Appendix: Greenhouse Gas Emissions



Annex 1: GHG Policy and Guidance





A1 Annex 1: GHG Policy and Guidance

A1.1 In preparing this GHG assessment, consideration has been given to the requirements of national, regional and local planning policies.

National Planning Policy

National Planning Policy Framework

A1.2 The National Planning Policy Framework (NPPF)¹ sets out planning policy for England. It states that the purpose of the planning system is to contribute to the achievement of sustainable development, and that the planning system has three overarching objectives, one of which is an environmental objective:

"to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy".

- A1.3 Part 14 of the framework is entitled "Meeting the challenge of climate change, flooding and coastal change" and sets out the strategy for minimising the climate change effects of new development. Paragraph 149 describes that "new development should be planned for in ways that can help to reduce greenhouse gas emissions through its location, orientation and design". The section describes how renewable and low-carbon energy sources should be considered in planning applications for development of any scale.
- A1.4 Paragraph 150 states that "New development should be planned for in ways that [...] can help reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards."
- A1.5 Paragraph 151 describes further that "to help increase the use and supply of renewable and low carbon energy and heat, plans should: a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts); b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for colocating potential heat customers and suppliers".



- A1.6 In determining planning applications, the NPPF states that "local planning authorities should expect new development to:
 - comply with any development plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable; and
 - take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption."

Climate Change Act (2008)²

- A1.7 The overarching Act in relation to climate is the Climate Change Act 2008. The Act introduces a legally binding target to reduce the UK's GHG emissions to at least 80% below 1990 levels by 2050. It also provides for a Committee on Climate Change (CCC) with power to set out carbon budgets binding on the Government for 5-year periods.
- A1.8 In the 2009 budget, the first three carbon budgets were announced which set out a binding 34% CO₂e³ reduction by 2020; and the Government has since adopted the fourth and fifth carbon budgets to reduce CO₂e by 50% by 2025 and 57% by 2030.
- A1.9 The CCC also produces annual reports to monitor the progress in meeting these carbon budgets.

 Consequent upon the enactment of the Climate Change Act, a raft of policy at national and local level has been developed aimed at reducing carbon emissions.

Climate Change Act 2008 (2050 Target Amendment) Order 20194

A1.10 In June 2019, the Government passed an order to amend the 2050 carbon emissions target in the Climate Change Act 2008 from 80 % below 1990 levels to zero net carbon (i.e. 100 % below 1990 levels). This new target will essentially end the UK's contribution to climate change by 2050.

Energy Act (2013) 5

A1.11 The Energy Act makes a provision for the setting of a decarbonisation target range, duties in relation to it and for the reforming of the electricity market for the purposes of encouraging low carbon electricity generation.

J3955 3 of 16 May 2020 J3955 4 of 16 May 2020

Ministry of Housing, Communities and Local Government (2019), 'National Planning Policy Framework', Available: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf.

² Her Majesty's Stationery Office (2008), 'Climate Change Act 2008'

Carbon dioxide equivalent (CO₂e) is a term for describing different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO₂e signifies the amount of CO₂ which would have the equivalent global warming impact

⁴ Her Majesty's Stationery Office (2019), The Climate Change Act 2008 (2050 Target Amendment) Order 2019.

⁵ Her Majesty's Stationery Office (2013), 'Energy Act 2013'



Climate Change and Sustainable Energy Act (2006) 6

A1.12 The Climate Change and Sustainability Act enhances the contribution of the UK to combating climate change and securing a diverse and viable long-term energy supply by boosting the number of heat and electricity microgeneration installations in the United Kingdom.

The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting ⁷

A1.13 The National Adaptation Programme sets out government's response to the second Climate Change Risk Assessment, showing the actions government is, and will be, taking to address the risks and opportunities posed by a changing climate. It forms part of the five-yearly cycle of requirements laid down in the Climate Change Act 2008 to drive a dynamic and adaptive approach to building our resilience to climate change.

The Clean Growth Strategy 8

- A1.14 The Clean Growth Strategy sets out a comprehensive set of policies and proposals that aim to accelerate the pace of "clean growth", i.e. deliver increased economic growth and decreased emissions. In the context of the UK's legal requirements under the Climate Change Act, the UK's approach to reducing emissions has two guiding objectives:
 - To meet our domestic commitments at the lowest possible net cost to UK taxpayers, consumers and businesses; and,
 - To maximise the social and economic benefits for the UK from this transition.
- A1.15 The Strategy contains policies relating to the delivery of clean, smart and flexible power, including reducing power costs for homes and businesses and more transparent carbon pricing. It effectively replaces the "The Carbon Plan: delivering our Low Carbon Future" published in 2011.

Regional Policy

The London Plan 9

A1.16 The London Plan establishes strategic planning policy for London over the next 20 – 25 years and promotes the fundamental objective of accommodating London's population and economic growth through sustainable development. It sets out the Spatial Development Strategy for Greater London



and the Development Plans of all London Boroughs must eventually comply with the general requirements of the London Plan.

- A1.17 To support borough planners, the Mayor published a guidance document through London Renewables: 'Integrating Renewable Energy into New Developments: A Toolkit for Planners, Developers and Consultants', and more recently the Supplementary Planning Guidance, 'Sustainable Design and Construction' 10 and 'GLA Guidance on preparing energy assessments' 11.
- A1.18 The London Plan includes planning policies both for reducing energy consumption within buildings and, significantly, promoting the use of decentralised electricity generation and renewable energy. These policies cover the role of boroughs in supporting the Mayor's Energy strategy and the requirements of planning applications.
- A1.19 The GLA guidance on energy assessments¹¹ states that:

"Each application is considered on its merits, taking into account the individual characteristics of the development. Case-specific energy comments for each development are provided at Stage 1 and 2 of the GLA planning process by GLA energy officers to ensure applications comply with London Plan policy. However, for the avoidance of doubt, energy assessments must:

- demonstrate how the zero carbon target for residential developments will be met, with at least a 35% on-site reduction beyond Part L 2013 and proposals for making up the shortfall to achieve zero carbon, where required; and
- demonstrate at least a 35% on-site reduction beyond Part L 2013 for non-residential development. Developments comprised of both domestic and non-domestic uses must demonstrate this target has been achieved for domestic and non-domestic uses separately Carbon emissions 35% below Part L 2013 for commercial/non-domestic development."
- A1.20 Therefore, the target reduction on CO₂ emissions for the Proposed Development according to the GLA's requirements is:
 - 35% reduction below the Part L 2013 Baseline and Zero Carbon for Domestic Areas; and
 - 35% below Part L2A 2013 for Non-Domestic Areas.
- A1.21 The London Plan recognises that energy efficiency should come before energy supply considerations and has suggested a simple strategy known as the Mayor's Energy Hierarchy, which is described in Policy 5.2. The process follows good practice in the design of low carbon buildings and comprises three distinct stages and order of application:
 - Use Less Energy (Be Lean);

J3955 5 of 16 May 2020 J3955 6 of 16 May 2020

⁶ Her Majesty's Stationery Office (2006), 'Climate Change and Sustainable Energy Act 2006'

Defra (2018), 'The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting'

⁸ Her Majesty's Government (2017), 'The Clean Growth Strategy'

⁹ GLA (2016) 'The London Plan: The Spatial Development Strategy for London Consolidated with Alterations since 2011'

¹⁰ GLA (2014), 'Sustainable Design and Construction Supplementary Planning Guidance (SPG)'

¹¹ GLA (2018), 'Energy Assessment Guidance'



- Supply Energy Efficiently (Be Clean); and
- Use Renewable Energy (Be Green).
- A1.22 This strategy puts energy efficiency/conservation measures first in order to reduce the demand for energy, 'Be Lean'. Following this, consideration must be given to supplying the resultant reduced energy demand as efficiently as possible, including the use of Combined Heat and Power (CHP) plant, 'Be Clean'. Finally, sources of renewable energy should be examined, 'Be Green'.
- A1.23 As stated in Policy 5.6, the Mayor will expect all major developments to demonstrate that the proposed heating and cooling systems have been selected in accordance with the following order of preference:
 - Connection to an existing C/CHP scheme;
 - Site-wide C/CHP: and
 - Communal heating and cooling.
- A1.24 Where C/CHP is to be installed in a new development, the feasibility of extending the system beyond the site should be investigated. In addition, provision will be made for the heating and cooling network for future connections to district heating networks.
- A1.25 As stated in Policy 5.7, the current London Plan includes a notional target for on-site renewable energy, unless it can be demonstrated that such provision is not feasible. This target is for renewable energy on major developments to achieve a 20% reduction in carbon dioxide emissions after any energy efficiency measures and (non-renewable) C/CHP schemes have been applied according to Paragraph 5.42.
- A1.26 The Plan also states that provision must be made in some form for the future hydrogen economy (i.e. the development of energy infrastructure based on hydrogen as the principal energy carrier). However, take up of these technologies is recognised to be unrealistic in the current planning environment.
- A1.27 Policy 5.3 Sustainable Design and Construction is also relevant and states that;

"Planning decisions:

Development proposals should demonstrate that sustainable design standards are integral to the proposal, including its construction and operation, and ensure that they are considered at the beginning of the design process.

Major development proposals should meet the minimum standards outlined in the Mayor's supplementary planning guidance and this should be clearly demonstrated within a design and access statement. The standards include measures to achieve other policies in this Plan and the following sustainable design principles:



minimising carbon dioxide emissions across the site, including the building and services (such as heating and cooling systems)

avoiding internal overheating and contributing to the urban heat island effect

efficient use of natural resources (including water), including making the most of natural systems both within and around buildings

minimising pollution (including noise, air and urban runoff)

minimising the generation of waste and maximising reuse or recycling

avoiding impacts from natural hazards (including flooding)

ensuring developments are comfortable and secure for users, including avoiding the creation of adverse local climatic conditions

securing sustainable procurement of materials, using local supplies where feasible, and

promoting and protecting biodiversity and green infrastructure."

A1.28 As a "major" application, the scheme should meet the requirements of London Plan Policies 5.2 to 5.9, by achieving a 35% carbon reduction for both domestic and non-domestic aspects of the scheme.

'Intend to Publish' Version of the London Plan 12

- A1.29 The 'Intend to Publish' version of the new London Plan sets out the Mayor's spatial development strategy for London. It provides an update to the existing London Plan and introduces a number of new and revised policies. Of particular relevance to greenhouse gas emissions, the Plan describes that "the Mayor is committed to London becoming a zero-carbon city". It also explains that "'Carbon' is used in the London Plan as a shorthand term for all greenhouse gases".
- A1.30 Policy SI2 in the 'Intend to Publish' new London Plan relates specifically to greenhouse gas emissions; it states:

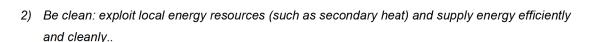
"Policy SI 2 - Minimising Greenhouse Gas Emissions

- A. Major development should be net zero-carbon. This means reducing carbon dioxide emissions from construction an operation, and minimising both annual and peak energy demand in accordance with the following energy hierarchy:
- 1) Be lean: use less energy and manage demand during operation.

J3955 7 of 16 May 2020 J3955 8 of 16 May 2020

GLA (2019), 'The London Plan Intend to Publish Version', Available: https://www.london.gov.uk/sites/default/files/intend to publish - clean.pdf





- 3) Be green: maximise opportunities for renewable energy by producing, storing and using renewable energy on-site.
- 4) Be seen: monitor, verify and report on energy performance.
- B. Major development proposals should include a detailed energy strategy to demonstrate how the zero-carbon target will be met within the framework of the energy hierarchy.
- C. A minimum on-site reduction of at least 35 per cent beyond Building Regulations is required for major development. Residential development should aim to achieve 10 per cent, and nonresidential development should aim to achieve 15 per cent through energy efficiency measures. Where it is clearly demonstrated that the zero-carbon target cannot be fully achieved on-site, any shortfall should be provided, in agreement with the borough, either:
 - 1) through a cash in lieu contribution to the relevant borough's carbon offset fund, or
 - 2) off-site provided that an alternative proposal is identified and delivery is certain.
- D. Boroughs must establish and administer a carbon offset fund. Offset fund payments must be ring-fenced to implement projects that deliver greenhouse gas reductions. The operation of offset funds should be monitored and reported on annually.
- E. Major development proposals should calculate and minimize carbon emissions from any other part of the development, including plant or equipment, that are not covered by Building Regulations, i.e. unregulated emissions.
- F. Development proposals referable to the Mayor should calculate whole life-cycle carbon emissions through a nationally recognized Whole Life-Cycle Carbon Assessment and demonstrate actions taken to reduce life-cycle carbon emissions."
- A1.31 These requirements are broadly consistent with those in the GLA's 'Guidance on Preparing Energy Assessments'¹¹, described above.

Draft Energy Assessment Guidance 13

A1.32 This draft guidance is an update to the 2018 Energy Assessment Guidance¹¹, and sets out what is expected for compliance with the draft London Plan. The guidance details the 'be seen' policy, which requires all major developments to monitor and report on their energy performance post-



construction, as well as a new requirement for all referable planning applications to calculate and reduce whole life-cycle carbon emissions.

A1.33 The guidance also clarifies the requirements for different types of planning application, alongside explanations relating to carbon emission factors, restructuring of the 'be clean' section to align with the heating hierarchy, further information on the role of CHP plant generally and in heat networks and transferal of heat pump and photovoltaic requirements into the core of the guidance due to the popularity of these technologies.

Sustainable Design and Construction Supplementary Planning Guidance 10

- A1.34 In April 2014, the Mayor published the Sustainable Design and Construction Supplementary Planning Guidance (SPG) to provide guidance to developers. This SPG details the Mayor's standards, covering a wide range of sustainability measures that major developments are expected and encouraged to meet. It covers the following areas:
 - Resource Management;
 - Adapting to Climate Change and Greening the City; and
 - Pollution Management

Delivering London's Energy Future: The Mayor's Climate Change Mitigation and Energy Strategy ¹⁴

- A1.35 This strategy sets out the Mayor's strategic approach to limiting further climate change and securing a low carbon energy supply for London.
- A1.36 To limit further climate change impacts, the Mayor has set a target to reduce London's CO₂ emissions by 60% on 1990 levels by 2025. The strategy details the programmes and activities that are on-going across London to achieve this. This strategy also details policies and activities underway to reduce CO₂ emissions from new development and transport through The London Plan and the Mayor's Transport Strategy.

London Environment Strategy ¹⁵

- A1.37 The London Environment Strategy, published in May 2018, sets out an action plan for environmental improvement in London up to 2050 and covers a range of core environmental aspects including energy and climate change, air quality, green infrastructure, waste and noise.
- A1.38 The strategy sets a series of targets, including the aim to make London a zero-carbon city by 2050; reiterating the same commitment as is included in the draft New London Plan. The strategy sets out

J3955 9 of 16 May 2020 J3955 10 of 16 May 2020

GLA (2020), 'Energy Assessment Guidance: Greater London Authority guidance on preparing energy assessments as part of planning applications (April 2020)'

¹⁴ GLA (2011), 'Delivering London's Energy Future: The Mayor's Climate Change Mitigation Energy Strategy'

¹⁵ GLA (2018), 'London Environment Strategy'



a series of measures designed to achieve this aim, which are focussed upon delivering zero-carbon energy, zero-carbon transport and zero-carbon development. The strategy also sets out plans for retro-fitting existing buildings to enable them to be considered to be zero-carbon.

Local Policies

- A1.39 The London Borough of Tower Hamlets Local Plan 2031¹⁶ has a policy on achieving a zero-carbon borough. Policy D.ES7, 'A zero carbon borough' states that:
 - "1. Development is required to meet the CO₂ emission reduction standards as set out below:

Residential Development					
Year	Improvement on 2013 Building Regulations				
2016-2031	Zero carbon (to be achieved through a minimum 45% reduction in regulated carbon dioxide emissions on-site and the remaining regulated carbon dioxide emissions to 100% - to be offset through a cash in lieu contribution)				
Non-residential Development					
Year	Improvement on 2013 Building Regulations				
2016-2019	45% regulated carbon dioxide emissions reduction				
2019-2031	Zero carbon (to be achieved through a minimum 45% reduction in regulated carbon dioxide emissions on-site and the remaining regulated carbon dioxide emissions to 100% - to be offset through a cash in lieu contribution)				

- 2. Development is required to maximise energy efficiency based on the following standards:
- a. All new non-residential development over 500 square metres floorspace (gross) are expected to meet or exceed BREEAM 'excellent' rating
- b. All major non-residential refurbishment of existing buildings and conversions over 500 square metres floorspace (gross) must meet at least BREEAM non-domestic refurbishment 'excellent' rating
- c. As a minimum, all self-contained residential proposals will be strongly encouraged to meet the Home Quality Mark.
- 3. Major residential and major non-residential development will be required to submit an energy assessment. Minor non-residential development will be strongly encouraged to prepare an assessment.
- 4. The energy assessment should demonstrate how the development has been designed in accordance with the energy hierarchy and how it will:
- a. maximise energy efficiency as per the requirements set out in Part 2
- b. outline the feasibility of low nitrogen dioxide decentralised energy, and

J3955 11 of 16 May 2020



- c. seek to provide up to 20% reduction of carbon dioxide emissions through on-site renewable energy generation.
- 5. The sustainable retrofitting of existing development with provisions for the reduction of carbon emissions will be supported."
- A1.40 In addition, the Council has a Supplementary Planning Document (SPD) dealing with planning obligations¹⁷, which states that:
 - "The Council strongly supports the development of energy efficient buildings and ensuring all homes are built to zero carbon standards (as defined by CLG) by 2016 and all new non-domestic developments are built to zero carbon standards by 2019."
- A1.41 The Council released a Carbon Offset Fund¹⁸ report in December 2015. The report details the Council's Carbon Offsetting Study. The study states:

"Carbon Offset Funds in the built environment currently obtain their revenues from the difference between the estimated CO₂ emissions and the estimated target CO₂ emissions required by planning policy as it may not be technically feasible or financially viable to achieve the required carbon standards through on-site measures. The shortfall is established using accredited Part L softwares and is referred to as 'residual CO₂ emissions'.

"The residual CO_2 emissions can then be multiplied by a number of years to establish the 'lifetime residual CO_2 emissions', i.e. the total CO_2 emissions which should be offset. The conventions are for this number of years to be 30 and for the number of years to be factored in the price of carbon (i.e. £60/tonne CO_2 x 30 = £1800/tonne CO_2) rather than in the residual CO_2 emissions."

J3955 12 of 16 May 2020

¹⁶ London Borough of Tower Hamlets (2020), 'Tower Hamlets Local Plan 2031'

¹⁷ London Borough of Tower Hamlets (2016), 'Planning Obligations Supplementary Planning Document (SPD)'

London Borough of Tower Hamlets (2015), 'The LBTH Carbon Offset Fund'

Annex 2: London Travel Demand Survey 2019



Greenhouse Gas Emissions Appendices



A2 Annex 2: London Travel Survey 2019

- A2.1 Every year TfL conduct a survey¹⁹ across 8,000 randomly selected households in London and the surrounding area to monitor travel habits.
- A2.2 The collated results contain information ranging from trips per person per day, modal distributions, purposes of travel, travel times, travel distances and car ownership. Data are collected and grouped into Greater London, Inner London and Outer London.
- A2.3 Table A2.1 provides the results of the survey of travel distances by mode for 2018/2019 for Inner London.

Table A2.1: Travel Distances

Travel Mode	Distance (Kilometres per Person per Day)
National Rail	21.3
Underground / DLR	7.4
Bus / Tram	3.6
Taxi / Other	6.4
Car Driver	7.3
Car Passenger	9.3
Motorcycle	6.1
Cycle	3.7
Walk	0.7

A2.4 The Travel Survey does not provide any information regarding the average distance for Heavy Goods Vehicles, or for the average distance travelled by delivery vehicles. In order to provide a conservative assessment, the calculation of GHG emissions from delivery vehicles travelling to the Proposed Development has assumed to have the same average trip distance of 6.4 km as for taxi/other. This is considered a reasonable assumption since any parcel that was not delivered, the occupant would need to take a different mode of transport in order to collect the item. A report carried out on behalf of the GLA²⁰ into the distance travelled by delivery vehicles in Central London identified the average distance travelled per delivery was 119 m; this is significantly less than 6.4 km, and therefore the application of 6.4 km represents a highly conservative assumption.

J3955 13 of 16 May 2020

y			

¹⁹ TfL (2020), 'London Travel Demand Survey – Workbook 2018/19', Available: https://tfl.gov.uk/corporate/about-tfl/how-we-work/planning-for-the-future/consultations-and-surveys

GLA (2017), 'Parcel Deliveries with Electric Vehicles in Central London', Available: https://westminsterresearch.westminster.ac.uk/download/c85e71d2c0a2f04f6de57ee874b6f72adeccabce82d20e6 d2bf5bf9ef82d1645/4896435/GLA-Agile3-DataReport-4May2017.pdf

Annex 3: Extract from London Atmospheric Emissions Inventory





A3 Annex 3: Extract from the London Atmospheric Emissions Inventory

Value Valu												
Part	Year	2025	Ţ									
Part												
Serking and Dagenham 125,822 - 7,941 1,513 296,056 13,501 182,271 13,320 20,343 605, sammet 351,999 229 - 2,477 172 6,440 496,594 5,669 12,340 877, skelley 170,922 10,331 6,261 782 17,718 12,367 245,074 8,602 47,348 519, skelley 170,922 10,331 6,261 782 17,718 12,367 245,074 8,602 47,348 519, skelley 170,922 10,331 6,261 782 17,718 12,367 245,074 8,502 47,348 519, skelley 125,000 1,397 - 690 10,026 11,901 867,533 7,294 739 591, skelley 125,000 1,397 - 690 10,026 11,901 867,533 7,294 739 591, skelley 125,000 1,397 - 690 10,026 11,901 85,033 87,63 12,889 653, sammen 132,703 4,615 - 5,143 327,006 5,076 2,1 474, skelley 124,844 502 1,609 2,033 1,511 85,037 321 133, skelley 128,844 10,030 30 42 668, skelley 128,844 10,030 5,741 17,308 677, skelley 128,844 10,030 5,741 17,308 677, skelley 138,844 6,498 10,549 1593, skelley 138,844 6,498 1593, skelley		Values										
larnett 351,999 223 - 2,477 172 6,440 498,584 5,669 12,340 877, lexitey 170,922 10,331 6,261 782 17,718 12,367 245,074 38,002 47,348 519, lexiter 185,617 319 - 7,936 10,026 11,901 367,333 7,244 739 591, lexiter 185,617 319 - 7,936 10,026 11,901 367,333 7,246 739 591, lexiter 132,703 - 8,690 - 4,518 484 400,503 8,763 12,889 653, lexiter 132,703 - 8,690 - 1,514 83,037 921 - 133, liky of Westminster 211,884 - 1,741 2,209 - 6,289 488,110 7,000 42 668, liky of Westminster 211,884 - 1,741 2,209 - 6,289 488,110 7,000 5,741 17,308 677, lexiter 218,618 - 8,383 6,581 558 56 10,180 17,016 331,354 6,888 10,191 11,12,94 691, lexiter 323,347 397 - 474 792,013 17,218 332,221 7,873 45,840 1,523, lexiter 108,457 1347 - 7,699 26 11,573 232,307 2,446 - 352, lexiter 108,457 1347 - 7,699 26 11,573 232,307 2,446 - 352, lexiter 117,540 - 1 1,947 - 10,565 284,986 31,14 2- 448, lexiter 117,540 - 1 1,947 2- 10,565 284,986 31,14 2- 448, lexiter 117,540 - 1 1,947 2- 10,565 284,986 31,14 2- 448, lexiter 118,540 356,00 579 1,812 13,513 13,22 297,767 7,760 254,66 92,6, lillingdon 366,25 694,258 - 8,773 74,516 24,646 348,014 32,80 168,791 41,83, lexiter 118,540 14,79 2- 1 1,82 851 2- 2,000 357,425 2,777 7,760 254,66 92,6, lillingdon 14,779 2- 1 1,82 851 2- 2,000 357,425 2,777 2- 3,500 36, lexiter 118,540 14,799 2- 1 1,82 851 2- 2,000 357,425 2,777 2- 3,500 36, lexiter 118,540 14,799 2- 1 1,82 851 2- 2,000 357,425 2,777 2- 5,14 lexiter 118,540 14,799 2- 1 1,82 851 2- 2,000 357,425 2,777 2- 5,14 lexiter 118,540 14,540 15,540 2,540 31,5	Borough	Road Tr	ransport	Aviation	River	Rail	Industry	NRMM	Domestic and Commercial Gas	Domestic and Commercial Other Fuels	Other	Total
textley 170,922 10,331 6,261 782 17,718 12,367 245,074 8,602 47,348 519, trent 185,617 319 - 7,936 10,026 11,901 367,533 7,244 79.9 931, tromley 225,000 13,97 - 600 - 4,548 400,033 37,206 5,076 21 474, 214, 214, 214, 214, 214, 214, 214, 21	Barking and Dagenham		125,822	-	7,941	1,513	298,056	15,901	182,271	13,320	20,343	665,16
sternt 185,617 319 - 7,996 10,026 11,901 367,533 7,294 739 591, yornley stromley 225,200 1,397 - 690 - 4,548 400,503 8,763 12,889 653, and control camden 132,703 - - 6,615 - 1,511 83,037 921 - 133, control 121 474, control 12,284 - 1,741 2,29 - 6,289 438,210 7,030 42 668, control 6,689 1,741 1,709 6289 438,210 7,030 42 668, control 668, control 7,031 42 668, control 7,031 42,18 92,734 92,111 12,294 661, control 668, control 1,711 17,298 677, control 43,40 9,511 17,294 691, control 444,300 7,711 1,72,44 691, control 7,711 1,72,44 691, control 7,711 4,72,52 4,72,52 4,72,52 4,72,52	Barnet	;	351,999	223	-	2,477	172	6,440	498,584	5,669	12,340	877,90
Promise 12,200 1,397 - 1,690 - 1,4548 400,503 8,763 12,889 653, 12,889 653, 12,889 12,889 12,889 1,289	Bexley	;	170,922	10,331	6,261	782	17,718	12,367	245,074	8,602	47,348	519,40
Cameden 132,703 - 4,615 - 5,143 327,206 5,076 21 474, 21 174 43,002 1,609 2,033 - 1,311 83,007 921 - 138, 21 174 2,009 - 6,289 438, 210 7,000 42 688, 27,000 42,000 5,741 17,308 677, 201 424,300 5,741 17,308 677, 201 618, 32,000 5,741 17,308 677, 201 424,300 5,741 17,308 677, 201 618, 32,321 7,873 43,840 5,741 17,308 677, 201 618, 32,321 7,873 43,840 1,523 691, 11,120 17,016 331,334 6,498 10,549 19,549 19,549 10,549 19,549 19,549 11,540 1,541 1,549 1,541 1,549 1,549 1,548 323,307 2,446 1,549 1,549 1,549 1,549 1,549 1,549 1,549 2,249 2,249 3,141 1,549 3,552 4,618	Brent	:	185,617	319	-	7,936	10,026	11,901	367,533	7,294	739	591,36
city of Westminster 44,302 1,609 2,033 - - 1,311 83,037 921 - 133, 134, 134 115, 164 2,099 - 6,289 438,110 7,030 42 668, 266 476, 70 424,800 5,741 17,308 677, 17,008 677, 17,008 677, 11,708 678, 11,708 677, 11,708 677, 11,708 678, 11,708 677, 11,708 678, 11,709 678, 11,709 678, 11,709 678, 11,709 678, 11,709 678, 11,709 678, 11,709 678, 11,709 679, 11,709 679, 11,709 679, 11,709 679, 11,709 <th< td=""><td>Bromley</td><td>:</td><td>225,200</td><td>1,397</td><td>-</td><td>690</td><td>-</td><td>4,548</td><td>400,503</td><td>8,763</td><td>12,889</td><td>653,98</td></th<>	Bromley	:	225,200	1,397	-	690	-	4,548	400,503	8,763	12,889	653,98
City of Westminster 212,884 - 1,741 2,209 - 6,289 438,210 7,030 42 668, roydon 216,163 280 - 1,232 5,092 7,670 424,300 5,741 17,308 677, aling 255,513 164 - 9,637 - 12,324 392,784 9,111 12,294 691, affield 329,347 397 - 474 792,013 17,218 332,321 7,873 43,840 1,523, are enwich 207,816 8,328 6,583 556 10,180 17,016 331,354 6,498 10,549 598, at ackney 108,457 147 - 769 26 11,573 232,307 2,446 - 355, at ammers mith and Fulham 101,117 13,592 81 2,002 40 4,705 227,089 3,636 84 352, at arringey 117,540 - 1,1947 - 10,565 227,089 3,636 84 352, at arringey 117,540 - 1,1947 - 10,565 248,986 3,114 - 418, at arrow 123,992 27 - 3,305 28,058 2,912 297,045 3,184 5,197 463, at avering 335,107 3,690 579 1,842 13,513 11,322 297,045 3,184 5,197 463, at avering 335,107 3,690 579 1,842 13,513 11,322 297,045 3,184 5,197 463, at avering 335,107 3,690 579 1,842 13,513 11,322 297,045 3,184 5,197 463, at avering 335,107 3,690 579 1,842 13,513 11,322 297,045 3,184 5,197 463, at avering 335,107 3,690 579 1,842 13,513 11,322 297,045 3,184 5,197 463, at avering 335,107 3,690 579 1,842 13,513 11,322 297,045 3,184 32,830 168,979 1,718, at avering 335,107 3,698 298 348 20,000 18,880 261,869 6,791 61,383 718, at avering 325,271 96,882 98 348 20,000 18,880 261,869 6,791 61,383 718, at avering 325,271 96,882 98 348 20,000 18,880 261,869 6,791 61,383 718, at avering 325,271 3,404 3,888 3,022 - 3,499, at avering 325,271 3,404 3,888 3,022 - 3,499, at avering 325,271 3,404 3,888 3,022 - 3,499, at avering 325,272 3,599 3,880 3,890	Camden		132,703	-	-	4,615	-	5,143	327,206	5,076	21	474,76
Troydon 216,163 280 - 1,323 5,092 7,670 424,300 5,741 17,308 677, laling 255,13 164 - 9,637 - 12,324 392,784 9,111 12,294 691, infield 329,347 397 - 474 792,013 17,218 332,321 7,873 43,840 15,23, infield 329,347 397 - 474 792,013 17,218 332,321 7,873 43,840 15,23, infield 329,347 397 - 474 792,013 17,016 331,354 6,498 10,549 598, incleased ackney 108,457 147 - 769 26 11,573 232,307 2,446 - 355, infield 31,154 11,174 11,175 11	City		44,302	1,609	2,033	-	-	1,311	83,037	921	-	133,21
Failing 255,513 164 - 9,637 - 12,324 392,784 9,11 12,294 691, Infield 329,347 397 - 474 792,013 17,218 332,321 7,873 43,840 1,523, Greenwich 207,816 8,328 6,583 555 10,180 17,016 331,354 6,498 10,549 598, Hackney 108,457 147 - 769 26 11,573 232,307 2,446 - 355, Hammersmith and Fulham 101,117 13,592 81 2,002 40 4,705 227,089 3,636 84 552, Harringey 117,540 - 1,947 - 10,565 284,986 3,114 - 418, Harringey 117,540 - 1,947 - 10,565 284,986 3,114 5,197 463, Harringey 133,510 3,690 579 1,842 13,513 11,322 297,767 7,760 254,696 926, Hillingdon 366,256 694,258 - 8,773 74,516 24,646 348,014 32,80 168,979 1,718, Household 10,000 18,800 251,869 6,791 6,832 8,838 1,000 18,880 261,869 6,791 6,1383 718, Harringey 10,004 1,719 15 1,307 - 2,871 243,212 29,888 87 352, Harrington and Chelsea 100,046 1,719 15 1,307 - 2,871 243,212 2,988 87 352, Harrington 144,779 - 36 511 14,000 1,617 187,788 2,154 162 351, Harrington 145,592 - 1,182 851 - 6,200 357,425 2,777 - 514, Wewisham 141,200 12 2 1,295 404,000 11,859 282,882 2,854 1,644 845, Harrington 16,8382 49,640 1,734 2,197 224,951 25,822 315,183 14,494 5,955 807, Helbrinden 16,8382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,955 807, Helbrinden 16,8382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,955 807, Helbrinden 16,8382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,955 807, Helbrinden 16,8382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,955 807, Helbrinden 16,8382 49,640 1,734 2,197 2,24,951 25,282 315,183 14,494 5,955 807, Helbrinden 16,8382 49,640 1,734 2,197 2,24,951 25,282 315,183 14,494 5,955 807, Helbrinden 16,8382 49,640 1,734 2,197 2,195 2,24,951 25,282 315,183 14,494 5,955 807, Helbrinden 16,8382 49,640 1,734 2,197 2,195 2,24,951 25,282 315,183 14,494 5,955 807, Helbrinden 16,8382 49,640 1,734 2,197 2,195 24,951 25,282 315,183 14,494 5,955 807, Helbrinden 16,8382 49,640 1,734 2,197 2,195 24,951 25,282 315,183 14,944 2,195 2,195 24,951 25,282 315,183 31,393 25,217 3,542 4,462 16,661 332, Helbrinden 16,8382 49,640 1,734 2,197 2,195 24,951 25,282 315	City of Westminster		212,884	-	1,741	2,209	-	6,289	438,210	7,030	42	668,40
Enfield 329,347 397 - 474 792,013 17,218 332,321 7,873 43,840 1,523, areenwich 207,816 8,328 6,583 556 10,180 17,016 331,354 6,498 10,549 598, areenwich 207,816 8,328 6,583 556 10,180 17,016 331,354 6,498 10,549 598, areenwich 207,816 8,328 6,583 556 10,180 17,016 331,354 6,498 10,549 598, areenwich and Fulham 101,117 13,592 81 2,022 40 4,705 227,089 3,636 84 352, areinwich and Fulham 117,540 - 1,947 - 10,565 284,986 3,114 - 418, arrow 123,992 237 - 3,305 28,058 2,912 297,045 3,184 5,197 463, arrow 123,992 237 - 3,305 28,058 2,912 297,767 7,760 254,696 926, arrow 141,016 36,256 694,258 - 8,773 74,516 24,646 348,014 32,830 168,979 1,718, arrow 252,871 96,682 98 348 20,000 18,880 261,869 6,791 61,383 718, slington 85,427 - 1,474 10,659 5,861 243,388 3,022 - 349, arrow 252,871 96,682 98 348 20,000 18,880 261,869 6,791 61,383 718, slington 85,427 - 1,474 10,659 5,861 243,388 3,022 - 349, arrow 252,871 96,682 98 348 20,000 18,880 261,869 6,791 61,383 718, slington 144,779 - 36 511 14,000 1,617 187,788 2,154 162 351, arrow 24,779 - 36 511 14,000 1,617 187,788 2,154 162 351, arrow 24,779 - 36 511 14,000 1,617 187,788 2,154 162 351, arrow 24,779 - 514, arrow 24,779 - 5,684 14,220 12 2 1,295 404,000 11,859 282,882 2,254 1,644 845, arrow 24,779 1,750 2,779 5,638 51,758 504, arrow 24,779 51,779 5,638 51,758 504, arrow 24,779 51,779 5,638 51,758 504, arr	Croydon	:	216,163	280	-	1,323	5,092	7,670	424,300	5,741	17,308	677,87
Serenvich 207,816 8,328 6,583 556 10,180 17,016 331,354 6,498 10,549 598, 4ackney 108,457 147 - 769 26 11,575 232,307 2,466 - 355, 4ammersmith and Fulham 101,117 13,592 81 2,002 40 4,705 227,089 3,636 84 355, 4aringey 117,540 - 1,947 - 10,565 284,986 3,114 - 418, 4arrow 123,992 237 - 3,305 28,058 2,912 297,045 3,184 5,197 463, 4avering 335,107 3,690 579 1,842 13,513 11,322 297,767 7,760 254,696 926, 4illingdon 366,256 694,258 - 8,773 74,516 24,646 348,014 32,830 168,979 1,718, 4illingdon 85,427 - 1 1,444 10,659 5,861 245,388 3,022 - 349, 4ensington and Chelsea 100,046 1,719 15 1,307 - 2,871 243,212 2,968 87 352, 4illingdon 144,779 - 36 511 14,000 1,617 187,788 2,114 162 351, 4mbbth 145,592 - 1,182 851 - 6,200 357,425 2,777 - 514, 4wisham 141,220 12 2 1,295 404,000 1,859 282,882 2,884 1,644 845, 4illingdon 168,882 49,640 1,734 2,197 224,951 25,382 315,183 14,494 5,956 807, 4illingdon 144,880 1,661 2,596 231,301 1,062 - 652 13 2,572 301,779 5,638 11,171 360, 4ewham 168,882 49,640 1,734 2,197 224,951 25,382 315,183 14,494 5,956 807, 4ebridge 231,301 1,062 - 652 13 2,572 301,779 5,638 11,494 5,956 807, 4ebridge 231,301 1,062 - 652 13 2,572 301,779 5,638 11,494 5,956 807, 4ebridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594, 4ebridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594, 4ebridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594, 4ebridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594, 4ebridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594, 4ebridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594, 4ebridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594, 4ebridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594, 4ebridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594, 4ebridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594, 4ebridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594, 4ebridge 231,301 1,062 - 652 13 3,564 2,572 301,779 5,638 51,758 594, 4ebridge 231,301 1,062 - 652 13 3,564 2,572 301,779 5,638 51,758 594, 4ebridge 231,301	Ealing	:	255,513	164	-	9,637	-	12,324	392,784	9,111	12,294	691,82
Harkney 108,457 147 - 769 26 11,573 232,307 2,446 - 355, dammersmith and Fulham 101,117 13,592 81 2,002 40 4,705 227,089 3,656 84 352, dammersmith and Fulham 101,117 13,592 81 2,002 40 4,705 227,089 3,656 84 352, dammersmith and Fulham 117,540 - 1,1947 - 10,565 284,986 3,114 - 418, daringey 117,540 - 1,1947 - 10,565 284,986 3,114 - 418, daringey 1335,107 3,690 579 1,842 13,513 11,322 297,765 3,184 5,197 463, davering 355,107 3,690 579 1,842 13,513 11,322 297,767 7,760 254,696 926, dillingdon 366,256 694,258 - 8,773 74,516 24,646 348,014 32,830 168,979 1,718, dounslow 252,871 96,682 98 348 20,000 18,880 261,869 6,791 61,383 718, stlington 85,427 - 1,474 10,659 5,861 243,388 3,022 - 349, densington and Chelsea 100,046 1,719 15 1,307 - 2,871 243,212 2,968 87 352, diambeth 145,592 - 1,182 851 - 6,200 357,425 2,777 - 514, derton 118,501 - 2,660 1 1,269 282,882 2,854 1,644 845, derton 118,501 - 2,660 1 1,269 223,780 3,585 11,711 360, detring 188,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807, detring 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594, detron 100,829 44 - 2 2,751 3,061 204,252 4,462 16,691 332, doubtwark 144,280 1,601 2,596 653 - 6,568 325,217 3,542 4,462 16,691 332, doubtwark 140,80 1,601 1,508 1,50	Enfield	;	329,347	397	-	474	792,013	17,218	332,321	7,873	43,840	1,523,48
Hammersmith and Fulham 101,117 13,592 81 2,002 40 4,705 227,089 3,636 84 352, daringey 117,540 - 1,947 - 10,565 284,986 3,114 - 418, darrow 123,992 237 - 3,305 28,058 2,912 297,045 3,184 5,197 463, darrow 335,107 3,690 579 1,842 13,513 11,322 297,677 7,760 254,696 926, dillingdon 366,256 694,258 - 8,773 74,516 24,646 348,014 32,830 168,979 1,718, dounslow 252,871 96,682 98 348 20,000 18,880 261,869 6,791 61,383 718, slingdon 85,427 - 1,1474 10,659 5,861 243,388 3,022 - 349, densington and Chelsea 100,046 1,719 15 1,307 - 2,871 243,212 2,968 87 352, dingston 144,779 - 36 511 14,000 1,617 187,788 2,154 162 351, densington 144,779 - 36 511 14,000 1,617 187,788 2,154 162 351, densington 144,779 - 36 511 14,000 1,617 187,788 2,154 162 351, densington 148,592 - 1,182 851 - 6,200 357,425 2,777 - 514, densington 118,501 - 6 660 1 2,690 223,780 3,585 11,171 360, densing 118,501 - 6 660 1 2,690 223,780 3,585 11,171 360, densing 118,501 - 6 660 1 2,690 223,780 3,585 11,171 360, densing 118,501 1,062 - 652 13 2,572 301,779 5,638 51,758 594, delthon 144,280 1,601 2,596 653 - 6,568 325,217 3,542 43 484, delthon 10,0829 44 2,775 1,061 204,522 4,462 16,691 332, delthwark 144,280 1,601 2,596 653 - 6,568 325,217 3,542 43 484, delthon 10,0829 144 2,751 3,061 204,522 4,462 16,691 332, delthwark 144,280 1,594 1,595 7,020 2 - 1,263 335,540 5,026 6,816 533, delthwark 152,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520, densing 15,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520, densing 15,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520, densing 15,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520, densing 15,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520, densing 15,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520, densing 15,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520, densing 15,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520, densing 15,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520, densing 15,954 12,006 136 1,292 26 3,917 345,234 3,158,659 60,444 619,155 5,154, den	Greenwich		207,816	8,328	6,583	556	10,180	17,016	331,354	6,498	10,549	598,88
Haringey 117,540 1,947 - 10,565 284,986 3,114 - 418, Harrow 123,992 237 - 3,305 28,058 2,912 297,045 3,184 5,197 463, Harrow 123,992 237 - 3,305 28,058 2,912 297,045 3,184 5,197 463, Harrow 135,070 3,690 579 1,842 13,513 11,322 297,767 7,760 254,696 926, Hillingdon 366,256 694,258 - 8,773 74,516 24,646 348,014 32,830 168,979 1,718, Hounslow 252,871 96,682 98 348 20,000 18,880 261,869 6,791 61,383 718, Usington 85,427 1,474 10,659 5,861 243,388 3,022 - 349, Housington and Chelsea 100,046 1,719 15 1,307 - 2,871 243,212 2,968 87 352, Hingston 144,779 - 36 511 14,000 1,617 187,788 2,154 162 351, Harrow 141,220 12 2 1,295 404,000 11,859 282,882 2,884 1,644 845, Hordron 118,501 660 1 2,690 223,780 3,585 11,71 360, Hewtham 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807, Hedwham 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807, Helmond 146,340 38,463 241 121 10,000 1,396 254,150 3,580 2,397 456, Hournales 150,891 15,950 7,020 2 - 12,63 335,540 5,026 6,616 333, Waltham Forest 160,141 738 - 1,864 13 11,544 262,742 4,321 1,647 443, Wandsworth 152,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520, Honglia 2,945,599 33,779 30,481 12,405 85,114 8,886 1,358,659 60,444 619,155 5,154,	Hackney		108,457	147	-	769	26	11,573	232,307	2,446	-	355,72
Harrow 123,992 237 - 3,305 28,058 2,912 297,045 3,184 5,197 463; Havering 335,107 3,690 579 1,842 13,513 11,322 297,767 7,760 254,696 926, Hillingdon 366,256 694,258 - 8,773 74,516 24,646 348,014 32,830 168,979 1,718, Hounslow 252,871 96,682 98 348 20,000 18,880 261,869 6,791 61,383 718, Islington 85,427 1,474 10,659 5,861 243,388 3,022 - 349, Hensington and Chelsea 100,046 1,719 15 1,307 - 2,871 243,212 2,968 87 352, Hensington 144,779 - 36 511 14,000 1,617 187,788 2,154 162 351, Hambeth 145,592 - 1,182 851 - 6,200 357,425 2,777 - 514, Hensinsham 141,220 12 2 1,295 404,000 11,859 282,882 2,854 1,644 845, Herton 118,501 - 660 1 2,690 223,780 3,585 11,171 360, Hewham 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807, Helmond 146,340 38,463 241 121 10,000 1,396 254,150 3,580 2,397 456, Hounslow 144,280 1,601 2,596 653 - 6,568 325,217 3,542 43 484, Hounslow 150,891 150,991 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533, Waltham Forest 160,141 738 - 1,864 13 11,544 262,742 4,321 1,647 443, Wandsworth 152,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520, Wandsworth 152,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520, Wandsworth 152,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520,	Hammersmith and Fulham	:	101,117	13,592	81	2,002	40	4,705	227,089	3,636	84	352,34
Havering 335,107 3,690 579 1,842 13,513 11,322 297,767 7,760 254,696 926, fillingdon 366,256 694,258 - 8,773 74,516 24,646 348,014 32,830 168,979 1,718, flourslow 252,871 96,682 98 348 20,000 18,880 261,869 6,791 61,383 718, slington 85,427 - 1,474 10,659 5,861 243,388 3,022 - 349, kensington and Chelsea 100,046 1,719 15 1,807 - 2,871 243,212 2,968 87 352, kington 144,779 - 36 511 14,000 1,617 187,788 2,154 162 3511, ambeth 145,592 - 1,182 851 - 6,200 357,425 2,777 - 514, kewisham 141,220 12 2 1,295 404,000 11,859 282,882 2,854 1,644 845, kerton 118,501 660 1 2,690 223,780 3,585 11,171 360, kewham 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807, kedbridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594, kindhond 146,340 38,463 241 121 10,000 1,396 254,150 3,580 2,397 456, kouthwark 140,280 4,640 1,641 121 10,000 1,396 254,150 3,580 2,397 456, kouthwark 140,880 1,601 2,596 653 - 6,568 325,217 3,542 43 484, kouthwark 150,891 15,950 7,020 2 - 12,263 335,540 5,00	Haringey	:	117,540	-	-	1,947	-	10,565	284,986	3,114	-	418,15
Hillingdon 366,256 694,258 - 8,773 74,516 24,646 348,014 32,830 168,979 1,718, founslow 252,871 96,682 98 348 20,000 18,880 261,869 6,791 61,383 718, slington 85,427 1,474 10,659 5,861 243,388 3,022 - 349, feersington and Chelsea 100,046 1,719 15 1,307 - 2,871 243,212 2,968 87 352, fringston 144,779 - 36 511 14,000 1,617 187,788 2,154 162 351, ambeth 145,592 - 1,182 851 - 6,200 357,425 2,777 - 514, feers in the company of the company	Harrow	:	123,992	237	-	3,305	28,058	2,912	297,045	3,184	5,197	463,93
Hounslow 252,871 96,682 98 348 20,000 18,880 261,869 6,791 61,383 718, slington 85,427 1,474 10,659 5,861 243,388 3,022 - 349, kensington and Chelsea 100,046 1,719 15 1,307 - 2,871 243,212 2,968 87 352, kingston 144,779 - 36 511 14,000 1,617 187,788 2,154 162 351, ambeth 145,592 - 1,182 851 - 6,200 357,425 2,777 - 514, kewisham 141,220 12 2 1,295 404,000 11,859 282,882 2,854 1,644 845, kingston 118,501 660 1 2,690 223,780 3,585 11,171 360, kingston 118,501 660 1 2,690 223,780 3,585 11,171 360, kingston 118,501 652 13 2,572 315,183 14,494 5,956 807, kingston 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807, kingston 168,382 49,640 3,8463 241 121 10,000 1,396 254,150 3,580 2,397 456, kindston 100,829 44 2, 2,751 3,061 204,252 4,462 16,691 332, kindston 100,829 44 2, 2,751 3,061 204,252 4,462 16,691 332, kindston 100,829 44 2, 2,751 3,061 204,252 4,462 16,691 332, kindston 100,829 44 2, 2,751 3,061 204,252 4,462 16,691 332, kindston 100,829 44 2, 2,751 3,061 204,252 4,462 16,691 332, kindston 100,829 44 2, 2,751 3,061 204,252 4,462 16,691 332, kindston 100,829 44 2, 2,751 3,061 204,252 4,462 16,691 332, kindston 100,829 44 2, 2,751 3,061 204,252 4,462 16,691 332, kindston 100,829 44 2, 2,751 3,061 204,252 4,462 16,691 332, kindston 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533, kindston 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533, kindston 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533, kindston 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533, kindston 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533, kindston 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533, kindston 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533, kindston 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533, kindston 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533, kindston 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533, kindston 150,891 15,950 7,020 2 - 12,263 335,540 5,026 7,020 2 - 12,263 335,	Havering	;	335,107	3,690	579	1,842	13,513	11,322	297,767	7,760	254,696	926,27
Salington 85,427 1,474 10,659 5,861 243,388 3,022 - 349,4462 16,691 332,443,44 10,659 5,861 243,388 3,022 - 349,4462 16,691 332,443,44 16,84	Hillingdon		366,256	694,258	-	8,773	74,516	24,646	348,014	32,830	168,979	1,718,27
Kensington and Chelsea 100,046 1,719 15 1,307 - 2,871 243,212 2,968 87 352, 351, 352, 351, 352, 353, 353, 353, 353, 353, 353, 353	Hounslow		252,871	96,682	98	348	20,000	18,880	261,869	6,791	61,383	718,92
Kingston 144,779 - 36 511 14,000 1,617 187,788 2,154 162 351,000 ambeth 145,592 - 1,182 851 - 6,200 357,425 2,777 - 514,000 ambeth 141,220 12 2 1,295 404,000 11,859 282,882 2,854 1,644 845,000 ambeth 118,501 6660 1 2,690 223,780 3,585 11,171 360,000 ambeth 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807,000 ambeth 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807,000 ambeth 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807,000 ambeth 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807,000 ambeth 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807,000 ambeth 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807,000 ambeth 168,382 49,640 1,062 - 652 13 2,572 301,779 5,638 51,758 594,000 ambeth 168,382 49,640 1,601 2,596 653 - 6,568 325,217 3,542 43 484,000 ambeth 168,382 49,640 1,601 2,596 653 - 6,568 325,217 3,542 43 484,000 ambeth 168,382 49,640 1,601 2,596 653 - 6,568 325,217 3,542 43 484,000 ambeth 168,382 49,640 1,601 2,596 653 - 6,568 325,217 3,542 43 484,000 ambeth 168,382 49,640 1,601 2,596 653 - 6,568 325,217 3,542 43 484,000 ambeth 168,382 49,640 1,601 2,596 653 - 6,568 325,217 3,542 43 484,000 ambeth 168,382 49,640 ambeth 168,3	Islington		85,427	-	-	1,474	10,659	5,861	243,388	3,022	-	349,82
Aambeth 145,592 - 1,182 851 - 6,200 357,425 2,777 - 514, sewisham Jewisham 141,220 12 2 1,295 404,000 11,859 282,882 2,854 1,644 845, sewisham Merton 118,501 - - 660 1 2,690 223,780 3,585 11,171 360, sewisham Newham 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807, sewisham Newham 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807, sewisham Newham 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807, sewisham Newham 168,382 49,640 1,734 2,197 224,951 25,282 315,183 315,183 14,494 5,956 807, sewisham Sichmond 146,340 38,463 241 121 10,000 1,396 254,150 </td <td>Kensington and Chelsea</td> <td>:</td> <td>100,046</td> <td>1,719</td> <td>15</td> <td>1,307</td> <td>-</td> <td>2,871</td> <td>243,212</td> <td>2,968</td> <td>87</td> <td>352,22</td>	Kensington and Chelsea	:	100,046	1,719	15	1,307	-	2,871	243,212	2,968	87	352,22
Lewisham 141,220 12 2 1,295 404,000 11,859 282,882 2,854 1,644 845, 486, 486, 486, 486, 486, 486, 486, 486	Kingston	:	144,779	-	36	511	14,000	1,617	187,788	2,154	162	351,04
Werton 118,501 - - 660 1 2,690 223,780 3,585 11,171 360,000 Newham 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807,000 Redbridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594,000 Richmond 146,340 38,463 241 121 10,000 1,396 254,150 3,580 2,397 456,000 Southwark 144,280 1,601 2,596 653 - 6,568 325,217 3,542 43 484,000 Southon 100,829 44 - - 2,751 3,061 204,252 4,462 16,691 332,000 Fower Hamlets 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533,000 Waltham Forest 160,141 738 -	Lambeth	:	145,592	-	1,182	851	-	6,200	357,425	2,777	-	514,02
Newham 168,382 49,640 1,734 2,197 224,951 25,282 315,183 14,494 5,956 807,8 Redbridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594,8 Redbridge 146,340 38,463 241 121 10,000 1,396 254,150 3,580 2,397 456,8 Redbridge 144,280 1,601 2,596 653 - 6,568 325,217 3,542 43 484,8 Redton 100,829 44 2,751 3,061 204,252 4,462 16,691 332,8 Red Fower Hamlets 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533,8 Red Fower Hamlets 160,141 738 - 1,864 13 11,544 262,742 4,321 1,647 443,8 Red Forest 152,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520,8 Red Fower Hamlets 2,945,599 33,779 30,481 12,405 85,114 8,886 1,358,659 60,444 619,155 5,154,8 Red Fower Hamlets 1,500,500 1,500,500 1,500,500,500,500,500,500,500,500,500,50	Lewisham		141,220	12	2	1,295	404,000	11,859	282,882	2,854	1,644	845,76
Redbridge 231,301 1,062 - 652 13 2,572 301,779 5,638 51,758 594, Richmond 146,340 38,463 241 121 10,000 1,396 254,150 3,580 2,397 456, Richmond 144,280 1,601 2,596 653 - 6,568 325,217 3,542 43 484, Richmond 100,829 44 2,751 3,061 204,252 4,462 16,691 332, Richmond 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533, Waltham Forest 160,141 738 - 1,864 13 11,544 262,742 4,321 1,647 443, Richmond 152,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520, Richmond 2,945,599 33,779 30,481 12,405 85,114 8,886 1,358,659 60,444 619,155 5,154, Richmond 146,340 38,463 241 12,405 85,114 8,886 1,358,659	Merton	:	118,501	-	-	660	1	2,690	223,780	3,585	11,171	360,389
Richmond 146,340 38,463 241 121 10,000 1,396 254,150 3,580 2,397 456,60uthwark 144,280 1,601 2,596 653 - 6,568 325,217 3,542 43 484,60uthon 100,829 44 2,751 3,061 204,252 4,462 16,691 332,600 5,026 6,816 533,600 5,026 6,81	Newham		168,382	49,640	1,734	2,197	224,951	25,282	315,183	14,494	5,956	807,820
Southwark 144,280 1,601 2,596 653 - 6,568 325,217 3,542 43 484,645 Sutton 100,829 44 - - 2,751 3,061 204,252 4,462 16,691 332,000 Fower Hamlets 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533,000 Waltham Forest 160,141 738 - 1,864 13 11,544 262,742 4,321 1,647 443,000 Wandsworth 152,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520,000 NonGLA 2,945,599 33,779 30,481 12,405 85,114 8,886 1,358,659 60,444 619,155 5,154,000	Redbridge		231,301	1,062	-	652	13	2,572	301,779	5,638	51,758	594,77
Sutton 100,829 44 2,751 3,061 204,252 4,462 16,691 332,000	Richmond		146,340	38,463	241	121	10,000	1,396	254,150	3,580	2,397	456,68
Tower Hamlets 150,891 15,950 7,020 2 - 12,263 335,540 5,026 6,816 533,000 8 160,141 738 - 1,864 13 11,544 262,742 4,321 1,647 443,000 1 1,000	Southwark				2,596	653	-			3,542		484,50
Waltham Forest 160,141 738 - 1,864 13 11,544 262,742 4,321 1,647 443,043 Wandsworth 152,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520,044 NonGLA 2,945,599 33,779 30,481 12,405 85,114 8,886 1,358,659 60,444 619,155 5,154,044	Sutton				-	-	2,751	3,061		4,462		332,09
Wandsworth 152,954 12,006 136 1,292 26 3,917 345,234 3,193 1,408 520,000 NonGLA 2,945,599 33,779 30,481 12,405 85,114 8,886 1,358,659 60,444 619,155 5,154,000	Tower Hamlets		150,891	15,950	7,020	2	-	12,263	335,540	5,026	6,816	533,50
NonGLA 2,945,599 33,779 30,481 12,405 85,114 8,886 1,358,659 60,444 619,155 5,154,	Waltham Forest		160,141	738	-	1,864	13	11,544	262,742	4,321	1,647	443,01
	Wandsworth			12,006	136	1,292	26	3,917	345,234	3,193	1,408	520,16
Grand Total 8,799,911 986,667 68,763 76,482 2,020,939 309,318 11,213,486 267,718 1,386,985 25,130,	NonGLA	2,9	945,599	33,779				8,886		60,444	619,155	5,154,52
	Grand Total	8,	799,911	986,667	68,763	76,482	2,020,939	309,318	11,213,486	267,718	1,386,985	25,130,26

Annex 4: Extract from Sustainability and Energy Statement





A4 Annex 4: Extract from Energy Statement

Summary of Energy Assessment Results

Non-domestic.

10.7 As can be seen in the tables below, the target of 15% carbon emissions reduction at 'Be Lean' has been achieved. However, the percentage savings achieved at 'Be Green' stage are far higher than the minimum 35% required by the London Plan. The current non-domestic emissions savings following 'Be Green' stage is 47%.

	Regulated non-domestic carbon dioxide savings		
	(Tonnes CO₂ per annum)	(%)	
Be Lean: Savings from energy demand reduction	443	18	
Be Clean: Savings from heat network	-	0	
Be Green: Savings from renewable energy	709	29	
Cumulative on-site savings	1,151	47	
Carbon Shortfall	1,292		
	(tonnes CO2)		
Cumulative savings for offset payment	38,760		
Cash-in-lieu contribution (£95 tonne CO2)	£3,682,200		

Table 10.3: Regulated Carbon Dioxide Savings for the Indicative Scheme Non-domestic buildings at each stage of the energy hierarchy. Buildings NQA5, NQB1, NQD1/D2, NQD3 and NQD4

	Carbon Dioxide Savings (tonnes CO ₂ per annum)	
	Regulated	Unregulated
Baseline: Part L 2013 of the Building Regulations Compliant Development	2,443	1,737
After energy demand reduction (be lean)	2,000	1,737
After heat network connection (be clean)	2,000	1,737
After renewable energy (be green)	1,292	1,737

Table 10.4: London Plan Energy hierarchy table for regulated and unregulated carbon dioxide savings (non-domestic)



Domestic

10.9 As can be seen in the tables below, the target of 10% carbon emissions reduction at 'Be Lean' has been achieved. However, the percentage savings achieved at 'Be Green' stage are far higher than the minimum 35% required. The current domestic emissions savings following 'Be Green' stage is 53%. This increases to 64% including the energy contribution from the secondary waste heat from the commercial buildings.

	Regulated domestic carbon dioxide savings		
	(Tonnes CO ₂ per annum)	(%)	
Be Lean: Savings from energy demand reduction	90	13%	
Be Clean: Savings from heat network	-	0%	
Be Green: Savings from renewable energy	269	40%	
Cumulative on-site savings	360	53%	
Carbon Shortfall	314	-	
	(tonnes CO2)		
Cumulative savings for offset payment	9,424		
Cash-in-lieu contribution (30 years @ £95 tonne CO2)	£895,249		

Table 10.6: Regulated Carbon Dioxide Savings for the Indicative Scheme Domestic buildings at each stage of the energy hierarchy. Buildings NQA1 and NQA4

	Carbon Dioxide Savings (tonnes CO ₂ per annum)	
	Regulated	Unregulated
Baseline: Part L 2013 of the Building Regulations Compliant Development	674	458
After energy demand reduction (be lean)	584	458
After heat network connection (be clean)	583	458
After renewable energy (be green)	314	458

Table 10.8: London Plan Energy Hierarchy table for regulated and unregulated carbon dioxide savings (Domestic)

J3955 15 of 16 July 2020 J3955 16 of 16 July 2020