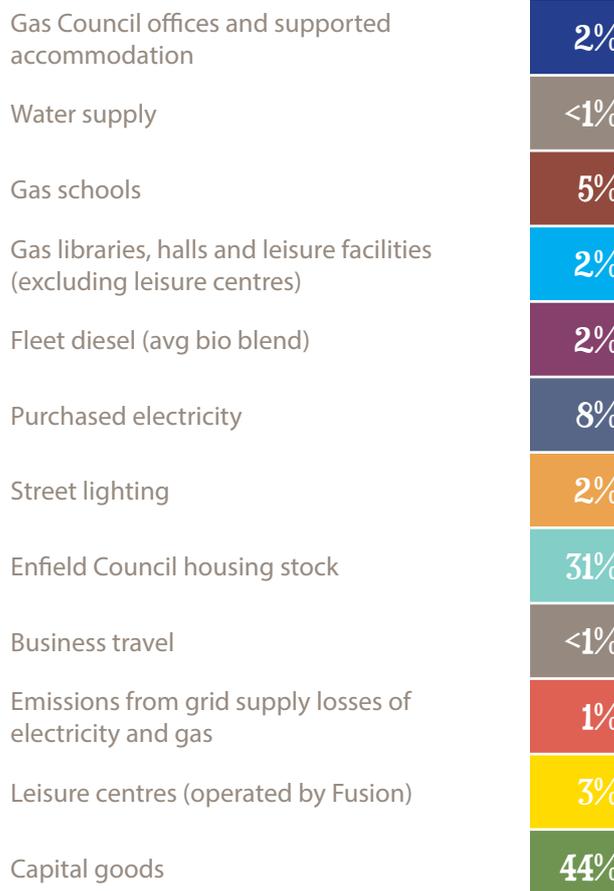
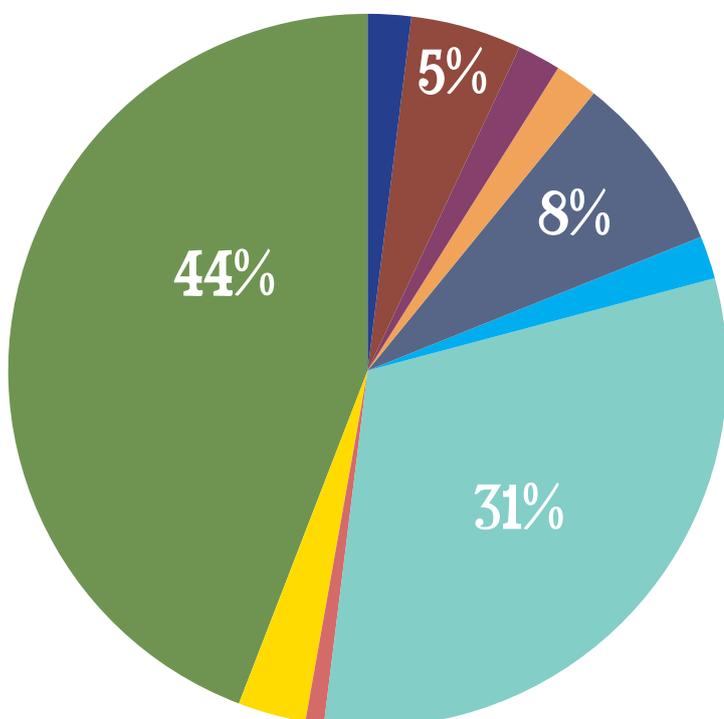
81,257 tCO₂e of Scope 3 emissions is broken down as follows:

SCOPE 3 - 'Upstream' and 'downstream' emissions from the delivery of council operations	
Waste from Council buildings and schools	<i>We have identified a need for more accurate information to measure this and will review this by summer 2020</i>
Water from council buildings	49
Energy used by residents in council homes	32,237
Transmissions and distribution losses (calculation of carbon emissions resulting from energy lost through heat supply)	912
Business travel	140
Estimated staff commuting	<i>We will be undertaking a staff travel survey to estimate this by summer 2020</i>
Leisure centres (operated by Fusion)	2479
Suppliers of goods and services	<i>We will be developing a new approach to procurement which allows us to estimate and evaluate carbon emissions from our suppliers by 2021. This will allow us to set a new baseline</i>
Estimated Capital goods (construction)	45,440
Total	81,257
Enfield Council's total carbon emissions	
Scopes, 1,2 and 3	103,164

The Council's scope 1 and 2 emissions



The Council's scope 1,2 and 3 emissions



The Council's Operations

How Enfield Council, as an organisation, will become carbon neutral by 2030 is a key part of our climate action plan.

This is a huge challenge, and one that can only be achieved by making some radical changes to how we use our buildings, how we travel to and from work, how we look after existing council homes and build new ones, how we procure services and how we deliver our services day to day.

We already have a track record of driving emissions down as an organisation and influencing better behaviour across the borough, but more is needed. We need to reduce energy use across our estate, switch to renewable energy, and convert our fleet to 100% electric before 2030. We will also need to offset remaining emissions, and plan to do so through continuing our pioneering work in enhancing biodiversity and increasing trees and other green infrastructure across our parks and open spaces.

Recent Successes

- Enfield purchased its first 3 fully electric vans in December 2019.
- With support from the RE:FIT programme we have so far retrofitted 18 council buildings with energy efficiency and low carbon energy generation measures.
- Started a programme to retrofit street lamps with LED bulbs. This will reduce energy usage by c.47%, a reduction of around 1,200 tonnes of CO₂e once fully rolled out.
- Confirmed that corporate Council buildings will use 100% REGO certified renewable electricity from October 2020.
- Single use plastic cups have been removed from council buildings

Enfield Council reduced its emissions by just over 50% between 2009 and 2019, halving our carbon footprint in 10 years. This was achieved by investing in our buildings to make them more energy efficient, investing in low carbon energy sources and consolidating our operations into fewer buildings.

42,000
tCO₂e in 2008/9,
down to
21,907
tCO₂e in 2018/19

Over the next decade, the actions set out in this strategy are expected to reduce our emissions by around 16,057 tCO₂e. We will need to offset the remaining 5,850 tCO₂e.

Key actions to achieve carbon neutrality

1. Achieve significant emissions reduction from council buildings through an energy efficiency investment programme:

- Light sensors in all council buildings by 2024 (date to be reviewed and updated following financial assessment)
- LED lights in all council buildings by 2025 (date to be reviewed and updated following financial assessment)
- Comprehensively meter water usage across the largest buildings across the council's portfolio and install water saving devices in all council buildings
- Where appropriate the council will install metering and sub-metering for all council buildings in the areas of energy and water by 2023
- Further consolidate our council estate, while continuing to provide good public services in appropriate locations

2. Encourage and enable energy saving behaviour by council staff:

- Implement a rolling carbon/climate literacy programme, prioritising teams with the greatest impact
- Require a calculation of the carbon and climate impact of decisions from May 2020. We will trial an internal carbon price with one Council department and extend that if it helps with decision-making.
- Limit use of council buildings by council staff outside core business hours to reduce lighting and heating emissions from April 2020. We will work with leaseholders in our corporate buildings to encourage them to do the same

3. Switch to 100% REGO certified renewable electricity supply by 2022. This means no longer buying energy generated from coal. By making this decision we are helping to remove carbon from energy generation and reducing Enfield's contribution to global air pollution.

- Council offices – October 2020 - removes 2305 tCO₂e
- Communal housing supplies – 2020 – removes 3696 tCO₂e
- Streetlighting – October 2022 – removes 1164 tCO₂e
- Schools – October 2022 – removes 2479 tCO₂e

4. Review opportunities for being supplied by green gas in 2023

5. Set new recycling targets for waste from council buildings and increase the quality of waste separation

6. Convert the Council fleet to 100% electric by 2030:

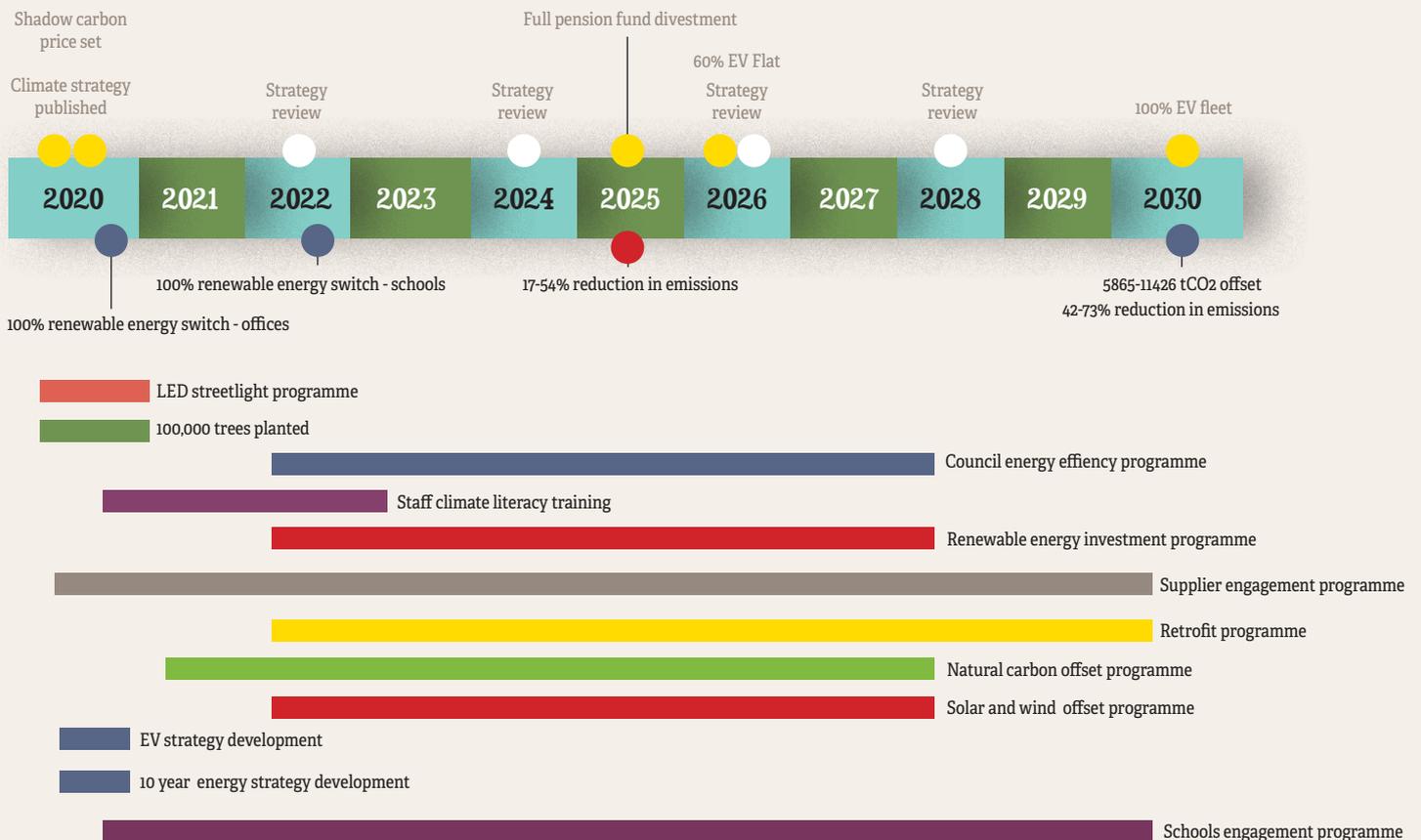
- Switch from combustion engine vehicles to electric equivalents as contracts come up for renewal. For larger fleet vehicles, such as bin lorries, we will make this switch when new larger electric vehicles are available.
- Install electric vehicle charging infrastructure at key council sites by 2023/4

We will achieve carbon neutrality through investing in energy saving technology, electrifying our vehicle fleet and changing staff behaviour. Where we cannot reduce emissions further through direct activity, we will offset those emissions through renewable energy and natural measures.

Through these key actions we predict we will halve our carbon footprint by 2026 and that by 2028 our footprint will be 25% of what it is today.

The diagram below illustrates the actions which we anticipate will have the most significant impact on reducing our carbon emissions over the next ten years.

**This is the action we are planning so far.
What further action could we take?**



Our approach to offsetting

Reducing emissions through direct action will be our main approach to becoming a carbon neutral organisation. But there will be a certain level of emissions which are not practically or financially possible to reduce within ten years. This includes emissions from our fleet which will be produced prior to the switch over to electric vehicles; and emissions from some heat systems. This will leave a gap between the emissions we continue to produce and our target of zero emissions. We have calculated this potential gap as 585 tCO₂e per year. Carbon offsetting is one of the methods we can use. To achieve meaningful offsets, we will apply the following principles:

- Offsetting will be levied against the identified yearly carbon gap based on the figure of 585 tCO₂e per year. This will be reviewed on a yearly basis.
- If Enfield does not meet its yearly carbon reduction targets, the shortfall will be added to the carbon gap figure at the end of the financial year. If yearly performance is met then we will offset 585 tCO₂e for that year.
- We will keep its offsetting in borough and in house and seek accreditation.
- We will focus on three solutions:
 - o Natural offsetting through green infrastructure - including wetlands, tree planting and expansion of the natural environment;
 - o Solar installation based on a 0.9tCO₂ saving for every 3.5 kWp of solar;
 - o Wind technology, where viability will be investigated over the course of the next 3 years.

Performance

Element	Monitoring	KPI	Baseline	Expected performance
Carbon footprint	Yearly monitoring Full Review in 2022, 2025, 2028	1. % reduction in carbon emissions 2. Emissions per employee (tCO ₂ e/employee) 3. Emissions per home managed (tCO ₂ e/home)	1. 21,907 tCO ₂ 2. 7.3 tCO ₂ 3. 2.96 tCO ₂ (2018/19 FY)	1. 9.1% reduction year on year 2. 1.83 tCO ₂ e/employee by 2030 3. 0.52 tCO ₂ e/home managed by 2030

Element	Monitoring	KPI	Baseline	Expected performance (All HPS unless stated)
Invest/divest	Rolling	1. Increase in on site renewable capacity (kW/annum) 2. Carbon reduction in pension fund (tCO ₂)	Baselines are currently being calculated	1. Up to 285 kW/annum 2. 100% by 2025 (TBC)

The Council's pension fund

Our climate emergency pledge commits the Council to divest from investment in fossil fuel companies.

Enfield Council's Pension Policy and Investment Committee agreed the Pensions Fund will invest up to 10 per cent of its fund directly into renewable and sustainable energy. It will also assess the carbon impact of all of its investments with a view to significantly reducing their 'footprint' by 2025. In addition, it intends to transfer up to £190 million into a low carbon investment fund in the coming months.

The committee and officers have worked hard over the last few months to assess the fund's investment beliefs and develop the investment strategy which will meet Enfield's obligations to the Pension Fund members and our responsibility to the environment.

Travel

Emissions from transport in Enfield account for an estimated 39% of the borough's total emissions.⁴ Shifting movement to low carbon transport, including walking and cycling, is an important part of the UK's commitment to have net zero emissions in 2050.

Recent Successes

- Built over 19 miles of high-quality cycle routes on key corridors.
- Provision of 5,000 cycle training spaces so that, in every school in Enfield, children in one school year will have a place.
- New Meridian Water train station opened in June 2019, with 5.5km of new track to enable two more trains per hour to run between Stratford and Meridian Water.
- Two School Streets have officially opened, making the environment immediately surrounding the schools healthier, safer and more pleasant for everyone.

School Streets

School street schemes are where cars are prevented from going up to the school gates at drop off and pick up times. They have been successfully trialled in towns and cities across the UK. Enfield launched it's first two schemes in early 2020 and we plan to roll out more schemes across the borough in the coming years.

Play Streets

Play Streets are where local authorities use their existing powers under road traffic legislation to allow temporary street closures at regular weekly or monthly intervals, so that children are able to play out in the streets where they live. In Enfield there are currently 18.

Key actions to achieve carbon neutrality

- 1. Work with partners to change the way people move around the borough so that they are less dependent on private vehicles and use public transport, walk and cycle more:**
 - Continue to roll out Healthy Streets and Neighbourhoods including completing delivery of the main Cycle Enfield routes and starting delivery of Low Traffic Neighbourhoods.
 - Introduce at least three new 'school streets' each year so that parents and children are encouraged to travel to school using active and sustainable transport.
 - Continue to work with Transport for London, train operators and Network Rail to increase public transport service provision. This includes delivering new infrastructure across the borough.
 - Limit the provision of car parking spaces on new developments in line with the London Plan and better manage existing kerbside space.
 - Support the provision of car clubs, where it reduces car use and ownership.
- 2. Reduce emissions from road-based transport:**
 - Work with TfL to increase the number of low and zero emission buses.
 - Increase the provision of electric vehicle charging infrastructure both on our roads and in new developments.
- 3. Incentivise staff to choose low carbon travel for their commuting and business travel:**
 - Review mileage policy and incentives for business travel.
 - Increase charges for staff parking at council offices.
 - Reduce the number of available spaces at council offices for vehicles with a combustion engine.
 - Year on year investment in pool cars and pool bicycles.
 - Install charging infrastructure for council fleet and pool cars.

**These are the actions we are planning to tackle emissions from transport.
What more could we do?
What can you do to help reduce emissions from transport in Enfield?**

⁴ Department of Business, Energy and Industrial Strategy, 2017

Performance

Element	Monitoring	KPI	Baseline	Expected performance (All HPS unless stated)
Staff travel	Bi-annual	1 % of staff commuting and business journeys taken by active, efficient and sustainable modes – public transport, walking and cycle	Methodology for calculating baseline currently being developed	<ul style="list-style-type: none"> Target to be set once baseline established.
Fleet	Annual	2 % of fleet that is fully electric	1% in 2018/19	<ul style="list-style-type: none"> 60% of fleet by 2026, 100% by 2030
Modal shift	Annual	3 Trips made by active, efficient and sustainable modes – public transport, walking and cycling	53% average from 2015/16 to 2017/18	<ul style="list-style-type: none"> 2021 – 55% 2041 – 69%
Quality cycle network	Annual	4 Percentage of population within 400m of strategic cycle network by borough	16% in 2018	<ul style="list-style-type: none"> 2021 – 30% 2041 – 61%
EV and charging	Rolling	5 Indicator for EV charging points under review	Indicator for EV charging points under review	Indicator for EV charging points under review

Buildings

Emissions from domestic premises in Enfield account for an estimated 38% of the borough's total emissions.⁵ Estimating emissions from commercial premises is harder, but they also contribute to the boroughs' carbon footprint.

In the context of a changing climate with hotter summers and more frequent heatwaves in the UK it is also important that buildings are designed and adapted with heat resilience in mind.

We want to see large scale retrofitting of existing buildings in Enfield, making them more energy efficient, with low carbon energy sources, and making them more resilient to extreme heat. This is good for the planet, but also good for residents and businesses who will see lower bills. Achieving this will require large Government intervention, but it is possible.

Specifically for homes, the UK needs to reduce reliance on gas for heating if we are to meet our 2050 net zero commitment. Some of the demand for heating will be met with heat pumps, but hydrogen power and low carbon district energy networks like Energetik will also play a role.

We also want to achieve high standards for new homes and new non-domestic buildings. Energy standards in new building regulations will increase in the next few years, and the London Plan already sets higher planning requirements for large developments.

With help from Government, we will lead the way in looking to retrofit our existing buildings and Council homes and in the new building standards we expect in our development programme. For example, we have committed to building a council housing development at Passivhaus standard⁶ and we will shortly be publishing our plan for how Meridian Water will be the greenest development in London.

Building regulations and planning policy set requirements on emissions from a property during its operation. With the level of current and projected level of development for Enfield and the need for more housing, more scrutiny of the emissions from the materials used in construction is needed. The 'embodied carbon' of developments is something that Enfield take seriously.

⁵ Department of Business, Energy and Industrial Strategy, 2017

⁶ Passivhaus buildings provide a high level of occupant comfort while using very little energy for heating and cooling. They are built with meticulous attention to detail and rigorous design and construction according to principles developed by the Passivhaus Institute in Germany, and can be certified through an exacting quality assurance process <https://citu.co.uk/citu-live/what-is-the-carbon-footprint-of-a-house>

Embodied carbon is the emissions associated with the construction of a building. This includes emissions from extraction, manufacture, transportation, assembly, maintenance, replacement, deconstruction, disposal and end of life aspects of the materials and systems that make up a building. These emissions can be substantial - for example, to construct a new two bedroom house generates about 80 tonnes of CO₂e⁷

For developments we control, we will develop an approach for measuring the embodied carbon which will include:

- emissions from transport of construction materials to a site
- the carbon footprint of the most commonly used building materials in the development of a home the emissions from the energy used in construction
- emissions caused by the waste material generated from the construction

We expect to refine this measure over the next ten years, but we will set a baseline and targets for reducing embodied carbon emissions by 2021.

Recent Successes

- Heat pumps installed in four Council housing tower blocks at Exeter Road, saving 170 families 50% on their annual heating bills.
- Smart Homes project to insulate 343 homes and ECO funding to improve the energy performance of 101 flats at Scott House in Edmonton.
- Retrofitted 18 council buildings with energy efficiency and low carbon energy generation measures.
- The new Metaswitch Headquarters, under construction and owned by Enfield Council, is on track to achieve a BREEAM Excellent environmental standard.

Key actions

1. With government support, develop a council housing retrofit plan and identify funds for council housing retrofit to increase minimum SAP score of 84 for every property by 2030.
2. Require new homes we control to be above current building regulation energy standards and, if we are developing new council facilities, ensure they are built to the highest BREEAM standards
3. Work with partners to increase retrofitting in the private rented sector and for owner occupied homes to EPC Level C or above
4. Continue to use our powers to ensure that properties in the private rented sector meet the statutory minimum level of energy efficiency
5. Continue to enforce energy requirements in the building regulations and the London Plan environmental standards in planning policy for new major developments.
6. Investigate new funding and retrofit models to increase retrofit opportunities for different tenures and house types.
7. Integrate climate risk and carbon into our new Local Plan, currently under development

We want to work with partners to decrease emissions from homes across the borough. What do you think of the actions we're planning? Is there more we could do?

Performance

Element	Monitoring	KPI	Baseline	Expected performance
Home energy efficiency	Yearly	<ol style="list-style-type: none"> 1. Number of Enfield managed Council homes with a current EPC (no more than 18 months old) 2. Minimum EPC of Enfield Managed Homes of 84 	<ol style="list-style-type: none"> 1. Baseline currently being established 2. 30.5 	<ul style="list-style-type: none"> • 100% Enfield managed Council homes with up to date EPC (no more than 18 months old) • 100% of homes SAP 84 by 2030

Waste

We have a clear policy to prevent waste going to landfill. This is due to the impact of toxic substances leaching into soil, groundwater and water ways; and the release of methane from food and green waste when it is compacted down and covered. We have a target to achieve at least 49% recycling in kerbside collections by 2022.

To increase recycling rates within the borough we need to increase the quality of our waste separation by households, and also reduce the amount of food waste going into black bins. Food waste in particular presents a methane risk, which has a short-term high impact on the environment; diverting biodegradable waste from landfill will have a higher positive climate impact than letting it break down or compost.

The North London Waste Authority (NLWA) is responsible for making decisions on how waste is managed. It is made up of seven north London boroughs (Barnet, Camden, Enfield, Hackney, Haringey, Islington and Waltham Forest) and its primary function is to arrange for the transport and disposal of waste collected by these seven boroughs and to promote waste minimisation and recycling.

The NLWA will be building a new energy recovery facility at Edmonton EcoPark. This will save the equivalent of 215,000 tonnes of CO₂e which would be emitted if this waste was sent to landfill – the equivalent of taking 110,000 cars off the road.

Our decentralised energy network, Energetik presents an opportunity to generate low carbon heat from this waste.

Harnessing energy from residual waste is a key part of a holistic waste management system. We will continue to work as part of the NLWA to increase recycling rates, promote waste minimisation and reduce the amount of waste sent to landfill.

Low Plastic Waste Zone in Southgate

The North London Waste Authority (NLWA) and seven north London partner boroughs are working together to create Low Plastic Waste Zones. Enfield Southgate is one of the participating areas.

To participate, businesses must demonstrate their commitment to reducing plastic waste to their customers. Over 50% of businesses in Southgate are compliant with the standard, and so the area is a designated Low Plastic Waste Zone.

Recent Successes

- Rolled out free weekly food waste collections to kerbside households across the borough
- Invested in Energetik, a company which uses waste heat to heat households across the borough.
- Enfield Southgate becomes a Low Plastic Waste Zone.

Key actions

1. Implement plan to increase kerbside recycling rates to 49% by 2022.
2. Review our collection of waste from blocks or communal waste management and identify how the Council can increase recycling rates in those households.
3. Work with schools to help decrease waste and increase recycling rates.
4. Overhaul the Council's own recycling and waste sorting and collection, to increase our corporate recycling rates.
5. Support the NLWA low plastic zones initiative which encourages businesses to reduce the use of excessive and unnecessary plastic.

What more could we do to reduce waste and increase recycling rates? What more could you do?

Performance

Element	Monitoring	KPI	Baseline	Expected performance (All HPS unless stated)
Increase recycling	Yearly	% kerbside waste which is recycled, reused or composted	36% in 2017/18	<ul style="list-style-type: none">49% by 2022.

Energy

To become a carbon neutral organisation and to reduce the borough's overall emissions, we will promote renewable and low carbon energy generation. This includes continuing to invest in low carbon heating through Energetik, and also reviewing the council's land ownership to identify opportunities for renewable energy generation.

The way our homes and businesses are supplied with energy is changing and will continue to change rapidly over the course of this plan. As the Committee on Climate Change has established, the future of energy in the UK will become more complex and decentralised. Increased renewables, a decarbonised grid, further electrification and an increase in lower carbon products means that making decisions on energy supply is increasingly difficult.

In order to meet the UK's net zero targets by 2050, the Committee on Climate Change (the CCC) and National Grid state that there will need to be an energy mix that is both low carbon and which ensures security of supply for the coming decades. Nationally this means:

- Gradual phasing out of gas boilers over 25-35 years
- Hydrogen boilers and a hydrogen gas grid utilising the existing gas network
- Increased heat pump installations
- Expansion and maintenance of decentralised energy systems and networks
- Expansion of renewable energy

With Government assistance to fund further initiatives, Enfield is well placed to meet the requirements for a low carbon energy system. Our work to date to install heat pumps for four of our council housing tower blocks means that we understand the capital cost and skills needed to do this. Our district energy company, Energetik, is well placed to deliver a heat network, future proofing large developments by providing low carbon heat from a range of sources across the borough.

Our strategy takes the approach of diversification in line with CCC recommendations. This will mean generating heating and cooling from a range of sources, taking into account all available options.

Regardless of the diversified options, the change to low carbon and renewable energy sources must be complemented by high levels of retrofit and building refurbishment to bring down energy demand overall. This requires financial assistance and support from regional and national Government. We will prioritise action as follows:

FIRST
Fabric and insulation

SECOND
Switch to Renewables

THIRD
Heat pumps to provide heating and summer cooling



FOURTH
Decentralised energy

FIFTH
Hydrogen

Energetik

We have invested in the Council-owned company Energetik, a central energy centre generating heat, connected to a network of highly insulated pipes. Energetik was set up to supply heat and hot water to over 15,000 homes and businesses across North London. It already serves a number of housing developments in the borough including, Ladderswood (517), Electric Quarter (167 homes), Alma Estate regeneration (1,000 homes), New Avenue (400) and will eventually support Meridian Water (10,000 homes).

Heating is supplied through four heat networks consisting of energy centres connected to insulated pipes that transport heat to homes and businesses in Enfield. These networks use different heat sources, including waste heat from the North London Heat and Power Project.

They are part of a future-proofed energy infrastructure which can be extended to meet increasing energy demands and adapted for changes in heat generation technology.

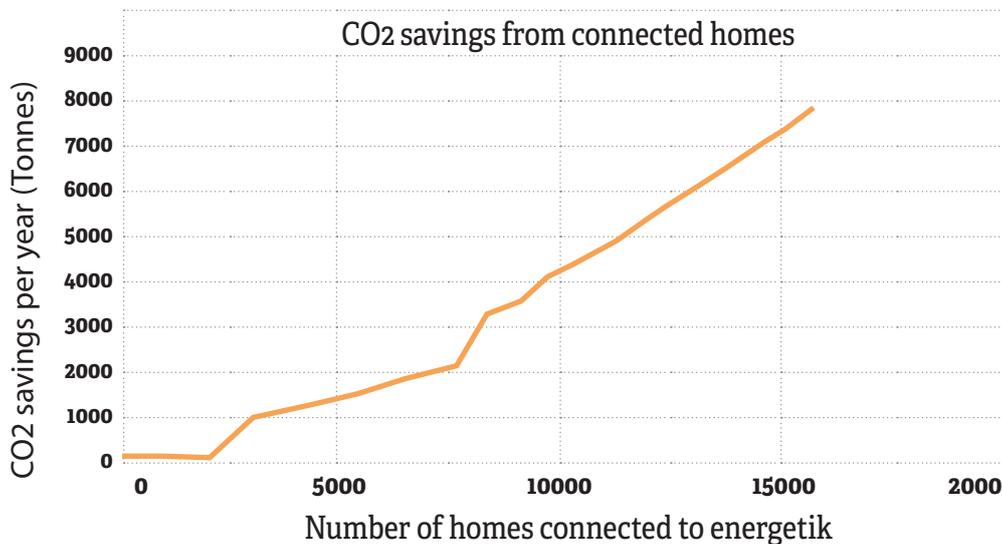
Recent Successes

- Installation of 150kW of solar panels on the Civic Centre, providing renewable energy to the building.
- Connecting over 2,000 homes to low carbon heat networks through council owned company Energetik.

Key actions

- Develop a 10-year energy strategy to deal with anticipated changes in energy markets over the next decade, prioritising renewable energy both in procurement and on site
- Review the council's land ownership to look at renewable energy generation options, such as wind and solar
- Continue to invest in Energetik.

This is the action we are planning so far. What more could we do?



Performance

Element	Monitoring	KPI	Baseline	Expected performance
Renewable energy	Yearly	1. Increase in on site renewable capacity (kW/ annum)	95.7 kWp installed	1. 2% increase per annum for 10 years
Low carbon installation	Yearly	2. Funding obtained for low carbon energy installation	£ 0 in 2018/19	Under development

Natural landscape

Enfield is one of London's greenest boroughs, including the Lee Valley Regional Park, 123 parks and public open spaces, 37 allotment sites, more than 300 hectares of woodland and 100 kilometres of rivers and streams. We have an important role to play in protecting and enhancing the borough's biodiversity, helping London to respond to the changing climate and helping to decrease carbon through green infrastructure.

As the summers of 2018 and 2019 demonstrated, our weather is becoming more extreme, with events such as heatwaves and flooding occurring more regularly and with higher intensity. Across the UK we will continue to expect:

- Hotter, drier summers
- Milder winters
- Changing rainfall patterns, with periods of dry weather and intense rainfall
- More extreme weather events such as heatwaves or extreme cold

These changes are impacting on the council and its operations as well as the natural environment. Specific risks within Enfield include:

- 19 schools are at high risk of flooding
- 5 hospital sites (private and public) are at high risk of flooding.
- Enfield Town is at significant risk of surface water flooding.
- The Eastern part of Enfield is at particular risk from flooding due to its position in the Lea Valley Floodplain. This has an impact on critical infrastructure.
- The areas in which there is the highest levels of deprivation correspond with the areas where there is the highest flood risk.

We need to respond to these risks through proactive flood alleviation work, as well as capitalising on the natural assets the borough has to help offset the emissions we cannot prevent in the coming years. Our approach to green infrastructure is about both mitigating against and adapting to climate change. We are aiming to significantly increase carbon sequestration⁸ opportunities across Enfield.

Increasing provision of green and blue space in the borough will also be beneficial for health by providing

opportunities for physical activity and through known benefits of green and blue space on mental health and wellbeing. Enhancing green and blue space across the borough is a vital part of our Council aim to deliver a lifetime of opportunities for everyone – now and in the future.

Recent Successes

- Enfield Town Park wetlands completed in 2019, providing 5,000m³ flood storage, creating more than 1,000m² wetlands and enhancing wildlife habitat with wildflower planting.
- Broomfield Park wetlands completed in 2019, providing 3,000m³ flood storage, improving water quality, creating a new space for education and community involvement in nature, improving biodiversity and creating new natural habitats.
- Prince of Wales wetland completed in 2018, providing more than 3,000m³ available for flood storage, enhancing wildlife habitat and providing an educational resource for nearby schools.
- Firs Farm wetland completed in 2017, providing up to 30,000m³ of flood storage during extreme rainfall events, protecting 140 properties from flooding and enhancing wetland habitat.

Key actions

- Deliver a tree planting programme in the north of the borough over ten years with identified carbon savings per sapling over a 25 year period. This includes planting the first 100,000 new trees by winter 2021 in northern Enfield to recreate an area of ancient woodland which could capture up to 234 tonnes of carbon emissions each year.
- Develop our approach to increasing green infrastructure, including urban trees, particularly in areas of the borough where this is currently lacking.
- Continue to develop wetland capacity to increase flood resilience
- Integrate green infrastructure features such as rain gardens and trees into the Meridian Water development. In addition, the Pymmes Brook river running through Brooks Park in the heart of the development will be restored by breaking out the existing concrete walls and naturalising the bed and banks. This approach will create space for water and reduces flood risk as well as enhancing habitat for a wide range of wildlife.

⁸ Carbon sequestration is the long-term storage of carbon in plants, soils, geologic formations, and the ocean.

What do you think of our plans for the natural landscape in Enfield?
 What more could we do to increase trees and greenery throughout the borough?

Performance

Element	Monitoring	KPI	Baseline	Expected performance (All HPS unless stated)
Offset emissions	Yearly monitoring	1. Maximum yearly offset of 585 tCO ₂ e	We have not previously had an offsetting policy so this is a new baseline of 0.	1. 585 tCO ₂ e offset per year
New woodland creation	Yearly/ tri-annually	2. New hectares of woodland established	This is a new project, so our baseline for this measure is 0.	<ul style="list-style-type: none"> • 60 hectares by 2022. • Future targets are in development based on the progress of the Enfield Chase project. We are reviewing the possibility of 140 hectares by 2025

Influencing others

We cannot tackle the climate emergency without working with our partners, suppliers and residents and without increasing support and intervention from national and regional Government. The actions set out in this strategy require significant investment, not all of which is currently within our existing budgetary envelope. We will work proactively with others to coordinate our approach, help facilitate partners to adapt and change and to influence Government to make the scale of the change required.

Key actions to influence Government

To achieve this plan, Government will have to step up its existing efforts to address climate change. We can only deliver the full scale of the action needed with further financial investment and policy intervention from Government.

We will lobby government on key areas for the borough, including:

1. Work proactively with national government to ask for clearer low carbon funding streams and policy that prioritises zero carbon options.
2. Work with the Mayor of London and national government to lobby for stronger zero carbon building regulations standards; and clearer policy direction and standards around low carbon retrofit of existing homes and other buildings. This is an area that has been neglected both in terms of finance and stable policy.
3. Work proactively with the Mayor of London and national government to create the conditions required for sustainable charging infrastructure for low carbon vehicles.
4. Work with Transport for London to continue to increase and improve public transport in Enfield.

Key actions to influence our partners and suppliers

1. Review and update our approach to procurement to ensure we assess and effectively evaluate the environmental impact of goods and services in order to minimise carbon emissions and reduce the risk of negative impact on the environment from goods and service we use.
2. Work with our health and social care provider colleagues to raise the importance of adaptation and mitigation in the health sector to protect vulnerable residents from extreme weather and to reduce their carbon footprint.
3. Encourage and support schools in their work to cut carbon and raise the importance of adaptation and mitigation, including by holding a school climate summit in autumn/ winter 2020
4. Work with regional partner local authorities to support small and medium businesses (SMEs) from across the sub-region who require guided support to address barriers to becoming more energy efficient and reducing their carbon footprint.
5. Engage with residents across the borough to encourage and enable people to switch to lower carbon transport options; make their homes more energy efficient; purchase energy from 100% REGO certified suppliers where possible; and make more sustainable consumption choices.

Financing the action

Achieving carbon neutrality and tackling emissions across the borough will be hugely challenging given the budgetary pressures on local government. Since 2010, £178m has been cut from Enfield Council's budget.

We will have to make difficult choices to ensure we can deliver on our strategy while balancing a budget as a local authority with a huge range of challenges, responsibilities and ambitions for local people. We will look to the mayor, the government and other sources of funding alongside our existing budget, in order to deliver the action that is needed.

We will need to work in a smart, coordinated way to maximise the financial resources needed to deliver our carbon neutral aspirations.

We will maintain a dedicated resource to oversee and coordinate the delivery of the strategy, and we will train existing staff to improve carbon literacy. This resource will work across the local authority and with our partners to coordinate decisions and projects and ensure that climate is integrated into all decision making for the Council.

Key actions

- 1 Take advantage of grant and low-cost loan funding available to enable us to take the action required to become carbon neutral.
- 2 Maximise funds such as the non-domestic renewable heat incentive to upgrade energy supply to the borough's schools.
- 3 Maximise the Carbon Offset Fund to provide capital to invest in housing retrofit and renewable energy projects
- 4 Develop and test a price for carbon associated with the Council's decisions and activities. Use this to charge a levy against poor internal carbon performance, with income used to fund zero carbon investment to improve council stock.

Inviting feedback

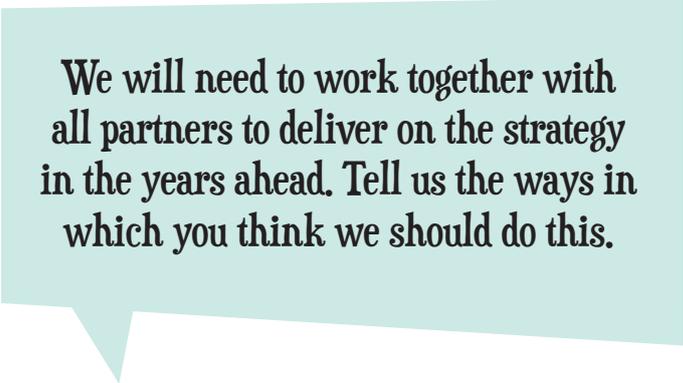
This is our draft Climate Action Plan, published on 13th March 2020, for comments and feedback. We will be developing this further in the coming weeks, before a final strategy is taken to the Council's Cabinet for approval.

You can help us develop this strategy further by sharing your views in the following ways:

- Come along to a public meeting or event. Details will be on our website and sent out on social media.
- Join in the discussions on the Council's pages on Facebook and Twitter in the coming weeks
- Speak to your local councillors about your ideas or comments
- email us at climate.emergency@Enfield.gov.uk

Please give us your views by Sunday 19th April 2020 so we can use your feedback to develop our final strategy further, before it is taken to Cabinet for approval.

We will also be continuing to engage with employees, residents, and all stakeholders leading up to, and following, the publication of our strategy later in 2020.



We will need to work together with all partners to deliver on the strategy in the years ahead. Tell us the ways in which you think we should do this.

