

# Barking & Dagenham

## Net Zero Delivery Framework 2023



# Barking & Dagenham Net Zero Delivery Framework

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# 1.Introduction

# 1. Introduction

In 2020, Barking & Dagenham committed to achieving Net Zero as a Borough by 2050, and for the local authority itself to become carbon neutral by 2030. In 2021 Anthesis and the Carbon Trust were commissioned to produce Net Zero roadmaps which provided an ambitious set of targets and trajectories that demonstrate what it will take for Barking & Dagenham to reach Net Zero in line with the council's 2030 commitment and its wider statutory obligation.

Underpinning this roadmap is a baseline carbon footprint for the borough - is comprised of emissions from domestic buildings (38%), industrial and commercial processes (34%), transport (27%), and waste (0.6%) set out in Fig.1. Each of these categories includes emissions linked to a range of different activity in the borough, visible in Figure 2.

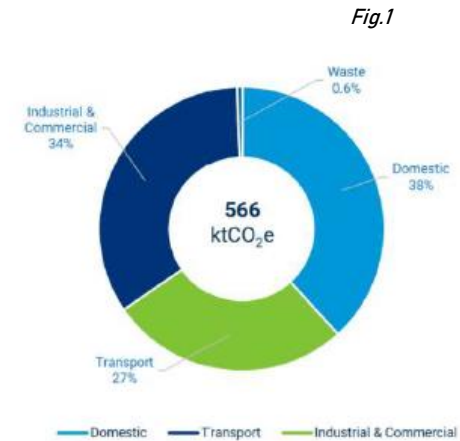


Fig.2

Source	Emissions	Includes emissions linked to...
<b>Domestic buildings</b>	217ktCO <sub>2</sub> e (38%)	All new builds in the borough, including those by the council and by third party developers
		All existing owner occupied or private rented sector domestic buildings
		All existing council owned social homes
<b>Industrial and commercial</b>	192ktCO <sub>2</sub> e (34%)	Industrial and commercial processes involved in the production of goods and services
		Buildings that are owned and operated by businesses or industry
		Buildings that are owned and operated by the public sector institutions, including the council
<b>Transport</b>	154ktCO <sub>2</sub> e (27%)	Private use of carbon emitting vehicles
		Commercial and institutional use of carbon emitting vehicles
<b>Waste</b>	23ktCO <sub>2</sub> e (0.6%)	Waste streams generated

Using this baseline as its starting point, our Net Zero roadmap proposes twelve key targets and corresponding emission reduction trajectories that demonstrate what it will take to reduce emissions in line with our 2050 Net Zero commitment.

The Roadmap suggests that if the council adopts and sticks to these targets and trajectories, we will reduce overall emissions in line with the **High Ambition Pathway**, which is what Anthesis and the Carbon Trust suggest we should be following as a borough. In other words, we will not get all the way to Net Zero, but we will get 80% of the way there.

## **A Net Zero delivery framework – balancing ambition and deliverability**

The Net Zero roadmap explores ‘**what is required**’ to deliver Net Zero. Its priority is to establish a clear pathway to Net Zero, underpinned by an ambitious set of targets and trajectories based on the best available scientific evidence. The Roadmap does not attempt to balance ‘what is required’ with ‘what is deliverable’, just the kind of trajectory we need to be on to be on course to meet international climate change obligations.

There are many constraints and barriers currently in place which mean that the Council alone cannot guarantee the delivery of the High Ambition Pathway by 2050. In many instances only regional, national and international action will suffice. Equally, focused effort on the part of every resident, community group, business, and public sector institution in the borough is essential. The council’s role is to lead, to innovate, and to influence at every opportunity. We must also do whatever it takes to capture any wider benefits that might emerge from the Net Zero transition, related to equalities, employment, engagement, and ecological recovery.

In response to the roadmap, we have produced a **delivery framework** that will help to structure our efforts in pursuit of the High Ambition Pathway over the next few years up until 2030, and recognising the many real-world constraints. The starting point for this framework must be the council’s own ‘operational footprint’.

That is why - alongside the 2050 commitment - Cabinet also committed to decarbonising council operations by 2030, providing leadership to the wider borough and demonstrating what can be achieved with focused action.

The framework is broken down into five overarching objectives, four of which are linked to one of the four key sources of emissions identified in our baseline carbon footprint. Across each of these objectives, the framework does five things:

- Explores the **constraints** all councils face in the pursuit of decarbonisation and what can be done to overcome them

- Describes the **work** the council will be doing in pursuit of its 2050 Net Zero commitment
- Describes the **work** the council will be doing in pursuit of its 2030 Net Zero commitment over the next few years
- Illustrates the **work** that will be required to capture wider benefits associated with Net Zero
- Highlights any **key decisions** that still need to be made in relation to this work

## Principle Net Zero Drivers and Constraints

The framework is underpinned by the key principles the Council can employ in pursuit of Net Zero set out in Fig.4, which feature in all of its workstreams and projects related to sustainability, and then set against the current constraints and barriers which all local authorities will face when trying to reach these targets.

*Fig.4*

Net Zero Principle	Description
Lead	This Framework sets out the specific steps we are taking to reduce emissions that are within the council's direct control. These emissions are associated with core council operations, across transport (the council's fleet of vehicles), corporate (the council's operational estate), and waste (treatment of waste collected) in particular. Whilst the delivery of this activity will make a marginal contribution to our overall Net Zero ambitions, it is crucial if we are to fulfil the council's leadership responsibilities.
Innovate	We will take every opportunity to innovate in pursuit of reduced emissions. This will mean embracing new technologies, methods, and practices, working in partnership with innovators, investors, developers, and our partners. We won't be hamstrung by technological uncertainty but will take measured risks where there is significant potential to drive down emissions. Where a new technology is supported by a reasonable business case for investment, we will adopt an entrepreneurial mindset, investing now to reduce emissions later.
Influence	We will use the natural strengths we have developed through existing efforts in innovation to influence the behaviour of others in the market and modelling good practice. We will use our planning and regulatory powers to incentivise emission reducing

behaviour change amongst residents, households, and businesses wherever possible, doing everything in our power to make this behaviour change easier and more affordable, so that income is less of a barrier to going green.

**Embrace the benefits** We will take active steps to ensure we are capturing the wider benefits of the Net Zero transition, across equalities, employment, and engagement. We know that decarbonisation will have different impacts for different groups. We will do all we can to ensure that residents – no matter their circumstances – can access the benefits whilst being insulated from the potential costs. We will also take every opportunity to attract new green jobs to the borough. And we will work closely in partnership with residents and the community so that they can play their part in our journey to Net Zero.

Fig.5

Constraints	Description
<b>Cost and business case</b>	Cost is currently a major constraint to the delivery of the high ambition pathway. For example, current estimates suggest that the total cost of delivering significant retrofit measures on council owned housing stock alone could be between £850m and £1.2bn. At current costs, this investment is unlikely to deliver a return and therefore cannot be justified at a time when council finances are already significantly stretched. This will not always be true. In some areas – for example Solar PV – long term costs have come down to such an extent that the business case is increasingly clear, even if current inflationary pressures are having an impact in the short term. This is opening the door for investors – including local authorities - who can help bring these technologies to market.
<b>Technological uncertainty</b>	Whilst some debates have been settled (for example electric as opposed to hydrogen powered vehicles), in many instances, there is still uncertainty as to the best technological solution to the decarbonisation challenge. Are we heading towards heat pumps or hydrogen for domestic heating? What is the best power source for high intensity industrial processes? Should we be aiming for grid-scale or decentralised generation renewable power? Uncertainty is keeping costs high and making it difficult to commit to large scale and rapid roll-out of zero carbon technologies.
<b>Government policy</b>	High costs and technological uncertainty feed off one another and are reinforced by uncertainty from government about how key areas of the transition to Net Zero – for example deep retrofit - should be funded. This has resulted in comparatively small and piecemeal funding schemes. For example, the Domestic Renewable Heat Incentive has recently been replaced by the Boiler Upgrade Scheme, which offers to fund £5k of the up to £10k installation cost for heat pumps. This policy is unlikely to drive widespread adoption as it still leaves a potential £5k up front capital cost. High costs and technological uncertainty mean that – in some areas - government intervention is essential to the pace and scale of adoption required for Net Zero.
<b>Behaviour change</b>	Across domestic buildings, industry/commercial, and transport, the delivery of Net Zero targets and trajectories will depend upon the ability/willingness of individual residents, households, and businesses to change emitting behaviour. Are households

willing and able to drive less or to trade in their petrol-powered vehicle for an EV? Are businesses willing and able to change their energy supplier so that more of their energy comes from renewable sources? Particularly in B&D, the biggest barrier to behaviour change is affordability. Many of our residents and businesses simply couldn't afford to change their emitting behaviour, even if they wanted to.

Given the principles and constraints, we have consciously called this document a delivery framework rather than a delivery plan. Whilst it includes detailed actions for the next four years that we will monitor and evaluate, it also highlights those areas – for example the energy efficiency of our new build pipeline - in which significant work is required before any decision about a course of action can be taken. Our goal is to make these key decisions visible - in part by linking them directly to specific targets and trajectories for 2030 and 2050. The framework will become more detailed and specific over time as work continues to unpick options, informed by detailed cost projections. Part three provides detail on how these decisions will be governed over the next four years.



## **2. Our Emissions Profile**

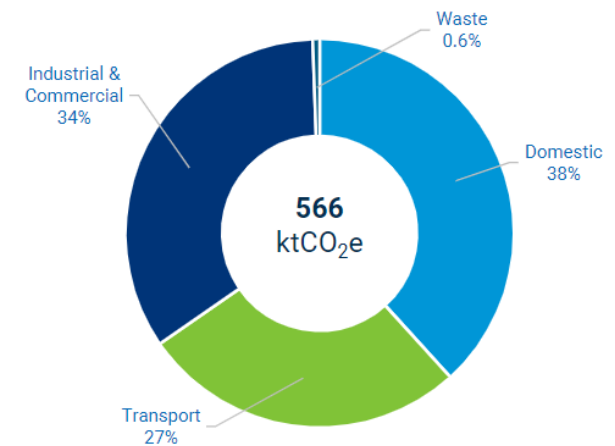
## 2. Our emissions profile and the pursuit of Net Zero

### Baseline emissions

Barking & Dagenham's borough wide baseline carbon footprint for the year 2019/20 was calculated by the Carbon Trust to be 566ktCO<sub>2</sub>e. This timeframe was adopted to represent a 'business as usual' scenario rather than one of the pandemic, which would have seen significant one-off carbon reductions due to lockdown. The footprint uses International Greenhouse Gases Protocol emissions reporting and includes scope 1, 2, and 3 emissions. It splits emissions across the following sectors, in line with the Department for Energy Security & Net Zero's sub-national emissions data:

1. **Domestic building emissions:** 217 ktCO<sub>2</sub>e (38%)
2. **Industrial and commercial emissions:** 192 ktCO<sub>2</sub>e (34%)
3. **Transport emissions:** 154 ktCO<sub>2</sub>e (27%)
4. **Waste emissions:** 3 ktCO<sub>2</sub>e (0.6%)

The greatest reduction in emissions since 2014 was seen for the industrial and commercial sector, which decreased by 40%. Emissions from the domestic buildings sector have declined more slowly, falling by 21% between 2014 and 2018. In contrast, transport sector emissions have remained relatively constant over the five-year period.

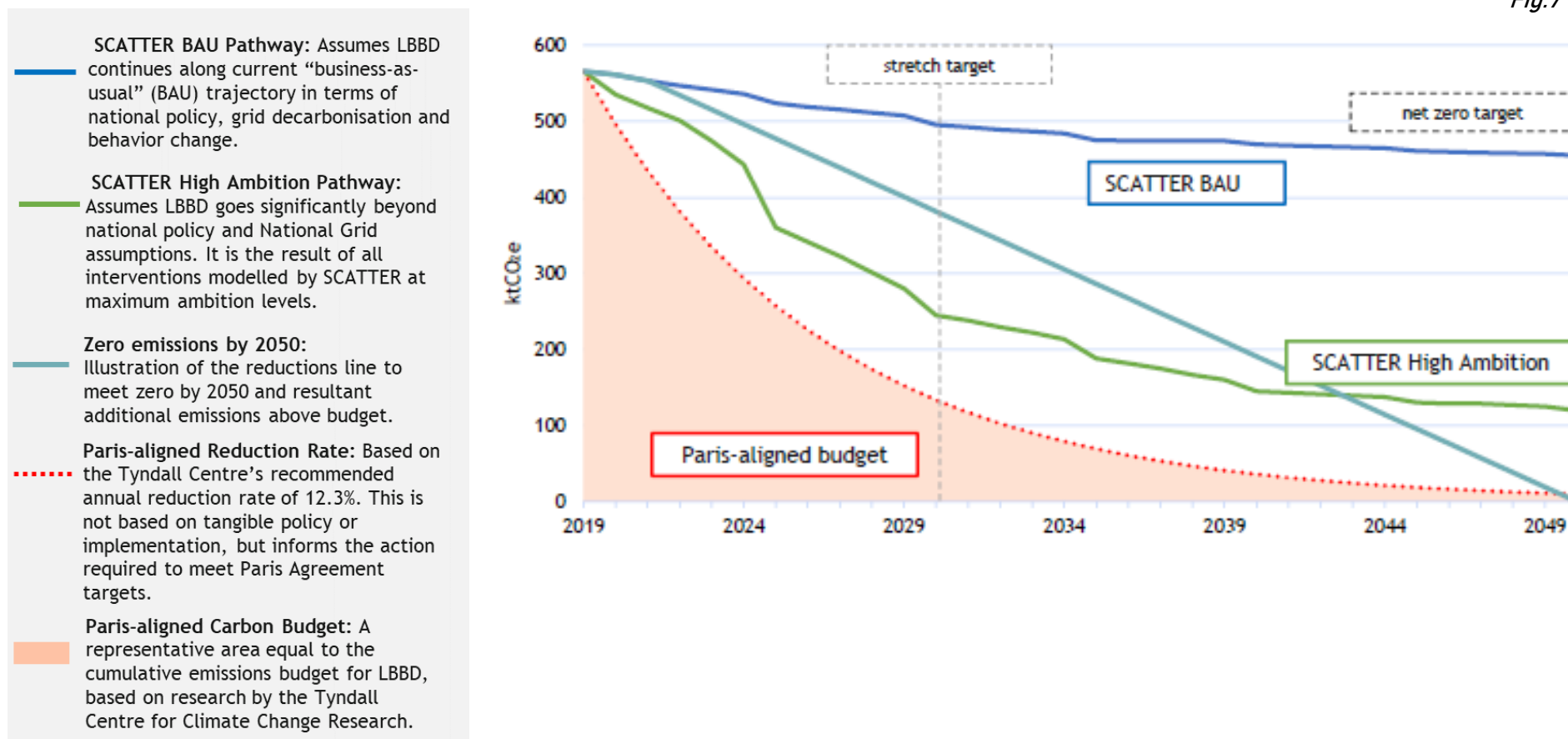


### Barking & Dagenham's carbon budget and our Net Zero Roadmap

The Paris Agreement commits nations to action that will keep global warming "...well below 2°C" by 2050, and as close as possible to 1.5°C. This commitment implies an upper limit of greenhouse gas emissions that each nation is allowed within a given time frame if we are to keep global temperatures within that threshold. This is known as a carbon budget. Carbons budget can be scaled up (to national and international level) and down (to local authority level).

The Tyndall Centre for Climate Change Research, based at the University of Manchester, have translated the Paris Agreement targets into fixed ‘carbon budgets’ for each local authority. Their work suggests that Barking and Dagenham’s total carbon budget for the period 2022 to 2100 is 3,035ktCO<sub>2</sub>. They also recommend an emissions reduction rate of **12.3%** per year if we are to keep within this budget. Our Net Zero roadmap proposes a set of potential Net Zero pathways – figure eight - that involve reducing emissions in line with our Paris aligned carbon budget. These pathways have been developed using Anthesis’ SCATTER Pathways Modelling tool

Fig.7



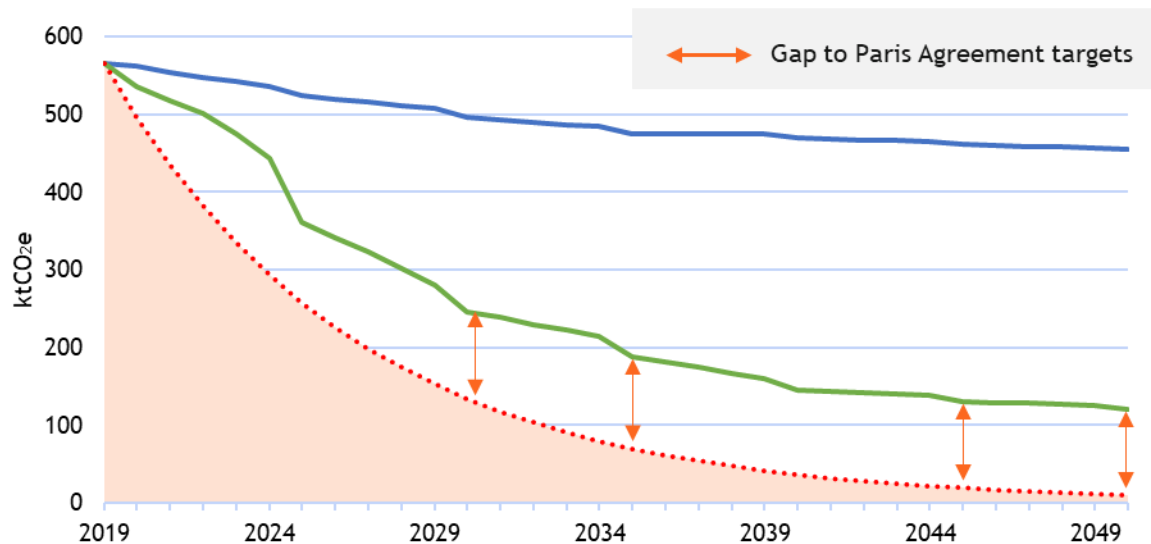
The SCATTER tool models the potential impact on emissions of 30+ interventions or carbon reduction measures which can be implemented to varying degrees. These modelled pathways are intended to act as ‘lines in the sand’. They serve as an indication of whether the adoption of certain interventions can drive the transition to Net Zero. SCATTER does not intend to prescribe certain technologies or policies, nor does it intend to discount other means of arriving at similar outcomes just because they do not feature in the model. The feasibility of implementation is also not considered in any depth, as this is dependent on action from national government and all actors. Rather the targets and trajectories identified through the SCATTER tool are intended to serve as an evidence base, demonstrating what is required if the borough is to remain within its Paris aligned carbon budget.

### The High Ambition Pathway

Fig.8

Despite applying the most ambitious interventions in the SCATTER Tool for LBBD, emissions remain in the energy system over and above those are permitted if we are to remain within our Paris aligned carbon budget (figure nine). Along LBBD’s High Ambition Pathway, 245 ktCO<sub>2</sub>e remain in the energy system in 2030 and 120 ktCO<sub>2</sub>e remain in the energy system by 2050.

This gap is based on a limited feasibility assessment included within the Scatter tool, which explores the impact of constraints like cost, technological uncertainty, government policy, and behaviour change. The High Ambition Pathway remains highly ambitious.



The key to closing this gap is to ‘offset’ remaining emissions through enhancing green spaces and natural environments, which can act as carbon sinks by sequestering remaining emissions out of the atmosphere. Largely, this should focus on increasing tree coverage both directly and through investment in carbon offset schemes, or carbon capture schemes.

## 2050 Targets and Trajectories

The High Ambition Pathway for 2050 is underpinned by a set of targets and corresponding trajectories, each linked to one of the primary sources of emissions in the borough. These targets and trajectories draw directly on the interventions within the SCATTER Pathways Modelling tool. For the purposes of our Net Zero delivery plan, we have organized these targets and trajectories into five corresponding objectives, visible in figure nine.

*Figure nine*

Source	Emissions	Objective	2050 Net Zero Targets	2030 Net Zero Trajectories			
				Baseline	2025	2030	2050
<b>Domestic buildings</b>	217ktCO <sub>2</sub> e (38%)	<b>To decarbonise domestic buildings</b>	Number of properties receiving retrofit and efficiency measures	0	13,700	22,400	57,300
			% of new homes built to Passivhaus standards	0	100	100	100
			% of households in the borough that have low-carbon heating systems	8	34	47	100
			% of households with rooftop solar installs	2	26	39	66
<b>Industry and commercial</b>	192ktCO <sub>2</sub> e (34%)	<b>To decarbonise industrial buildings and processes</b>	% reduction in emissions from large industrial emitters	0	33	51	72
			Number of commercial buildings to receive an 85% reduction in emissions	0	1,514	2,215	2,518
			Number of institutional buildings to receive a 68% reduction in emissions	0	100	150	203

<b>Transport</b>	154ktCO <sub>2</sub> e (27%)	<b>To decarbonise transport</b>	% of EV in total borough car stock	2	51	76	100
			% of trips made through active travel	21	25	27	34
			% of trips made through public transport	9	12	13	17
<b>Waste</b>	23ktCO <sub>2</sub> e (0.6%)	<b>To decarbonise waste</b>	% reduction in the quantity of waste produced	0	17	24	57
			% of total waste stream that is recycled	25.5	33	38	86

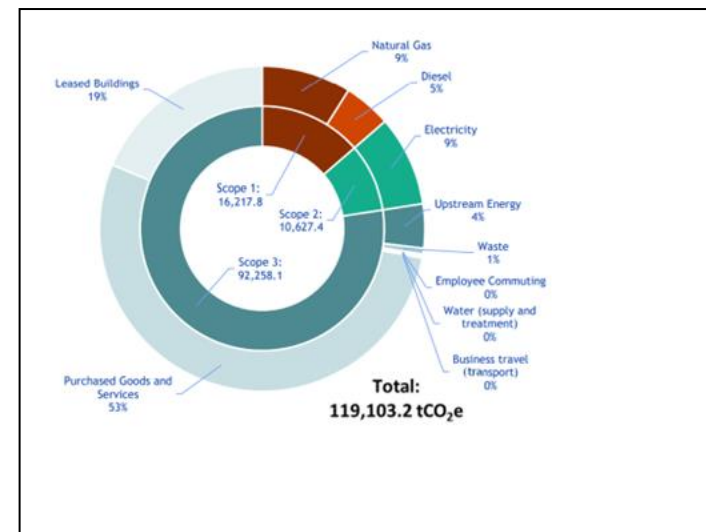
## 2030 Targets and Trajectories

Alongside the council's 2050 Net Zero commitment for the borough, Cabinet made a commitment to decarbonising council operations by 2030. Whilst the total contribution this will make to the High Ambition Pathway is limited – the council contributes 119,103tCO<sub>2</sub>e to borough wide emissions – it is critical if the council is going to provide leadership in relation to the Net Zero agenda. Our Net Zero roadmap provides both a baseline figure for emissions linked to council operations (Fig.10) as well as a set of targets and trajectories that will help us reduce these emissions in line with our 2030 commitment.

For the purposes of this delivery framework, we have organised these 2030 targets and trajectories into the same four objectives, visible in figure twelve. There are a few things to note about the relationship between the 2030 and the 2050 targets and trajectories:

- Targets and trajectories linked to the decarbonisation of council owned social housing are included within the 2050 programme rather than the 2030 programme. This is because cost constraints - associated with deep retrofit and electrification - are so significant that they cannot be seen to fall within our direct control.
- Targets and trajectories linked to the council's operational estate are included in the 'Decarbonise industrial buildings and processes' objective. This mirrors the methodology used by the Carbon Trust within the overall borough baseline. The same is true of targets and trajectories linked to the council's supply chain and procurement processes.

Fig.10



# **3. A Net Zero Delivery Framework**

# Objective One: Retrofitting Homes

A Net Zero borough by 2050

Source	Emissions	Objective	2050 Net Zero Targets	2050 Net Zero Trajectories			
				Baseline	2025	2030	2050
<b>Domestic buildings</b>	217ktCO <sub>2</sub> e (38%)	<b>To decarbonise domestic buildings</b>	Number of properties receiving retrofit and efficiency measures	0	13,700	22,400	57,300
			% of new homes built to Passivhaus standards	0	100	100	100
			% of homes in the borough that have low-carbon heating systems	8	34	47	100
			% of homes with rooftop solar installs	2	26	39	66

## The Constraints - Retrofitting Homes

Trajectory	Baseline	2025	2030	2050
Number of properties receiving retrofit and efficiency measures	0	13,700	22,400	57,300

**Constraints** London Councils estimates that unit costs for the deep retrofit of residential properties (EPC A and above) range from £50,000 to £80,000. Initial estimates from our own work on deep retrofit pilots suggest the true costs could be between £100,000 and £160,000. By comparison, unit costs for medium retrofit (EPC B) range from £25,000 to £50,000 whilst unit costs for basic fabric upgrades (EPC C) range from £10,000 to £25,000. Based on these estimates, the total cost of delivering deep retrofit measures on council owned stock alone could be between £850m and £1.5bn. Delivering the 2025 target in our Net Zero roadmap would involve an outlay of £176m. For the owner-occupied and private rented sector, more than £2bn may be required. These numbers are prohibitive at any



	meaningful scale. To deliver the deep retrofit targets and trajectories in our Net Zero roadmap, we are dependent upon a change in government policy and corresponding investment.				
<b>Approach</b>	We will play our part by demonstrating what is possible whilst helping to build the evidence base in relation to deep retrofit. In practice this means delivering on our plans to 'pilot' deep retrofit measures on a small number of homes in the borough. We will use the lessons from this pilot to develop a wider strategy that includes detailed efficiency baselining and cost projections for 'deep retrofit' over the next ten years, allowing us to move quickly as and when government funding does become available. The pilots will help to position us as 'first movers', ready to take advantage of employment opportunities that might flow from this. More widely, we will continue to work with residents and the private sector to promote government funding programmes, including the Green Homes Grant, Social Housing Decarbonisation Fund and ECO4, funding streams we have already been awarded grant from.				
% of new homes built to Passivhaus standards		0	100	100	100
<b>Constraints</b>	Be First's new build programme currently targets has an average cost/sqm of £3,000, based on delivering London plan efficiency standards (EPC B). Baily Garner estimates that delivering Passivhaus efficiency standards will involve an uplift of £250-320/sqm (8-10%) against building regulations efficiency standards, which are lower than those in the London Plan. This aligns with estimates from the Green Building Council and the Passivhaus trust, which suggest an uplift of 4-8%. Be First's viability calculations do not currently allow for this uplift. The same is true of the wider developer market. Delivering the 2025 target in our Net Zero roadmap would demand a significant change in GLA policy, as well as a significant improvement in the council's underlying financial position, which would allow for an evolution of our new build strategy. Neither is likely before 2025 and the level of uncertainty beyond that makes it very difficult to commit to any firm targets or trajectories.				
<b>Approach</b>	Before 2025, the council does not have the financial flexibility to significantly evolve its new build strategy. But - thanks to our investment in Be First - we do have the ability to influence the market by getting as close as we can to passivhaus standards without affecting viability. We can also demonstrate the potential of future passivhaus developments by delivering one or two pilot developments without affecting the underlying financial position of the wider new build programme. A pilot approach will also help us to build a real-time picture of cost implications and delivery challenges so that we are ready to evolve our wider strategy as and when our financial position changes. In terms of third-party developers, we will be guided by the London Plan and will regularly review our local plan to ensure these standards are kept up to date.				
% of households in the borough that have low-carbon heating systems		8	34	47	100
<b>Constraints</b>	The biggest challenge in relation to the decarbonisation of heat power in the borough is existing domestic housing. Technological uncertainty (installation of air/heat pumps vs repurposing of gas boilers to hydrogen) is holding back investment, which in turn is keeping costs high. Government policy is similarly non-committal, with the recent Net Zero Statement in September 2020 pushing back replacement of gas boiler targets and minimal increases in Boiler Upgrade funding. To install				

	heat pumps at scale across council owned stock would cost upto £170m. There is greater certainty in terms of new builds, thanks to the Council's investment in B&D Energy, plus the Future Homes Standards and the London Plan's requirement that all new developments provide heat from renewable sources by 2025. But even so, this is unlikely to get us close to the 2025 target for passivhaus developments in our Net Zero roadmap. Again, we are dependent on a significant shift in government policy to achieve our Net Zero ambitions.
<b>Approach</b>	The 'fabric first' approach suggests prioritising efficiency measures that improve the core performance of any building before considering the use of new heat power technologies. In principle, we believe this is the right approach. But the lack of certainty surrounding national policy in relation to retrofit makes this approach risky. We cannot afford to wait ten years for retrofit policy to catch up before exploring the potential for new heat power technologies. As such, our approach will be to innovate where possible, piloting new technologies, building relationships with suppliers, and positioning ourselves as 'first movers' across the heat power market. On new builds, we will enforce London Plan requirements and will strengthen/reinforce these where possible. By pioneering the development of District Heat Networks – through B&D Energy – we are also making it easier for developers to meet this obligation, although work still needs to be done to decarbonise this network in time for the 2025 London Plan deadline.
% of households with rooftop solar installs	
	2                      26                      39                      66
<b>Constraints</b>	Bailey Garner estimate the unit costs of solar PV per home at between £2,500 and £4,500, assuming 25% roof coverage. Estimates of the payback period for solar installations – based on savings made against monthly electricity bills – vary significantly, from 12 to 24 years. The national Smart Export Guarantee scheme (successor to the feed-in-tariff) allows small scale producers to sell the electricity they generate back to the grid, which would further reduce the payback period. In other words, there is now a business case for investment in Solar PV, particularly if you are prepared to be patient – like we are. In Barking & Dagenham, there is little in-borough potential for grid-scale solar deployment. Instead, much of our capacity will come from installations on existing roof tops. The biggest challenge in relation to solar PV is how quickly the technology and the policy environment is evolving. But the general trend is towards cost competitiveness and rapid deployment. This gives us greater control over future roll out and makes us less dependent on government policy.
<b>Approach</b>	Through the Be First new build pipeline and our ownership of council housing stock, we can deploy solar PV quickly and at scale. Our challenge is to establish a clear and context specific business case that responds to local conditions and draws upon actual projects costs. Our approach to this task involves doing two things in parallel. Firstly, we will pilot the deployment of solar PV in both a new build development and as part of the deep retrofit of existing stock. Secondly, we will use the actual and delivered costs from these pilots to develop a wider strategy and business case for solar PV deployment, using innovative financing models where possible. This strategy will inform the development of a revised set of targets and trajectories that get us as close as possible to the delivery of the High Ambition Pathway

## What are we or can we be doing?

Sub-objective	Programme	Workstreams	Milestones	Officer
Retrofit of domestic	Retrofit of Private Rented Sector properties including third party owned social housing	Becontree Design Code guidance for owner occupiers and landlords in relation to retrofit, with ambition to apply these standards to wider borough in time	Draft Becontree Design Code and Sustainability Framework published Summer 2023.	Be First Sustainability Team
		Develop a 'carrot and stick' approach including a green accreditation scheme including access to planning services, finance, suppliers, installers, and discounted EPC surveys as an incentive to the private rental sector to improve energy efficiency	Raise the minimum energy efficiency standards (MEES) from the current D up to a C for private rented properties and improve its enforcement to capture non-compliance by 2025.	Enforcement Services
			Green accreditation scheme proposal and PRS landlord engagement plan agreed by Q4 2024.	Enforcement Services
			Set up a system where tenants could anonymously report landlords who do not meet MEES or EPC standards by Q2 2024.	Enforcement Services
			Delivery partner in place for ECO4 by Q3 2023.	Inclusive Growth
		Working towards higher energy efficiency standards of procured emergency and temporary accommodation	New PSL framework in place which commits providers to a band B by 2030.	Community Solutions

	Retrofit of council owned stock.	Implementation of Deep Retrofit Pilots.	Roadmap for the delivery of first tranche of units to be completed as part of the Deep Retrofit pilot agreed Q2 2024.	Inclusive Growth
		Development and implementation of long-term retrofit plans for council stock.	Wider strategy and funding plan for an iterative 15-year programme of Council Stock Retrofit - drawing on lessons from the deep retrofit pilot - agreed Q3 2024.	Inclusive Growth and My Place
Energy efficiency standards on new builds	Energy efficiency of Be First pipeline	Moving the Be First pipeline as close as possible to Passivhaus standards – considering viability – and using this to influence behaviour in the third-party developer market.	Review and proposal for Passivhaus pilots and developments by Q4 2024	Be First Sustainability
			Review of new build pipeline priorities to include a focus on efficiency standards and Net Zero by Q1 2024.	Inclusive Growth and Be First
	Influencing third party developments	Enforcing London Plan energy efficiency standards on third party developments and reviewing these as regional and national policy develops	Ensure the operational carbon of new developments is accurately reported following building completion by Q1 2024.	Be First Sustainability and Planning Policy Teams
			Review energy efficiency standards in local plan as part of wider Net Zero review, within 18 months of the Local Plan being adopted.	Be First Planning Policy Team
Decarbonisation of heat and power	Roll out of distributed energy resources	Pilot 'electrification' development including the installation of Solar PV and battery storage	Identify suitable pipeline scheme for this pilot	Inclusive Growth and Be First
		Pilot of ground source heat pump technology on residential estate, working in partnership with Kensa.	Pilot business case and estate agreed by 2025, subject to funding	Inclusive Growth and My Place
	Expansion and decarbonisation	Development of the the B&D Energy Strategic Heat Network within and	Continued market engagement with developers and decarbonised heat	B&D Energy and Inclusive Growth

of District Energy Networks	Barking Town Centre, creating new hub sites for connection and supply of decarbonised heat and power	off-take suppliers and encouraged connections to council new-build, as well as Advanced Zoning Pilot with DESNZ	
	Transition the network away from natural gas and towards renewable sources of heat, including a hybrid mix of heat pumps, hydrogen, and waste heat recovery.	Decarbonisation strategy for wider B&D Energy network agreed in the Business Plan 2023	B&D Energy and Inclusive Growth

Opportunity	Description	Milestone
Fuel Poverty	22.5% of households in Barking & Dagenham are classified as fuel poor, equal to approximately 17,000 households – the highest rate in London and climbing. Initial analysis suggests that households at particular risk include young families with dependent children (who experience disproportionate levels of household debt to the council) and older white British residents on the Becontree estate (who are over-represented in areas with the highest recorded rates of fuel poverty). Risks associated will only increase as the cost-of-living crisis continues to bite over 2023/24	<p>The Green Homes Grant and Social Housing Demonstrator Fund programmes are specifically aimed at low-income households on £30k or less living in D, E, F and G properties; ECO4 and GBIS is targeted at similar households on qualifying benefits or living with cold related illnesses.</p> <hr/> <p>We will further explore ways to target retrofit and energy efficiency measures to the households that would benefit from it most, working in partnership with Community Solutions and are currently bidding for SHDF Wave 2.2 (Oct 2023)</p>
Opportunity	Description	Milestone

Employment	<p>Nationally, there are significant skills shortages in key areas related to the decarbonisation of domestic buildings, including retrofit co-ordination, solid wall insulation installation, heat pump engineering, and solar panel and battery servicing. We are keen to embrace opportunities to attract, develop and grow sector strengths in this area through developing a better understanding of the space, skills, and infrastructure requirements of employers. We also want to identify how we can use our resources (land/property, infrastructure, investment, local business support, education, and training providers) to support and grow these businesses in future.</p>	<p>A recently commissioned green economy review, focused on exploring how the council can grow the green economy and attract green jobs to the borough. This review specifically highlighted jobs in the domestic decarbonisation as a major employment opportunity and we continue to work with education providers and industry providers to develop a skills package and recruitment pipeline to support people upskilling or new entrants into the market.</p>
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Opportunity	Description	Milestone
Resident behaviour change	<p>Residents in Barking &amp; Dagenham care about climate change and the pursuit of Net Zero emissions. This is particularly true of younger residents. At the 2022 Youth Climate Summit, over 180 young people from 31 schools made clear that insulating homes should be a top priority in the borough. The consultation on the Inclusive Growth Strategy in 2022 also highlighted that net zero was the greatest theme of interest to the public. The challenge for our residents is affordability. Whilst we have no control over the cost of insulation, heat pumps, or solar PVs, we can help residents to navigate the financial support that is out there for those that are prepared to take the plunge.</p>	<p>We will build on the #OneStepGreener campaign, helping residents identify the best possible route to decarbonising their homes through accessing different streams of government funding. This will include case studies of individual residents that have taken steps to decarbonise, using these stories to illustrate the potential impact of decarbonisation measures on monthly bills. This is an ongoing social media campaign throughout the year.</p>

## Objective Two: Energy Efficient Businesses and Supply Chains

### A Net Zero Borough by 2050

Source	Emissions	Net Zero Objective	Target	Trajectory			
				Baseline	2025	2030	2050
Industrial and commercial	192ktCO <sub>2</sub> e (34%)	To decarbonise industrial buildings and processes	% reduction in emissions from large industrial emitters	0	33	51	72
			An 85% reduction in emissions from commercial buildings	0	1,514	2,215	2,518
			A 68% reduction in emissions from institutional buildings	0	100	150	203

### The constraints to creating energy efficient businesses and supply chains

Decarbonising industry targets and trajectories		Baseline	2025	2030	2050
% reduction in emissions from industrial buildings and processes		0	33	51	72
<b>Constraints</b>	Industrial buildings and processes can be very energy intensive, this also makes them very difficult to decarbonise, as they demand large amounts of energy that can be turned on and off at very short notice. With heavy industry in Dagenham Docks and Thames Road, we also have lighter industry such as warehousing and storage which are less intensive. In Barking & Dagenham, emissions from manufacturing processes make up 97% of total industrial emissions, with the majority of these coming from the manufacturing of motor vehicles and trailers. The council has little scope to influence the behaviour of large industrial emitters in the borough, even though delivering our High Ambition Pathway is dependent on shifting them away from the use of fossil fuels. This change will be dependent upon a national shift in policy in relation to energy and industrial processes.				

<b>Approach</b>	We will engage with large emitters wherever possible, making clear our commitment to delivering Net Zero and our expectation that they will play their part in delivering it. For example, the council is directly involved in the governance of the proposed new freeport at Dagenham Dock and will use this leverage to ensure delivery of the port's existing Net Zero commitments. More widely, we will use our planning powers to influence industrial behaviours wherever possible, including through the creation of new modern industrial spaces that are equipped for the Net Zero economy.
85% reduction in emissions in commercial buildings	0      1,514      2,215      2,518
<b>Constraints</b>	Much like domestic buildings, commercial premises in the borough must improve their energy efficiency, transition away from gas heating systems, and embrace low carbon and energy efficient cooking, lighting, and appliances. As with larger industrial emitters, the council has little scope to directly influence the behaviour of either commercial landlords or individual businesses. Businesses in Barking & Dagenham also tend to operate in high volume, low margin sectors, with little spare flexibility to change operating procedures. Where we do have greater control is in relation to those commercial premises that we let and manage ourselves.
<b>Approach</b>	We will take a lead by adopting the highest possible Net Zero standards in the commercial premises that we own and manage, in line with our 2030 Net Zero commitment. We will also engage with businesses and commercial landlords in the borough wherever possible, finding new and innovative ways to help them improve the energy efficiency of the buildings they use. Critically, we will help businesses to focus on the business benefits of going green, including operational efficiencies and commercial appeal.
68% reduction in emissions in institutional buildings	0      100      150      203
<b>Constraints</b>	Institutional buildings refer to those buildings that are owned and managed by public sector institutions, including the council. We have much greater control over the decarbonisation of institutional buildings, and particularly those that we own and operate. There are still significant cost constraints – for example related to the additional cost of green energy tariffs, the cost of corporate retrofit measures, or the ongoing cost of monitoring/minimising our energy usage – but we have greater scope to affect the necessary changes.



**Approach**

We will take a lead by adopting the highest possible Net Zero standards across our corporate estate – focused on both supply of energy and demand for energy – in line with our 2030 Net Zero commitments. We will also influence our partners and suppliers by adopting the highest possible Net Zero procurement practices.

Sub-objective	Programme	Workstreams	Milestones	Officer
<b>Decarbonising industrial processes</b>	Industrial land strategy	Develop policy for promoting zero and low-carbon infrastructure when assessing industrial/commercial planning applications policy for data centres, including robust S106 framework	Review requirements in part of wider Net Zero review, within 18 months of publication of Local Plan	Be First
		Embed the highest possible standards of zero and low-carbon infrastructure on Be First industrial/commercial developments	Review of commercial development priorities, linked to review of New Build pipeline	Be First
		Engaging with larger emitters in the borough with a view to reducing emissions from industrial processes	Development of a 'good food economy plan', including actions to reduce local footprint of the sector Q2 2023	Inclusive Growth - Skills
			Development of a Business Net Zero Forum to understand business/industry carbon levels and reduction targets	Inclusive Growth – Sustainability and Skills
			Engage with the data centre to explore ways to minimise their carbon footprint, including	Inclusive Growth and B&D Energy

			through heat off-take to district heat network	
			Continue engagement with Ford in relation to the development of the Freeport and its Net Zero ambitions	Inclusive Growth and Be First
<b>Supporting businesses to decarbonise</b>	BEC Sustainability programme	Two-year programme to support businesses in to reduce emissions, take advantage of opportunities in the green economy, and build their brand – through 121 support, workshops, and promotion of the Climax Community sustainability action planning tool.	First quarterly report summarising progress and lessons learnt by end of 2023	Inclusive Growth - Skills
	Business Net Zero audits	Apparise BEC’s ability to provide carbon audits for all suppliers coming through the council and support their transition to net zero. carbon health check.	Develop a proposal by Q4 2024	Inclusive Growth - Skills

## A Net Zero Council by 2030

Source	Objective	2030 Net Zero Targets	2030 Net Zero Trajectories		
			Baseline	2025	2030
<b>Industry and commercial</b>	To decarbonise supply chains (Council)	% of contracted suppliers that have published carbon reduction plans	0	50	100
		% of total electricity requirement procured from renewable sources	0	50	100
		% reduction in total energy demand across corporate buildings	0	10	25
		% of corporate buildings that have low-carbon heating systems	0	25	100

Sub-objective	Programme	Workstreams	Milestones	Officer
<b>Decarbonising Council Supply Chains</b>	Transitioning to Net Zero procurement practices	Set up Net Zero Supply Chain function that would lead efforts to decarbonise council supply chains in line with 2030 Net Zero commitment	Recruitment of Net Zero Sustainable Procurement officer by Q3 2024	Inclusive Growth Sustainability
		Work towards implementation of net zero procurement standards, starting with PSL, SEND, care and residential services, utility provision for the housing stock and healthcare services, including considering “miles travelled”	Net Zero workshops for all departments and advising how they can build in Net Zero KPIs and requirements into their tenders and Service Plans	Inclusive Growth and all service commissioners

		and buying local where possible.		
		Move towards activity-based emissions reporting for largest areas of purchased goods and services and move to market-based reporting for scope 2 emissions	Capture methods recommended by the Roadmap into contract management and reporting	Inclusive Growth – Sustainability and Procurement – and all service commissioners
<b>Decarbonising supply of energy to corporate and council owned buildings</b>	Renewable electricity procurement across all owned, operated, and leased estate suppliers across council buildings.	Steady trajectory of moving the supply of the council's energy to decarbonised sources by the end of the decade	New energy supplier agreements in place by 2024, which reserves the Council's right to increase levels of green energy supplies.	Inclusive Growth – Procurement and My Place
		Installation of solar PV and heat pumps on council buildings in accordance with suggestions from the BRE desktop solar PV study and Ameresco's Investment Grade Proposals for retrofit and renewables deployment.	Asset register in place by Q3 2024.	My Place
			Renewables deployed across corporate estate retrofit as part of phase one of corporate retrofit programme beginning Q3 2023.	Inclusive Growth and My Place
			Schools begin October 2023 and Swimming Pools/Leisure Centres in 2024	

		Completed connection of Abbey leisure centre, Town Hall, and Broadway theatre to District Energy Network and feasibility for Coventry University connection in Dagenham	Barking connections delivered in 2022/23 and CUL connection by 2024/25	Inclusive Growth, My Place and B&D Energy
<b>Minimising demand for energy in corporate and council owned commercial buildings</b>	Energy and carbon management service	Set up of energy and carbon management service to reduce consumption via energy management practices.	Business case for energy management service developed on the back of initial work in the Net Zero roadmap Q4 2023.	Inclusive Growth - Procurement
		Set up carbon management system that would update the carbon footprint on an annual basis whilst improving data quality.	Carbon Management system in place by Q4 2024.	Inclusive Growth and My Place
		Implement an internal carbon pricing mechanism to embed carbon reduction into current and future budget planning across all council departments	Test the feasibility Carbon pricing mechanism by Q4 2024	Inclusive Growth and Finance
	Demand management, electrification, and renewables.	Introducing building optimisation, zoning, and smart controls to reduce energy demand, in line with the Net Zero estate playbook published by the Government Property Function.	Holistic assessment of energy demand and potential for electrification and renewables delivered by Q4 2024.	My Place
			All improvements delivered by 2026, as part of the	My Place

corporate retrofit programme.

**What are we doing to capture the wider benefits associated with decarbonising industrial buildings and processes?**

**Equalities**

<b>Opportunity</b>	<b>Description</b>	<b>Milestone</b>	<b>Officer</b>
Decarbonising micro enterprises	Over 93% of businesses in the borough employ fewer than ten people. Net Zero can feel intimidating for micro enterprises operating in high volume low margin businesses, but the upsides can also be significant. By supporting micro enterprises to decarbonise through the BEC sustainability programme, we will be supporting business owners to play their part in the Net Zero transition whilst capturing the business benefits.	The BEC sustainability programme will be reporting on progress and lessons learned in 2023. As part of this report, the BEC will explore participation levels amongst micro-enterprises and minority owned businesses.	Inclusive Growth - Skills

**Engagement**

<b>Opportunity</b>	<b>Description</b>	<b>Milestone</b>	<b>Officer</b>
Business engagement	The Council's green economy review conducted a survey of 300 local businesses, exploring where they are now and what they need to take advantage of opportunities in the green economy. We will use this engagement to continue the conversation with businesses about the green agenda, including in relation to their own emitting behaviour.	Develop broader engagement with business on Net Zero through an appropriate forum and creating carbon reduction audits for supply chain contractors	Inclusive Growth - Skills

## Objective Three: Shift to Active Travel and Low Emission Vehicles

### A Net Zero Borough by 2050

Source	Emissions	Net Zero Objective	Target	Trajectory			
				Baseline	2025	2030	2050
Transport	154ktCO <sub>2</sub> e (27%)	To decarbonise transport	% of EV in total borough car stock	2	51	76	100
			% of trips made through active travel	21	25	27	34
			% of trips made through public transport	9	12	13	17

### The Constraints

Decarbonising transport targets and trajectories		Baseline	2025	2030	2050
% of EV in total borough car stock		2	51	76	100
<b>Constraints</b>	The pace and scale of EV roll out in the borough will come down to the purchasing choices made by individual households. The biggest driver of consumer choice will be national policy and regulation. The biggest barriers to households making the choice are cost and convenience, with the former being of primary significance in Barking & Dagenham. Prices will fall over time as more EVs come to market, but the purchasing cost is likely to remain higher than its petrol equivalent – particularly in the second-hand market – until the latter half of this decade. Convenience is contingent both on the potential range of battery systems and on the availability of appropriate charging infrastructure. Councils do have the power				

	to improve access to EV charge infrastructure, but this is made more challenging by the current immaturity of the EV charge market, with many small-scale providers and high levels of technical uncertainty and disruption. Ultimately, the choice belongs to households.
<b>Approach</b>	Being in the lowest quartile in London for EV ownership and charging point infrastructure, we will explore every possible way to bring down the cost of EV ownership and use, including through the development of innovative leasing schemes and carpooling options. We will also use our wider powers to influence consumer behaviour by creating small incentives towards EV ownership, for example through preferential parking policy. Finally, will do everything in our power to make EV ownership and use as convenient as possible through the rollout of EV charge infrastructure. We have recently been awarded £411,000 from OZEV for the delivery of 114 new EV charging sockets.
% of trips made through active travel	
	21      25      27      34
<b>Constraints</b>	Active travel is ultimately a choice for individual residents. This choice is made harder in boroughs like Barking & Dagenham, in which the car has long dominated transport planning decisions and in which there has been historic underinvestment in walking and cycling infrastructure. Councils have limited scope to improve the quality of cycling and walking infrastructure due to the scale of the capital costs involved. Where transport funding is delegated to regional transport authorities – for example the GLA – there is greater flexibility, for example the Mayor’s Healthy Streets programme underpinned by the Healthy Streets Standard. But these funding programmes tend to be piecemeal and result in high levels of competition between councils, and TfL’s funding has become less stable and more subject to negotiation with central government since 2020.
<b>Approach</b>	We will continue to do all we can to secure funding – through national and regional funding programmes – for urgently needed improvements to the boroughs cycling and walking infrastructure. We will also – where possible – explore innovative financing mechanisms and partnerships that will reduce our dependence on external funding. We will also take every opportunity to work in partnership with our communities to influence people’s transport behaviours through small steps that make a big difference. For example we have a clear policy in our local plan to encourage car-free developments and prioritise



	CIL and S106 towards sustainable travel and we are negotiating a rolling programme of feasibility studies in the South Barking Area (eg Caste Green, Lower Roding Crossing).			
% of trips made through public transport	9	12	13	17
Constraints	London is the only region in the UK with devolved funding powers related to transport and the ability to implement an area wide transport strategy. Devolved powers make it easier for London to make joined up decisions. Barking & Dagenham has seen the benefits of this approach through recent investments in the Elizabeth Line, the overground extension to Barking Riverside, and the opening of the Thames Clipper terminal, again in Barking Riverside. But we have also experienced the limits of devolution, with the pause of the proposed C2C station at Beam Park, which was nationally funded.			
Approach	Again, we will continue to do all we can to secure funding – through national and regional funding programmes – for urgently needed improvements to the boroughs public transport infrastructure and continue to work with Be First through Levelling Up funding, Local Plan and Infrastructure Delivery Plan to devise fundable schemes to do this.			

Sub-objective	Programme	Workstream	Milestones	Officer
<b>Reducing car usage</b>	Shifting away from private use vehicles	Using parking policy to shift people away from private use vehicles whilst incentivising shift to lower emission vehicles.	Introduction and enforcement of ULEZ in line with GLA policy August 2023	TfL
			Future CPZ proposals seeking to reduce commercial vehicle parking to reduce congestion and emissions Q2 2023.	Parking Enforcement
			Review parking policy in 2023 to reduce the overall number of parking permits to single household/residential tenancy.	Parking Enforcement

	Encouraging behaviour change in transport modes to increase sustainable transport and decrease private car use.	Promote World Car-Free day (22nd September) and explore gaining funding through the Greater London Authority Mayor's Air Quality Fund to promote car-free days in LBBD streets.	Enforcement and Be First Transport Planning
Promotion of active travel and public transport	Investment in active travel infrastructure, including new cycling networks and refreshed public walkways.	Options appraisal of alternative funding models (for example planning obligations and CIL) focused on the delivery of cycling and walking strategy outcomes developed by Q1 2024.	Be First Transport Policy
		Policy developed to support active travel, including cycle lanes/infrastructure, cycle hire, cycle parking, and walking improvements across the borough, working closely with participation & engagement to make use of ward budgets and estate funds	Be First Transport Policy
	Continued delivery of school travel programme including school streets and ante-idling restrictions/campaigns.	Encourage sustainable travel and cycling as a mode of transport by maintaining the school streets programme alongside cycle training programme and meeting targets as set out in the proxy measure.	Be First Transport Policy
	Engage with schools to identify opportunities for new or extended school bus routes, reducing the need for children to travel to school by car.	Promote sustainable travel to school by maintaining the existing Schools Travel Plan Officer role, which engages with schools to improve and facilitate opportunities to travel sustainably to school.	Be First Transport Policy

		Identify sites of high levels of cycling and walking and introduce Low Emission Neighbourhoods.	Ensure annual funding bids and highway improvement schemes incorporate projects which meet the Healthy Streets objectives and reduce the dependence on private vehicle use.	Be First Transport Policy
<b>Promoting EV usage</b>	Expanding EV charge infrastructure	Embed roll out of EV charging infrastructure in planning and wider council policy	Local Plan policy on deployment of EV charge infrastructure reviewed as part of regular review of Local Plan, within 18 months of adoption.	Be First Planning Policy
			Development of EV charging policies to enable greater home-charging capability for flatted estates and on-street parking	Inclusive Growth, Be First and My Place
	Roll out of EV charge sockets and stations across existing neighbourhoods.	Delivery of first tranche of Connected Kerb sockets by Q4 2023.	Inclusive Growth	
		Testing the feasibility for rollout of rapid EV charging stations/hubs Q4 2024.	Inclusive Growth and Be First Transport Policy	
		Engage market for pilots for rapid EV chargepoint delivery by Q4 2023	Inclusive Growth	
		Business case for the utilisation of most council-owned carparks for secure overnight charging agreed Q4 2024.	Inclusive Growth and My Place	
	Expanding EV ownership and usage	Using the full range or council levers to promote EV ownership	Development of an options paper exploring B&D salary sacrifice scheme for the leasing of EVs Q4 2024.	Finance and HR

		amongst residents from all backgrounds	New parking permit structure launched, including free permits for anyone driving an electric or low emission vehicle Q3 2023	Daniel Connelly
<b>Reducing wider emissions</b>	Air quality action plan	Work with the River Roding Trust (RRT), the Canal and River Trust or relevant bodies to raise awareness of local air pollution emissions from waterways.	Engage with canal boat owners to promote sustainability, cleaner fuel burning and anti-idling to reduce emissions from boats by Q4 2024.	Enforcement
		Develop a long-term strategy for the A13 to help improve traffic congestion, improve air quality, and enable sustainable growth.	Part of the ongoing Be First and TfL discussions with Government	Be First Transport Policy
		Supporting the shift of logistics freight from road to river or rail	Working with London partners to assess feasibility of moving more light freight onto the river and decarbonise shore power Q4 2022.	Be First and Inclusive Growth

## A Net Zero Council by 2030

Source	Objective	2030 Net Zero Targets	2030 Net Zero Trajectories		
			Baseline	2025	2030
Transport	To decarbonise transport	Percentage of EV in council fleet	0	25	100
		Percentage of staff travelling to work by sustainable modes	15%	25	50

Sub-objective	Programme	Workstream	Milestones	Officer
Decarbonising the Council's fleet	Fleet replacement programme	Decarbonising the council fleet by purchasing and/or leasing new vehicles and retrofitting existing vehicles to electric and/or hydrogen	Review of charging infrastructure to support EST-recommended electrification of vehicles in place at depots by Q1 2023.	My Place
			Review of EST recommended electrification of vehicles – including 42 vans, 8 cars, and 1 RCV retrofit – in 2023.	My Place
			Undertake annual fleet audits with a vehicle replacement programme to show continued progress in phasing out older and more polluting vehicles by 2030.	My Place
	Driver training/development	Complete an industry-recognised fleet driver training programme to improve driver/vehicle	Training programme implemented by Q2 2023.	My Place

		operations and reduce fleet emissions.		
Decarbonising staff transport behaviours	Staff transport behaviours	Development of electric carpool and bikes offer for staff.	Business case reviewed by Q4 2024.	My Place, Finance and Inclusive Growth
		Review of staff parking permits and implementation of policy or management process to significantly reduce overall numbers.	Policy – including emissions-based charging for operational permits and other permits – agreed and implemented by Q3 2022.	Parking

### What are we doing to capture the wider benefits associated with decarbonising transport?

#### Equalities

Opportunity	Description	Milestone	Officer
Obesity	Only 3% of people walk or cycle daily in Barking & Dagenham – the lowest figure in England. This contributes to high levels of obesity, with disproportionately high rates amongst black residents across all ages and both sexes.	The council is currently conducting a review of obesity services in the borough, which will include further deep dive analysis into the inequalities experienced by black residents. This review will inform the development with a wider ‘whole systems’ approach to obesity underpinned by a healthy weight vision and strategy. This will coordinate action across commissioned services and transport planning to ensure the biggest potential impact on inequalities related to obesity.	Public Health and Be First Transport Policy

Respiratory health	LBBDD is one of five London boroughs with the worst levels of air quality in the capital. As a result, Barking and Dagenham has been declared an Air Quality Management Area (AQMA), with the greatest concentrations of emissions around the borough's main thoroughfares and schools. This has a disproportionate impact on respiratory health outcomes for children and young people.	B&D-Airspace will create a step-change in knowledge and awareness of air pollution across Barking & Dagenham by combining cutting-edge social science, digital technologies, and community engagement to create London's first bottom-up, demographically representative perceptions inventory of air pollution conditions and exposure experience, so that local people can assess real-time live data about key emissions in their locality through air sensors. This scheme is running throughout 2023	Enforcement
		Our Schools Streets programmes will drive down emissions in the places that children and young people are.	Be First Transport Policy

**Employment**

Opportunity	Description	Milestone	Officer
EV upskilling	19% of jobs in Barking & Dagenham (11,000) are related to the repair and maintenance of vehicles and motorcycles. The rapid adoption of EVs, driven by the ban on the sale of petrol vehicles by 2025, will present a significant challenge to mechanics and the businesses that employ them. At the same time, EV adoption will create new jobs related to the installation of EV charging infrastructure and the maintenance of EVs.	The council has commissioned a green economy review, focused on exploring how the council can grow the green economy and attract green jobs to the borough. This review will focus specifically on safeguarding jobs in the borough by upskilling mechanics and others working on the repair of vehicles and motorcycles.	Inclusive Growth

**Engagement**

Opportunity	Description	Milestone	Officer
EV ownership	The rapid adoption of EVs in Barking & Dagenham will require significant behaviour change on the part of residents. Early adopters are already having to put up with a loss of convenience, until battery ranges and charging infrastructure catches up with petrol equivalents. Engaging residents in a conversation about the adoption of EV - whilst being honest about the potential compromises – will be critical to speeding up the process of adoption.	We will develop a programme of engagement with residents about the future of transport with a focus on the EV revolution, including facilitated CAN focus groups and #OneStepGreener messaging. This work will build from the Barking Electric Avenue festival – May 2022 celebrating and showcasing EV and e-bikes.	Participation and Inclusive Growth
Localised walking and cycling infrastructure	Improvements to walking and cycling infrastructure can involve significant capital expenditure, for example to deliver new cycling lanes or to improve pedestrian experience. But lots of improvements can be made without significant capital investment. Where possible, the community to take the lead in deciding how, when, and where these improvements should be made.	We will work with transport planners and community groups to develop a menu of sustainable travel options – including cycle storage, cycle training, or new signage - that residents and councillors can choose from as part of the deployment of the estates fund, ward budgets, and the neighbourhood fund.	Be First



## Objective Four: Reducing Waste through recycling, reuse and repair

### A Net Zero Borough by 2050

Source	Emissions	Objective	2050 Net Zero Targets	2050 Net Zero Trajectories			
				Baseline	2025	2030	2050
Waste	23ktCO <sub>2</sub> e (0.6%)	To decarbonise waste	Percentage reduction in the quantity of waste produced	0	17	24	57
			Percentage of total waste stream that is recycled	25.5	33	38	86

Sub-objective	Programme	Workstream	Milestones	Officer
Promote Waste reduction	Residents and Schools Engagement programme	Ensure ongoing waste reduction through communications across social media, and engagement with residents and schools	Adoption of Behaviour Change Communications Plan	My Place
			Engage with residents on the reasons for restriction of residual wheelie bin capacity to 140L and limit on one bin provision per household.	My Place
			Implement household waste and recycling guidance to provide impetus for enforcement action on extra black bag waste presentation by residents. There is provision for residents to dispose of their excess residual waste and restricted	My Place

			household waste at Frizlands Lane Reuse and Recycling Centre (RRC).	
Tackling food waste	Diversion of food waste from the residual waste stream	Work on implementing proposal for food waste collection with the view of having a functioning service by the time food waste collection becomes a statutory service. However, this will depend on ELWA agreeing food waste disposal route for boroughs and also LBBB confirming funding commitment	My Place	
	Removal of disposable nappies from the waste stream	Continue to support the food waste reduction/prevention initiatives include the Food Waste game and Let's cook and save initiative.	My Place	
	Encouraging the sharing economy in unwanted goods and repair of electronic goods and textiles	Continue to promote real (reusable) nappy launched in May 2021 as part of the ELWA waste prevention programme to point residents to reusable nappy option.	My Place	
		Organise repair cafes to encourage repair for electronic equipment and textiles and to promote sustainable consumption and upskilling on simple household repair tasks and promote the Barking Library of Things was launched was launched in September 2022 to provide tools and equipment borrowing service to residents in the borough.	My Place	

Maximising recycling	Improving opportunities to recycle	Providing recycling facilities	Extend provision of current 33 public recycling bringsites across the Borough.	My Place
		Reducing contaminated recyclates	Contaminated recycling bin presented for collection will not be emptied and will be tagged with contamination tag to inform residents of what contaminants are contained in their recycling bin.	My Place
		Improving recycling in flatted estates	LBBB will continue to strengthen recycling in new developments and particularly in flatted accommodations through engagement with residents, Tenant Resident Associations (TRA) and housing management with a focus to reduce contamination. LBBB is embarking on a bin store improvement project for 130 sites in estates across the borough	My Place
		Driving up commercial recycling rates	Promote the commercial recycling service for businesses within the borough, collecting the same range of materials consistent with the household stream. The trade waste team will seek to increase uptake of recycling collection agreement with existing and new customers through intensive marketing drive.	My Place
Reducing waste impact on the environment	Preventing landfill	Diversion of waste from landfill	Through ELWA, the authority will continue to prevent landfill through recycling, reuse, repair, materials recovery from residual waste and mechanical-biological	My Place

treatment. Diversion from landfill is currently 99%

## The Constraints

Decarbonising transport targets and trajectories		Baseline	2025	2030	2050
Percentage reduction in the quantity of waste produced		0	17	24	57
<b>Constraints</b>	Local authorities have duties around waste collection and disposal, but have no specific powers to reduce either residential or commercial waste at source (i.e. before it becomes waste). Global and national action will be needed to move to a circular economy. Local authorities can influence the behaviour of residents and businesses – through campaigns and the provision of high quality, innovative collection and recycling services – but the decision to change behaviour still rests with the individual. In Barking & Dagenham, we produce consistently high levels of waste compared to our London neighbours. In part this is driven by the high number of HMO's in the borough, which – according to Keep Britain Tidy – present specific waste management and recycling challenges.				
<b>Approach</b>					
Percentage of total waste stream that is recycled		25.5	33	38	86
<b>Constraints</b>	Local authorities can influence the behaviour of residents and businesses – through campaigns and the provision of high quality, innovative collection and recycling services. In Barking & Dagenham, recycling rates were consistently lower than the London and UK averages - 25% in 2019-20 compared to 33 across London and 44% nationally). However, recent campaigns to improve public engagement in recycling, reuse and repair and an expansion of the types of recyclates collected has seen a marked improvement in recycling levels to 33% in 2023.				

	<p>The current waste disposal contract is in place until 2027 whereby there are contractual constraints around what configurations of service are financially possible. Whilst these are being explored with the contractual partner there may be some challenging limitations that restrict our ability to progress towards targets in the short term. There continue to be confusing signals from Government about changes in their Simple Collections policy for refuse and implementation of such reforms.</p>
<b>Approach</b>	<p>The Resource Waste Strategy will provide legislative changes around waste management and waste as a resource. This will include separate food waste collections and consistency around collection types with a view to increasing recycling quantity and quality. As a Council our approach is to work with our waste disposal partner, East London Waste Authority (ELWA), and our partnering authorities in order to create a collection system that adheres to legislative requirements whilst providing an easy-to-use service for residents.</p> <p>The recently adopted Joint Waste Strategy with ELWA and the neighbouring boroughs provides the key framework for how the service design and delivery will be undertaken. Linked to this will be the procurement of a new waste disposal contract which will go live in Dec 2027 and our approach over the next 5 years will be to ensure this is developed against national and local requirements</p>



