

CABINET

14 November 2023

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| Title: Barking and Dagenham Net Zero Carbon Roadmaps and Framework | |
| Report of the Cabinet Member for Public Realm & Climate Change | |
| Open Report | For Decision |
| Wards Affected: All | Key Decision: Yes |
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| Accountable Executive team Director: James Coulstock, Interim Strategic Director of Inclusive Growth | |
| Summary: <p>The Climate Change Act 2008 (2050 Target Amendment) Order 2019 legislated for the UK's transition to a low-carbon future within 30 years and meet the international ambitions set out in the Paris Agreement 2015 to limit the growth in harmful carbon and greenhouse gas emissions to no more than 1.5°C above pre-industrial levels, and this was further reiterated at the Glasgow COP26 last year.</p> <p>Assembly duly supported this target in January 2020 by passing a motion unanimously committing the Council to becoming a carbon neutral authority by 2030 and using its policy levers to ensure the wider borough becomes net zero carbon by 2050. Anthesis and the Carbon Trust were appointed to help the Council understand its greenhouse gas emissions baseline, prepare a high-level trajectory and devise a roadmap to support its journey to net zero, with a supporting framework of actions and interventions drawn up by the Council.</p> <p>The carbon footprints have been positioned on data sources from the financial year 2019/20 to ensure there was a 'business as usual' understanding of emissions rather than one reflecting the extraordinary circumstances of the pandemic between 2020/21. The borough is estimated to be responsible for the production of 566 ktCO₂e, with 38% derived from homes and buildings; 34% from industry and commerce and 27% from the transport network. The Council itself was deemed to be responsible for 119,000 tCO₂e of that through its day-to-day operations, corporate estate, fleet and supply chains.</p> <p>Adjusted to scientific modelling and framed against the Paris Agreement targets, Barking & Dagenham can only produce 3,035ktCO₂e between 2022 and 2050, requiring a 12.3% reduction in emissions every year until then to remain in that carbon budget. The accompanying Framework tries to plot the type of interventions required to keep to that trajectory. However, this remains an exceptionally challenging ambition given international events, costs, funding, the behaviour change required and technological uncertainty and this approach to net zero needs to be viewed against a 'reality gap' between the high-level ambition that the Council wants to reach and what is actually possible to do at this moment in time, with the likelihood of only incremental progress against the Council's own operational footprint between now and 2028/29.</p> | |

Recommendation(s)

The Cabinet is recommended to:

- (i) Approve the Council's Operational Net Zero Carbon Roadmap at Appendix 1 to the report;
- (ii) Approve the Borough-wide Net Zero Carbon Roadmap at Appendix 2 to the report; and
- (iii) Approve the Net Zero Carbon Delivery Framework at Appendix 3 to the report.

Reason(s)

The Council has set itself a target to become a carbon neutral authority by 2030 and support the wider borough in achieving that ambition by 2050 in line with legislation. There is a level of reputational risk associated with the Council not taking carbon reduction targets seriously and it should be seen to be leading by example to mitigate the more local impacts of heatwaves, flash flooding and parkland fires which have occurred over the last two years.

1. Introduction and Background

- 1.1 In January 2020, Assembly adopted a motion signing up to the objectives of the Campaign Against Climate Change, a global warming pressure group, which called for local authorities to declare a climate change emergency and follow-up with actions and activities to implement that decision to become carbon neutral by 2030.
- 1.2 The campaign and the Council's motion draws on the conclusions of the International Panel on Climate Change (IPCC) which reported in October 2018 and called for a limit to the rise in global temperatures to no more than 1.5°C, with the United Nations suggesting that the world had 11 years left to avert a climate change catastrophe.
- 1.3 To date more than three hundred local authorities have made public declarations recognising the impact of global warming and committing to action to make their borough and/or respective councils carbon neutral by 2030. Carbon neutrality refers to achieving net zero carbon dioxide emissions by balancing carbon emissions with offsetting, removal or simply eliminating carbon emissions being created from activities in the first place. This was buttressed by national legislation in June 2019 when the Climate Change Act 2008 (2050 Target Amendment) Order was passed with the aim of making the UK a carbon neutral economy by 2050.
- 1.4 Local authorities are seen as enablers and agents of change and are therefore expected to be a key driver in those ambitions. This has become increasingly important in Barking & Dagenham in the last two years given local tornadoes and flash flooding in 2021, followed by the death of 8,000 trees in April last year and the grass fires in Beam Parklands and Fells Field in Dagenham last August – all considered to be the hallmarks of freakish climate-change induced weather events.

Therefore, the Council needs to do its best to prepare the borough's resilience against storm surges, floods and extreme heat in the decades to come. Mitigation and adaptation are going to be just as important as carbon reduction and the development of a roadmap and framework are considered critical strategies in delivering that.

- 1.5 However, it was noted that while local authorities are enablers, resources, costs, national policy responses, behaviour changes required among the wider public and technological constraints involved in reaching net zero, means that councils up and down the country will face an exceptionally difficult challenge in achieving emissions reductions in line with the Paris Agreement. Regardless of the intention and the ambition, progress is expected to be incremental at best.
- 1.6 Regardless of those concerns, the Council carried out a tender exercise in 2021 resulting in Anthesis and the Carbon Trust being appointed by the Council to baseline the Council's and the wider borough's greenhouse gas emissions, provide an assessment of what the Council can directly change and what it can influence to reduce carbon emissions and provide key targets which can translate into measurable interventions. Zero carbon roadmaps for the Council's operations and for the wider borough were to be developed and a framework of activities to be considered which could support Barking & Dagenham's journey to Net Zero.
- 1.7 Following an extensive review of internal and external datasets, Anthesis and the Carbon Trust provided a working spreadsheet to calculate the carbon footprint of the Council's operations, buildings, fleet and supply chains. Owing to the poor quality of and difficulty in sourcing some of that information internally that calculation could not be ascertained until 2022 and where there were gaps, the consultants have had to make assumptions based on industry proxies. Part of the recommendations in the roadmap include improving data collection and retention between services so that a more robust assessment of carbon emissions against the 2030 target can be undertaken.

Understanding the Method of Carbon Accountancy

- 1.8 Climate science and carbon accounting are complex matters, and this report seeks to provide a high-level summary of those key points from the roadmaps, but it is important to set out some of the main terms used in discussing net zero, which are governed by global definitions.
- 1.9 In their assessments the consultants adopted the International Greenhouse Gases Protocol which calculates a carbon footprint based on the total greenhouse gas emissions caused directly and indirectly by a person, organisation, service or product, and then multiplying the activity data with an associated emissions factor. The accuracy of a carbon footprint is largely dependent on the quality of activity data available. Primary data relating to the specific activity being footprinted (e.g. electricity meter readings) was preferred, but benchmarks or proxies were used where primary data was absent. Emission factors define the carbon intensity of an activity, and the most common emission factors are updated and published annually by the UK Government.

- 1.10 The greenhouse gas (GHG) protocol is an established and internationally recognised methodology for carbon reporting. In the protocol, emissions are categorised into three scopes:
- **Scope 1 – Direct GHG emissions** (i.e. occur at the point-of-use) from sources that are owned or controlled by the reporting organisation. For example, this would include emissions from the operation of a petrol vehicle owned/controlled by the reporting company, as emissions are directly released from the vehicle exhaust;
 - **Scope 2 – Indirect GHG emissions** (i.e. do not occur at the point-of-use) from energy consumed by the reporting organisation's owned/controlled assets. This includes electricity consumption, where the emissions associated with the consumption do not occur at the point-of-use but have been produced in the initial generation of the consumed electricity (e.g. from the burning of natural gas at a power station);
 - **Scope 3 – All other indirect emissions** that occur in the reporting company's value chain. For example, the production of paper used in the Council's printers. The transportation of that paper from the manufacturer to the Council would also be included, as would the processing and disposal of the waste-paper after use.
- 1.11 Greenhouse gases contribute to global warming by 'trapping' in heat that would otherwise escape to space. Carbon dioxide is the most widely-produced GHG but there are many others such as methane (emanating from livestock and landfill, for example) and nitrous oxide (from vehicle tail-pipes). The potency of GHGs is defined by their global warming potential and carbon footprints are measured in tonnes/kg carbon dioxide equivalent (CO₂e), combining the impact of different greenhouse gases into one figure. The Council's footprint therefore includes the impact of all greenhouse gases, not just carbon dioxide.
- 1.12 A similar approach has been adopted for the wider borough, but national data sets have been used to calculate the footprint. It should also be noted that for the purposes of this exercise emissions from housing are captured in the borough rather than council footprint, even though the Council is a social landlord for 17,000 properties. Although the Council owns the stock it does not have direct control over tenant energy use or access to its consumption levels to accurately record its carbon impact on the operational footprint. Equally, as it stands the cost of retrofitting and decarbonising the council's entire housing stock is estimated to be between £850m-£1bn – a scale of investment that could never be delivered by the Council in the next seven years.
- 1.13 For the purposes of the Protocols, the operational activities of the Council's subsidiaries such as Be First, BDTP, B&D Energy and Reside are not included in the Council's footprint. The protocol treats such entities as investments which need to be treated differently. However, to the general public there is little differentiation due to the council being the parent and therefore Inclusive Growth commissioners are encouraging each company to adopt its own baselining and develop a net zero trajectory.
- 1.14 Following the baselining and emissions calculation, the Council held a series of net zero workshops with services and subsidiaries in 2022 to help translate the Zero Carbon Roadmap objectives into a framework of activities and interventions

required to meet the 2030 and 2050 ambitions, and to establish the scale of investment and work required. The culmination of that work has concluded with a framework for decarbonising industry, transport, domestic buildings, reducing waste and offsetting the remaining carbon emissions.

1.15 Again it should be noted that the Framework sets out the pace of what is required to reach 2030 and 2050 and how that is tempered against what is achievable given current technology and funding. Given resources the Council has a highly difficult pathway to reaching net zero by 2030, with the likelihood that a majority of the tasks required will be back-loaded to nearer the target date rather than in the next couple years. Therefore, the Roadmap and Framework sets the trajectory on which the Council has already embarked through its retrofit programmes, electrification of fleet and demanding more carbon reduction practises from its supply chains. These include:

- Cosy Homes programme with EON delivering free energy efficiency installs and retrofit across all tenures, with almost 2,000 homes receiving measures since 2021;
- Deep retrofit pilots on homes on the Becontree Estate, making cold drafty homes into A-rated energy performing properties;
- £48.8M of grant funding to support the decarbonization of homes and buildings; deliver low-carbon district heat networks; electric chargepoints; air quality improvements; and investment into tree planting, green spaces and habitat restoration;
- Beginning of the corporate estate retrofit programme installing energy conservation measures across the Council's largest energy-consuming buildings;
- £1.2M funding into 250 new sustainable electric charging sockets with Connected Kerb, fitted with real-time air quality sensors and which in the future can be used for 5G;
- £13M of investment into one of London's largest district heat networks eventually connecting to 8,000 homes, connected to decarbonised sources of heat through water-source heat pumps, sewage and waste heat;
- Planting of 52,000 new trees and the restoration of 50 hectares of wetlands, providing natural means for sequestering carbon, while restoring habitat.

1.16 The Council is also developing a relationship with South Korea and the Thames Freeport to utilise the opportunities in the borough for retrofit and smart technology solutions for domestic and commercial decarbonisation.

2. Proposal and Issues

The Council

2.1 The following summarises the Council's operational carbon footprint and a suggested high-level trajectory of interventions contained in the Council's Roadmap (Appendix 1). This is broken down further in the Net Zero Delivery Framework (Appendix 3).

2.2 The London Borough of Barking & Dagenham's carbon footprint was baselined on the 2019/20 financial year and calculated to be 119,103 tCO₂e (Fig.1), including all Scope 1 and 2 emissions, relevant Scope 3 but excludes investments and the

subsidiaries. Scope 3 emissions account for approximately 77% of the overall footprint, with purchased good and services, and leased buildings making up the bulk of emissions (52% and 19% respectively). The Council’s Scope 1 and 2 results were from energy consumption in buildings and fleet vehicles.

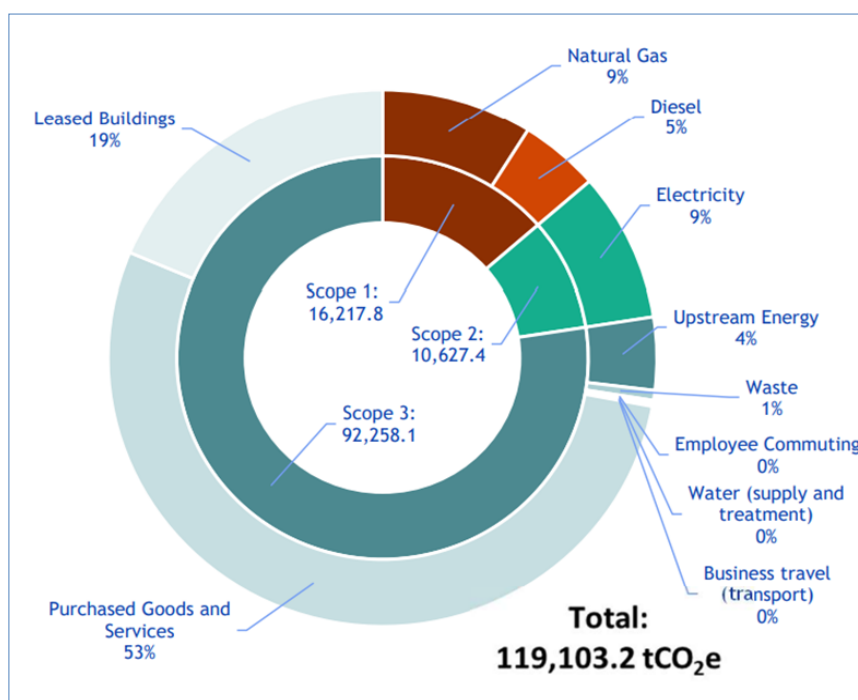


Fig.1 – LBB Operational carbon footprint 2019/20

- 2.3 To achieve net zero emissions by 2030, the Council will need to reduce emissions by an average of 9% each year based on the 2019/20 baseline and offset or inset whatever residual emissions from operations remain through activities such as tree-planting or by purchasing carbon credits from PAS2060 accredited carbon neutral organisations in 2030.
- 2.4 The Council’s existing activities, which include the beginning of a corporate retrofit programme installing energy efficiency measures in buildings across the public estate, moves to increase the number of electric vehicles in our fleet and other activities such as connecting buildings to the district heat network will have a modest impact on meeting the projected target.
- 2.5 Figure 2 tabularises the high-ambition interventions and activities recommended for adoption if the 2030 targets are to be met. These will be highly challenging to deliver but underline what is scientifically required to meet members’ commitments.

| Council Emissions Activity | Midway target - 2025 | 2030 Target |
|------------------------------|---|--------------------------------|
| Corporate energy contracts | 50% of electricity is sourced from renewables | 100% renewable electricity |
| Corporate energy consumption | 10% reduction in energy demand | 25% reduction in energy demand |

| | | |
|---------------------------|---|--|
| Low-carbon heat sources | 25% of corporate estate heated by low-carbon sources | 100% low-carbon heat sources |
| Fleet | 25% of fleet electrified | 100% of fleet electrified |
| Waste | Nil | 30% reduction in waste emissions linked to the delivery of the ELWA contract |
| Procurement/supply chains | 50% of supply chains publish and evidence net zero strategies and targets | 100% of supply chains on net zero trajectory |

Fig.2 – Trajectory targets to reach Net Zero by 2030

It would also entail a comprehensive deployment of solar PV across the public estate; a holistic energy assessment for all buildings within the estate and better energy monitoring and targeting to reduce power consumption; ensuring all domestic properties leased through private sector leasing for temporary/emergency accommodation meet energy performance certificate (EPC) ratings of B; that NHS Net Zero targets are applied across procured health and social care services and all tender specifications are encouraged to prioritise the reduction of emissions in goods and services.

2.6 It is important to stress that even if the Council continued all its existing decarbonisation activities and adopted the recommended course of interventions from Anthesis and the Carbon Trust, there would remain a 55,000tCO₂e emissions gap if the Council does not effectively reduce the carbon impact of its goods and services. Without a comprehensive switch to sustainable procurement, the council will fail to become carbon neutral by 2030 as illustrated in Fig.3.

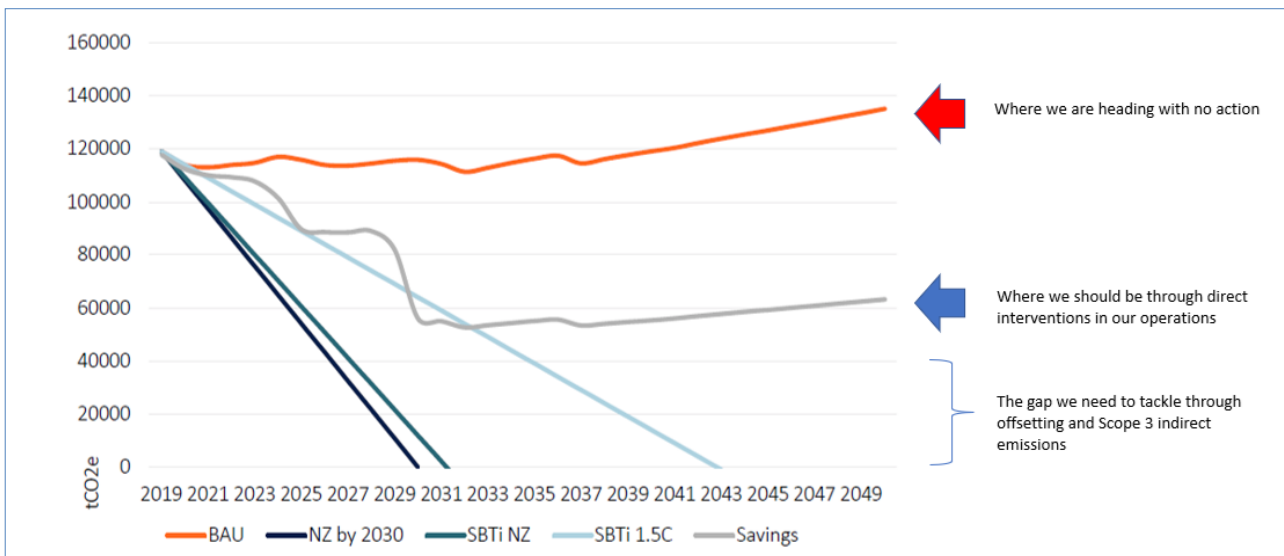


Fig.3 – estimated savings from carbon reduction measures

The Wider Borough

- 2.7 For most of the last decade, the Greater London Authority's assessment of emissions (London Emissions Greenhouse Gas Inventory - LEGGI) has concluded that Barking & Dagenham, as a borough-wide entity, has been the lowest emitter of greenhouse gases in the capital. The Carbon Trust analysis for the Council suggests that emissions continue to fall and have calculated that in the baseline year the borough-wide footprint was 566ktCO₂e (Fig.4), with 38% of emissions emanating from housing; 34% from industry and commercial premises and 27% from transport. The observation is that transport emissions have remained largely static over the decade, with a gentle declension in residential output but a significant decline in emissions from industry.

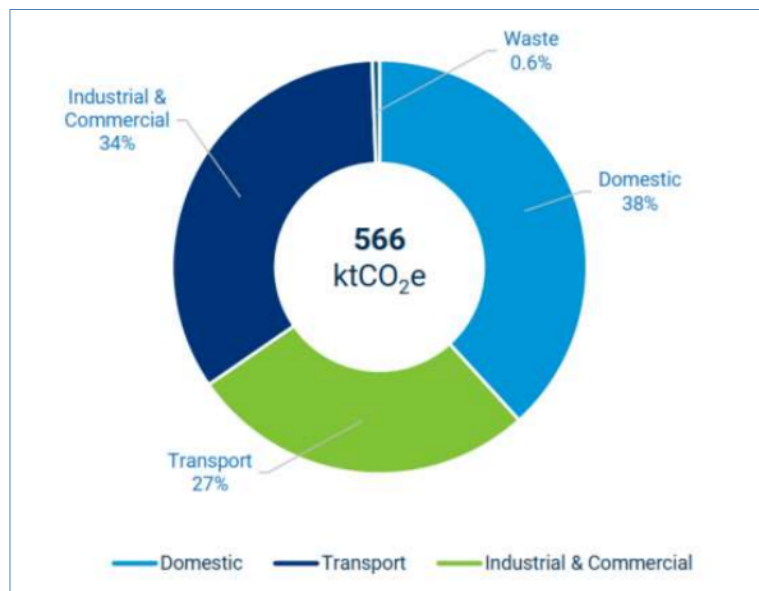


Fig.4 – LBBD's Borough-wide carbon footprint 2019/20

- 2.8 While this abatement in emissions is welcome, the borough's current business-as-usual rate of decarbonisation is unlikely to see carbon levels fall much below 450ktCO₂e by 2050. The modest reduction, largely driven by gradual national policy measures, small-scale changes in resident behaviour and decarbonisation of the National Grid will account for a modest 12.3% reduction every year up to 2030 and 20% by 2050.
- 2.9 Anthesis deployed the SCATTER Pathway tool to generate a greenhouse gas emissions inventory and create different pathways to net zero depending on higher levels of ambition to understand how the wider-borough may achieve net zero (Fig.5). Modelling is in line with keeping temperature changes below 2°C, meaning that a fixed carbon budget has been set by which to judge the borough's progress. The University of Manchester's Tyndall Centre Carbon Budget tool has been adopted to assess the total volume of carbon emissions the borough is allowed to emit over a given time to meet the 2050 target. This assumes a carbon allowance of 3,035ktCO₂e between 2022-2100, requiring an annual reduction in emissions of 76% by 2030 and 98% by 2050. Based on current projections if Barking & Dagenham carries on along a business-as-usual trajectory with modest decreases, it will have exceeded the carbon budget target in the next three years.

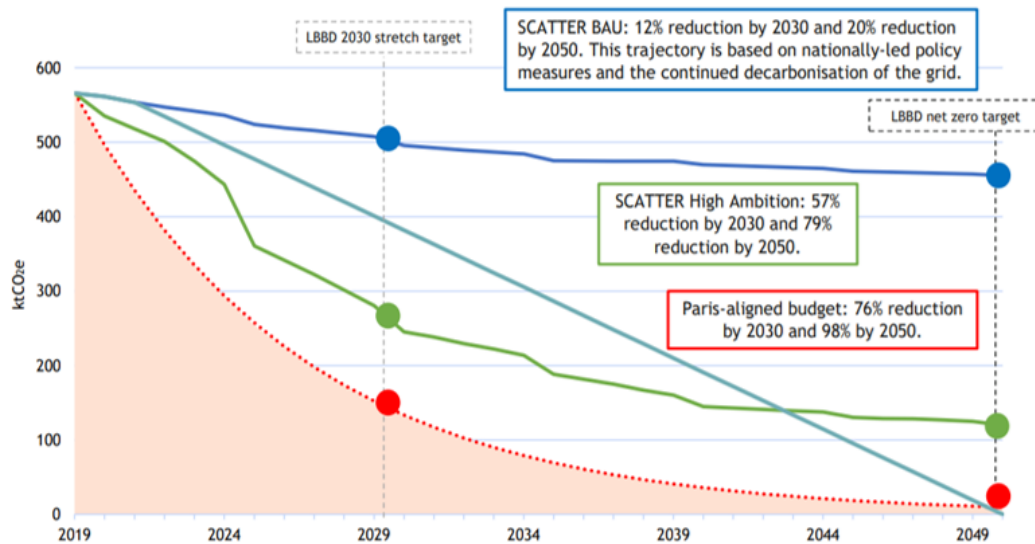


Fig.5 – borough-wide emission pathways set against carbon budget

2.10 Obviously, the Council has limited ability to dictate the pace of or influence the extent in which the borough decarbonises, and the report recognises that there needs to be unprecedented levels of extensive deep retrofit, solar deployment, electric charging and nature-based carbon sequestration to align with the trajectory set by the carbon budget. Nonetheless the Roadmap suggests that regional and national policy and funding frameworks need to be geared towards the type of interventions set out in Fig.6. These higher ambition targets using the SCATTER pathway tool suggest a 57% reduction in emissions by 2030 and 79% by 2050, if national policy and the Council wished to accelerate the pace of delivery to Net Zero.

2.11 In summary, the Fig.6 illustrates the key sectors, their emissions, the proposed interventions required and some assumptions about the levels of progress required for the wider borough to reach Net Zero by 2050:

| Borough Emissions Activity | Emissions | Midway target - 2030 | 2050 Target |
|----------------------------|------------------------------|---|---|
| Domestic buildings | 217ktCO ₂ e (38%) | 22,400 homes retrofitted | 57,300 homes retrofitted |
| | | New-build homes 100% Passivhaus | 100% of homes with low-carbon heating |
| Industry and commerce | 192ktCO ₂ e (34%) | 51% industrial emissions reduction | 72% industrial emissions reduction |
| Transport | 154ktCO ₂ e (27%) | 76% of cars EV | 100% cars EV |
| | | 27% of trips made through active travel | 34% of trips made through active travel |
| Waste | 23ktCO ₂ e (0.6%) | 24% reduction in quantity of waste | 57% reduction in quantity of waste |

Fig.6 – Key emission sectors and Net Zero trajectory

- 2.12 Changes to the built environment require an 87% reduction in emissions through improving the thermal performance and energy efficiency of new-build and existing stock; swapping out gas heating systems for electric heat pumps and decarbonised heat networks and reducing energy demand with low-carbon cooking, lighting and appliances would save 4,268ktCO₂e by 2050.
- 2.13 A 68% reduction in transport emissions could be achieved by encouraging shorter levels of travel, switching modes of transport by driving less and using electrified public transport; the transition to electric vehicles in general and improving freight emissions through fuel efficiency and methods of travel would save 2,353ktCO₂e by 2050.
- 2.14 While waste accounted for only 0.53% of the borough's total emissions count it is publicly perceived as symbolic in the battle against greenhouse gases because of its association with landfill, incineration and reuse, recycling and repair. Improved reductions in the volume and weight of solid waste through decreased consumption, packaging reforms and increased recycling could save 24.1ktCO₂e by 2050, representing a 32% reduction in emissions. This would also require an 86% recycling rate.
- 2.15 Industrial use was responsible for 192ktCO₂e during the baseline year but the Council's ability to influence change and decarbonisation in this sector is minimal. National policy and subsidy will remain the key lever in shifting business away from fossil fuel use in industrial processes which could reduce emissions by 80% by 2050, a carbon saving of 3,356ktCO₂e.

Offsetting

- 2.16 However, even under the most ambitious trajectory, there are expected to be significant residual carbon emissions left in the borough-wide energy system by 2050. Estimates suggest this could be equivalent to 120ktCO₂e. This will be difficult to tackle but could be counter-balanced by significant levels of carbon offsetting through tree-planting, habitat restoration and enhancing the carbon sequestration potential of green spaces coupled with carbon capture technologies which hopefully will have matured into a developed market by 2050. Offsetting could only be considered nearer 2050.

Costs

- 2.17 The Roadmap being a high-level trajectory is not a costed plan to achieve Net Zero. With the current highly inflationary market, high energy costs and frustrated supply chains it is impossible to accurately reflect what it would cost to get the Council and the borough to Net Zero or predict how markets will evolve and technologies become cheaper by 2050.
- 2.18 Working on pre-inflation assumptions the cost of retrofitting council housing stock alone would be between £870M to £1bn; replacing all existing diesel refuse trucks with electric equivalents would cost at least £9M, without factoring in the number of sub-stations which would need to be built to support the charging network at £100,000 per unit.

- 2.19 Projects and interventions will need to be individually costed at feasibility stages and as and when funding and grant opportunities arise.

Net Zero Delivery Framework

- 2.20 Complimenting the Roadmaps is Net Zero Delivery Framework for both the Council and the wider-borough which sets out the key deliverables required across the main emission sectors, establishing the kind of activities and general targets required to make progress towards 2030 and 2050. This is delivery framework rather than a delivery plan because of the fluid nature and constantly evolving pace of climate change understanding and pace of national policy.
- 2.21 The Framework explains the principles behind our approach to Net Zero demonstrating the need for us to lead by example; the requirement to innovate in the use of new technologies and investments; the ability to influence the regulatory environment, partnerships and coaxing behaviour change, while embracing the co-benefits of this transition, across new employment opportunities, tackling inequalities and encouraging wider public participation. These principles are corralled by a series of constraints which impact upon the ability to reach Net Zero including the cost and business case of interventions; technological uncertainty (debate between electric and hydrogen, as well as carbon storage and capture); government policy (constant revisions in timeframes for delivery and stop-start opportunities for grant) and behaviour change.
- 2.22 The multitude of actions and targets are too numerous to detail in this covering report but are comprehensively mapped out in Appendix 3.

Tracking Progress

- 2.23 The scale of the challenge posed by the 2030 targets should not be underplayed with funding remaining the most significant barrier. Given the Council's current challenging financial position, reaching Net Zero does not feature in its Medium-Term Financial Strategy (MTFS), with only grant-funding opportunities providing a resource to make some progress. The Council's activities between now and 2026 are expected provide only the bare minimal impact upon its carbon footprint.
- 2.24 Tracking that progress against the Roadmap will also require external expert support. While some funding has been earmarked for a possible audit next June, this may now need to be delayed until 2025 and an assessment provided bi-annually.
- 2.25 Equally, due the Council's MTFS position, the recruitment of a Net Zero officer with responsibility for the data collation, management and technical inputs from across the service and support work on sustainable procurement has been paused indefinitely. That will have an impact on the quality of the Council's assessment of its progress against Net Zero targets in the short and medium term.

3. Options Appraisal

- 3.1 Having publicly committed to the climate emergency objectives in 2020, Barking & Dagenham is required to actively demonstrate that the authority has taken those targets seriously by establishing a scientific understanding of the profile of its

emissions; set a credible pathway towards a decarbonised future aligned to the 2019 regulations and publish a climate change action plan as a result.

- 3.2 The work produced by Anthesis and the Carbon Trust meets that requirement. There is reputational risk in the Council not adopting a suite of measures to reduce its carbon footprint, even if there is only a very narrow path to achieving 2030 and 2050 targets, given the many constraints around technology, capacity, funding and behaviour change.
- 3.3 It should be noted that the baseline and Roadmaps can only ever give a ball-park summation of the Council's and the Borough's position, and that may be revised with the activities and targets reviewed against better quality data, improvements in technology and maximisation of grant-funding.
- 3.4 Given the fluidity of national policy on Net Zero, including the Prime Minister's recent statement relaxing some of the targets around phasing out of internal combustion engine cars, replacement boilers and energy efficiency upgrades in tenanted properties, there is likely to be amendments to the Roadmap and Framework during the course of its timeframe. It is already acknowledged that a majority of activities for the Council are likely to be back-loaded to 2030, but there will need to be an assessment nearer that time as to whether that target can be realistically met or needs to be amended. This will be a question posed to all the 300 local authorities currently signed-up to the 2030 pledge.

Consultation

- 4.1 Internally the work towards net zero has been an enduring conversation with members, the senior leadership team and services. There have been several data gathering sessions and presentations to key staff members across the system in supporting their understanding of carbon literacy and establishing the baseline; again, key staff and service leads participated in a series of themed workshops last year to pull together the workstreams and objectives featured in the Framework. The senior leadership team has been briefed on changes in Net Zero policy and current progress and this now features as a corporate priority, embedded in all service plans and procurement reports, with several services owning and leading on key sustainability projects.
- 4.2 There is now an appointed Cabinet member with responsibility for climate change policy as well as a Cabinet Member Net Zero Working Group which has met bi-monthly since April. Wider all-member briefings were delivered in the spring and senior and backbench councillors are proactively involved or interested in the progress of many net zero projects. All this forms an ongoing dialogue about Net Zero across the system.
- 4.3 The Council has disclosed the major tenets of its Net Zero approach to a subgroup of the Citizens Alliance Network and this has been used to discuss a number of elements of climate change policy. This was followed up with an online consultation of the Inclusive Growth Strategy, which encapsulated the key themes of Net Zero. 79% of respondents were in agreement of the Council's approach to net zero and cleaner, greener environment. A majority of respondents cited net zero as the most important theme for them.

- 4.4 However, with the adoption of the Roadmaps and Framework, there is a need to build an ongoing communications plan to highlight the Council's objectives, the actions that residents can expect and progress that is made. The Sustainability team will work with Communications to develop the stages of a robust engagement strategy and has already started to draw together existing public communication campaigns between Waste, Public Realm and Parks to run the #OneStepGreener campaign on social media which is encouraging residents to support initiative to achieve Net Zero from recycling, reuse and repair; to accessing energy efficiency grants; taking up active travel and supporting our parks; recommending sites for EV charge-points and energy saving tips as examples.

5. Financial Implications

Implication completed by: Sandra Pillinger, Group Accountant for Inclusive Growth

- 5.1 This report sets out a Roadmap to Net Zero for both the Council and the wider borough, and a supporting Framework of actions and interventions. Whilst neither the Roadmap or the Framework includes a costing of how much funding is required to achieve Net Zero, it is clear that investment on a huge scale is required if significant progress is to be made in closing the gap between baseline carbon emissions and target, let alone meeting those targets. For example, para 2.18 above refers to a cost of at least £9m for replacing all existing diesel refuse trucks with electric equivalents and a cost of £870m-£1bn for retrofitting council housing stock.
- 5.2 There has been significant investment to date in initiatives which reduce GHG emissions and assist in progressing the trajectory which must be met if targets are to be achieved, such as free energy efficiency measures in residents' homes and energy conservation in Council buildings.
- 5.3 Given the Council's current challenging financial position, there is no specific provision within the MTFS to finance the scale of the investment which will be required to meet Net Zero targets. The Council needs to continue to identify external funding opportunities such as grant programmes to finance future investment and to act as an enabler for change across the borough.
- 5.4 Investment in council housing will need to be found within the Housing Revenue Account which is also facing financial challenges and will not receive any significant financial benefits from any improvements in energy use as these will usually accrue to the tenants.

6. Legal Implications

Implication completed by: Dr Paul Feild Principal Standards & Governance Lawyer

- 6.1 The key legislation is the Climate Change Act 2008 (the Act). The legislation established an advisory body, the Committee on Climate Change. It duly recommended a target date to aim for a significant reduction in the emission of 'Greenhouse Gases'. It is a legal requirement that the United Kingdom take such measures as to ensure there is a net zero of emissions of carbon by 2050. Article 2 of Climate Change Act 2008 (2050 Target Amendment) Order 2019 amends section 1 of the Act by altering the percentage amount in subsection (1). Section 1(1)

imposes a duty on the Secretary of State as to the level of the “net UK carbon account” (the amount of net UK emissions of targeted greenhouse gases for a period adjusted by the amount of carbon units credited or debited to the account) for the year 2050.

- 6.2 The duty is to ensure that the net UK carbon account is lower than the “1990 baseline” (the baseline of net UK emissions of targeted greenhouse gases against which the percentage amount in subsection 1(1) is applied) by a minimum percentage amount. This means that the minimum percentage by which the net UK carbon account for the year 2050 must be lower than the 1990 baseline is increased from 80% to 100% in other words no net carbon emission at all.
- 6.3 As mentioned in the body of this report, it presents a roadmap and framework. These set the direction and will be built upon. This will impact upon service delivery and procurement in the years ahead where the contribution to net zero will be part of the statutory best value delivery calculation. The Government advice is that the best way of achieving net zero is through it being designed at an early stage and will be an important element in procurement specification consideration.

7. Procurement Implications

- 7.1 The paper itself is not committing to procure goods and services, but in the event that this is required to support the trajectory to 2030, then the expectation is that these will be conducted in line with the Council’s Contract Rules and UK Legislation through the Public Contract Regulations 2015.
- 7.2 There are a number of initiatives and projects/reviews that will need to be conducted to drive the required outcomes being proposed. From a procurement viewpoint there will be some key dependencies needed to drive this forward.
- 7.3 This target is the responsibility of all commissioners and as such the accountability needs to be elevated and considered in all procurement across all spend areas from Bronze to Gold.
- 7.4 Corporate Procurement will fully support the drive towards the target date.

8. Other Implications

- 8.1 **Risk Management Issues** – The main body of the report addresses the inherent risks in achieving Net Zero but also underlines the reputational risk of not proactively adopting a course of action towards meeting that trajectory. Each and every project and workstream set out in the Framework will come with its own individual risk management assessments around cost, funding, resource, technological uncertainty and behaviour change.
- 8.2 **Corporate Policy, Customer and Equality Impact** – The long-term impacts of climate change are expected to exacerbate inequalities, which is why it is important that active steps are taken to ensure we are capturing the wider benefits of a just Net Zero transition, across equalities, employment, and engagement.

Decarbonisation will have different impacts for different groups, and there is a need to insulate vulnerable households from the potential costs. This is why utilising grant

and targeting such resources at low-income households is important (for example 77% of recipients of Cosy Homes installs were low-income vulnerable BAME households).

Net Zero offers a multitude of opportunities to improve the quality of life for local residents. The move to electrification of heating and transport will reduce carbon output, and eliminate nitrous oxides from cooking, boilers and vehicle fumes, providing cleaner and improved air quality and curtailing respiratory diseases. Insulating homes will reduce the need to heat space, cut energy consumption and prevent a squeeze on household budgets through lower bills and prevent cold, mould and condensation levels. Treating our green spaces, parks and habitats as protected natural carbon sinks will also support carbon capture and support wellbeing among residents, as will greater moves to enhance active travel through new walking routes, refreshed public spaces and cycling networks.

Overall, a move to Net Zero will lead to better income, job, health and environmental outcomes with a positive impact upon the protected characteristics outlined in the Equality Act 2010.

- 8.3 **Property / Asset Issues** – Net Zero objectives will lead to wholesale improvement of the thermal efficiency of corporate estate public buildings, schools, homes and commercial premises with cost savings generated from lower energy consumption and the swap out of gas heating systems. The electrification of fleet and vehicles in general should lead to long-term lower running costs in comparison to internal combustion engine transport.

Public Background Papers Used in the Preparation of the Report:

- LBBD Assembly Climate Change Emergency Declaration: January 2020 - <https://modgov.lbbd.gov.uk/Internet/documents/s136893/Minutes%2029012020%20Assembly.pdf>
- LBBD Inclusive Growth Strategy 2022/26 – Theme 4: Net Zero, Cleaner, Greener Environment <https://www.lbbd.gov.uk/inclusive-growth-2022-2026/net-zero-cleaner-greener-borough>

List of appendices:

- **Appendix 1** – Council’s Net Zero Carbon Roadmap
- **Appendix 2** – Borough-wide Net Zero Carbon Roadmap
- **Appendix 3** – Net Zero Delivery Framework