BUSINESS LDN

CREATING A GREENER CITY

How London government and business can together drive a successful net zero transition

November 2023

CONTENTS

CHAIR'S FOREWORD

In an era where the consequences of climate change are felt across the globe, the call for urgent and coordinated action resonates more powerfully than ever. London is not immune to the impacts of climate change, with increased instances and intensity of flooding, record temperatures and prolonged heatwaves. The need for accelerated action is ever more pressing in the context of London's 2030 net zero target, which puts it in the vanguard of climate leadership.

While organisations and governments are increasingly committing to ambitious and purposeful pledges to deliver climate action, we are still far from the pace of action required to limit the planet's global temperature to manageable levels.

Even with ESG-led (Environmental, Social and Governance) innovation and best practice offering a distinct market advantage, significant challenges stand in the way. These include funding for mitigation and adaptation measures, inflationary pressures, political uncertainty and a lack of supply chain readiness. The evidence base around the benefits of change, for example investment into on-site renewables or better resilience to extreme weather events, is growing but not yet mature.

At city level, the missing link is not so much a lack of understanding, ambition or commitment, but clarity about who is best placed to do what – and when – on the journey to net zero. The role of businesses in supporting a net zero outcome is very different to the role of government.

As we approach mayoral and national elections, it is essential to ensure that policymakers remain focussed on decarbonisation. London's attempts to lead on addressing climate change are helping to pave the way forward for other cities and are supporting business ambition in this area. For instance, London's journey to net zero relies on businesses having the confidence to invest in new technology, and such investment can largely be encouraged and nurtured through public policy decisions. It is only through greater levels of collaboration and coordination between the decarbonisation missions of London's businesses and government that progress, at the necessary pace, will be made to drive London's competitive advantage against other global cities.

The report's recommendations – summarised below – are focussed on helping to drive this vital level of collaboration for London's carbon intensive sectors.

Recommendations

OVERARCHING

1. Embrace the ambition, complexity and scale of the challenge of net zero for London.

2. Raise public awareness on the importance of tackling climate change highlighting easy wins in everyday life that can make a substantial difference.

SUPPLY CHAIN

3. Address Scope 3 emissions by mapping supply chain emissions and then work with suppliers to support their decarbonisation as part of the procurement process.

BUILDINGS

4. Adopt a consistent net zero building target and definition, one which covers the full extent of a building's whole life-cycle carbon emissions and the role of climate adaptation measures.

5. Reduce embodied carbon in construction by increasing the use of low embodied carbon building materials and applying circularity principles.

6. Decarbonise existing buildings with a clear strategy and programme.

TRANSPORT

7. Policy and investment decisions must prioritise the use of low carbon modes of transport.

RACHEL SKINNER
CBE FREng, WSP
Chair, BusinessLDN
Net Zero Working Group

INTRODUCTION

In June 2019, the UK passed a legally binding target of net zero emissions by 2050 into law, recognising the need to act on the acceleration of the global climate crisis. Shortly after, the Mayor of London committed to bring forward the capital's net zero target to 2030, through an 'accelerated green pathway'[1] of action.

While the UK Government's policies are fundamental to reaching net zero, there is an important role for London government (i.e., the Greater London Authority (GLA) and London boroughs) and London businesses to play in delivering change, helping London to lead by example in its climate action.

Demonstrating strong sustainability leadership, despite inflationary pressures and wider societal challenges relating to the cost of living, can deliver benefits for businesses. These include savings on energy costs over the long term, greater resilience to a changing environment and economy, and being well positioned to take advantage of new economic opportunities in green technologies and green finance.

At the same time, being at the forefront of introducing ambitious climate policies can provide benefits to cities beyond addressing the impacts of climate change, such as stimulating growth in the green economy through new job opportunities in sectors including renewable energy, energy efficiency and sustainable transport. If London met its ambitious 2030 target, in addition to the obvious environmental benefits, it could help the capital become a leader in green growth, adding another strand to the city's competitiveness.

However, one of the challenges London faces in this area is how to marry political ambition and action on climate change with the interests and actions of the business community. To that end, BusinessLDN, in partnership with WSP, convened a group of members, many of whom are at the forefront of business action to decarbonise the economy, with key public sector bodies and other stakeholders to consider how best to align London-wide action and individual business strategies to form an efficient pathway to net zero.

This report is the output of the discussions held with the group and wider research. It explains the context of London's 2030 net zero target and the challenges to hit the target (Chapter 1). It outlines the key factors driving business action on decarbonisation supported by case studies about the action being undertaken (Chapter 2). And finally, it sets out recommendations, focused on the parts of London's economy responsible for the bulk of carbon emissions[2], aimed at fostering greater collaboration between the public and private sectors to decarbonise the capital (Chapter 3).

1 *Greater London Authority, London Net Zero 2030: An Updated Pathway*

2 *The recommendations have focussed on three broad areas: buildings, supply chain and transport. Greening the energy supply is a challenge to both buildings and transport therefore recommendations on energy demand, supply and infrastructure are incorporated under these headings. At the centre of the recommendations, as a cross-cutting theme that intersects with all sectors and industries, sits behavioural change – a shift in mindset and action that is required for the wider social and environmental benefit of society - which is a major catalyst for driving long-term carbon reduction.*


ACHIEVING
A ZERO CARBON
FUTURE

CHAPTER 1 – LONDON

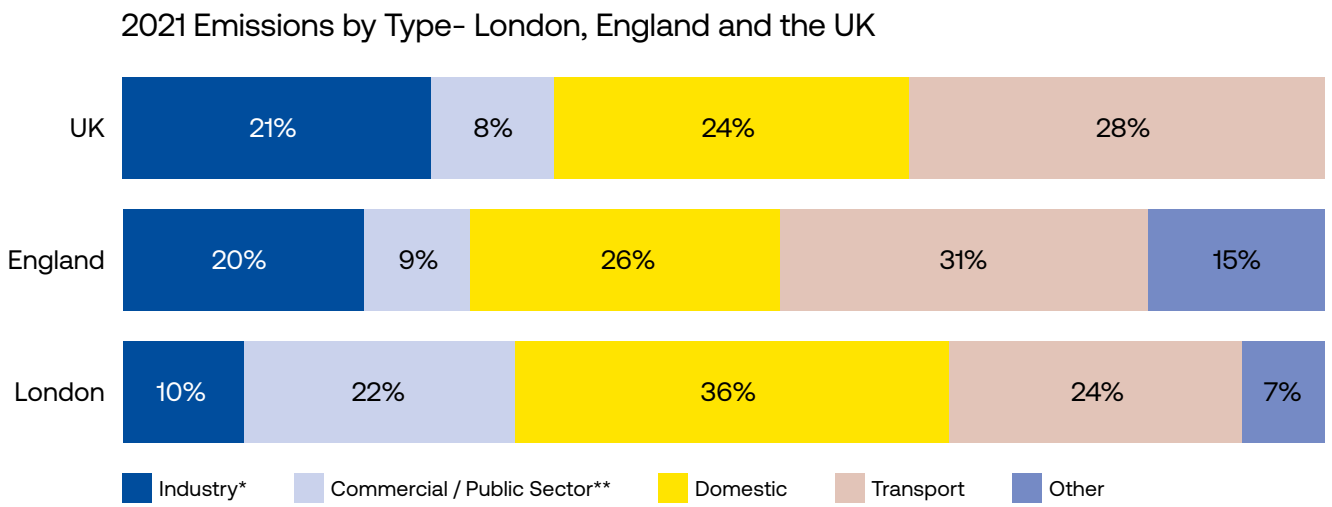
London's current position on net zero

London has a target to reduce its carbon emissions by 78%, relative to 1990 levels, by 2030[3]. This is considerably more ambitious than many other global cities, or indeed the UK, which has legislated to reach net zero greenhouse gas emissions by 2050.

If London was to achieve its ambitious target, it would set a leading example, acting as a pathway to other global cities. It would also have a tangible impact on the UK's overall emissions. However, significant progress is required – a step-change in activity – to deliver this.

To better understand the implications of London's 2030 target and the actions required to meet it, the Mayor commissioned an analysis[4] of scenarios, each representing different levels of ambition and roadmaps of decarbonisation. Four scenarios were explored in detail with the 'Accelerated Green Pathway' selected as the Mayor's preferred route; an intermediate approach where London decarbonises as rapidly as possible while leaving open the role that long term technological solutions, for example, hydrogen could play.

As of 2021, London's emissions (on a production-only basis) comprised 8%[5] of the UK total. The majority of the capital's emissions are from the residential sector, the industrial sector, commercial property and the energy used for transportation (Figure 1). London is responsible for 11% of the UK's total emissions produced by residential buildings and 21% of commercial buildings (not including industrial or public sector emissions)[6].



* "Industry" includes emissions from institutions which are categorised under SIC07 codes 02-32, 35-39 and 42.
** "Public Sector" encompasses businesses classed under SIC07 codes 84to 87, with "Commercial" encompassing all SIC07 codes not categorised as "industry" or "public sector"

Figure 1 London's total carbon emissions by sector compared to UK and England's emissions, 2021[7]

3 *Greater London Authority, London Net Zero 2030: An Updated Pathway. Scope 3 emissions, associated with embodied emissions in goods, services, or construction projects, are not included in the target or analysis.*

4 *Element Energy Limited, Analysis of a Net Zero 2030 Target for Greater London, Final Report for Greater London Authority, 18 January 2022*

5 *Based on DESNZ Live Tables: https://www.gov.uk/government/statistics/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics-2005-to-2021*

6 *Department for Energy Security and Net Zero: UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2021*

7 *WSP analysis of LEGGI 2018 data (https://data.london.gov.uk/dataset/leggi)*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The challenge of reaching Net Zero by 2030

London faces several challenges in its efforts to reach its ambitious 2030 net zero target. Securing the necessary funding for decarbonisation projects is clearly crucial, with the Element Energy report[8], which underpins the Mayor's work on London's 'Accelerated Green Pathway', suggesting that £75 billion in investment is required to meet the capital's 2030 net zero target. Practical challenges highlighted by the Element Energy report include:

- **Extensive new energy infrastructure** must be constructed, with 3.9GW of solar PV capacity[9] installed on rooftops.
- Around 460,000 **heat network connections** are required across London by 2030, whereas total UK domestic connections were around 450,000 in 2018.
- **London's building stock** will need to become more energy efficient requiring retrofitting at scale and a shift to low carbon heat sources such as heat pumps, with 210,000 installations per year needed in London by 2030. The lack of powers that the Mayor has over existing buildings makes this challenge even bigger.
- In addition to new technology, the **everyday behaviour** of Londoners will have to adapt towards more environmentally friendly options. One example is a 27% reduction needed in total vehicle miles, meaning reduced dependence on cars and a faster transition to electric vehicles through further EV charging infrastructure.

In addition to the above, other challenges include:

- Expanding and modernising London's **transport network**, including its cycling infrastructure.
- Serious **workforce shortages** and insufficiently developed **supply chains**, particularly when it comes to heat pump deployment and retrofitting.
- The lack of **good quality data** constrains the levels of accuracy in understanding, planning and implementing decarbonisation strategies effectively.

8 Element Energy Limited, Analysis of a Net Zero 2030 Target for Greater London, Final Report for Greater London Authority, 18 January 2022

9 For reference, the Government's 2023 solar PV deployment statistics show a total of 15.2GW of solar capacity in the UK.

In focus
The challenge and benefits to retrofitting

If London is to reach its net zero target retrofitting the capital's existing building stock – a significant carbon emitter – will play an important role. The analysis below considers the financial benefits that could be provided to both businesses and households if London's existing building stock was retrofitted in line with the Mayor's 2030 target rather than the UK's 2050 target. The costs and savings are based on current annual domestic and commercial heating costs[10].

While the level of funding, resource and supply chain changes needed to achieve this scale of retrofit are enormous and require a fundamental step-change in approach, the analysis demonstrates the potential benefits of simply going faster and raising the level of ambition to address a particularly complex challenge.

As outlined above, to meet London's 2030 target, roughly 210,000 existing homes would need to be retrofitted a year, with over two million heat pumps needing to be installed by 2030.

10 Appendix A includes the full set of assumptions for the analysis carried out.

Figure 2 shows the timeframes for retrofitting these properties, with the average total number of retrofits from 2022 onwards at around 69,000 a year under the 2050 timeline, compared to a peak of more than 400,000 per annum under the Mayor's timeline.

Given the faster rate at which properties are retrofitted under the 2030 timeline, a million more homes would experience cost savings from lower heating costs following quicker renovation than compared with being retrofitted under a 2050 scenario. As Figure 3 shows, if all EPC E to G-rated London domestic and non-domestic properties were upgraded to grades C or higher by 2030, total gas bill savings of circa £27.9 billion up to 2050[11] could be achieved. This is equivalent to a total annual saving of £1 billion per year across eligible households and businesses.

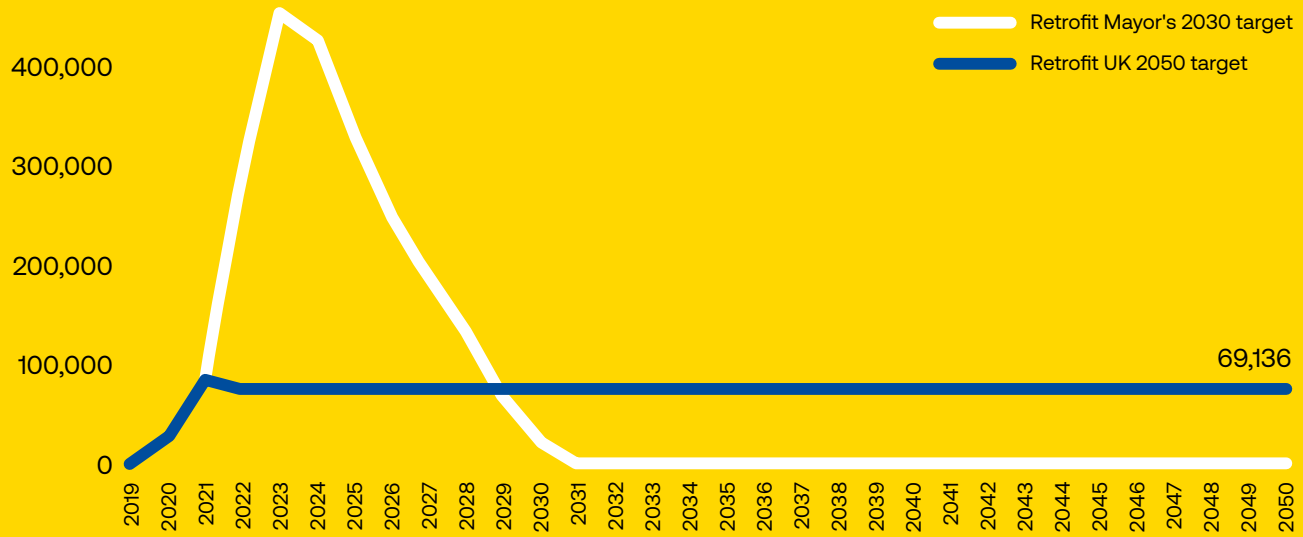

Figure 2 Total domestic properties retrofitted per annum (London Net Zero 2030 target vs a non-phased 2050 target)

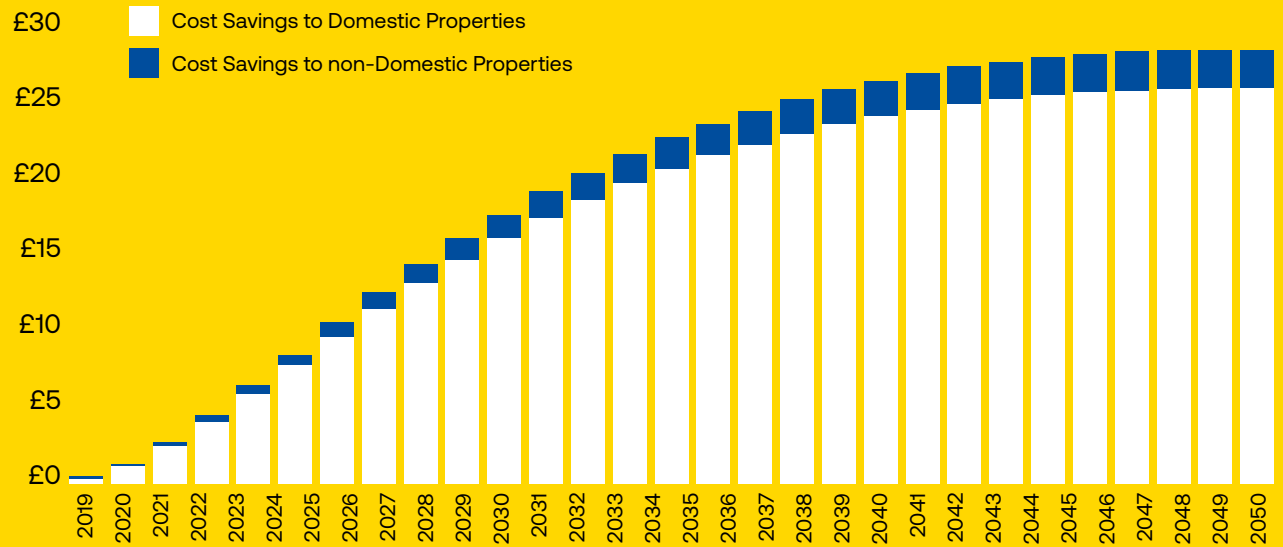

Figure 3 Total cumulative cost savings to domestic and non-domestic properties under a 2030 trajectory compared to a 2050 (assumes all properties converted to EPC rating A/B/C)

11 The calculations have not factored in the cost of retrofitting the property and are based on 2022-23 UK heating costs. Full analysis and assumptions can be found in Appendix A.


8
Welcome to
King's Cross
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CHAPTER 2 – BUSINESS

Approaches to net zero monitoring and reporting

For a variety of reasons, be they regulatory, financial, social or environmental, many businesses in the capital, particularly the larger and global businesses, are taking proactive steps to measure and reduce their carbon emissions. Indeed, many large companies have turned to using net zero frameworks to help facilitate long-term thinking about how they can decarbonise and achieve net zero, sometimes exceeding their current regulatory requirements.

An example of a net zero framework is the Science Based Targets initiative (SBTi). SBTi provides companies with a pathway to reduce greenhouse gas (GHG) emissions. Targets are considered 'science-based' if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to 1.5C above pre-industrial levels. Other framework initiatives that organisations are signing up to include the UN Race to Zero and tools provided by the GHG protocol.

Alongside the voluntary frameworks mentioned above, regulation on carbon reporting is increasingly coming into force. In the UK, Streamlined Energy and Carbon Reporting (SECR) policy was implemented in 2019 and requires all large[12] companies, and all quoted companies of any size, to report on energy use, associated greenhouse gas emissions and energy efficiency measures. Reporting in line with the Task Force on Climate-related Financial Disclosures (TCFD) requirements[13] is also now required in the UK for large companies with over 500 employees and £500 million in turnover. The UK has announced its intention to expand this across the economy by 2025. Additionally, if a company has operations in the EU, it will also have to follow the Corporate Sustainability Reporting Directive (CSRD)[14] from 2025. This will extend to smaller companies from 2027. Similar regulatory changes are in progress across many other countries around the world.

While much of the UK's net zero regulation doesn't yet apply to smaller businesses, requirements being adhered to now by larger businesses are starting to impact on small and medium enterprises (SMEs). Where, for example, a large company is following the SBTi approach, they are required to demonstrate emissions reductions across their Scope 3 emissions i.e., their value chain. This, therefore, requires their supply chain to set carbon reduction targets, to disclose their own operational emissions and emissions of goods and services, and ultimately to decarbonise. Such practices are becoming increasingly common in procurement contracts.

12 Defined as two or more of: >250 employees, balance sheet >£18m or turnover >£36m.

13 Companies are required to disclose their sustainability-related information in the non-financial information statement portion of their strategic reports on an annual basis. The TCFD recommendations on climate-related financial disclosures are structured around four core categories: Governance; Strategy; Risk Management; and Metrics and Targets.

14 CSRD requires companies to disclose material environmental, social, and governance (ESG) impacts, as well as risks and opportunities connected with their upstream and downstream value chains.

Case studies

In response to these regulatory and industry developments, many businesses in London are taking proactive measures to monitor and reduce their carbon emissions. The case studies below set out some of the actions being taken.

Supply chain decarbonisation

Grosvenor

As part of their long-term science-based targets, **Grosvenor** (whose supply chain makes up 50% of its carbon footprint) has started rigorous engagement with its suppliers. They have worked with the Supply Chain Sustainability School to develop a streamlined reporting system to get real carbon data from all of their key suppliers and have set an expectation that any contract valued greater than £1m is awarded to a company that has a Science Based Target (SBT). To support their existing SME supply chain to set their own SBT, they have developed an industry-leading Supplier Mentor Program with support from Heart of the City. This is offered as a free resource and has resulted in 20% of SMEs with an SBT in the UK having gone through the Grosvenor program.

Supply chain decarbonisation

WSP

The multi-disciplinary professional services consultancy, **WSP** requires all its supply chain partners with annual contracts of at least $1m to report, via adhering to the Carbon Disclosure Project (CDP) standard, on their carbon emissions. This is done to better help understand the wider Scope 3 emissions "picture" upstream.

Built environment

The London School of Economics

The London School of Economics used the Mayor of London's RE:FIT programme to support its carbon management plan. RE:FIT worked as a 'one-stop-shop' for the university, involving only one tender of the complete project (design, implementation and monitoring of savings) instead of an inefficient process of several tenders and contractors. Energy measures installed included lighting replacements and lighting control measures, solar PV, optimisation of Building Management Systems (BMS) and boiler replacements.

Built environment

Landsec

To achieve their near-term science-based targets, **Landsec** is investing £135m with the aim of saving 11,000 tCO2e and ensure their portfolio aligns with the current Minimum Energy Efficiency Standard (MEES) target of Energy Performance Certificate B by 2030. This plan will see the replacement of gas-fired boilers with air source heat pumps across their office portfolio, optimisation of the BMS and further utilisation of AI technology, and engagement with high-energy consuming customers to identify opportunities for energy reduction.

Behavioural change

Heart of the City

Heart of the City has been commissioned by the City of London Corporation to support SMEs to take their first steps in their journey to net zero. Support provided includes education and awareness sessions through to a specially designed small business climate action toolkit, masterclasses and expert mentoring. To achieve net zero and resilience targets, the City of London Corporation requires the support of stakeholders. Small businesses make up one of the 40 audiences highlighted in their stakeholder engagement plan, part of the climate action strategy.

Energy supply

UK Power Networks (UKPN)

UK Power Networks (UKPN) have been leading the way in information sharing with their Open Data programme. Their Open Data Portal has been accessed by over 60,000 users providing initial electricity network data before users apply for network access or any work with UKPN. The portal is utilised by a range of stakeholders - from innovators and academic researchers, through to housing developers and renewable generation customers – helping to contribute to and accelerate the net zero transition. An extensive range of data and information services are provided. For example, a collection of 160 datasets targeted at local authorities to support local area energy plan development, and daily updated data showing UKPN current and future streetworks. The latter enables other parties such as the GLA's Infrastructure Coordination Service to collaborate on road closures to minimise disruption.

Transport

Heathrow Airport

Heathrow Airport has launched an innovative framework to increase the number of flights powered by sustainable aviation fuel (SAF) in its efforts to curb emissions from aviation. Heathrow has launched a charging incentive scheme which reduces the high-cost premium for airlines buying SAF and encourages investment into UK SAF production. In 2022, Heathrow's SAF incentive scheme was a world-first, providing funding of £10 million for airlines to make SAF more affordable. Looking forward, Heathrow is making available £38 million of funding in 2023 and through this funding the scheme is projected to save a further 81,000 tonnes of carbon. Heathrow plans to scale up the scheme over the next four years with increasing carbon and financial commitment from the airport annually.

The challenges in decarbonising

Decarbonisation is a big challenge for businesses who are seeking to grow while embarking on a huge undertaking that requires significant investment to reach absolute carbon reductions. BusinessLDN members involved in supporting the work of this report highlighted the following issues that they are seeking to understand and navigate as they try to decarbonise.

- **Simplifying and clearly defining net zero terminology** is one of the biggest barriers for all businesses. The language around net zero and decarbonisation is constantly shifting, as are definitions, with new terms emerging all the time. The lack of clarity leads to inconsistency in how progress is tracked, success is measured and inhibits creating a level playing field for organisations.

- There are multiple challenges associated with the built environment which include, though are not restricted to:

  - the lack of a clear definition for a net zero building;

  - understanding and differentiating between embodied carbon emissions and operational emissions – a process still in its infancy;

  - ambiguity about and the lack of enforcement of Minimum Energy Efficiency Standards (MEES) - building owners are unclear what standards they need to adhere to; and

  - aligning the interests of commercial landlords and tenants – tenants can be reluctant to sign green leases due to the lack of understanding around legal repercussions or fear of increased costs.

Developing and **greening the supply chain** as well as upskilling and reskilling in green technologies is critical to decarbonising at scale. London's Local Skills Improvement Plan[15], highlights the growing demand for green skills, especially in the finance, housing, buildings, power and transport sectors. Jobs in green priority sectors are expected to increase rapidly[16]. Increased investment in training, apprenticeships and bridging the gap between educational institutions' curricula and industry demand is critical to ensure a strong workforce.

- In the **transportation sector**, shifting from combustion engines to electric vehicles, including the high upfront costs and lack of charging infrastructure, is a major challenge for businesses. In particular, the decarbonisation of Heavy Goods Vehicles (HGVs) and delivery vehicles remains particularly challenging and costly with businesses seeking reliable, cost-effective technology solutions that are still not sufficiently mature.

- Transitioning to **green Power Purchase Agreements** (PPAs) – long-term renewable energy contracts – is challenging for some organisations depending on their scale. Wider infrastructure issues such as **grid performance and limitations** are also prohibitive factors in decarbonisation. An **aging distribution network** is struggling to accommodate increased demand and can lead to intermittent operation. Transitioning to a **low-carbon heat supply** has cost implications and is technically challenging.

The examples above generally reflect the concerns of large businesses. However, arguably SMEs face an even greater challenge in understanding, monitoring and reducing their carbon footprint, not least as they are likely to have less resource to do so. Many SMEs, such as small contractors, are faced with the challenge of being left out of the supply chain as they struggle to align with the sustainability commitments made by large organisations. There is, therefore, a great opportunity for larger businesses to help smaller ones through sharing of knowledge and best practices, fostering better data collection, and supporting target setting, creating mutually beneficial partnerships.

15 LSIPs are initiatives funded by the Department for Education with BusinessLDN leading the Greater London LSIP in partnership with the Federation of Small Businesses London (FSB), London Chamber of Commerce and Industry (LCCI), and Confederation of British Industry London (CBI), with the backing of the Mayor of London and London government. The aim is to create a data-driven plan for better matching training provision to employer skills demand and the needs of London's economy. This will help employers meet their skills gaps, fill vacancies and ultimately get more Londoners into jobs.

16 BusinessLDN, The London Local Skills Improvement Plan (May 2023)


HYDROGEN
CLEANERAIR
FOR LONDON

CHAPTER 3 – RECOMMENDATIONS

Having set out the challenges confronting London and the businesses operating in the city to reach net zero, the recommendations set out below are designed to support greater coordination between London government and the business community to decarbonise the capital and business operations. Tackling the challenge as a shared endeavour between the public and private sectors rather than the current, at times, siloed approach will help make progress.

The recommendations are split into three key areas: supply chain, buildings and transport, as these areas represent the majority of London's emissions. They are supplemented with some overarching proposals that are instrumental in helping drive change and support London's ambition. A set of specific enablers underpin all of these recommendations, such as: addressing the shortage of green skills; increasing innovation and research funding; and open data sharing to support a consistent approach to carbon reporting. These are not addressed in this report as they are well-covered elsewhere.

Taken as a whole, the recommendations below can help to connect individual business strategies with London-wide action to form a more coordinated pathway to net zero.

Overarching

Recommendation 1

Embrace the ambition, complexity and scale of the challenge of net zero for London.

- The 2030 net zero target is a useful and ambitious policy goal. No matter what views are held about whether it can be practically achieved by 2030, London government and business should place greater effort on identifying tangible actions that can be undertaken now and at pace that deliver measured carbon emissions reduction at the level of individual businesses and local government. Doing nothing to reduce emissions is not a standstill position in terms of impact, but one of harm.

- London government should actively encourage larger businesses to align with established net zero frameworks, such as SBTi's Net Zero framework, as science-based approaches provide a solid and broadly consistent foundation for setting, achieving, and evaluating net zero targets. They should also engage more fully with the owners of key net zero frameworks to help shape the evolving guidance ensuring their relevance to emerging decarbonisation strategies in London.

Recommendation 2

Raise public awareness on the importance of tackling climate change highlighting easy wins in everyday life that can make a substantial difference.

- Create effective private/public sector communication campaigns and engagement activities to help Londoners understand and change some of their lifestyle trends that can support climate mitigation (e.g., switching off lights at home, choosing locally sourced and sustainably produced goods, reducing water usage etc.).

- Businesses should consider how all the activities they undertake relate to overall company emissions. Annual climate budget proposals, step-by-step plans clearly setting out key company milestones, could help employees better understand their role and encourage them to reduce their own emissions and those over which they have direct influence.

Supply chain

Recommendation 3

Address Scope 3 emissions by mapping supply chain emissions and then work with suppliers to support their decarbonisation as part of the procurement process.

- The GLA should introduce scope 3[17] emissions into the Mayor's pathway to net zero to help drive the understanding and decarbonisation of supply chain emissions. This will help create a shared awareness of the key opportunities and challenges of decarbonisation, that businesses of all sizes and types face, and build a clear understanding of the different levers for change that are held by employers in London, across both Government and business.

- Interim milestones between now and 2030 should be introduced on the GLA's net zero pathway and sub-targets for businesses' emission reduction should be provided to help businesses understand immediate priorities. This will naturally need to recognise that Scope 3 analysis will include a mix of fact-based and estimated emissions, usually based on spend, pending the availability of more accurate data in the years to 2030.

- London government should also drive the greening of the supply chain by making it mandatory for suppliers in all their contracts to provide evidence of green credentials in the form of appropriate accreditation and/or alignment with best practice.

- Businesses should actively engage with upstream supply chains (including SMEs) to educate and upskill with respect to their carbon footprint and emissions reduction options.

- Those nearer the heads of supply chains should also set meaningful expectations and timescales for their supply chain decarbonisation, perhaps making use of the Carbon Disclosure Project (CDP)[18] reporting framework or similar. Given the number of tools and frameworks already available to track carbon emissions, the creation of new, bespoke methods is unlikely to be necessary.

Buildings

Recommendation 4

Adopt a consistent net zero building target and definition, one which covers the full extent of a building's whole life-cycle carbon emissions and the role of climate adaptation measures.

- This should apply across all of London for both existing and new developments.

- It should be a metric that encompasses both embodied (see recommendation 5) and operational carbon emissions. On the emissions associated with operational energy, a 'fabric first' approach should be adopted to improve insulation and efficiency, which in turn helps reduce electricity use and the strain on local power infrastructure. Low carbon heating systems, such as connections to heat networks and heat pumps should also be considered where applicable, alongside on-site renewable energy generation and energy storage (e.g., batteries).

- The metric should encourage strategies that simultaneously promote climate resilience plans - including nature-based solutions and wider adaptation measures –, although these will inevitably be distinct from net zero strategies.

- Examples could include the emerging UK Net Zero Carbon Buildings Standard[19] (once published) or an equivalent framework that ensures uniformity across public and private sector requirements.

Recommendation 5

Reduce embodied carbon in construction by increasing the use of low embodied carbon building materials and applying circularity principles.

17 *The Greenhouse Gas (GHG) Protocol Corporate Standard classifies a company's GHG emissions into three 'scopes. Scope 3 emissions are all indirect emissions that occur in the value chain of the reporting company, including both upstream and downstream emissions. These are not the result of activities from assets owned or controlled by an organisation (i.e., Scope 1 and 2 emissions), but by activities undertaken by an organisation's supply chain.*

18 *CDP is a not-for-profit charity that provides a global disclosure system for investors, companies, cities, states, and regions to disclose their environmental impact. Companies have to answer an annual questionnaire about their environmental impact and actions taken to reduce them.*

19 *The UK's first Net Zero Carbon Buildings Standard is being led by industry organisations Better Buildings Partnership, BRE, the Carbon Trust, Chartered Institution of Building Services Engineers (CIBSE), IStructE, Low Energy Transformation Initiative (LETI), Royal Institute of British Architects (RIBA), Royal Institution of Chartered Surveyors (RICS), and UK Green Building Council (UKGBC). This is currently in development.*

- London government should explore options on how to incentivise the use of low carbon materials, such as low carbon steel, concrete and timber, across all sectors, to help drive and track demand. Options to explore could be an expedited planning process or reducing the carbon offset contribution requirements for projects that demonstrate an agreed exemplar use of low carbon materials.

- London's boroughs should consider ways to engage with local/cross-boundary circularity initiatives[20] to encourage the local re-use of commonly used construction materials, with a view to grow this participation over time to maximise the retained material values.

- Businesses should minimise embodied carbon emissions by setting specific targets to achieve this, seeking leaner design options, increasing the use of low carbon construction materials and prioritising the re-use and recycling of building components as part of the construction process.

Recommendation 6

Decarbonise existing buildings with a clear strategy and programme.

- Businesses and London government should develop a clear pathway for decarbonising their existing property assets and actively track progress.

- As a starting point, existing buildings should comply with the MEES and have clear milestones for their decarbonisation. One of the milestones should be transitioning to actual monitored energy consumption reduction rather than Energy Performance Certificate (EPC) band jumps.

- London government should enable the area-wide aggregation of energy demand between multiple businesses to help them transition to 100% renewable green PPAs purchasing energy from accredited renewable providers.

- London boroughs should establish Local Area Energy Plans[21] (LAEPs) to help them identify the most effective routes for their local areas and buildings to decarbonise.

Transport

Recommendation 7

Policy and investment decisions must prioritise the use of low carbon modes of transport.

- Make more widespread use of LAEPs and the mapping out of EV charging requirements to help accelerate the provision of infrastructure required to support vehicle decarbonisation. Ramping up the delivery of EV charging infrastructure will need a mix of public and private sector action, depending on land ownership and charging type (e.g., rapid on-trip charging verses slower destination charging options).

- Develop initiatives and fund research to help understand how best to decarbonise HGVs and road haulage to support the decarbonisation of London's freight and logistics sector. Financial incentives such as tax rebates and subsidies to encourage sustainable methods of last mile deliveries could be considered.

- London government could do more to incentivise active travel and use of public transport by making these modes of travel more accessible for all, safe and attractive for the public.

- Businesses of all scales should actively manage employee commuting and business travel patterns, by gathering data to understand current behaviours and then look for ways to support lower carbon outcomes. Examples could include policies to encourage the most sustainable travel modes throughout the employees' working day, with incentives for zero and low carbon movement and increased dissuasion for unnecessary high carbon travel habits.

20 Examples include the Excess Materials Exchange.

21 Orchestrated by Energy Systems Catapult, led by local government and developed collaboratively with defined stakeholders, LAEP are whole energy system approaches that aim to identify the most effective routes for local areas to achieve their net zero targets. (https://es.catapult.org.uk/tools-and-labs/local-area-energy-planning/#:~:text=to%20invest%20in.-,Local%20Area%20Energy%20Planning%20(LAEP)%20is%20a%20data%2Ddriven,and%20businesses%2C%20and%20across%20systems%20%E2%80%93)

Next steps

The Mayor's 2030 target is purposefully ambitious and is necessarily open-ended in terms of the way that it can be achieved in an effort to stimulate growth and drive investment. As this report sets out, this ambition is broadly aligned with the ambitions of London's businesses but greater alignment is required to ensure that this is capitalised upon.

The recommendations outlined above will form the basis of BusinessLDN's advocacy ahead of the mayoral manifestos and further activity or research in the sustainability area.

As a starting point, BusinessLDN is seeking to investigate the feasibility of: a series of masterclass sessions/lessons learnt opportunities for corporate businesses and SMEs to support them in their decarbonisation pathway; potentially aiding local authorities in their efforts to establish LAEPs using its convening power; and supporting the implementation of some of the wider proposed recommendations through more focused conversations with London government.


16:17 Platform 9
Watford Junction
Calling at: Page 2 of 2
North Harrow, South Kenton,
Kenton, Harrow & Wealdstone,
Headstone Lane, Hatch End,
Carpenders Park, Bushey,
Watford High St
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APPENDIX A – CHAPTER 1 ANALYSIS AND ASSUMPTIONS

The analysis presented in Chapter 1 is based on mapping two trajectories for retrofitting London's under-insulated properties. The first trajectory is the Accelerated Green 2030 Net Zero pathway developed by Element Energy and adopted by the Mayor of London. This trajectory which would see circa 2.1 million domestic and 265,000 non-domestic buildings in London retrofitted by 2030. The second pathway is an indicative pathway where, from 2022 onwards, the same total of domestic and non-domestic buildings is retrofitted, but at an even pace to 2050 (at around 69,000 domestic and 9,000 non-domestic retrofits per year to 2050).

The total number of properties benefitting from an earlier retrofit (as per the 2030 pathway) was multiplied by a figure for total annual heating bill costs (2022-2023 data, explained below), split by tenure and EPC rating, with differing annual heating costs applied. This figure was then discounted using HM Treasury Green Book discount rates and cumulative benefits were calculated.

The methodology for calculating the annual property-level gas bill saving and the split of under-insulated properties by EPC rating was different for domestic and non-domestic properties and is set out below.

Domestic Buildings

The potential cost saving from retrofitting on an individual property basis is derived from figures for total costs across UK-wide residential properties by EPC rating and tenure, provided by the National Housing Federation and based on their analysis of English Housing Survey data for the period October 2022. The analysis assumes gas prices remain at October 2022 levels throughout the period and, as such, should be considered an indicative estimate of potential cost savings, rather than a figure which isn't subject to significant change.

The savings to heating bills were calculated for two different outcomes - retrofitting all properties to EPC rating A/B/C and retrofitting all properties to EPC rating D. In this case, the cost saving was calculated as the difference in annual heating costs between UK properties which are EPC E/F/G rated and those with either an EPC rating of A/B/C or an EPC rating of D (depending on the modelled outcome), with the National Housing Federation figures used.

All under-insulated properties set out in Element Energy's retrofit trajectory for meeting the Mayor's 2030 target were assumed to be EPC rated E to G. The split of properties by EPC rating and tenure was calculated based on an analysis of GLA data on the total number of London properties by EPC rating and tenure as of 2020. These splits were applied to the analysis and are as follows

Under-insulated domestic properties- tenure by EPC rating

Tenure	E	
Owner Occupied	72.1%	64.7%
Private Rent	22.2%	29.1%
Social Rent	5.7%	6.3%

EPC rating split by tenure- EPC ratings E to G

Tenure	E	F/G
Owner Occupied	76.3%	23.7%
Private Rent	68.8%	31.2%
Social Rent	72.5%	27.5%

The total number of properties benefitting from a more ambitious retrofitting trajectory were split, as such, by tenure and EPC rating, with the relevant heating bill saving varying based on these factors.

Non-Domestic Buildings

The same approach has been applied as for domestic properties, albeit with different per unit cost estimate inputs.

Average annual gas consumption and the average annual gas bill for three categories of business – micro, small, and medium scale enterprises were researched and benchmarked based on sources including statistics from BEIS and MoneySupermarket.com. Figures on total annual usage per business and the associated unit price per kWh were sourced from Bionic data (via MoneySupermarket.com) for the period August 2023. To factor for variation in size of business premises and variation in total annual usage (kWh per annum), a more conservative lower estimated annual heating cost figure for small businesses was used - at £1,440 per premise per annum. For calculating the cost estimates for the other EPC rating bands, the price variation between EPC bands for domestic buildings was used, with the average EPC rating for London non-domestic premises assumed to be EPC rating D. The annual cost of heating businesses with EPC ratings above or below this, was based on multiplying the average per annum figure of £1,440 by the heating cost variation seen for domestic UK properties.

The estimated split of non-domestic buildings to retrofit under the Element Energy target by EPC rating (E, F and G) was determined based on the EPC rating split for the total number of newly registered non-domestic properties across England for the year 2022. This was based on EPC rating data from the DLUHC Energy Performance of Buildings Certificates Live Tables.

The per unit cost difference of converting EPC E, F and G rated establishments to either Band A, B, C or Band D were estimated using this split of EPC ratings.

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BUSINESS LDN

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We harness the power of our members, from sectors that span the economy, to shape the future of the capital so Londoners thrive and businesses prosper. We support business to succeed — locally, nationally, globally. We link up with other cities around the UK, to ensure the capital supports a thriving country.

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