Haringey Climate Change Action Plan – A Delivery Plan for a Zero Carbon Haringey

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Introduction and Background

Our vision for Haringey in 2041

Our 2041 vision is for a Haringey that is healthy and sustainable, with walking or cycling to local amenities and taking the long-distance trains for holidays being the norm. Roads will have been repurposed to give way to street-side planting, play areas, dedicated charging areas for electric vehicles, with safe space to get to your destination by using any non-motorised set of wheels or by foot. The Council will have finished the deep retrofitting of all council-owned properties, resulting in lower energy bills and more control over thermal comfort at home and at work. All households will live in homes that are warm in the winter and cool in the summers; homes that are desirable, warm, and affordable to run. Local energy generation is widespread and usage can be tracked increasing awareness. Photovoltaic (PV) solar panels power Council buildings, homes and businesses, and thousands of homes are connected to low carbon heat networks.

Residents are empowered and take ownership of their local environment delivering carbon reduction.

Purpose of this Document

Haringey has been a leader in carbon dioxide (CO_2) reduction and in its work on Climate Change. The borough is on target to deliver its 40% carbon reduction by 2020 from its 2005 baseline. It has a better performance than neighbouring authority areas. But there is now increased awareness on the impact of carbon and greenhouse gases as scientists have learnt and are seeing the impact of carbon emissions on our climate across the globe. The globe is now in a Climate Change Crisis and dramatic action is required.

In March 2019, Haringey Council declared a Climate Emergency. In doing so, the Council committed to developing an action plan to decarbonise the borough by the earliest date that was both ambitious but achievable. The foundation work was done with ARUP when the Council first committed to becoming a net zero-carbon borough, in the Borough Plan (2019-2024). ARUP provided science-based analysis that informed the actions that could be delivered and to what timeframe. Based on the Climate Emergency declaration, Haringey Council revisited this initial action plan and agreed to bring forward both the timeline and scale of actions, aiming to be net zero carbon by 2041. This document sets out the actions as to how we can achieve this goal.

This Action Plan is a borough document which requires collective ownership to deliver this level of ambition, rather than a ‘top-down’ Council approach. This is a fundamental part of the approach which will be needed to deliver the 2041 date.

The Councillors and officers are committed to taking urgent action to deliver a net zero-carbon borough by 2041. Because the Council cannot deliver it all on its own, a large part of this commitment is to take a leadership role in influencing stakeholders in Haringey; and empowering residents and businesses to mitigate their own emissions. But it also requires changes at a higher level and the Council will lobby the Mayor of London and UK Government to take responsibility for their own emissions and adopt ambitious legislation and policies. The Government’s legislation and policies should be supported with funding streams and increased powers to enable an increased rate of delivery at the local level.

As these actions were developed, they were reviewed and commented on by stakeholders to inform the actions. The Action Plan was also challenged by leaders in the sustainability and built environment sectors to sense check and challenge the actions and assumptions.

This Action Plan will enable Haringey to become a net zero-carbon borough by 2041.

Background of Climate Change Globally

Climate change is an increasingly global crisis, disproportionately affecting those least able to bear it and with the least responsibility for causing it. Extreme weather linked to climate change has created devastation around the world. These changes are being felt through more frequently occurring short-term events such as droughts, flooding, heat waves and storm surges as well as longer term pressures including sea level rise and loss of productive land.

The UK set a statutory target in the Climate Change Act 2008 to reduce UK greenhouse gas (GHG) emissions by 80% from 1990 levels by 2050. In 2015, the UK committed to keeping emissions well below 2°C by signing up to the Paris Agreement of the United Nations Framework Convention on Climate Change. The Intergovernmental Panel on Climate Change (IPCC)'s *Special Report on Global Warming of 1.5°C*, published in October 2018, sets out the impacts of global warming of 1.5°C above pre-industrial levels with available scientific, technical and socio-economic evidence. Due to historic GHG emissions, the globe is set to warm significantly, with wide-ranging impacts as a result. Following a recommendation by the UK Committee on Climate Change (CCC), the UK legally amended the target in June 2019 to reduce all GHG emissions to net zero by 2050.

Human pressures on the world's ecosystems and natural resources and the changing climate have also resulted in a serious threat to our biodiversity, with nature eroding at unprecedented rates. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) published its Global Assessment Report on Biodiversity and Ecosystem Services in May 2019 warning of the severe loss of biodiversity and how this will impact people. Climate change and large-scale biodiversity loss need to be tackled simultaneously and are both critical in ensuring human wellbeing, economic viability and the functioning of the natural world.

In response to clear scientific evidence and consensus on climate change, and rising public concerns, Haringey Council declared a Climate Emergency in March 2019, being one of the first London Councils to do so.

Why Reduce Carbon in Haringey?

The changing climate and loss of biodiversity will impact our borough too, and the impacts will continue to worsen due to the borough's urban location, including:

- Heat waves will intensify due to the urban heat island effect and buildings not being adapted to higher external temperatures;
- Impermeable built up areas will cause surface water flooding;
- Higher demand on the grid during extreme weather events will result in more power outages.

Haringey's incomes and living standards vary considerably and the impacts of climate change will exacerbate inequality across residents and businesses. This plan targets a borough-wide reduction on carbon emissions which will improve living standards for all residents.

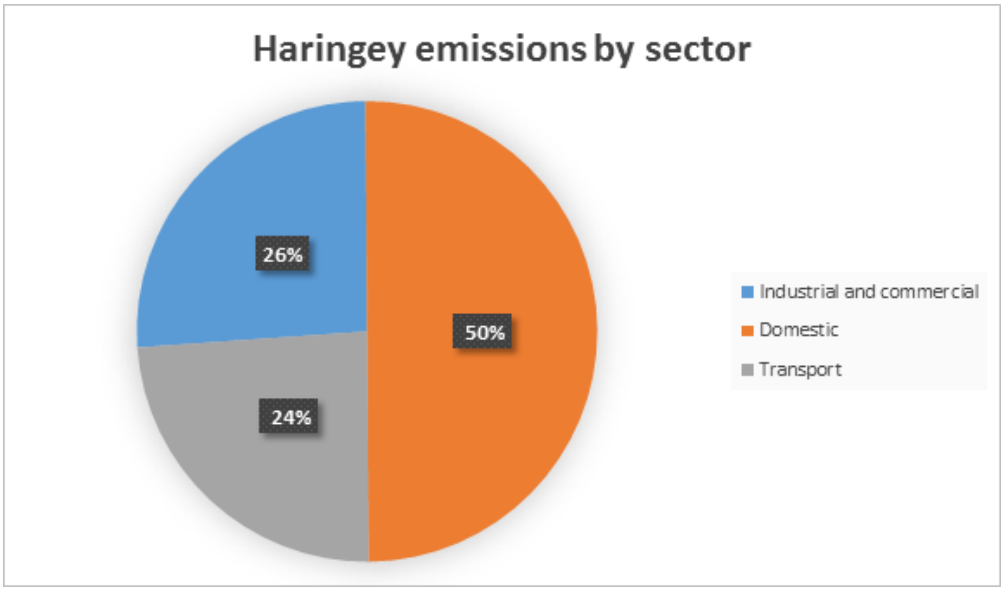

Figure 1: Haringey 2017 proportion of emissions by sector

Haringey Council has for some time been committed to reducing the borough's emissions by 40% by 2020, from a 2004 baseline (coined as '40:20'). In 2018 we set a new target to become a net zero-carbon borough by 2050. The Council had worked with Arup to set out a road map to 2050 and, after the Council declared a climate emergency in March 2019, it followed up with a Climate Emergency Report bringing the 2050 target forward to the earliest possible date, which we now believe to be 2041.

As every tonne of carbon is vital to be reduced, and in the context of an emergency, we need to deliver many of the actions urgently. Therefore, rather than accepting a linear decrease in carbon emissions, we have chosen to accelerate actions in response to the climate emergency. For this reason, the Haringey Climate Change Action Plan proposes a steeper rate of decrease in areas that the Council has greater control and powers to achieve this. This is shown through actions such as the Council's operational buildings becoming net Zero Carbon by 2027, and increased action to improve the take up of active travel options.

Although nationally the UK Government are aiming to become zero carbon by 2050, the Council believe this is too late to act. By 2050, the borough and beyond could be experiencing catastrophic weather events, and displacing people from their homes. The Council believe that with the right support from regional and national government, that a 2041 timeframe is achievable and therefore we should be striving to achieve this.

When Haringey started work on delivering a reduction on its carbon emissions in 2005, the borough's emissions were estimated to be at 1,041.30kt (4.5t emissions per capita). In 2017, the estimated emissions for Haringey (within the scope of influence) were 667.7kt (2.5t per capita). A projected 40% reduction on 2005 levels is to achieve a reduction to 624.78kt of emissions by 2020.

How Has Haringey Reduced its Emissions So Far?

Since 2011, Haringey has published its Annual Carbon Report to provide an overview of the carbon emissions in relation to the 40:20 target. The 2019 Annual Carbon Report shows that, as a borough, we have helped reduce carbon emissions from the borough by 35.8% and Haringey is on target in meeting the 40% reduction by 2020 (also known as 40:20 target) from our 2005 baseline.

Our historic success in reducing emissions in the borough is due to our proactive working with businesses, the community and other stakeholders. Our work has included undertaking pilot studies and projects, encouraging active travel across the borough, implementing

various improvements to the Council's estate through LED light fittings and other energy efficiency savings, installing 2,200 solar panels which generate 565,000 kWh of electricity per year, and supporting community groups in reducing their emissions through community energy installations, home visits and giving energy efficiency advice. Three significant projects that have delivered this level of carbon reduction are highlighted below:

- Haringey's Smart Homes project was delivered between 2013 and 2015 for private homeowners. It was led by Haringey in cooperation with other north London boroughs under the Smart Homes scheme, with ECO funding and £6.5m funding from the Department for Energy and Climate Change (DECC). Grants of up to £6,000 were made available to private homeowners following a Green Homes assessment (with residents contributing at least 25% of the cost). With a value of £1.4m, a range of energy efficiency works were undertaken including internal and external insulation, boiler replacements, double/secondary glazing and draught proofing. With 4,000 expressions of interest, a total of 1,250 grants were awarded. 72 businesses also took part in the equivalent Smart Business project where grants of up to 50% of the cost were awarded. The total Smart Homes programme saving was estimated at 42,338 tonnes of CO_2 (1.05 tCO_2 per household), per annum.
- The Haringey Innovation Hub was awarded £100k by Climate KIC (EU's Knowledge and Innovation Centre) to support new clean technologies from universities and start-ups to reduce carbon emissions. With over 50 technologies reviewed, 15 emerging clean technologies have been developed further for testing in the borough. Some of the designs have included heat recovery from sewers, gas boiler optimisation, combined solar PV & thermal collectors, passive ventilation and pollution reducing pavement. This initiative has since grown to a London-wide Better Futures initiative, a low carbon business incubator hub with the aim to support 100 businesses over the period 2017-2020.
- En10ergy is a social enterprise that was set up by the Muswell Hill Sustainability Group. It aims to promote and invest in local renewable energy and to encourage and facilitate the reduction in carbon emissions and waste by households, businesses and community buildings. The enterprise has grown and delivered significant carbon reduction since its creation. En10ergy works with local households, businesses and schools, and has also been involved in negotiating bulk deals with energy suppliers. With 140 investors, of whom most live in the borough, En10ergy has installed solar PV panels through community share offers in four locations: M&S store in Muswell Hill (100 panels), Methodist Church in Muswell Hill (39 panels), Woodside High School in White Hart Lane (150 panels) and Fortismere School in Muswell Hill (105 panels). In total, their installations are now producing 75,000 kWh per year, having generated 290,000 kWh of energy to date. This is the type of project we need to nurture and grow to realise our carbon reduction targets across the borough.

Although we are on track to meet Haringey's 40:20 target, emissions need to be reduced at a much larger scale to achieve the new target of becoming a zero-carbon borough by 2041 and help the UK to meet the Paris Agreement.

Scope of Emissions within this Action Plan

The Haringey Climate Change Action Plan covers Scope 1 and 2 CO_2 emissions across the borough, as set out by the Greenhouse Gas Protocol. The carbon emissions are categorised into three groups to clarify how the emissions are generated, and who is accountable for these:

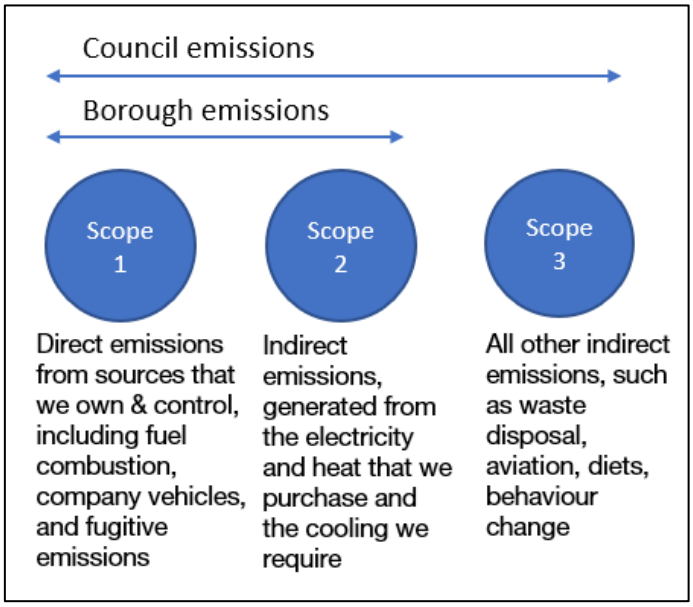

Figure 2: Scope of emissions targeted within this Climate Change Action Plan

To ensure that this Climate Change Action Plan is realistic and measurable, Scope 3 emissions are not included within the borough-wide actions and measurements. The Council is unable to measure Scope 3 emissions across the borough as we cannot access data on how many residents eat meat, buy local products, or fly.

To demonstrate leadership, the Council will include Scope 3 emissions within its own targeted actions. The Council will develop policies around promotion of vegetarian food, local supply chains, and Council flights in response to this challenge. The Council will also develop its own waste management plan for waste it generates itself.

The Action Plan does include actions to influence and educate stakeholders to reduce their wider emissions. However, these emissions are not quantified or measured within the zero-carbon target of this report.

Other sectors have also been scoped out of this report. Aviation and shipping are two large contributors to global carbon emissions; these are not currently accounted for in national emissions and the borough does not contain any ports or airports. Waste is part of the borough's carbon footprint. However, while domestic waste is in the control of the Council and measured by the North London Waste Authority, most of the commercial waste is collected through privately procured companies and the Council cannot obtain this information.

Whilst national targets are set for GHG emissions, in Haringey CO_2 makes up around 85% of total emissions, with methane (CH_4) and nitrous oxide (NO_x) making up the remaining 15%. Targets in Haringey are set for carbon emissions only, however our actions will indirectly reduce other GHGs simultaneously.

Trajectory to Reduce Emissions by 2041

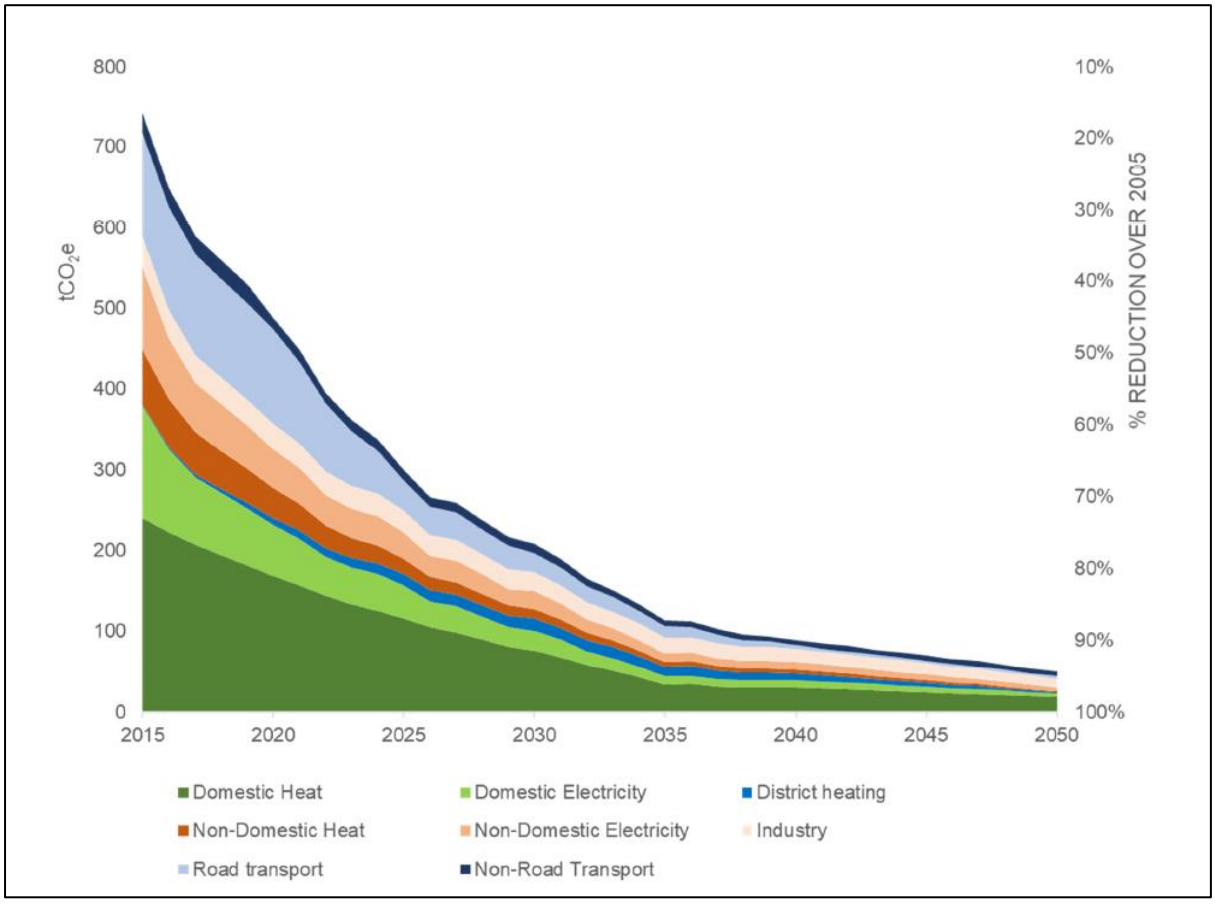

Figure 3. This graph shows the rate of decarbonisation required across the energy sectors. It shows that some sectors, such as domestic energy and road transport, need to decarbonise as soon as possible as these reduction targets are more achievable now with known technology responses. The graph also shows that emissions from road transport is increasing at this time. (Source: ARUP's Climate Action Haringey: Towards a Zero-Carbon Future Final Report, November 2019)

Under the Haringey Climate Change Action Plan, it is estimated that emissions in the borough would be reduced to 100kt CO_2e, a reduction of over 90% from the baseline scenario (Figure 3). While this still is short of net zero, it would represent a considerable achievement and a very great acceleration in the process of decarbonising the UK economy and Haringey's operational carbon footprint. The borough's carbon emission trajectory shown in this report goes only as low as can be achieved given the constraints of the modelling and current government projections for national infrastructure futures. Offsetting and/or carbon capture and storage (CCS) will be required to reach true zero.

Key crosscutting themes have emerged during the development of the Haringey Climate Action Plan which have been embedded in the actions and objectives. These include:

- The scale and impact of the climate crisis requires Haringey to be ambitious;
- Action on climate change at a local level is action for social justice since a changing climate will impact most significantly on those who cannot avoid these impacts;
- Taking action on climate change creates opportunities to deliver wider benefits for health, wellbeing and the local economy;
- This Action Plan is an evidenced-based approach, but the scope of our ambition should also extend beyond what is easily measured by the Council. Many of these factors, such as aviation and food, have a significant impact on climate change, but are not included in this plan;
- Delivery of a target to be net Zero Carbon by 2041 cannot be achieved by the Council working alone. All the borough's stakeholders will need to support this

ambition – residents, businesses and visitors. The Council will need to lobby central government and others to secure the action and investment needed at a national and regional level;

- Achieving a carbon neutral future is as much about culture change as it is about infrastructure. Communication and engagement with stakeholders will be of fundamental importance. To do this in a credible way, the Council must demonstrate leadership in terms of its own estate and operations;
- There are significant challenging issues ahead to address to deliver this carbon reduction ambition. With strong views on all sides. These include addressing emissions from council staff vehicles which are used for service delivery (social workers etc), reducing carbon from staff car parking across the public sector (doctors and school workers etc), and reprioritisation of highways space for active travel and community uses. The Council recognises these challenges and will focus engagement work with those most affected by these challenges, to bring forward solutions.

Structure of the Report

This Haringey Climate Change Action Plan is informed by the recommendations set out by Arup's Technical reports which are published on the Council's web pages. This work was initiated with the ambition of becoming a zero-carbon borough by 2050. This work has been reviewed in light of the Climate Emergency and was concluded with the 'Climate Action Haringey: Towards a Zero-Carbon Future' Final Report, which was finalised in November 2019.

The Haringey Climate Change Action Plan is structured as follows:

- The six focus areas on reducing carbon emissions for the Climate Change Action Plan:
    - Council
    - Housing
    - Workplaces
    - Transport
    - Energy
    - Community.

- Specific sections on Delivering the Ambition:
    - Governance and monitoring
    - Financing
    - Lobbying asks to government and the Greater London Authority (GLA).

Each focus area is set out with a context, overall objective and set of actions.

The Council

Overall Objective: Reduce the operative carbon footprint of the Council to net zero by 2027

The Council's corporate buildings contribute approximately 0.8% of the borough's emissions. The major sources responsible for emissions in the borough are outside the Council's control and will require significant investment and work by private businesses and residents who will need incentives to achieve this. It will also require a greatly accelerated rate of decarbonisation in the national generation of electricity and road transport at a London-wide level. But as a local authority, we recognise that we have a responsibility to take positive action and provide strong leadership on averting the dangerous effects of climate change. This is the reason why the Council will work harder to achieve meaningful carbon reduction within a shorter timeframe.

The Council has set the date for a zero-carbon council at 2027. This will include core council operational buildings and all transport-related activities undertaken by the Council in the delivery of core services. The rest of the buildings from which the Council delivers services and is directly responsible for the energy bills (such as leisure centres, libraries and schools) will be net zero carbon as soon as it is possible. To bring this forward, the Council will publish a work plan for each building or site by the end of 2021, setting out how this can be achieved. To support this, the Council will require new council buildings to be zero carbon on site from the date of adoption of the Action Plan. Alongside these measures, the Council will start delivering a large-scale retrofitting programme across the Council's buildings, while removing carbon from the vehicles delivering front-line services as soon as it can.

The Council will share learning on what works on projects, it will support the supply chain as it develops, seek to attract green investment into the borough, and show leadership in our ambition and delivery. As a publicly funded organisation, we will do this in an efficient, cost effective, and responsible way. In doing this we will deliver the borough's carbon reduction ambition, improve local air quality, and demonstrate strong financial management by reducing the Council's future energy spend.

Historic performance

Haringey Council has made significant efforts to reduce emissions from our estate and operations. In 2008 we undertook our first Carbon Reduction Plan and since then we have reduced our emissions by 36% compared to 2005 levels[1].

The 2008 Plan set out a strategic and planned approach to reducing carbon emissions from our estate and operations. The Plan targeted the areas of the Council's activity which contributed most to our carbon emissions (e.g. swimming pools and leisure centres, car parks, the vehicle fleet, offices, and community centres).

Since Haringey's First Annual Carbon Report in 2011, the Council has undertaken a multitude of climate initiatives. The key measures delivered through the Plan included:

- 0.5MW of solar PV installed on the roofs of Council buildings and schools;
- Boiler upgrades across the Corporate estates;
- LED lighting upgrades in main Council buildings and schools;
- Electric staff pool car and new car club installed and open to all staff;
- Active Travel programmes across the borough including community grants and behaviour change education in schools and community centres;
- Energy improvements included into the specification of refurbishment at George Meehan House; and
- Staff active travel programme.

[1] BEIS data

The Council bought £5.2m of electricity and gas for the corporate estate in 2018/19. This covers energy for schools, corporate buildings (including libraries, mortuaries, park buildings) and operational buildings. It does not include Homes for Haringey. Reducing our energy consumption will improve our environmental performance, and reduce our revenue spend on energy.

Key partners which are required to deliver this vision include providers of currently outsourced services such as Veolia and other members of the Council's supply chain.

Three-Stage Delivery of Zero Carbon Council

To deliver this level of ambition of a Zero Carbon Council, the Council will deliver a three-stage process. Alongside this, we will work to demonstrate a leadership role in reducing the Council's emissions.

As the first stage in this approach the Council has identified its core operational buildings together with the transport emissions from the Council's in-house fleet and the Council will make these net Zero Carbon by 2027.

The Council will transition transport-related activities that are directly related to front-line service delivery (such as Council fleet vehicles) to zero carbon fuels. This will be achieved by reviewing the type of vehicles required to deliver these front-line services, and by working to replace carbon intensive vehicles with active travel options, or zero carbon vehicles where a viable option exists. For in-house fleet this will be delivered by 2027. For out-sourced fleet activities this will be undertaken at each contract renewal, and for staff who use their own vehicles for service delivery the Council will work with them to transition as soon as is feasible. The Council will bring forward a plan for the out-sourced fleet activities by the end of 2021 setting out estimated timeframes.

Secondly, the Council will review all its corporate operations. These cover the buildings that are owned by the Council, buildings from where Council services are delivered, buildings that have Council employees in them, and where the Council pays the energy bills – as well as the activities carried out from these buildings. This will include schools, libraries, leisure centres, depots, adult centres, and children's centres, as well as the Council and Homes for Haringey's offices. However, it will not include Council homes, which are covered separately by this Action Plan. Each one of these buildings will have an individual plan setting out the measures required, and the cost of delivery to get the building to zero carbon. The plans will be in place by the end of 2021.

Each of these buildings will be reviewed in terms of:

a) consuming less carbon in carrying out the operation itself, distinct from the building;
b) improving the energy efficiency standards of the building – double glazing, wall insulation etc.
c) improving current heating and hot water systems to reduce carbon emissions, while improving air quality and operational costs – new boilers, the use of air source heat pumps etc.
d) reviewing and maximising the delivery of renewable energy generation in each building – solar PV panels, solar thermal panels, heat pumps, etc.

Through reviewing and working to implement measures on the Council's buildings, the consumption of each building will be significantly reduced. To achieve the net Zero Carbon standard, all remaining energy required (gas and electricity) for the building will be purchased from a certified Green Energy Supplier. To demonstrate true additionality of renewable energy generation, the Council will work with other authorities across London to develop a business case for a Power Purchase Agreement (PPA) with the opportunity for direct investment in renewable generation.

Any Council new build projects that the Council delivers for schools and operational use will be designed and constructed to be Zero Carbon on site and maximise renewable energy generation. This is already being designed into new buildings and planned to be delivered on sites such as the new council depot at Marsh Lane, and the redevelopment at Osborne Grove Nursing Home.

After 2027, the final stage will be to offset the remaining carbon emissions from the core front-line buildings, transport, and any other services that emit carbon for legal reasons (such as flights) with local schemes with a verified addition carbon reduction. These will be projects that have not yet identified funding and would not happen without this funding.

The Council will report on this in the Annual Carbon Report, which is required in the Council's Constitution. The report will highlight the work that the Council has done, alongside stakeholder projects.

Council Actions

Objective C1 – Work towards a zero-carbon footprint of the Council in its operational buildings (not including housing or commercial property) and transport, with core council buildings being net zero by 2027. The Council's corporate buildings contribute approximately 0.8% of the borough's emissions. The Council has full control of these and will lead by example to be zero carbon as soon as it can for the whole stock, but core buildings and all transport emissions by 2027.			
Action Owner	Property Services / Carbon Management		
Cost	In order to build to a zero-carbon specification, new corporate buildings across our corporate estate are likely to increase in the magnitude of <5%. Refurbishments to corporate buildings will be considered on a case by case basis as part of the Council's review process. Energy prices are currently volatile. It is expected that by 2025, the price of electricity will be between 11% and 67% higher based on 2018 prices, and in relation to gas the price variance could see an increase of 55% based on 2018 prices. Switching to a Green Energy Supplier for electricity across the Corporate Estate has already been agreed within the current contracts and will only increase bills by 0.3% (£17k) in year 1.		
Measurable metrics (Source)	• Annual utilities (Elec & Gas) consumption data and % green energy supplied • kW annual electricity generation on Council-owned properties		
Potential carbon reduction	Significant in terms of the Council's performance, and leadership role. But the Council's corporate buildings and schools only account for approx. 0.8% of the borough's overall carbon footprint.		
Action	**Deadline**	**Action owner**	**Notes**
For the Council's core operational buildings and all transport related activities for service delivery to be net zero carbon.	By 2027	Carbon Management / Strategic Property Unit	Funding in place for Action Plan. Business case to be developed and funded.
For the Council to move to 100% green tariffs (electricity and gas) by 2027.	By 2020 (elec.) By 2025 (gas.)	Carbon Management / Strategic Property Unit	Delivered by energy efficiency and green tariffs (+0.3% on elec.) there is increasing demand from the schools to switch.
To develop a Power Purchase Agreement (which would mean direct investment in renewables) with an energy supplier for the Council's Electrical needs.	By 2025	Carbon Management	Through organisations such as the London Energy Project.
Deliver a net Zero Carbon Action Plan for all corporate buildings (including schools and leisure centres). Start to deliver measures based on the local business cases.	By 2022	Carbon Management	This will be picked up as it is a requirement secured in the new energy contracts.

All new Council corporate building projects to be zero carbon or carbon positive on site. And that the Councils New Ways Of Working (NWOW) incorporates carbon reduction as a key objective.	From 2020	Carbon Management / Property Services	
All refurbishments of council buildings to maximise opportunities for carbon reduction, through lean, clean, green and seen measures, targeting an EPC B standard.	From 2021	Carbon Management / Strategic Property Unit	
For all new build and major refurbishments to include a 'real time' usage and generation display in reception areas.	Ongoing	Carbon Management / Strategic Property Unit	New build monitoring is required by the new London Plan. This is key for awareness and cultural change.

Objective C2 - To reduce the carbon emissions from the council fleet and service required transportation through active travel and electric vehicle initiatives and for the fleet to be zero emission by 2027 Zero emission vehicles, including two-wheeled transport, should be prioritised when procuring new fleets. This should be supported by high quality facilities for active travel users.			
Action Owner	Carbon Management / Fleet Management / HR / Parking		
Cost	Business cases will be made on the Corporate Fleets and the switch to EVs. Although active travel infrastructure may increase costs, a healthier work force would be delivered with active travel.		
Measurable metrics (source)	• Number of Council staff and teacher permits issued • % of staff taking active travel options to work (Staff Travel Survey) • Number of vehicles and % of zero emitting vehicles in the Council Fleet		
Potential carbon reduction	Small, but will also deliver significant air quality improvements and a healthier work force through active travel options.		
Action	**Deadline**	**Action owner**	**Notes**
To annually review, update, and promote the Active Travel Plan to all staff.	Ongoing	Active Travel / Carbon Management	
Deliver new accessible cycling and shower facilities in all new council build projects for staff.	From 2020	Carbon Management / Strategic Property Unit	
To continue the delivery of a cleaner and a zero-emission fleet for all in-house vehicles. And to support staff who use vehicles for service delivery to transition to Zero Carbon vehicles as soon as possible.	By 2027	All Services	In line with the Ultra Low Emission Vehicle Action Plan.
To review all staff parking provision. With the objective of improving air quality, delivering carbon reduction and more public space. And work with staff to increase active and zero carbon transport outcomes.	By 2021	Parking / HR	This strategy will be underpinned by engaging with staff members on why people drive to work, how they choose to travel can change and what the impacts will be.
No new car parking in Council Buildings, except for key users (Blue Badges) and deliveries.	From 2020	Strategic Property Unit	To review the key users list by removing teachers.

All parking bays on the corporate estate to include fully accessible charging infrastructure for electric vehicles and e-bikes.	From 2020	Strategic Property Unit / Parking	
Review essential car users' criteria and support these staff members to transition to zero-emitting vehicles for business use.	From 2021	Carbon Management / HR	Discussions have been held with some essential car users in the Council. To increase the rate of transitioning to zero-emitting vehicles (pool vehicles, grant/loan schemes etc)

Objective C3 - To reduce the carbon emissions from the wider aspects of the Council's operations and investments The Council's wider impact is significant to leading by example, and to influence our partners to implement change.	
Action Owner	Finance / HR / Carbon Management
Cost	Projects may increase in capital costs, but often deliver revenue savings. To be assessed on a case by case basis.
Measurable metrics	• % of key decisions that have considered carbon reduction • % of the Council finance portfolio investing in low carbon investments
Potential Carbon reduction	Significant, as the Council investments (such as pension) have the potential to help grow the low carbon industrial sector and reduce indirect Council emissions.

Action	**Deadline**	**Action owner**	**Notes**
To continually review Council investments, and to reduce risk by moving investments to low-carbon and renewable investment schemes where this is consistent with our fiduciary duty.	Ongoing	Finance / Carbon Management	The Council already has 70% invested in Low Carbon investments.
Promote vegetarian foods through meals procurement and cafes that the Council lets.	From 2020	Procurement / Carbon Management	Subject to approval by the service area.
For the Council and public bodies to support the local supply chain, including food suppliers, and other businesses as part of carbon reduction programme	From 2020	Procurement / Carbon Management	Subject to approval by the relevant service area. Supports local wealth agenda.
Promote vegetarian food that is locally produced at Council events through our procurement strategies	From 2021	All Services / Procurement	
To include carbon reduction as a core requirement in all procurements.	2020	Procurement / Carbon Management	This is included in the social value tool kit and where appropriate will be a contractual obligation.
Ensure all projects and programmes have considered carbon during their design, and that all projects and programmes over £1m deliver a carbon reduction.	2020	Finance / Carbon Management / Projects	
Promote the Council's policy of flights only being allowed for key services (such as coroners, social workers etc.).	2025	Finance / Carbon Management / HR	Policy: **No flights** may be booked for destinations served by rail (including Eurostar).

Objective C4 - To increase awareness and empower staff to take positive carbon reduction decisions

Awareness raising is vital for staff to take ownership of, and deliver, carbon reduction initiatives, as well as to instigate behavioural change.			
Action Owner	HR / Carbon Management / Staff		
Cost	<£5k and existing staff time		
Measurable metrics	• Number of staff events focused on sustainability each year		
Potential carbon reduction	Medium. Many staff are local residents, and this has the potential to engage and support wider stakeholders through action and information. It increases ownership of the agenda issue throughout the organisation.		
Action	**Deadline**	**Action owner**	**Notes**
Work with HR and the Unions to include environmental standards (like equalities) within all staff job descriptions and contracts.	2020	Carbon Management / HR / Unions	
Deliver training and guest speaker events on carbon reduction in life / work choices.	From 2020	Carbon Management	This will form part of the initial engagement period in 2020 and continue from the adoption of the Action Plan.
Work with the staff networks and Unions to promote environmental schemes and programmes.	From 2020	Carbon Management / HR / Unions	
Monitor and publish our performance on carbon reduction in the Annual Carbon Report.	2021	Carbon Management / Comms	This has been published annually since 2011 and will be adapted to include performance on carbon reduction against the Action Plan.
To develop and deliver a Council waste management plan. To reduce resources consumption and increase recycling levels.	By 2021		This supports the emerging Single Use Plastic Policy and new ways of working.

Housing

Overall Objective: Achieve an EPC B on average in all in domestic buildings by 2041

The borough's homes make up 50% of the borough's total carbon emissions, through electricity demand and heating requirements. This is by far the biggest sector we need to target if we are to deliver our borough Zero Carbon ambition. New homes are an opportunity for the adoption of best practice, and can minimise emissions easily as they are often built to a high standard. The bigger challenge, technically and financially, is the ability to reduce emissions within the existing building housing stock. Although the cost of action is expensive, analysis shows that over the same time period it is only slightly more than the cost of business as usual.

The Council owns approximately 17 per cent of the borough's housing stock, which is managed by Homes for Haringey. These homes amount to approx. 7-8% per cent of the borough's total emissions. The Council can deliver projects to reduce these emissions to benefit the residents in these homes. The challenge lies where the Council has a more constrained influence within the wider borough stakeholders – landlords and private homeowners. The Council needs to be supported by regional and national government to increase our influence, both with legislation and funding opportunities to help residents bring forward positive measures. In response to this, the Council will lobby relevant bodies will reflect these barriers and work in partnership with homeowners to encourage and enable action.

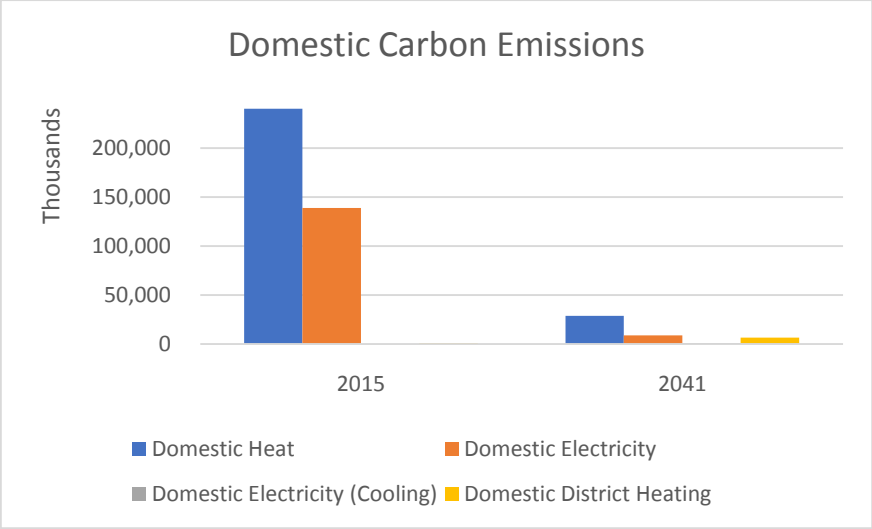

Figure 4: Domestic carbon emissions, comparing emissions in 2015 and 2041. It shows that half the emissions in 2015 came from domestic heating (240,000 kilo tonnes (kt) of CO_2). This needs to be reduced drastically to 28,000 kt CO_2 in 2041, when it is expected that half the domestic emissions will still be due to heating homes.

Historic Performance

The Council's capacity to improve social housing has been demonstrated by the Decent Homes programme improvements to 11,000 homes over a ten-year programme to ensure that homes met the minimum comfort, and health and safety standards set out by the governments' Decent Homes criteria. Emission savings associated with interventions, such as boiler replacement, insulation and double glazing, are estimated to be approximately 5,000 tCO_2/year.

Housing Challenge Ahead

The majority of existing homes in Haringey will still be standing in 2041, with current UK estimates showing that 80-85% of homes in the UK will still exist in 2050. Currently, homes

in the borough have an average Environmental Performance Certificate (EPC) of D (see Figure 5). To achieve significant reductions in people's heating, electricity and cooling use, we all need to undertake deep retrofits across our homes, ensure all new homes[2] are built to zero carbon standards, and focus on changing people's energy behaviour.

Whole-home deep retrofits will include insulating walls internally or externally, upgrading all windows and doors, insulating roofs, floors and heating systems, upgrading ventilation systems and connecting homes to low carbon heat and electricity sources. When retrofits are completed, installers need to explain how heating and ventilation systems operate (ideally through web links to hand over to future residents) and highlight how to reduce energy use. Potential financial models to help residents to fund their retrofit interventions will be investigated.

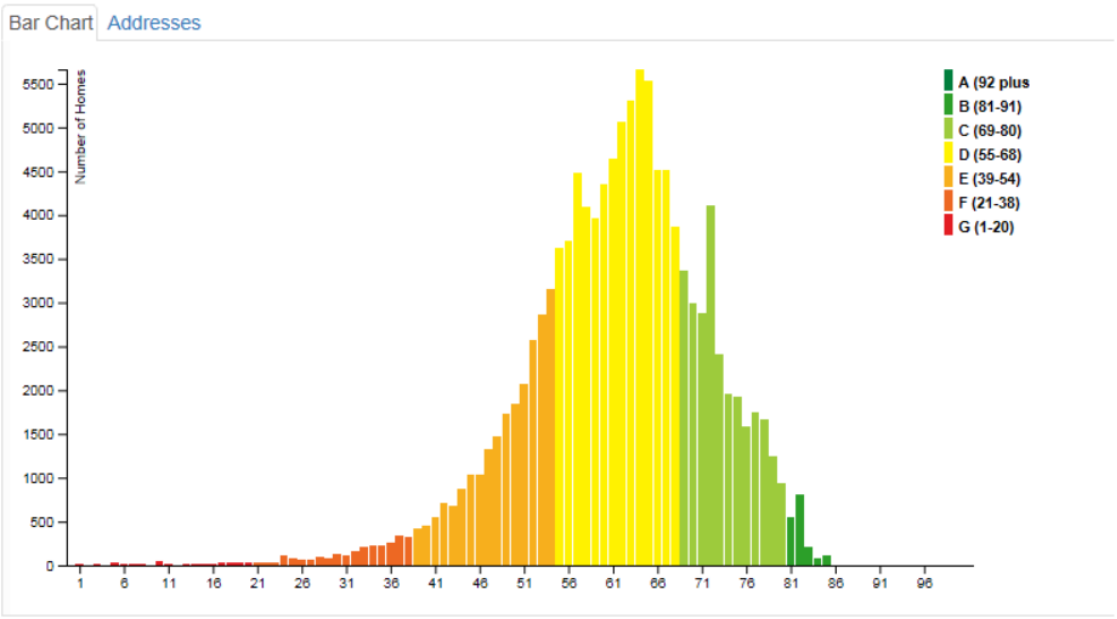

Figure 5: Chart showing the spread of energy performance data of all homes in Haringey (Source: EPC data from CROHM Parity Projects database). Only a small proportion of homes have an EPC of B or better, with the majority of homes achieving EPC D.

The Council will work with key partners to deliver the housing targets, including Homes for Haringey, housing associations, landlords, and private homeowners.

Housing Actions

Objective H1 - Programme of deep retrofitting 1,300 council-owned homes per year to achieve an average of EPC of B by 2035. Council-owned housing equates to approximately 8% of the borough's emissions. However, the council has direct influence over these emissions.	
Action Owner	Property Services / Carbon Management / Housing / Homes for Haringey
Cost	HRA capital funding of £101m was agreed by cabinet in February 2020, covering the cost for the Affordable Energy Programme to bring all council-owned properties to EPC C. Further work and funding will be required to cover retrofitting properties to EPC B.
Measurable metrics	• % of council-owned housing units at or above EPC B
Potential	Significant. By 2035 Council housing retrofits to have reduced energy use in

[2] The London Plan target for Haringey is to build 52,000 homes by 2050. The next ten years we will need to build 1,502 homes per year (Policy H1, New London Plan).

carbon reduction	these homes by 68GWh per year, compared with 2015, delivering an average reduction of 20% per property.

Action	Deadline	Action owner	Notes
Implement estate-wide pilot scheme of at least 150 homes with the ability to be replicated and scaled up to reach peak installations of 1,300 homes per year by 2035. Integrate a post-retrofit handover to train users on how to use their home the most efficiently.	By 2023	Carbon Management / Housing / Homes for Haringey	Develop a model that can deliver quick and significant energy improvements and use Decent Homes programme as a basis.
Review contract KPIs and programme to integrate ambition for an average of EPC B into maintenance and regeneration programmes. Improve all existing housing stock bought by the Council to EPC B before occupation of these units.	2025	Carbon Management / Housing / Homes for Haringey	
Work up a delivery plan to achieve an average of EPC B rating for all council-owned residential properties by 2035, reviewing void strategies, existing EPC data from CROHM tool.	By 2022	Carbon Management / Housing / Homes for Haringey	Use data from CROHM tool by Parity Projects with input from Homes for Haringey, due to be ready end of November 2019.
Set up a follow-up delivery plan to retrofit council-owned housing up to EPC A by 2041, where practically feasible.	2041	Carbon Management	Relies on future technologies to retrofit, no costing has been undertaken for this.

Objective H2 – Deliver a net zero carbon housing portfolio for the first Council new build homes delivered by 2022.

The Council has direct influence over these emissions and should therefore ensure that these homes are zero carbon upon completion.

Action Owner	Carbon Management / Housing
Cost	It is estimated that to deliver zero-carbon units range between 3.6-6.8% above baseline of delivering a business as usual with gas boilers scenario. Long-term savings for occupiers would reduce risk of debts occurring.
Measurable metrics	• Average SAP score of Council new housing portfolio
Potential carbon reduction	Delivering new build schemes to the zero-carbon standard would deliver a 65% reduction in carbon emissions compared to the current benchmark of a 35% improvement to Building Regulations.

Action	Deadline	Action owner	Notes
Develop a Council Standard Housing Design Guide, setting out sustainable design including carbon reduction principles.	By 2020	Carbon Management / Housing	
Embed carbon reduction as an essential criterion within all tenders in the house building programme.	By 2021	Carbon Management / Procurement / Housing	Through the social value tool kit and liaison with the service areas, this will be embedded within all appropriate contracts.
Reduce carbon emissions in council-bought new build properties to 100% improvement on Building Regulations Part L, where feasible.	By 2022	Housing / Carbon Management	
Monitor energy performance and occupancy in all Council new build properties to review and inform future zero-carbon house building portfolios and tenants.	From 2025	Housing	

Objective H3 – Provide technical advice on energy efficiency to 6,000 fuel poor and able-to-pay domestic property owners and occupiers per year to support Objective H4. Separate approaches and funding mechanisms would be required to effectively support both fuel poor and able-to-pay residents.			
Action Owner	Carbon Management		
Cost	There would be no capital or programme costs by the Council. The engagement with approx. 86,000 households should be done at a regional level, and it should be designed with the GLA. This action will be supported by the work currently being undertaken by the Council in partnership with Parity Projects in a scheme funded by the Department of Business, Energy and Industrial Strategy to increase retrofit uptake in the able-to-pay market through support for supply chain co-ordination.		
Measurable metrics	• Number of training/advice sessions per year • % of homes engaged with through home visits		
Potential carbon reduction	Reduced energy costs delivering 260GWh/year reduction in energy consumption by 2035 if all non-council owned homes are improved to EPC C, equal to 16% of domestic energy demand in 2015.		
Action	**Deadline**	**Action owner**	**Notes**
Lobby the GLA to coordinate London-wide provision of technical energy efficiency advice (to achieve delivery of advice to 6,000 private households per year across Haringey).	2020	Carbon Management	
Analyse the CROHM tool by Parity Projects to understand the potential range of improvements required to be undertaken by private homeowners.	By 2021	Carbon Management / Housing	Data on private homes includes actual EPC data and estimates for similar properties without EPCs.
Develop homeowner guidance to advise on domestic improvements required to reach EPC B, and specifically develop guidance for retrofitting heritage assets.	By 2025	Housing / Carbon Management / Heritage	Link to Parity projects.
Support 'smart retrofit academies' to train local builders and apprentices in retrofit techniques for modern and old buildings, digital innovations and natural building materials. Reskilling as existing carbon related jobs decline.	By 2025	Economic Development	To be put into Economic Development Strategy.
Deliver external training sessions for homeowners and aim to reach at least 37,000 homes by 2026, targeting a mixture of unit and tenure types.	By 2026	Carbon Management / Housing	Partner with local initiatives such as RetrofitWorks, and SHINE London.

Objective H4 – Provide and identify funding assistance to support delivery of improvements in privately-owned residential properties. Separate approaches and funding mechanisms would be required to effectively support both fuel poor and able-to-pay residents.	
Action Owner	Finance / Regeneration / Carbon Management / Borough Stakeholders
Cost	To attract this level of funding for private homeowners, the Council would need to coordinate private-sector funding and work up business cases for external funding, loans and investment. External capital cost of £660m (average of £7,700 per property) would be required for privately-owned properties.
Measurable	• Number and value of grants and/or loans awarded by the Council to

metrics	homeowners • % improvement on EPC score and reduction in energy by residential property following grant
Potential carbon reduction	Minor but needed Reduced energy costs delivering 260GWh/year reduction in energy consumption by 2050 if full retrofit of private housing sector is achieved. This represents 16% of domestic energy demand in 2015.

Action	Deadline	Action owner	Notes
Lobby government to: - increase homeowner funding to retrofit their properties to EPC B; - cut VAT on refurbishment, repair and maintenance from 20% to 5%.	2020	Carbon Management	
Identify external funding streams and help the bidding for funding to enable delivery of EPC B across all existing housing stock.	From 2020	Finance / Carbon Management / Housing	
Build internal business cases to embed carbon reduction in all Council projects to deliver EPC B.	2023	Procurement / Finance	Strategic Procurement will review business cases to ensure this has been considered.
Advertise funding and loan opportunities to individuals and stakeholder groups.	2025	Housing / Carbon Management	
Partner with external parties to help deliver larger scale retrofit projects across the private sector.	2025	Regeneration / Housing / Procurement	Such as RetrofitWorks and housing associations.

Objective H5 – Develop an enforcement framework of national regulations

Having a clear framework of national regulations and enforcement mechanisms are key to delivering objectives in the housing sector. This is especially important as the objectives set out in this Action Plan are more ambitious than that set at regional and national level.

Action Owner	Environmental Health / Building Control
Cost	New Government ask of £140k to fund identification of non-conforming properties and an enforcement strategy. This includes the ability to enforce fines that cover costs. External capital cost to improve failing properties is £320m to be paid for privately to retrofit 43,000 privately rented homes (which is a proportion of the £660m estimate for all private homes in H4).
Measurable metrics	• Number of non-compliant private residential properties enforced and resolved • Number of people who have attended training events for estate agents and landlord associations per year
Potential carbon reduction	Energy efficiency works in the private rented sector to bring all properties up to a high EPC C could deliver 120GWh of energy savings.

Action	Deadline	Action owner	Notes
Lobby national government to: - Enable Councils to recharge the true costs of enforcing this legalisation; - revise minimum EPC rating required at point of sale/let to EPC B by 2035 (current requirement is EPC E).	2020	Carbon Management	Can use benefits and existing data on how energy efficiently is delivered.
Develop approach to identify non-compliant properties and target these properties to comply.	2021	Environmental Health / Building Control	Initial analysis of CROHM tool to inform approach.
Identify penalties and incentives for landlords to comply with legislation.	2021	Carbon Management / Building	Review against the cost to retrofit properties.

		Control	
Organise training events for estate agents and landlord associations on EPC requirements and how to advise landlords to retrofit.	2022	Carbon Management / Housing	

Objective H6 - Achieve zero carbon in new and redeveloped homes on site. Ensuring new homes are built to the highest fabric and energy efficiency standards the first-time round, will circumvent these homes needing to be retrofitted in the future.	
Action Owner	Carbon Management / Planning Policy
Cost	<£10k gathering evidence, specific campaigns etc (to be funded through the Local Plan review funding). This action requires reprioritisation of existing work programmes to enable delivery.
Measurable metrics (Data Owner)	• Average % of carbon emissions saved on site in residential schemes permitted per year
Potential carbon reduction	Significant. Reduced energy costs in operation and avoided cost of future retrofit works.

Action	**Deadline**	**Action owner**	**Notes**
Lobby national government and GLA to: - Improve fabric requirements in Building Regulations Part L beyond October 2019 proposals, before 2025, which requires carbon emission modelling software in new developments; - Remove VAT on refurbishments; - Change policy to allow for energy efficiency measures to be installed in buildings in conservation areas.	2020	Carbon Management	To update existing SAP modelling which does not accurately represent carbon emissions in developments.
Deliver training for planning staff and proactively engage in the planning process to deliver policy requirements.	2021	Carbon Management	Supporting carbon reduction across all applications.
Produce new planning guidance on overheating, green roofs and on-site carbon reduction measures, and update the Sustainable Design and Construction SPD.	2021	Carbon Management / Planning Policy	Within remit of existing Carbon Management staff.
Update the cost of carbon to a price that incentivises on-site reduction and review every 2 years.	2020	Carbon Management / Planning Policy	First review to take effect in 2020.
Review existing Conservation Area boundaries and update conservation area design guides that enable more carbon reduction measures to be installed sensitively.	2021	Carbon Management / Planning Policy	
Set ambitious carbon reduction planning policies in forthcoming Local Plan reviews.	2022	Carbon Management / Planning Policy	Subject to any changes to Building Regulations implemented at national level that may restrict local powers to set higher standards.

Non-Domestic Building and Workplace Emissions

Overall Objective: Achieve an EPC B on average in all in non-domestic buildings and reduce business related carbon emissions.

Similar to the domestic sector, carbon emissions from businesses in Haringey are mostly related to the buildings they occupy. Most of non-domestic buildings are commercial buildings owned and managed by private landlords. Another challenge for the borough is that most of Haringey's businesses are micro- and small businesses meaning that these organisations often have limited resources to deliver action.

The emissions from non-domestic buildings are primarily those from heating and lighting buildings. These are responsible for just over 20% of the emissions in the borough.

'Process emissions' from industry are the emissions associated with fuel and energy used by businesses for industrial and manufacturing processes (i.e. the other energy they use that is not for heating and lighting the buildings they occupy). These are accounted for separately in the data and make up a small proportion of emissions in the borough, reflecting that Haringey does not have heavy industrial activity within the borough.

The Council can directly influence businesses in properties which we own, by implementing energy efficiency measures. We can also work with the largest emitters in the borough (Alexandra Palace, Wood Green Mall, the Crown Court, and Tottenham Hotspur Stadium) to work together to mitigate their emissions.

The actions focus on refurbishing existing buildings, energy supply choices, and behavioural changes within the workforce and high standard new buildings.

Workplace Actions

Objective W1 – Target all businesses to increase prioritisation of carbon emission reduction in commercial decision making and facilitate a retrofit program by 2025 (approx. 11,750 businesses). The majority of businesses in Haringey are micro-businesses, sometimes meaning that carbon reduction is not a priority. This action sets out to aid businesses to consider carbon reduction initiatives and the economic benefits of doing so.			
Action Owner	Carbon Management / Property / Economic Development		
Cost	Capital cost of £100m to be funded and spent externally to deliver the necessary retrofits in privately-owned non-residential buildings at a rough average of £22,000 per property (across roughly 4-5 different typologies). Additional funding may be required to cover the cost of technical studies and project development assistance.		
Measurable metrics	• Number and value of grants and/or loans awarded by the Council to businesses • Amount of engagements per year (new businesses, and repeat engagements) • Average EPC score across all commercial properties in the borough (dependent on how the London Building Stock Model is developed and when it is launched)		
Potential carbon reduction	Medium but significant wider impact to help businesses become more efficient and reduce running costs. Retrofit activities in small, medium and large enterprises in the borough could deliver up to 140GWh/year of savings by 2050.		
Action	**Deadline**	**Action owner**	**Notes**
Lobby government to require EPC B for all commercial properties by 2035.	2020	Carbon Management	To be required for any commercial properties that are let or sold.

Embed carbon reduction requirements within all Council engagement with businesses.	2022	Regeneration / Business engagement	
Educate businesses and retailers in their role in addressing climate change. Develop guidance on integrating reduction of carbon emissions within commercial decision making.	2024	Economic Development / Carbon Management	
Identify external funding sources for non-domestic properties and manage distribution of funds by grouping similar retrofit interventions.	2024	Finance / Economic Development	Tie into community wealth building principles.

Objective W2 – Engagement with ten of the borough's largest emitters to enable and support large-scale projects and high-profile action.

Working with the largest emitters in the borough can make a significant impact in a relatively short period of time, especially as these businesses are likely to have the financial capacity to implement change.

Action Owner	Carbon Management / Businesses
Cost	<£5k and existing staff time to promote and engage with the big emitting businesses
Measurable metrics	• How many businesses set targets to reduce emissions and improvement in EPC rating (every 5 years)
Potential carbon reduction	Significant with up to 65GWh/year that would be delivered by retrofit of all large enterprise premises.

Action	Deadline	Action owner	Notes
Identify the largest ten carbon emitters within the borough, understand their priorities and business drivers.	2021	Carbon Management	Use results of Energy Savings Opportunity Scheme (ESOS) and EPC database to inform this work.
Help largest emitters to understand the risks of increasing energy costs and to agree targets to reduce carbon emissions through behavioural changes and retrofitting their properties. Local business cases will have to be made with them.	2021	Carbon Management / Economic Development	To start this work during the engagement period in 2020.
Encourage the businesses to commit to sustainable business practices (such as signing up to renewable energy, choosing sustainable suppliers etc).	2023	Carbon Management / Economic Development	
Deliver a local energy fund to encourage these companies to fund local carbon offsetting of their emissions on flights or carbon emissions.	2023	Carbon Management / Stakeholders	

Objective W3 – Engagement with public bodies to support energy efficiency improvements in health and education public buildings across Haringey by 2034.

Public buildings larger than 250 m^2 are required to have a Display Energy Certificate (DEC). The DEC register provides a ready list of buildings to target. As a public body, the Council is well positioned to connect with other public sector organisations within the borough and encourage change.

Action Owner	Social Care / Education / Energy and facility managers of public buildings if in-house
Cost	External £10-12m capital cost to be secured by public bodies for retrofit of health and education-related buildings (high-level estimate). Government will be lobbied to commit to this cost.

Measurable metrics	• Average operational rating (DEC) across all public buildings per year
Potential carbon reduction	Full retrofit of the sector could reduce energy consumption by around 28GWh/year.

Action	Deadline	Action owner	Notes
Lobby government (Department for Education, NHS) to ringfence funds to pay for creating a Zero Carbon Action Plan for all schools (see Action C1) and fund delivery of energy efficiency measures in all health and education buildings to EPC B.	2020	Carbon Management	The funding could be in the form of a loan scheme (based on infrastructure pay-back terms).
Support public bodies to set targets to deliver energy efficiency improvements and provide technical guidance.	2029-2034	Carbon Management	
Enable pooling of projects and resources to reduce the cost of retrofit activities.	2034	Carbon Management / Procurement	Strategic Procurement will closely work with key stakeholders on a case by case basis to explore these outcomes.

Objective W4 – Reduce carbon emissions by bringing all existing council-owned commercial assets to an average of EPC B or better by 2035.

The council has responsibility for a significant number of buildings in the borough, either through ownership and/or operation and has a responsibility to lead by example.

Action Owner	Property and facilities management / Commercial lettings / Landlord and Tenant Functions (Commercial)
Cost	Programme delivery covered by the existing Council property management teams. Business cases will be made on a case by case basis. The retrofit works need to be aligned with the maintenance and repair programme.
Measurable metrics	• Average EPC score across all Council-owned commercial properties • % of contracts of Council-owned commercial properties including a carbon reduction clause
Potential carbon reduction	Significant and reduced energy costs for the occupiers of council commercial units. Opportunity to increase rents for a better unit.

Action	Deadline	Action owner	Notes
Require all Council operators to report energy consumption data year on year. Set energy reduction targets in operating contracts, such as for leisure centres.	2022	Property Services	Targets can be set into new contracts or contracts up for renewal.
Specify scope of works required to reduce energy consumption in all commercial council-owned buildings to EPC B by 2035 (approx. 1,200 units across around 640 assets).	2022	Carbon Management / Property Services	Discussions have already been occurring between Carbon Management and Property Services on specific properties.
Group types of Council supply chain contracts and set out new carbon reduction clauses.	2022	Procurement / Carbon Management	To set a contract value threshold for this clause by type of contract.
Deliver Action Plan to improve properties and future lease conditions within the Council's commercial let portfolio, mapping out future purchasing and selling requirements.	2025	Property Services	Using the Asset Management Plan to inform this process.

Objective W5 – Achieving zero carbon in all new build non-residential developments It is expected that there will be a need for an increase of over 20% in the commercial and non-domestic floorspace in the borough by 2050 (GLA - London wide average). This is a considerable opportunity to limit additional emissions from new developments.	
Action Owner	Planning policy / Carbon Management / Development Management / Housing / Regeneration / Businesses / Developers
Cost	No additional cost to the Council, some additional cost to developers.
Measurable metrics	• Average % of carbon emissions saved on site in non-residential schemes permitted per year
Potential carbon reduction	This is medium to significant depending on the industry / non-domestic users' profile. Reduced cost in operation and avoidance of future retrofit costs.

Action	**Deadline**	**Action owner**	**Notes**
Lobby national government and GLA to improve fabric requirements in Building Regulations Part L beyond October 2019 proposals, before 2025.	2020	Carbon Management	To update existing SAP modelling which does not accurately represent carbon emissions in developments.
Deliver training for planning staff and proactively engage in the planning process to deliver policy requirements.	By 2021	Carbon Management	
Produce new planning guidance on overheating, green roofs and on-site carbon reduction measures, and update the Sustainable Design and Construction SPD.	By 2021	Carbon Management / Planning Policy	Within remit of existing Carbon Management staff.
Update the cost of carbon to a price that incentivises on-site reduction and review every 2 years.	Starting in 2020	Carbon Management / Planning Policy	First review to take effect in 2020.
Review existing Conservation Area boundaries and update conservation area appraisals and management plans that enable more carbon reduction measures to be installed sensitively.	From 2021	Carbon Management / Planning Policy	Within the lobbying ask.
Set ambitious carbon reduction planning policies in forthcoming Local Plan reviews.	In line with local reviews.	Carbon Management / Planning Policy	Subject to any changes to Building Regulations implemented at national level that may restrict local powers to set higher standards.

Objective W6 – Supporting local business reduce their wider carbon emissions The businesses of the borough can reduce their carbon footprint through using local supply chains, promoting active travel for their staff, and choosing lower carbon products.			
Action Owner	Carbon Management / Regeneration / Businesses		
Cost	Minor additional cost to the Council, but will align with existing regeneration programmes		
Measurable metrics	Number of businesses engaged on carbon reduction projects		
Potential carbon reduction	This is minor but this depends on the businesses level of engagement. Reduced cost in operations and positive public relations for the businesses.		
Action	**Deadline**	**Action owner**	**Notes**
For the Council to signpost and advise businesses on their role in carbon reduction. Promoting positive action through operations and supply chains. Enabling businesses to use local supply chains and increase community wealth building.	By 2021	Carbon Management / Regeneration	This aligns with the work around the long-term sustainability of the High Street. And promote Community Wealth Building.
To encourage businesses to switch to green energy suppliers	From 2020	Businesses	
For businesses to promote their low carbon credentials.	From 2020	Businesses	There are several businesses across the borough that promote their work on this.
Promote Active Travel to businesses	From 2022	Carbon Management / Regeneration / Businesses	

Transport

Overall Objective: Reduce emissions from road transport by growing public and active travel options and infrastructure, to enable a reduction of all petrol and diesel journeys of 50% by 2024

Transport is the third largest source of emissions in the borough, and private transport is associated with poor air quality, noise, social isolation, and health issues within the borough. Whilst low carbon forms of motorised transport do exist, there are still air quality issues associated with these solutions (e.g. tyre wear and braking). Furthermore, congestion issues are not solved by making every car electric. For these reasons, the Council will prioritise investment and delivery of public and active transport modes.

Cycle sharing, cycle infrastructure, parking restrictions, walkable streets, pedestrianisation and prohibition of vehicle use in some contexts can all help deliver a mode shift for the borough. Research indicates strongly that the best way to stimulate an uptake in walking and cycling (and a reduction in car use) is through a complementary package which includes both hard (new cycle lanes and bike storage) and soft (cycle training) measures. In Haringey, parking management and control schemes such as Controlled Parking Zones (CPZs) have helped to reduce the number of non-local cars (commuters and shoppers) in the borough. Across London similar schemes have helped to improve air pollution, access and accessibility and promote the local economy[3].

There are some limitations to addressing transport emissions. It is a complex issue due to the transience of journeys and the fact that journeys are not necessarily contained within the borough. Journeys may start and finish outside Haringey. In addition, TfL has a high degree of control over public transport and key road networks, leaving the Council with more limited influence. To manage these in a strategic manner will require the Council to work closely with TfL and our neighbouring boroughs.

Many of these actions are economically prudent (such as car clubs and active travel), create better neighbourhoods and are being practised elsewhere in the UK. But rarely all at the same time and in the same place. Furthermore, to deliver these will require a significant change in our behaviours and use of private combustion vehicles.

This does not mean that the borough cannot set itself ambitious targets of shifting to cleaner, greener mobility solutions. Under the Climate Emergency Scenario, the number of journeys made by petrol and diesel vehicles need to decrease at a much faster rate than the 2050 Scenario: the number of petrol and diesel journeys need to be halved by 2024, compared with 2032 under the 2050 Scenario. The intention of this is to decrease emissions at a faster rate, as this will reduce carbon quicker and deliver a better highways environment faster alongside improved connectivity and air quality, the Council has the power to reduce these emissions through CPZs, reallocation of road space, prices of parking permits and electric vehicle charging deployment. It is therefore technically easier to mitigate these emissions than in other sectors and actions, such as retrofitting homes.

[3] 'Benefits of Parking Management in London' (August 2018) by Integrated Transport Planning Ltd.

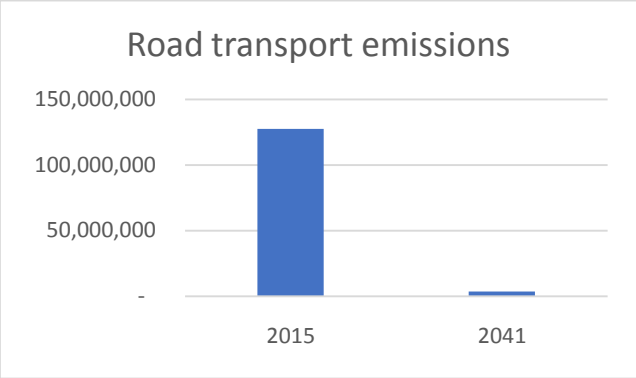

Figure 6: Chart showing transport-related emissions in 2015 and 2041. In 2015, 127,637,566 $ktCO_2$ was emitted; the ambition for 2041 is 3,808,360 $ktCO_2$.

Transport Actions

Objective T1 – Deliver a five-year sustained programme of engagement with Haringey residents to encourage mode shift towards public and active transport choices, with aim to achieve 88% of daily journeys to include walking, cycling and public transport by 2041. This will build on existing plans and targets in the Mayor of London's Transport Strategy and Haringey's Transport Strategy. Timelines for interim review can be arranged to coincide with the next key business and transport planning horizons.	
Action Owner	Transport Planning / Active Travel / Residents and employers
Cost	Existing posts will deliver the capital programmes and scaling up which will be expected to deliver the Mayor's Transport Strategy ambition. Schemes include School Streets, segregated cycle lanes, Liveable Neighbourhoods, and pavement widening. Funding will be secured through TfL and parking charges.
Measurable metrics	• Number of active transport journeys per day • % of total car ownership in the borough
Potential carbon reduction	Significant as it will support air quality, noise, alongside health and wellbeing objectives. Combined with all other Transport objectives, a total of 120 $ktCO_2$ by 2041.

Action	Deadline	Action owner	Notes
Survey residents to identify barriers to switching to active and zero carbon transport. Identify the behavioural change methods can be implemented to increase uptake.	2021	Active Travel	The Summer 2020 engagement period will form the basis to designing the survey.
Scale up personalised bike training and highways education for safe cycling. Increasing from 1,500 residents a year to 2,000. Review effectiveness and opportunities to increase impact.	Ongoing	Active Travel/Cycle Confident (partner)	Post-training evaluation, and identification of greater impact measures is not currently undertaken.
Roll out 'Try Before You Bike' schemes for the community. Expand the bikes on offer that residents can try. Continue to promote the scheme and extend it to local businesses.	Ongoing	Active Travel	This scheme has been operating successfully since June 2019. And will now include electric and (e-)cargo bike elements. First aimed at residents and to expanded to local businesses.
Work with residents and businesses to design, implement and maintain parklets and Play Streets.	Ongoing	Planning/ Transport Planning	There are approximately 50 Play Streets a year – aiming for 80 a year. Need to lobby the Mayor for one major

			road closure a year.
Lobby TfL to introduce more Zero Emission Bus routes to Haringey and to model the road network with greater emphasis on public transport and active travel.	2020	Transport Planning	Can enable this through local consultation.
Plan future 5-year active travel engagement programmes with lessons learnt from the first major programme.	From 2026	Transport Planning / Highways	

Objective T2 – Delivery of a 4-year programme to improve active transport infrastructure by 2025

The aim is to transform the borough's active transport infrastructure so that walking and cycling become the most obvious and efficient modes of transport for most people living and working in the borough, and well-integrated with public transport services for those making longer journeys. The programme should make use of the three redevelopment areas in the borough to establish new standards for active transport connectivity.

Action Owner	Planning/Transport Planning
Cost	Annual capital investment of £16m, £64m in total. Cost to be met by Council and/or external funding opportunities.
Measurable metrics	• Km of total dedicated cycle routes delivered • Number of additional secure and covered cycle parking spaces installed
Potential carbon reduction	Medium. Combined with all other Transport objectives, a total of 120 $ktCO_2$ by 2041.

Action	**Deadline**	**Action owner**	**Notes**
Lobby TfL to help fund the delivery of 30-60 km of dedicated cycle route infrastructure in the borough. Work with TfL to determine new strategic routes and the Council to connect to strategic routes with local routes to create a joined-up cycle network.	2021	Transport Planning	Include design standards such as clear signage and 20 mph zones.
There will be a presumption in favour of reallocating public highway spaces currently allocated to private and business vehicles (e.g. car parks, roads, on-street parking) to prioritise active travel (wider pavements and cycle lanes) and green space. To increase accessibility across our neighbourhoods for all	From 2020	Sustainable Transport	Deliver high quality, accessible public realm and pavement area to encourage walking, supported by quiet ways and wayfinding.
Install safe cycle storage across the borough – scaling up from 8 to 15 cycle hangers a year.	Ongoing	Transport Planning	Installed based on local demand. Funded through LIP.
Develop and implement a School Streets programme to improve air quality, increase active travel, improve road safety and create pedestrian- and cycle-friendly neighbourhoods around the borough's primary schools. This will include detailed feasibility and design of the School Streets, working together with stakeholders to consider local access requirements.	From 2020	Active Travel/ Sustainable Transport	All primary schools in the borough have been assessed for their feasibility, a School Streets plan will be forthcoming in the Summer of 2020.
Introduce a bike hire/sharing scheme to the borough.	2021	Transport Planning	London Councils/TfL are coordinating a pan-London byelaw that will enable the managing of dockless bike schemes.
Implement Zero Emission Zones as per	2023	Transport	Review in Liveable

TfL's guidance.		Planning/ Sustainable Transport	Neighbourhoods Crouch End project, with view to roll out.

Objective T3 – Develop policies and projects that disincentivise private household car use and reduce vehicle trips by businesses.

This aligns with the Mayor of London's Transport Strategy, Haringey's Transport Strategy (2018) and the draft Haringey Parking Action Plan, which has aim to discourage private car use. This can be achieved through expanding CPZs both in operating hours and space; reallocating road space to prioritise active and accessible travel infrastructure (T2); and raising parking charges.

Action Owner	Highways / Residents / Businesses / Wider stakeholders
Cost	Funding for studies and management of the consultation. Cost to be met by Council. However, in the long term, income generation and ring-fenced for sustainable transport initiatives.
Measurable metrics	• Km^2 covered in operational CPZs • Average number of hours CPZs are operational per day
Potential carbon reduction	Medium. Combined with all other Transport objectives, a total of 120 $ktCO_2$ by 2041.

Action	Deadline	Action owner	Notes
Lobby the government to phase out combustion engines by 2030.	2020	Carbon Management	
Investigate and deliver a borough-wide freight and last mile delivery strategy, focusing on hot spots in retail centres, with the aim to consolidate freight and delivery journeys.	By 2022	Transport Planning and Wood Green Regeneration	
Assess the vehicles in the borough through DVLA data to understand the vehicle make up in terms of emissions in the borough. This information will be used to determine price bandings for permit and on-street parking charges. Revise parking charging price bandings.	By 2021	Highways	Ensure that any income generated from parking charges are ring-fenced into sustainable transport projects.
Whilst not currently considered viable to continue to review the deliverability of a borough workplace parking levy to disincentivise employee car use and reduce impact of commuting by car, apart from people with physical disabilities.	From 2020	Highways and Carbon Management	Any income generated from a workplace levy (if implemented) should support active travel measures.
To roll out a resident led CPZ programme and review existing CPZs to ensure that they continue to meet the demands of residents and businesses in order to maximise coverage across the borough, reduce car usage as far as possible and manage visitors to the borough by car. While ensuring high user satisfaction, reducing fraud levels, and congestion peaks. (e.g. to operate all day, events).	From 2020	Highways	CPZ help discourage long-term parking and reduce fewer vehicle journeys into CPZ areas. The 2020/21 CPZ programme is prioritising the review of CPZs that have not been reviewed for a few years, assessing whether CPZs are effective and whether changes can be made, particularly to the 2-hour CPZs.
Ensure that parking charging systems used across the borough (CPZ's and P&D pays) reflect the needs of the community	From 2020	Highways	A diesel surcharge proposal will be presented at Cabinet

(residents and businesses) and wider environmental concerns – air quality, carbon, congestion and highways space			in Spring 2020.

Objective T4 – Programme to incentivise the move to low and zero emission vehicles by residents and businesses This aligns with the Haringey Transport Strategy (2018) and draft Ultra-Low Emission Vehicle Action Plan.			
Action Owner	Carbon Management/Highways		
Cost	£50,000 over 3 years for education and awareness raising. Supporting the switch through tracker applications, etc.		
Measurable metrics	• % of vehicles registered in the borough that are low and zero emission		
Potential carbon reduction	Minor. Combined with all other Transport objectives, a total of 120 ktCO2 by 2041.		
Action	**Deadline**	**Action owner**	**Notes**
Promote EV-related regional and national grants and loan systems applicable to residents and businesses.	Ongoing	Carbon Management	To promote on the Council website, resident forums and business groups.
Give permits to car club operators to deliver greater percentages of electric fleets and promote to residents, businesses, and new drivers. By 2030 – have 100% electric car club fleets in the borough.	By 2025	Carbon Management	
Establish a network for local businesses to join and access EV-related initiatives. This can include EV trials, e-cargo bike trials etc.	By 2022	Carbon Management	TfL support and e-cargo bikes will form part of the 'Try Before You Bike' schemes.
All planning applications should include EV charging points where applicable (100% active in Wood Green and the rest of the borough in line with the London Plan). All new homes should have charging point facilities.	Ongoing	Carbon Management/ Planning	Supported by Planning Advice Notes.

Objective T5 – Expand provision and accessibility of EV charging infrastructure, with up to 2,000 charging points by 2025 but based on levels of demand. This aligns with the Haringey Transport Strategy (2018) and draft Ultra-Low Emission Vehicle Action Plan. This will include private and public points. TfL predicts that the demand for EV charging will require approx. 2000 points in public and private parking areas.			
Action Owner	Carbon Management/Highways		
Cost	Approx. £25m private finance. Income generating and ring-fenced for sustainable transport initiatives		
Measurable metrics	• Number of EV charging points installed in the borough		
Potential carbon reduction	Medium. But the switch to EV's will deliver significant improvements in air quality, noise, and health and wellbeing objectives.		
Action	**Deadline**	**Action owner**	**Notes**
Continue to monitor EV demand across the borough and install charging points in line with this.	Ongoing	Carbon Management/ Highways	Use OLEV data to monitor number of EVs; use UKPN and TfL scenario analyses to determine how many EVCPs are needed.

			Use King's College study to understand EV demand.
Install a variety of charging point types (e.g. lamp column, standard and rapid) in suitable locations, with a variety of charging point providers.	Ongoing	Carbon Management/ Highways	Work with partners such as UK Power Networks and TfL to implement charging points.
Facilitate regional approaches supported by TfL to support a consistent approach to EV charging across London.	Ongoing	Carbon Management	

Energy

Overall Objective: Connect around 12,000 homes to low carbon heat sources and generate at least approximately 13 GW of renewable energy locally

Introduction

The carbon intensity of the national grid is falling, decarbonising the electricity supplied to homes and workplaces. The Council can further support this by developing and supporting low carbon forms of electricity generation, such as solar and wind power. Not only does local generation make efforts to decarbonise the borough, but it also strengthens Haringey's energy security. Renewable energy generation can be small scale (e.g. homes with solar panels) or can be large scale (e.g. large solar farms and wind turbines).

In Haringey, heating traditionally relies on the combustion of natural gas. The efficiency of heat creation can be improved through the electrification of heating using heat pumps (air, ground or water source) and adoption of low carbon decentralised energy networks (DENs).

The graph below shows the gap between demand for heat and electricity in the borough and the local supply of heat and electricity through district energy networks, solar PV and solar thermal installations. This gap is projected to narrow, with demand going down in line with the large-scale retrofit programme in homes and workplaces, and supply going up in line with the five DENs being delivered in the borough.

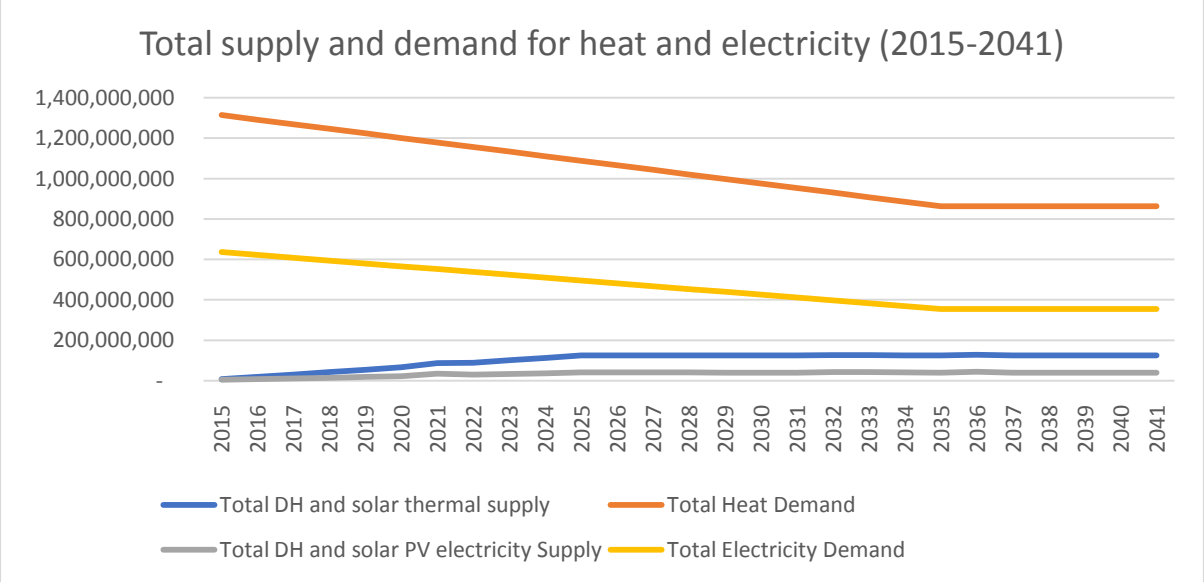

Figure 7. The total supply and demand for heat and electricity between 2015 and 2041. There is a downwards trend in both total heat and total electricity demand, as a result of energy efficiency improvements made to homes and workplaces. Total decentralised heat and solar thermal supply, and total decentralised heat and solar photovoltaic electricity supply increases.

The Council has limited influence in this sector, due to a signification proportion of electricity being centrally generated. Decentralised energy is growing, with smaller pockets of locally generated energy being supplied to smaller areas of homes and businesses. The National Grid predicts that decentralised energy will be more popular in the future, with residents being 'prosumers' (someone who both consumes and produces their own energy), with more peer-to-peer trading of energy of a local level.

Energy Actions

Objective E1 – Install renewable generation in our public spaces (e.g. Lee Valley) and review for wind turbines and PV solar arrays This will contribute to the decarbonisation of the grid as well as engaging residents with renewable energy through installation of large-scale wind and/or solar power generation in the Lee Valley.			
Action Owner	Carbon Management / Energy Managers / Stakeholders		
Cost	Installation of one wind turbine at £2.7m, Queen Elizabeth II floating solar reservoir development in west London cost £6m. Funding mechanism/route to be determined. Subject to feasibility studies and financial modelling, this could offer the Council a revenue stream and could be facilitated through a community energy company or joint venture.		
Measurable metrics	• kWh of renewable electricity generated annually through solar array and/or wind turbines		
Potential carbon reduction	Significant, and these actions can act as a beacon for wider actions. Two 1.5 MW wind turbines and 17 kWp of floating PV arrays would generate 21 MWh of renewable electricity a year, which totals 5.5% homes in the borough.		
Action	**Deadline**	**Action owner**	**Notes**
Conduct a feasibility study to assess the viability of installing two 1.5 MW wind turbines in Lee Valley.	2021	Carbon Management / Stakeholders	Could undertake this with Thames Water and with a potential wind turbine/solar array provider.
Conduct a feasibility study to assess the viability of installing 17 kWp (160,000 m^2) of floating PV array on Banbury Reservoir.	2021	Carbon Management / Stakeholders	Could undertake this with Thames Water and with a potential wind turbine/solar array provider.
Work with Thames Water who own and operate reservoirs in the Lee Valley, to identify suitable locations for further renewable generation projects.	2021	Carbon Management	

Objective E2 – Develop a programme to encourage the installation of 20,000 PV arrays by 2041 This should target businesses, residents and landowners. Existing grass-roots action in the borough already making progress should be supported (e.g. en10ergy). Leadership should be demonstrated by expanding the installation of PV arrays on Council properties.			
Action Owner	Carbon Management / Stakeholders – residents and businesses		
Cost	£28 m total capital investment to 2041. Cost external to the Council.		
Measurable metrics	• kW capacity installed through schemes facilitated by the Council		
Potential carbon reduction	Medium. Emission savings will vary according to property electricity consumption and array size, but on average PV installation with generate around a third of household consumption. Roof-mounted PV on 20,000 homes will generate around 13 GWh/year. This will raise significant awareness.		
Action	**Deadline**	**Action owner**	**Notes**
Work with Planning to understand what kind of planning permission is required and/or whether it falls within permitted development rights for different types of buildings/generation capacity.	2021	Carbon Management/ Planning	
Conduct feasibility assessment for all roofs across Haringey to determine solar generation capacity. This should also include a financial model/economic assessment to identify payback periods for residents and businesses for solar PV.	2021	Carbon Management	Feasibility assessment can be funded through the London Community Energy Fund.

Support existing grass-roots action in the borough already making progress e.g. en10ergy through S106 funding (Action Com2). Work with stakeholder groups to determine which projects are funded.	Ongoing	Carbon Management	Use S106 Carbon Offsetting funding to financially support community energy.
Join and promote bulk purchasing schemes such as Solar Together London to achieve economies of scale and maximise impact.	Ongoing	Carbon Management	

Objective E3 – Develop policies to support installation of Decentralised Energy Networks (DENs) and connect to zero or lower carbon heat sources

Initially this will focus on three neighbourhood level heat DENs in North Tottenham, Tottenham Hale and Wood Green as identified in the existing masterplan and the Council's newly expanded DEN at Broadwater Farm estate. Low carbon waste heat generated by industrial processes (energy from waste, underground) should be captured and used to heat our homes.

Action Owner	Carbon Management / Regeneration / Housing
Cost	£30m in Capital programme over 15 years for all three schemes identified in the existing energy masterplan (North Tottenham, Tottenham Hale and Wood Green). Additional projects could also come forward which may increase the budget. The Council will need to fund/arrange suitable financing for the projects; the Council is likely to invest in and own the infrastructure and procure or partner with another organisation for the design, build, operation and maintenance of the DEN but may look to also bring in a third party to fund/own some or all of the network.
Measurable metrics	• Number of homes connected to DENs
Potential carbon reduction	Significant. 8,000 tCO_2 – because this action contributes to the removal of gas boilers from around 12,000 homes connected by 2035. 10% of homes will be supplied from gas and electricity by 2050. Nearly all homes will be served by heat pumps and low-carbon district heating.

Action	Deadline	Action owner	Notes
Develop and update guidance notes to clearly set out the Council's approach to heat networks and promote. Implement in partnership with Development Management (and Housing / Regeneration for Council-led development).	From 2020 Ongoing	Carbon Management / Planning Policy Development Management / Housing / Regeneration	Setting out long-term vision and to include energy strategy and achieve planning requirements. To include standard design documents to future-proof buildings that intended to be connected to DENs (e.g. to allow for future lower temperature systems).
Delivery of Outline Business Cases for initial set up of Wood Green and Tottenham Hale DENs.	Summer 2020	Carbon Management	This will secure Council support for the proposed role in the projects (likely to include funding and owning the networks).
Completion of commercialisation for set-up of Wood Green and Tottenham Hale DENs.	Summer 2022	Carbon Management	To include design development and securing planning / consents, customer acquisition and procurement of contractors to deliver infrastructure leading to a final investment decision in the projects.
Completion of construction of first phases of Tottenham Hale and Wood Green DENs.	Summer 2024	Carbon Management	Construction of infrastructure to allow supply of heat and initial supply of heat.
Monitor opportunities for new	Ongoing	Carbon	Undertaking necessary feasibility

networks / growth of existing networks / interconnection of networks.		Management	work, business case preparation, commercialisation and delivery to secure additional opportunities including any beyond scope of currently identified masterplan.
Lobby government to support policy around delivery of DENs.	Ongoing	Carbon Management	Government is developing the market framework for DENs.

Objective E4 – Develop a programme of technical advice to encourage the adoption of heat pumps to achieve an average installation rate of 2,300 homes per year. Approx. £6k per unit.

This should target businesses, residents and landowners, and can be folded into Action H3.

Action Owner	Carbon Management / Stakeholders
Cost	£640m external capital investment required for the installation of heat pumps. Technical advice for heat pumps would be captured in the provision of advice for privately-owned residential and commercial properties.
Measurable metrics	• Number of engagement activities per year (linked to H3) • Number of home visits for tailored technical advice (linked to H3)
Potential energy reduction	79 GWh of heat supplied by heat pumps by 2050. 10% of homes will be supplied from gas and electric by 2050. Nearly all homes will be served by heat pumps and low carbon district heating.

Action	**Deadline**	**Action owner**	**Notes**
Deliver training sessions for businesses in local supply chains to increase knowledge on renewable energy and installation.	2021	Carbon Management	Needs retrofitting of homes before this can be deployed.
Provide new planning guidance with separate infographics for residents and businesses on what type of renewable energy they can adopt, how, and associated costs.	2021	Carbon Management / Planning Policy	This will include guidance on other energy efficiency improvements and generation. It will also link to the DEN planning guidance work.

Community

Overall objective: to actively liaise with and support stakeholder organisations to reduce carbon emissions and promote further reduction.

Over 90% of all borough emissions are not within direct control of the Council. Therefore, the support and delivery of action by wider borough stakeholders is vital to ensure delivery of this Action Plan. This means that all residents need to feel ownership of this ambition and feel empowered to take action. Alongside the Council, the borough hosts multiple active environment- and climate-related stakeholder groups who have successfully delivered a range of projects; we will all need to work together to deliver a Zero Carbon Borough. The borough's previous project and Action Plan ('Haringey 40:20', which helped decrease emissions by 40 per cent by 2020, compared to a 2005 baseline) gave rise to the Haringey Climate Forum. This group aims to deliver projects and review policies and projects in Haringey with regard to climate change. It Includes representatives from local sustainability groups such as the Community Energy Lab, En10ergy, Friends of the Earth, and the Muswell Hill Sustainability Group.

The Council's role is to support these stakeholder groups both resource wise and financially. The Council has previously given community grants of £10,000 a year to deliver carbon reduction projects. In 2019, projects included: double-glazing for businesses; installing 450 LED light bulbs in 250 homes; providing training opportunities with access to new careers; and improving pedestrian routes for schools. More details on these are found within the Council's Annual Carbon Report. A key enabler to scaling up this support is the development of a Community Energy Fund, reflected in Action Com2 below.

The wider stakeholders' active support will be vital to deliver the Haringey Climate Change Action Plan, with a focus on engaging with hard-to-reach groups and those who are not involved in climate change action already. This support may be secured through policy changes, meeting venues, publicity on projects and wider co-ordination. It may be through direct grants, but also may involve developing and co-ordinating new funding streams such as Community Bonds which can raise awareness and increase funding for projects.

The latest Office of National Statistics assessment of the Green Economy in 2019 shows that the UK low carbon and renewable energy (LCRE) economy grew by 6.8% to £44.5 billion in 2017, from £41.7 billion in 2016. With the LCRE sector now growing at around four times the rate of the rest of the UK's underlying economy, this means that this sector in the UK economy is growing the fastest, and if harnessed and supported, can deliver benefits within Haringey through new jobs and industry. With increased public support and demand for a more sustainable environment, the LCRE sector is expected to continue to grow ahead of other sectors of the UK economy.

Alongside this, to deliver the national government's sustainability objectives, such as Air Quality and Carbon Reduction, there is increasing taxation to reduce and improve performance through regulation. Schemes such as the Ultra-Low Emissions Zone (ULEZ) and increasing environmental taxes on energy bills impact on businesses revenue and performance. Therefore, being an efficient and environmentally aware business will increase profitability and stimulate business growth.

Community Actions

Objective Com1 – To increase education and awareness raising across the borough to residents and businesses Raising awareness of the impacts of climate change, and steps to mitigate, can encourage residents and businesses to engage with the issue and to enable behavioural change.	
Action Owner	Carbon Management / residents / businesses / partners
Cost	<£5k costs in delivering the actions. 1 FTE member of staff to coordinate with the stakeholders across Actions Com1 and Com2.
Measurable metrics	• Number of events supported per year
Potential energy reduction	Small, but needed to unlock wider savings.

Action	**Deadline / Frequency**	**Action owner**	**Notes**
Use Council's communications networks to increase awareness around carbon reduction.	2020 - Quarterly	Comms / Carbon Management	
Develop a community-managed web page on carbon reduction.	2020	Residents and interest groups	
Attend and support at least 10 events a year to promote carbon reduction and healthier lifestyles.	2020 - Annually	Carbon Management / residents and partners	
Publish performance annually on projects and impact on carbon reduction.	2020 - Annually	Carbon Management	In the Council's Constitution.
Promote the Haringey Green Homes Programme across the Council and borough network.	2020 - Annually	Carbon Management / residents and partners	

Objective Com2 - To empower and enable community-owned projects to deliver carbon reduction This is with aim to give the right tools to local residents and partner groups to take ownership of carbon reduction initiatives. This objective includes actions around lobbying to unlock funding and resources for these community groups to deliver action.	
Action Owner	Carbon Management / residents / businesses / borough partners
Cost	£300k over 5 years. Community Energy Grants can be developed to support through Planning Carbon Offsetting in the s106. As set out by other authorities.
Measurable metrics	• Amount and value of Community Grants awarded
Potential carbon reduction	Small. But this enables the residents and borough partners to deliver the borough ambition together and increase awareness.

Action	**Deadline / Frequency**	**Action owner**	**Notes**
Lobby the GLA to retain the London Community Energy Fund for community energy projects.	2020	Carbon Management	
Lobby the government to bring back tax incentives for community energy groups to unlock local investment in energy projects.	2020	Carbon Management	Tax incentives such as Social Investment Tax Relief (SITR).
For the Haringey Climate Change Forum to be supported by the	Quarterly	All Services	Meetings are booked by Carbon Management,

Council.			services invited to attend.
For Haringey Council to set up a Community Energy Fund and offer grants for residents and partners to undertake and develop carbon reduction projects.	2020 – Annual award	Carbon Management / residents / businesses	Funded through s106 monies already collected.
Develop a local carbon offsetting fund for the businesses and community to offset their emissions on flights or carbon emissions.	2021 -	Carbon Management / residents / businesses	Create an account for businesses, staff, and community to support local carbon reduction projects.
Promote switching to a lower carbon energy supplier for residents and businesses.	2020 -	Carbon Management / GLA	London Power is set up by the GLA https://mylondonpower.com/.
To investigate the development of "Green Community Bonds" funded by the community to invest in carbon reduction projects.	2021	Carbon Management / residents / businesses	

Objective Com3 - To support the development of a skills programme, new jobs and careers in the carbon reduction sector.

The Council has mapped the number of homes that need to be retrofitted and the measures that need to be implemented. On the back of this, the Council can determine how many jobs, and the type of skills needed to fulfil this. This will need to be supported by new training opportunities and courses. This objective will support the developing Haringey Economic & Development Strategy.

Action Owner	Carbon Management / Economic Development
Cost	This would be dependent on government funding to deliver a new training programme within the borough. Upskilling our residents and growing the green economy.
Measurable metrics	• Number of courses being taught in the borough that upskill people to reduce carbon emissions
Potential carbon reduction	Small, but significant economic opportunities, and awareness outcomes.

Action	**Deadline / Frequency**	**Action owner**	**Notes**
Lobby national government to deliver an education programme for the new work force that will deliver retrofitting and new technologies.	2020	Carbon Management / Economic Development	
Explore the delivery of industrial land and offices where the retrofitting installers can develop in a "green hub". Enabling Haringey to be at the front of the new green economy. And re-skilling jobs that will decline (car mechanics, boiler engineers etc)	2020	Carbon Management / Regeneration / Economic Development	The "Green Sector" is one of the most sustained growth sectors of the UK economy. It could deliver over 1,000 skilled jobs in Haringey, plus other jobs through the supply chain.
Advertise new training opportunities and future careers in the local carbon sector.	By 2021	Carbon Management / Economic Development	

National and Regional Lobbying

The borough can only achieve the 2041 ambition with the help and support of the residents, businesses, partners and wider borough stakeholders, with close working alongside regional and national government to support new powers and new financial mechanisms.

Haringey's carbon emissions are inherently linked to transport systems which are strategic beyond the borough boundary. Energy generation is governed at a national and regional level. Many actions in this plan are therefore not possible to progress without implementing transformative changes at a higher level to deal with the climate emergency that the country and world are facing. This list has been developed with input from Arup, UKGBC, developers and retrofitting companies, alongside Haringey residents, businesses, partners and wider stakeholders.

As outlined in specific actions, the Council will actively be lobbying national government and the Mayor of London to change policy and legislation, and release funding to support local governments, households and businesses in reducing their carbon emissions drastically.

National Lobbying Asks

National requests will be directed primarily to the Department for Business, Energy and Industrial Strategy (BEIS) and the Ministry of Housing, Communities & Local Government (MHCLG):

a) Enforce a minimum domestic and non-domestic EPC rating required at point of sale and let to EPC B by 2035, increasing from the current EPC E and increase funding to enable homeowners to retrofit their properties to EPC B;

b) Cut VAT for owners, residents and business groups on retrofitting and renewables from 20% to 5%;

c) Give stronger powers and funding to the local authority to enforce Minimum Energy Efficiency Standards on private sector landlords;

d) Require realistic and accessible carbon emission modelling software in new developments that deliver improved fabric requirements in Building Regulations Part L and implement before 2025;

e) Allow energy efficiency measures to be installed in buildings in conservation areas with the Nation Planning Policy Framework;

f) Promote reuse of existing buildings in policy before demolition and provide clear planning guidance on designing for deconstruction of new buildings to reduce embodied carbon;

g) Ring-fence funding from the Department for Education and NHS funds to retrofit all public buildings (schools and NHS buildings) to achieve EPC B;

h) Stop the sale of conventional vehicles (diesel and petrol) by 2030;

i) Bring back tax incentives and remove tax burdens for Community Energy Companies to unlock local investment in community energy projects; and,

j) Develop a national education and skills development programme to develop a workforce that can deliver retrofitting and implement new technologies.

Regional lobbying asks to the Mayor of London/Greater London Authority and Transport for London

a) **Coordinate provision of technical energy efficiency advice to private households across London;**

b) **TfL to introduce more and increase the rate of deployment of Zero Emission Buses;**

c) **TfL to model the road network and future transport schemes, with priority for active travel and then public transport;**

d) **TfL to fund the delivery of 30-60 km of cycle route infrastructure in Haringey;**

e) **Revise TfL funding process, by removing the bidding process for boroughs. Earmark a set amount of funding to deliver active travel infrastructure per borough over a longer time period to enable large schemes to be forward planned and delivered;**

f) **TfL to support regional approaches to enable a consistent approach to EV charging across London;**

g) **Deliver a regional education and skills development programme to develop a workforce that can deliver retrofitting and implement new technologies;**

h) **For all funding from the GLA for projects and programmes to deliver the Zero Carbon ambition;**

i) **Develop clearer policies around the delivery of district energy networks and community energy; and,**

j) **Retain the London Community Energy Fund for community energy projects.**

Delivering the Ambition

The Climate Change Action Plan is ambitious and sets out the level of commitment required from all partners in the borough – the Council, businesses, residents, the Mayor of London and the national government. It cannot be delivered by one party alone.

Financial

This Action Plan will be funded by the public sector, the private sector, and private residents. Some of this funding has already been secured, and some funding will need to be secured from the Mayor of London and Government, and other third-party organisations.

The Council will fund its own actions through its capital programmes and additional revenue, many of which are underway. Some of the Council's costings in this Action Plan have been developed as estimates and will be worked up in detail with the relevant service areas when the Action Plan is progressed to the delivery stage. These are estimates on the amount of funding we will need to secure from the government and third parties to deliver the Climate Change Action Plan in response to the Climate Emergency.

Within the 2020/21 Council financial plan there are already several existing capital funding streams proposed that will support the delivery of this Action Plan for the Council to be zero carbon by 2027 and the borough by 2041, including:

- Decentralised Energy Networks (£27m over the next 5 years) – which will create low carbon heat networks in the borough's regeneration areas;
- School Streets Funding (£3mm over the next 5 years) – which will improve public realm and deliver active travel options around our schools;
- Active Travel Programme (£1.68m for 2020/21) – to support residents, employees and partners to cycle and walk more through training and education alongside infrastructure measures;
- Street lighting energy efficiency LED upgrade (£7m over the next 2 years);
- Parks and leisure facilities carbon reduction programme (£3m over the next 5 years);
- SME workplace intensification (£9.8m over next 5 years) which is improve existing and deliver new low carbon workspace units;
- Council assets and Civic Centre improvements (£23m over 5 years) to deliver improvement in these key civic building, which will include carbon reduction measures; and,
- Council housing energy efficiency programme (£101m over the next 10 years) – which will improve the energy performance of the Council's housing stock.

There is also a proposed low-carbon funding stream to facilitate existing projects to go further to deliver increased carbon reduction. This will target corporate commercial property projects, where increased revenue can be secured.

Projects that currently do not have funding streams allocated, which are proposed to be delivered in the medium to longer term, will be reviewed and business cases developed before funding can be agreed. To fully deliver the ambition in this Action Plan, all new capital funding streams will be reviewed starting from 2020. These will highlight the carbon saving, and both revenue and capital implications will be considered. It will be expected that all new funding asks to the Council and public funding streams will deliver a positive carbon reduction element. Furthermore, in our lobbying of national and regional government, the Council will call for more funding to support local authorities, residents and businesses to achieve the borough's ambition.

To deliver our ambition there needs to be significant and sustained action by a range of other stakeholders, such as private homeowners and small businesses in the borough, which is why the costs of this scenario fall predominantly outside the Council's control.

Lobbying and partnership work by the Council to regional and national government will be essential in securing the action needed to deliver on climate emergency ambitions.

Many of the private investment by residents, businesses and partners will be delivered over a longer time period, with most being delivered as new technology and routine improvements take place, such as building improvements (replacement windows or heating systems), or new transport choices are considered and brought. To enable this rate of change to increase, the Council will signpost these stakeholders to new funding, or enable them to make informed choices around payback periods.

Governance and Future Monitoring

This Climate Change Action Plan will require robust governance to implement and monitor actions across the Council's service areas. An important aspect to the governance structure is to monitor progress and ensure relevant service areas take ownership of progress.

All Council projects will need to demonstrate they meet the carbon reduction requirements as set out in this Action Plan through key decisions and procurement requirements. This plan will require senior leadership support at all levels.

The Council will report on progress made on this Climate Change Action Plan through the Annual Carbon Report which has been published since 2008. The report has previously focused on the 40:20 commitment and will be updated in 2020 to reflect the ambitions set out in this new Climate Change Action Plan. All relevant service areas of the Council will be required to monitor progress through the metrics set out in the Action Plan.

The Council will also continue to report on the Borough Plan, which includes the zero-carbon ambition.

Timeframe for Action

It is intended that the plan is a live document and will require updating as technology, skills, and knowledge moves forward. In some instances, the groundwork for the high impact programmes will be delivered in the next three to five years. This will enable the borough to deliver significant carbon reduction once fully designed and funding is secured.

This current Action Plan is focusing on the known solutions and measures needed now. The immediate actions will focus on delivery over the next 7-8 years. In the next update of the Climate Change Action Plan the Council will review performance and continue to deliver change between 2028-2036.

Timeframe for Action - Immediate Action

In response to the climate emergency, these projects have funding in place and the Council will move to delivery immediately:

- School streets programme;
- Liveable Neighbourhood in Crouch End;
- Homes for Haringey energy retrofit programme;
- DEN masterplan – feasibility and planning stages;
- Active Travel Projects and Healthy Streets; and,
- Delivery of a Community Energy Fund.

There are also projects that require individual action plans and policy changes to ensure that we deliver best value and meaningful outcomes, now and over the longer term. Over the

short term, the Council will design these with stakeholders and plan a route map to support the borough's net Zero Carbon Ambition. These include:

- Review of the Council's Asset Management Plan to embed carbon reduction in all refurbishments and new buildings;
- Delivery of new Zero Carbon planning policies and advice for all new development across the borough;
- An Action Plan for the Council's Corporate Estate setting out how we will become Carbon Neutral by 2027; and,
- An Action Plan for the schools of the borough, so that they can also move towards Zero Carbon Buildings.

These actions will enable the Council to work towards becoming net zero carbon by 2027 and strengthen Haringey as a leader.

Timeframe for Action – Medium- to Long-Term Action

Many actions cannot be delivered by the Council. As one borough we need to ensure that all representatives – residents, businesses, partners, and other stakeholders understand and agree with our zero-carbon ambition. It will require difficult conversations as we move away from our current lifestyle to a low-carbon future. We will need to address issues such as reducing private car ownership, increasing the rate of private home energy efficiency improvements, and growing new green jobs in the borough.

Once this is agreed, the Council can educate, support, and use its powers under local government to enable wider action. But the borough will need significant contributions and ownership from our residents, businesses, and partners to our boroughs ambition. These projects include:

- Reducing the level of private car ownership in the borough, and increasing safe and active travel options for residents;
- Delivering high numbers of retrofits and improved energy standards in the borough's 102,000 homes;
- Delivering high numbers of retrofits, and improved energy standards in the business building and units across the borough's commercial portfolio;
- Repurposing the highways space in the borough to prioritise cycling and walking;
- Increase the amount of renewable technologies across the borough, including options in our parks and conservation areas;
- Growing the local supply chain to deliver new low carbon jobs and skills; and
- Delivering a wide range of communications and promotions to all stakeholders to normalise low carbon lifestyles and measures, which will increase significant carbon reduction.

Glossary

Annual Carbon Report - the Annual Carbon Report provides a transparent year on year account of progress made to reduce carbon emissions from the Council's operations and Haringey as a whole.

Climate Emergency declaration – admitting that climate change exists and that the measures taken up to this point are not enough to limit the changes brought by it. The decision mandates the government to devise measures that try and stop human-induced climate change. The declaration can be made on national and local government level. The specific term 'emergency' is used to assign priority to the topic, and to generate a mind-set of urgency.

CO_2 – carbon dioxide, a greenhouse gas (see below).

DEN – Decentralised Energy Network. A DEN is a system of highly insulated pipes that move energy in the form of hot water or steam from where it is created, to where it is needed for use in space heating and hot water production. A DEN has the potential to provide energy in a more efficient (and lower carbon), cost competitive, and locally secure and environmentally beneficial manner, over conventional energy supply.

EV – Electric Vehicles.

EPC – Energy Performance Certificate. A requirement under The Energy Performance of Buildings (Certificates and Inspections) (England and Wales) Regulations 2007 for properties to have a valid EPC (valid for 10 years) when the property is rented or sold. The EPC provides an indicative rating for the energy efficiency of the property (rating A to E, with E being the worst) and an indicative rating for retrofit improvements that could be made.

GHG – greenhouse gas. These gases contribute to climate change directly through their greenhouse effect by trapping heat in the atmosphere. Seven GHGs are listed under the Kyoto Protocol which have different impacts on global warming; carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O) are naturally occurring GHGs, and hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6) and nitrogen trifluoride (NF_3) are human-made GHGs.

GLA – Greater London Authority (comprising the Mayor of London and London Assembly).

Green energy – additional, certified power generated by renewable sources (by the Government definition of renewable).

IPBES - Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, who published a Global Assessment report in 2019.

IPCC – Intergovernmental Panel on Climate Change, who published a special report in 2018 on the impacts of global warming of 1.5 degrees Celsius.

Haringey 40:20 - Haringey 40:20 was inspired by the passion of local residents who convinced Haringey Council to join the Friends of the Earth 'Get Serious about CO_2' initiative and adopt an ambitious target to reduce CO_2 emissions in the borough by 40% by 2020. Haringey 40:20 brings together residents, businesses, social enterprises, charities and community groups across Haringey to help to create a better future for everyone living and working in the borough.

Liveable Neighbourhoods – A funding programme initiated by Transport for London for long-term schemes that encourage walking, cycling and the use of public transport. Liveable Crouch End is the first of such schemes in Haringey.

PV – photovoltaics, also known as solar panels. PV is a technology that converts sunlight into electricity through its solar photovoltaic cells.

Retrofitting – modifications to existing buildings to improve its energy efficiency and/or decrease energy demand.

ULEZ – Ultra Low Emission Zone. Vehicles need to pay a charge if they do not meet the ULEZ emissions standards.

Zero Carbon – A very energy efficient building or area which may have on-site renewable power generation. This will reduce carbon emissions to a minimum. Where emissions do occur, emissions can be offset through mechanisms which could include buying green power for the remaining energy demands. Developing a Power Purchase Agreement (PPA), PPA for out-of-borough renewable energy sources, and / or planting of trees each year to offset emissions (these would need to be certified independently and benefits quantified), etc.