Clifford Hart

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20 November 2014

To: All Members of the Full Council

Dear Member,

### Full Council - Monday, 24th November, 2014

I attach a copy of the following reports for the above-mentioned meeting which were not available at the time of collation of the agenda:

### 10. FOURTH ANNUAL CARBON REPORT TO FOLLOW (PAGES 1 - 58)

Yours sincerely

Clifford Hart Democratic Services Manager This page is intentionally left blank





Report for:	Full Council	ltem Number:	10
Title:	Fourth Annual Carbon Repo	rt	

Report	Dan Hawthorn, Assistant Director for Regeneration			
Authorised by:	D tlauthorn			

Lead Officer:	Natalie Butler, natalie.butler@haringey.gov.uk, 0208 489 5619
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Ward(s) affected:	Report for Key/Non Key Decisions:		
All	Non Key Decisions		

### 1. Describe the issue under consideration

The Annual Carbon report provides a transparent year on year account of progress towards the Council's target to reduce  $CO_2$  emissions in Haringey by 40% by 2020, whilst creating sustainable economic growth and improving wellbeing for all.

This year's report sets out:

- Official carbon emissions data for April 2012- March 2013 (published by the Department of Energy and Climate Change in 2014)
- Key achievements: Council programmes and collaborative initiatives to reduce CO<sub>2</sub> emissions in April 2013- March 2014
- The Council's priority initiatives and key next steps from April 2014 onward

### 2. Cabinet Member introduction

This is the 4th year we have published the Annual Carbon Report at our Full Council, and I am proud we remain the only local authority to do so in the UK. In doing so we are maintaining our leadership and commitment to tackling climate change and making Haringey a global centre for innovation in green technologies.



This report sets out just how challenging and ambitious our agenda is. The targets and priorities outlined in this report will undoubtedly be difficult to achieve and it is

disappointing to have seen emission rise in the latest figures for 2011-12, despite our efforts. This underlines the urgency and necessity for action, not least because a significant driver of this has been the decision to source a greater proportion of energy for the national grid from dirty fuels, specifically coal.

Nonetheless there is much to praise in this report. Green Light North London has supported 101 local businesses to cut costs and carbon. In addition, Decent Homes energy saving upgrades have been carried out on nearly 2,300 properties, including over 1,000 boiler renewals and the Council also continues to develop a 'Decentralised Energy Strategy' for a low carbon heat network.

I am proud that this year saw Haringey Council launch a two year strategic innovation and research partnership with Durham University. Haringey is set to be a 'living laboratory' for low carbon technological, social, and financial solutions.

Unfortunately, the government has not shown the same level of commitment. Disappointingly, this year we saw the government water down planning regulation for its zero carbon homes target by excluding small housing sites, which will make it even tougher to achieve UK 80% carbon reduction from buildings, and it has failed to commit to decarbonisation of the national grid by 2030.

In contrast, Haringey has taken a huge step forward with the launch of the Smart Homes project in our borough. The project offers grants of up to £6,000 for major green upgrades to homes, such as wall insulation, as well as subsidised energy assessments. Once again Haringey is leading the way nationally to help residents cut the cost of living and make their homes sustainable for the future. We are determined that Haringey is at the forefront of green industry, helping local businesses flourish and creating long-term jobs for our residents in a sector that will continue to grow.

Haringey Council continues to bring forward regeneration plans for the Tottenham area. In spite of the challenging context financially for the council, we believe that it is important we deliver a regeneration programme that supports smarter and more sustainable city living and I am delighted to be supported by Cllr Natan Doron who will be looking at the policies that support this work and the opportunities in our area.

Finally, as ever we would not have achieved the success we have without the support of members of the local community, and I thank them for their contribution in making what is in this report possible.

### Councillor Joe Goldberg

Cabinet Member for Economic Development, Social Inclusion and Sustainability



### 3. Recommendations

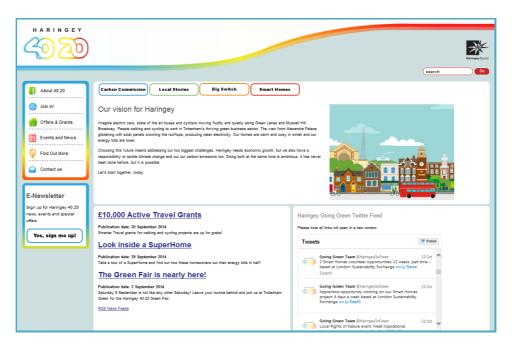
It is recommended that the Council discuss and debate the opportunities and challenges presented within the Annual Carbon Report and that Councillors fully support this initiative by taking leading action within their local community.

### 4. Alternative options considered

No other options considered.

### 5. Background information

- In 2009, following a campaign led by local residents, Haringey Council set an ambitious target to reduce borough-wide carbon emissions by **40% by 2020**.
- To achieve this goal the 'Carbon Commission', a team of sustainability experts, were brought together to answer the question; How can Haringey reduce its CO2 emissions by 40%, at the same time as increasing prosperity, wellbeing and equality?
- Based on the Carbon Commissions recommendations a plan of action was developed to reduce CO<sub>2</sub> emissions and drive green growth through the creation of a low carbon economy in the borough.
- **Haringey 40:20** was created to achieve this goal and create a happier, healthier, greener, more prosperous borough. For further information please visit www.haringey4020.org.uk





#### Haringey Council

- The **Council's Carbon Management Plan** was adopted in 2009. This action plan, developed with the Carbon Trust, sets a target to achieve a 40% reduction in CO<sub>2</sub> emissions from the Council's operations by 2015, five years ahead of the bough-wide target.
- Section 5 of the London Plan 'London's Response to Climate Change' commits to achieving a 60% reduction in London's CO<sub>2</sub> by 2025 and ensuring 25% of London's energy is delivered through more efficient decentralised energy by 2025
- The 2008 Climate Change Act established a legally binding target to reduce the UK's greenhouse gas emissions by at least 80% (from1990 baseline) by 2050.
- The **EU 2030 Climate and Energy Policy Framework** aims to make the European Union's economy and energy system more competitive, secure and sustainable. The framework incorporates:
  - A binding target to reduce EU greenhouse gas emissions by at least 40% (below 1990 levels) by 2030.
  - A binding target to increase the share of renewable energy to at least 27% of the EU's energy consumption by 2030.
  - An indicative target to increase EU energy efficiency by at least 27%, which will be reviewed in 2020, with a 30% target in mind.

### 6. Comments of the Chief Finance Officer and financial implications

The costs of preparing this report and undertaking the initiatives highlighted within have been contained within existing Council budgets or funded from external grant monies.

### 7. Comments of the Assistant Director of Corporate Governance and legal implications

The Assistant Director of Corporate Governance notes the contents of the report and advises that there are no specific legal issues.

All initiatives in respect of the Carbon Plan will need to be in compliance with European and domestic legislation. Corporate Legal Services should be consulted as and when any specific legal matter arises.

### 8. Equalities and Community Cohesion Comments

At the heart of Haringey 40:20 is a commitment to reduce inequality by creating greater prosperity and wellbeing, protecting the most vulnerable from the urban risks associated with climate change, such as heat stress and food insecurity, and



#### Haringey Council

from rising fuel costs by creating lower cost alternative energy supplies and better quality homes which cost less to heat.

The growing green economy offers opportunities for Haringey to create new jobs and the development of a low carbon sustainable economy will relocalise business and reconnect our communities, improving the quality of life for all.

### 9. Head of Procurement Comments

There have been a range of projects that have contributed to the progress achieved to date in borough-wide carbon reduction.

Procurement has been engaged on each project to ensure that any spend with third parties is commensurate with EC Procurement Directives, Contract Standing Orders and represents value for money.

Where the market allows, supporting projects are offered via Competefor. In 2013-14, the Council delivered five opportunities as Request for Quotations through Competefor. Three of the five were awarded to Small to Medium Sized Enterprises based in North London, either directly or as part of a consortium. This demonstrates our commitment to utilise the local supply market where possible, delivering the 40:20 Action Plan commensurate with Carbon Commission recommendations.

In addition, we have been working with our suppliers to host apprenticeships and work placements for local people, to enhance the prospects and prosperity of our residents and create a local jobs market that is aligned to future borough based opportunities.

### **10. Policy Implication**

The work reported in the Annual Carbon Report makes a clear contribution to the following Council priorities:

- **Opportunities for all** driving economic growth and ensuring that everyone has a decent place to live.
- **Safety and wellbeing for all**, providing a cleaner, greener environment, reducing health inequalities and improving wellbeing and quality of life for all.
- A better council excellent value for money.

The Environmental Resources Team has successfully attracted grant funding to deliver the projects in this report from sources including; the Department of Climate Change and Energy, the One Borough One Future Fund, the European

Regional Development Fund, Durham University, The Greater London Authority and the Energy Company Obligation.



In addition, grants sources including the Department for Communities and Local Government, the North London Waste Authority and Transport for London funded other work streams within this report.

### 11. Reasons for Decision

The Council has endorsed the recommendations of the Carbon Commission, which are to:

- 1. Create business models which reinvest wealth back into the borough though community energy and a retrofit cooperative network.
- 2. Build a low carbon economy, establishing a green enterprise hub and creating training opportunities
- 3. Boast innovation in the borough through cutting-edge low carbon technological, social and financial solutions
- 4. Invest in low-carbon transport, including Dutch style cycling provision and developing the market for alternative fuel vehicles
- 5. Strengthen community organisations supporting the transition to a sustainable way of living, through sharing best practice, seed funding and co-designed delivery of Haringey 40:20

This initiative aims to create economic growth, reduce inequality and improve wellbeing, reduce the level of adaption to climate change required, protect the most vulnerable and improve quality of life for all.

### 12. Use of Appendices

The Fourth Annual Carbon Report is attached.

### 13. Local Government (Access to Information) Act 1985

Background documents:

- The 'Haringey Carbon Commission Report A Sustainable New Economy' is available at <u>www.haringey4020.org.uk/report\_new</u>
- The 'Haringey Council Carbon Management Programme' is available at <u>www.haringey4020.org.uk/document\_library</u>

### FOURTH ANNUAL CARBON REPORT 2014

www.haringey.gov.uk

### HARINGEY

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This is the 4th year we have published the Annual Carbon Report at our Full Council, and I am proud we remain the only local authority to do so in the UK. In doing so we are maintaining our leadership and commitment to tackling climate change and making Haringey a global centre for innovation in green technologies.



This report sets out just how challenging and ambitious our agenda is. The targets and priorities outlined in this report will undoubtedly be difficult to achieve and it is disappointing to have seen emissions rise in the latest figures for 2012, despite our efforts. This underlines the urgency and necessity for action, not least because a significant driver of this has been the decision to source a greater proportion of energy for the national grid from dirty fuels, specifically coal.

Nonetheless there is much to praise in this report. Green Light North London has supported 101 local businesses to cut costs and carbon. In addition, Decent Homes energy saving upgrades have been carried out on nearly 2,300 properties, including over 1,000 boiler renewals and the Council also continues to develop a 'Decentralised Energy Strategy' for a low carbon heat network.

I am proud that this year saw Haringey Council launch a two year strategic innovation and research partnership with Durham University. Haringey is set to be a 'living laboratory' for low carbon technological, social, and financial solutions.

Unfortunately, the government has not shown the same level of commitment. Disappointingly, this year we saw the government water down planning regulation for its zero carbon homes target by excluding small housing sites, which will make it even tougher to achieve UK 80% carbon reduction from buildings, and it has failed to commit to decarbonisation of the national grid by 2030.

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Finally, as ever we would not have achieved the success we have without the support of members of the local community, and I thank them for their contribution in making what is in this report possible.



Councillor Joe Goldberg Cabinet Member for Economic Development, Social Inclusion and Sustainability

# INTRODUCTION

In 2009, following a campaign led by local residents, Haringey Council set an ambitious target to reduce borough-wide carbon emissions by 40% by 2020. To achieve this goal the 'Carbon Commission', a team of sustainability experts, were brought together to answer the question; How can Haringey reduce its  $CO_2$  emissions by 40%, at the same time as increasing prosperity, wellbeing and equality? Based on their recommendations a plan of action was developed to reduce carbon emissions and drive green growth through the creation of a low carbon economy in the borough.

This report sets out the Council's progress towards its carbon target, covering:

- Official carbon emissions data for 2012 (published by the Department of Energy and Climate Change in 2014)
- Key achievements: Council programmes and collaborative initiatives to reduce CO<sub>2</sub> emissions in April 2013- March 2014
- The Council's priority initiatives and key next steps from April 2014 onward

To find out more about the Carbon Commission and their 5 key recommendations visit www.haringey4020.or.uk/carbon\_commision

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# **KEY PROGRESS (2013-2014)**

The summary below highlights key progress made between April 2013 - March 2014 towards achieving the Haringey 40:20 target of reducing carbon emissions in Haringey by 40% by 2020, improving wellbeing in the borough and encouraging prosperity through the development of a sustainable green economy.

### **Council Carbon Reduction**

Haringey Council is on track to reduce carbon emissions from its estate by 40% by 2015, five years ahead of the borough-wide target. Over the past six years, a programme of activities has been carried out to install energy saving technologies and solar photovoltaic panels. This will continue and scale-up into the final year of the Council's current Carbon Management Plan.

### Smart Homes – Better, Warmer, Greener

To reduce carbon emissions, tackle rising energy costs and improve the energy performance of local homes Haringey Council (supported by Camden, Enfield, Hackney, Islington and Waltham Forest) led a successful bid for Green Deal Communities funding from the Department of Energy & Climate Change (DECC). The Smart Homes project will pilot a range of ways to encourage installation of solid wall insulation and other energy saving home upgrades, including grant incentives for homeowners and landlords to help reduce the cost of carrying out improvement works.

Smart Homes builds on the success of the DECC funded Green Deal Pioneer Places project through which Haringey Council enabled over 400 free home energy assessments, helping householders to understand the energy saving opportunities for their home, and is one of the largest, most ambitious projects to be awarded funding. Haringey Council will lead delivery of the project, across the six participating boroughs, in 2014-2015.

### Growing the Local Green Economy

Haringey Council continues to back the development of a network of specialist building professionals and retrofit installers in the borough by supporting RetrofitWorks: The Good Building Cooperative to carry out pilot projects, upscale and fully commercialise their not for profit operation, as well as through providing funded training to help small businesses access new markets and the work opportunities offered by the Smart Homes project. This will increase the capacity to provide retrofit services locally, help businesses to gain new skills and take advantage of the growing demand for home eco-retrofit, and create jobs in the borough.

### **Solar Powered Community Projects**

The Haringey 40:20 Community Fund recycles Feed in Tariff income from Council owned solar panels to create further carbon savings in the borough. Grants are offered to local community organisations with the best ideas to help reduce carbon emissions and involve people in Haringey 40:20. The first grant funded projects, completed in 2013, were:

- The Community Energy Lab The Selby Centre in Tottenham set up a training facility to teach building insulation courses, has retrofit local community centres and homes, and provided 11 work placements which have helped several people to find successful employment.
- 21st Century Homes The Highgate Society created a homeowner pack, which is used by local estate agents, to help home buyers install energy saving upgrades when moving in to a new house - the ideal time to carry out improvement works. A series of local events have also been held, giving people the opportunity to meet trusted local tradesmen and discuss energy saving retrofit for their homes. These events have proven so popular that they are now being run in several North London boroughs.

### **University Challenge**

At the beginning of 2014 Haringey Council launched an innovative two year partnership with Durham University to test cutting-edge low carbon technical, social and financial solutions in the borough. The Council will work with Durham's internationally renowned Energy Institute to carry out real world research that will inform key decisions on policy areas including decarbonisation of the boroughs energy generation and distribution, sustainable regeneration and low carbon economic development.

### **Green is Good for Business**

Specialist business advice was provided for 101 local small and medium sized businesses in Haringey. Tailored one to one support helped businesses to reduce their operating costs by cutting energy and water use, switching to recycling, reusing waste materials and decreasing fuel use through Smarter Driver techniques – all of which is great news for the environment. Businesses were also supported to write an environmental policy or put in place an Environmental Management System, which can be essential to winning contracts, and of course customers.

Though the DECC funded Green Deal Communities programme, the Council is now offering Smart Business grants to North London businesses towards the cost of carrying out energy saving upgrades to premises, offering the opportunity to cut energy costs and improve environmental performance even further.

### **Community Energy Networks**

Construction began at two sites which have their own off-grid low carbon heat supply, adding to the boroughs growing decentralised energy network. The Council continues to develop plans for heat and power networks in the borough, which will offer lower cost energy and contribute to decarbonisation of Haringey's energy supply. Funding was successfully secured from the Greater London Authority and the Department of Climate Change and Energy to progress this work.

### **Recycling on the Rise**

Recycling in the borough continues to rise, hitting the highest level yet and is on target to reach 40% of all waste next year. This will create significant carbon savings. A highly successful food waste collection was trialled at Homes for Haringey estates, which will now be rolled out, completing the borough-wide provision of a comprehensive service that enables all households to recycle 70% of their waste. Carbon emissions from recycling and waste vehicles also decreased further - 31% in just three years.

### The Big Community Switch

Over 3,000 people in Haringey received energy saving advice via the Haringey Big Community Switch, which offers everyone in the borough the opportunity to reduce their energy bills (saving on average over £200) and holds regular one to one advice sessions in libraries and at events across the borough. The project supports the most vulnerable with help to access Warm Homes discounts, reduce bill payments, resolve common issues such as overcharging on energy bills, and has provided emergency support for residents without heating or electricity.

### Decent Homes; Warmer Homes

Homes for Haringey provided Decent Homes upgrades, including new boilers, insulation and double glazing to over 2,250 homes, and insulated 500 high-rise flats. Twelve supported housing developments (containing 4,00 homes) also received heating and hot water controls, all of which will make homes warmer, reduce their cost to heat, and lower energy consumption. Homes for Haringey is now working on a strategy to improve its housing stock further and reduce fuel poverty by carrying out additional energy saving works.

### A Smarter Way to Travel

Numerous activites to encourage and support more cycling in the borough were carried out, including organised cycle rides, funded cycling lessons, safety improvement to junctions, more cycle racks and free Dr Bike maintenance sessions. Work is underway to create cycling Quiteways throughout the borough and to develop a Cycle Superhighway that will link Haringey with central London. The Council also approved the introduction of a 20 mile per hour speed limit on all residential roads and in town centres.

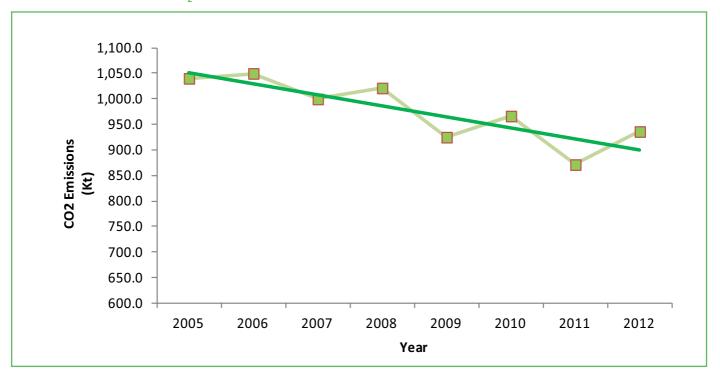
### Page 12 HARINGEY'S CARBON EMISSIONS (2005 - 2012)

<sup>1</sup>Between 2011 and 2012 Haringey's total carbon emissions increased by 6.9%. This is consistent with London wide and national trends; London wide emissions have increased by 8% and UK emissions by 5.3%.

Between 2011 and 2012 this increase in emissions was predominantly due to:

- A shift from natural gas to coal in power stations driven by global fuel prices. Coal has a higher carbon content per unit of energy generated than gas, meaning that domestic and commercial use of grid electricity will have a higher 'carbon intensity' and carbon emissions will be greater per unit of energy used.
- An increase in the consumption of natural gas in the residential sector due to, on average, colder temperatures than the previous year.

Since 2005, the earliest year for which emissions data are available at local authority level (this is the 'baseline year') Haringey's total estimated emissions have fallen by 11%, a decrease from 1,040 kilotonnes to 936 kilotonnes. Greater London emissions have decreased by 7.5% and UK wide emissions by 13.8%.



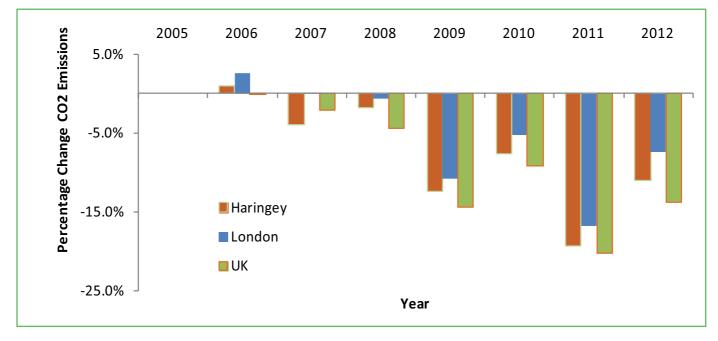
### Graph: Haringey's Total CO, Emissions (kilotonnes) 2005-2012

Over the past seven years there has been a downward trend in emissions in Haringey, and the UK, however emissions have alternately increased and decreased each year. This is largely due to variations in temperature, which significantly affect domestic gas use for heating. Emissions were higher during 2010, a very cold year, followed by a decline in 2011 and subsequent increase during the colder year of 2012.

The overall reduction in carbon emissions in the UK since 2005 was largely driven by:

• A reduction in emissions from decreased domestic gas use. Demand for gas is likely to have been influenced by a 130 percent increase in domestic gas prices (90 percent in real terms<sup>2</sup>) and improved energy efficiency of housing stock. The average SAP rating of a UK home, a measure of its overall energy efficiency, increased by 9.5 points between 2005 and 2013 to 58.5<sup>3</sup>.

• **Reduced emissions from energy generation** due to increased efficiency in power generation through a switch from coal-fired to gas- fired combined cycle gas turbines, reduced coal mining activities, increase in nuclear capacity and utilisation in England, and the import of low carbon electricity from Wales and Scotland.



### Graph: Percentage change in CO<sub>2</sub> Emissions from 2005 baseline

### **Domestic Emissions**

Domestic emissions relate to energy consumption in and around the home, for example heating, cooking and use of electrical products, but do not include individuals activities elsewhere, such as personal travel.

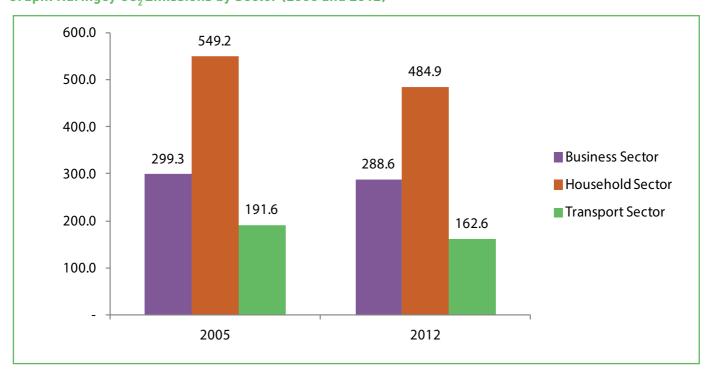
Carbon emissions in this sector are influenced by the types of fuel used to generate electricity e.g. gas, coal, renewable, nuclear; the type and condition of housing, including its insulation; the average temperature; household size, income and preferences of the occupiers.

In 2012, domestic emissions for all Local Authorities were higher than in 2011. In Haringey, domestic emissions increased by 8.7% to 1.9 tonnes per person. (Total emissions per person were 3.6 tonnes). While this is an increase on 2011, domestic emissions were less than 2 tonnes per person in only 14% of local authorities.

On average 2012 was a colder year than 2011. This led to a greater need for and increased use of heating in 2012, which increased residential gas use and associated carbon emissions.

The trend in this sectors emissions strongly reflects the average temperature over recent years. Over the past four years domestic carbon emissions have alternately risen and declined, however since 2005 overall domestic emissions in Haringey have decreased by more than 13%. This is due to a combination of factors including energy efficiency improvements, such as increased levels of insulation, new boilers and more efficient appliances; increased fuel prices and the recession.

Page 14 Graph: Haringey CO, Emissions by Sector (2005 and 2012)



### **Transport Emissions**

Transport emissions include freight and passenger transport, for both private and business purposes. These estimates are made on the basis of the distribution of traffic, using traffic flow data, therefore some of the emissions within an authority represent through traffic, or part of trips into or out of the area whether by residents or non-residents.

More than three-quarters (325 out of 406) of all Local Authorities in the UK experienced a decrease in transport emissions between 2011 and 2012, with an overall average decrease of 1.1%. Haringey's transport emissions decreased by 0.8%.

Since 2005, Haringey's emissions from this sector have decreased by nearly 18%. This is due to improvements in vehicle efficiency and reduced traffic flows on both A-road and minor roads. Nationally emissions have decreased by 12% over the past seven years. The carbon emissions data reported here are official statistics for "Emissions within the scope of influence of Local Authorities" published annually by the Department of Energy & Climate Change (DECC). The latest data (released in July 2014) relates to emissions generated in April 2011– March 2012<sup>4</sup>.

This data excludes emissions that Local Authorities do not have a direct influence over. These are motorways, EU emissions trading sites, diesel railways and 'land use, land use change and forestry'. Emissions from aviation and shipping are also excluded as there is no clear way to allocate these to local authority areas.

New data have been introduced in 2012, together with some improvements to the way that emissions are calculated. To ensure that the statistics for 2005 to 2011 are consistent with the data now available for 2012, the estimates for these years have been revised to incorporate both the new data and improvements to the underlying methodology. For some local authorities, these revisions have resulted in noticeable changes to the emissions estimates in the earlier years for some sectors.

These statistics should be interpreted with care. It is important to bear in mind that circumstances vary greatly between local authorities and that authorities have relatively little influence over some types of emissions, however the emissions estimates are helpful in setting priorities for achieving local carbon targets and provide a sufficiently robust dataset against which action on climate change can be monitored.

### **Business Emissions**

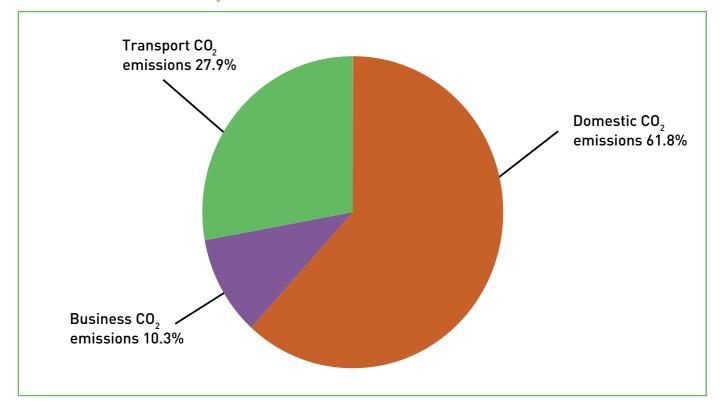
Business emissions include public sector energy use but are dominated by industrial and commercial electricity consumption.

Most local authority areas (323 out of 406) in the UK have experienced an increase in emissions from this sector between 2011 and 2012. Haringey's emissions increased by 8.3%. Relatively high gas prices led to an increase in coal used for electricity generation, which increased the carbon intensity of energy

generated during this period; emissions from this sector therefore rose.

The majority of local authorities have seen decreases in business emissions since 2005. Haringey's emissions have decreased by nearly 4% over this period.

### Chart: Composition of Total CO, Reduction in Haringey since 2005

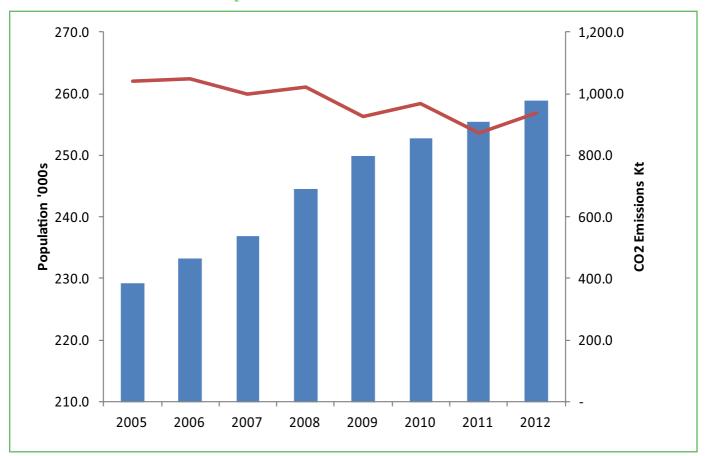


In 2012 approximately one third (31%) of Haringey's total carbon emissions were from the business sector, over half were due to domestic energy use (52%) and the remainder (17%) were due to transport fuel use.

The chart above show the total reduction in Haringey's carbon emissions since 2005. The largest proportion of this reduction is due to decreased domestic emissions, which reflects both the scale of decrease in this sector's emissions, and the size of this sectors contribution to Haringey's overall emissions.

### **Population Trends**

Population estimates from the Office of National Statistics (ONS) are used to calculate emissions per person. This figure is helpful for comparison between different sized regions, and is a useful measure for domestic emissions. Emissions from industry and transport however are driven by many factors other than resident population. In 2012 Greater London's average emissions per person was 5.1 tonnes. The UK average was 6.2 tonnes. Emissions in Haringey were only 3.6 tonnes per person. This is an increase of 5.7% between 2011 and 2012, however in spite of a rising population, since 2005 emissions per person have decreased by over 25%. This reflects the combined effect of an increase in population of 29,600 and an overall 11% decrease in emissions.



### Chart: Haringey Population and CO<sub>2</sub> Emissions (2005-2012)

Warmer homes Lower energy bills New jobs created. 4

### Page 18 The Bigger Picture

As one of the most unequal and diverse local authorities in the UK, Haringey is a microcosm of our global sustainability challenge; to live within environmental limits while raising wellbeing for all.

Globally greenhouse gas emissions must reduce, even as the world population increases and emerging economies become more energy and resource intensive. The question is not whether we need to adapt to climate change, but how we can transition to a fairer, healthier, safer, world and create a sustainable low carbon economy.

The dangers of not taking action are clear. We know that the risks of climate change are already happening; rising sea levels, causing submergence and flooding; extreme weather events, heatwaves and drought, limiting access to drinking water; reduced crop yields, food insecurity, poor nutrition and ill health; extensive biodiversity loss, loss of species and ecosystems such as coral-reefs and arctic-sea-ice; displaced populations, resource wars, loss of livelihoods and life.

Many of these risks are intensified and concentrated in urban areas. The impacts of heat stress, flooding, air pollution and water scarcity pose significant risks for urban people, ecosystems, and economies. These risks are magnified for the most vulnerable and poorest, those who lack essential infrastructure and services, or live in poor-quality housing and high risk areas. Reducing climate change can substantially reduce these threats and the level of adaptation to global warming that is required<sup>5</sup>.

We know how to do this; we have the technology and the capability to respond to climate change. Action at all levels, national and local government, private sector and individual, is required. Local



authorities can play a vital role in this process, improving services, housing and building resilient infrastructure, strengthening communities and supporting the most vulnerable.

Successful climate change adaptation, the steps that build resilience, enable sustainable development and create the transition toward a low carbon economy, will create new jobs, revive local economies, protect the UK from rising fossil fuels prices, reconnect our communities and protect people across the world from the most devastating impacts of climate change, ensuring that people and the planet we live on can thrive.

### If everyone consumed as much as the average person in UK we would need 3 planets to support us (Bioregional)



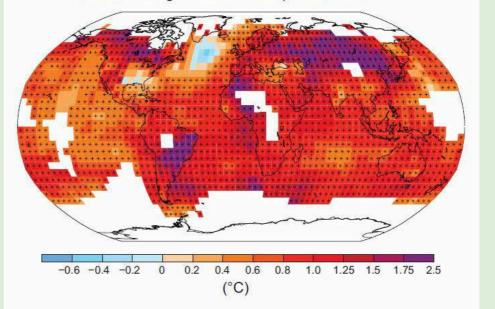
# How hot is the world?

This map shows global temperature change from 1901 to 2012 Grid boxes where the trend is significant at the 10% level are indicated by a + sign.

(Temperature trends have been calculated where availability of data permits a robust estimate. Other areas are shown in white.)

Source: IPCC<sup>6</sup>

Observed change in surface temperature 1901–2012



# Page 20 **DOMESTIC EMISSIONS**

Carbon emissions from homes in the boroughs account for 52% of Haringey's total emissions. (Nationally this sector accounts for 36% of emissions.) Tackling residential emissions, Haringey's largest  $CO_2$  sector, is a priority for the borough, not just to reach our carbon reduction targets, but to protect against rising fuel costs and supporting the burgeoning local retrofit market.

Building retrofit is essential. Fitting our homes with energy saving measures, such as wall, roof or underfloor insulation, that were not originally installed when a property was built, will reduce energy use, drive economic growth, create local jobs through the development of a market for retrofit services and reduce carbon emissions.

During 2013-2014 the Council has completed and developed a number of ambitious projects:

### **Green Deal Communities**

In 2013 Haringey Council led a successful application to the Department of Energy and Climate Change for 'Green Deal Communities' funding, to deliver a programme that will reduce energy costs for households and businesses in Haringey, encourage eco-retrofit and drive sustainable economic growth.

The Green Deal Communities grant programme will build on lessons learned from the DECC funded Green Deal Pioneer Place scheme, which saw over 400 Green Deal Assessments delivered in Haringey and the first commercial Green Deal Assessment in the UK.

Haringey will work alongside North London partner boroughs – Hackney, Camden, Islington, Waltham Forest and Enfield. A cross-borough project of this scale, specifically targeting private homes and businesses, has previously never been delivered. The project will test a range of approaches to encouraging home retrofit.

The scheme is divided in to three streams: Smart Homes, Smart Business, and retrofit supply chain development, which includes training grants for local building installers.

#### Green Deal Communities will:

- Reduce energy use, associated fuel costs and carbon emissions, for households and businesses
- Retrofit buildings in the domestic, commercial and private rented sector, making them more energy efficient
- Support the development of a local supply chain for building retrofit services
- Drive the development of a local market for retrofit services and kick start the Green Deal
- Support local building contractors and tradesmen to gain accreditations that will enable them to take advantage of the work opportunities offered by the Green Deal

### **Smart Homes**

The Smart Homes project focuses on retrofit of 'hard to treat' properties, such as the solid walled homes that are typical of north London, and 'hard to reach' properties, for example the private rented sector.

The scheme offers:

- **A subsidised Green Deal Assessment** to identify which energy efficiency measures are the most suitable for a property and how much energy could be saved.
- **A grant of up to £6,000** towards the cost of home retrofit works for both owner-occupied and private rented properties, focusing on either solid wall insulation or insulation of 'difficult to fill' cavity walls.

A Smart Homes Advisor will also ensure that householders benefit from other grants that may be available to them, such as ECO funding offered by energy suppliers, and will guide householders through the Smart Homes process, from initial Green Deal Assessment, to approval of grant funding.

A proportion of the grant funding is targeted specifically at the worst performing F and G rated properties in the private rented sector - these are the least energy efficient, as from 2018 new legislation will be introduced which restricts the sale or letting of these properties.

The Smart Homes grant is available across the whole borough. A focused engagement campaign will also be carried out in three wards - Hornsey, Harringay and Stroud Green - which contain a high number of properties suitable for Smart Homes funding, such as those with solid walls. Haringey Council will work with local community organisations in these areas to promote Smart Homes and encourage both homeowners and private sector landlords to upgrade the thermal efficiency of their properties.



### **Looking Forward**

To facilitate delivery of the Smart Homes project, Haringey Council will:

- Set up a contract which will provide an end to end service for Smart Homes customers, from Green Deal Assessment to installation of energy saving measures.
- Set up an outreach contract to promote Smart Homes in the target wards identified across all six partner local authorities.
- Design a programme of open home events giving potential grant applicants the opportunity to visit an eco-home and speak to homeowners who have retrofit their

Householders interested in a Smart Homes grant should visit **www.haringey4020.org.uk/ smarthomes** or contact the Smart Homes Advice line on **020 7527 4736**.

### RetrofitWorks: The Good Building Cooperative.

The Carbon Commission report, published in 2012, recommended that Haringey Council should seek to "create and develop new cooperative and mutual businesses which invest wealth back into the borough" and to deliver the scale of intervention required, develop "a cooperative network installing energy efficiency measures in buildings".

Building on recommendations of the Carbon Commission, the Green Deal Communities project will support the development of RetrofitWorks: The Good Building Cooperative.

RetrofitWorks is the first of its kind in the UK; a not for profit cooperative network, owned by its members, who include experienced builders, installers, energy advisers, architects and building professionals specialising in refurbishment.

The cooperative offers homeowners' a complete retrofit service, including expert advice and specialist project management of the retrofit processes. A web portal tool will facilitate comprehensive project management for each retrofit job, from generating competitive quotations, to tracking of on-site work, to completion.

To date RetrofitWorks has 62 members, four of which are based in Haringey. These are Ecologistics, Diamond Build, Ecodomus and the Selby Trust. Other organisations, such community groups that wish to promote retrofit and refer potential customers to a competitive retrofit service, can also join the network.

The Green Deal Communities project will support RetrofitWorks to finalise the development of its services, carry out and evaluate pilot projects to test its operational process, upscale and fully commercialise.



### **RETROFIT WORKS** BUILDING EFFICIENCY TOGETHER

### **Retrofit Accreditation**

In partnership with Enfield and Waltham Forest, Haringey Council has successfully bid for European Regional Development Fund (ERDF) funding to offer one to one business advice, supporting companies through the accreditation process to access new Green Deal market opportunities. A target of 39 businesses in Haringey will receive support by October 2015.

Complementary to this, the Green Deal Communities project will offer grant funding for local building installers enabling them to undertake Green Deal training and gain PAS 2030 accreditation, which are a requirement to access Green Deal supply chain and ECO related work.

### What is the Green Deal?

- The Green Deal enables householders to install energy saving upgrades, such as insulation and heating improvements, in their home without having to pay the costs upfront.
- A Green Deal Assessment is carried out by a certified Green Deal Assessor. This report highlights how much energy could be saved and which measures are suitable for a property.
- Home improvements are only recommended if they meet the 'Golden Rule'. This means that estimated gas and electricity bill savings must be equal to or exceed the cost of the Green Deal loan repayments.
- If a Green Deal is taken out to pay for installation of energy saving technologies, the loan is repaid via a charge on the household's electricity bill.

# Funded training opportunities for local businesses



# Free Loft and Cavity Wall Insulation

The majority of privately owned homes in Haringey are entitled to free loft and cavity wall insulation funded by the Energy Company Obligation. In 2013/14 loft insulation was installed in 168 homes and cavity wall insulation in 104 homes.

Interested homeowners should contact affordable.warmth@haringey.gov.uk to confirm whether their property is eligible.

### Heating Upgrades for Vulnerable Homeowners

In 2008 Haringey Council received funding from the North London Sub Region to carry out heating upgrades for homeowners in receipt of disability related or means tested benefits, such as Pension Credit', to bring their home up to the Decent Homes standard. 196 properties were improved through this programme with an average grant spend of £3,500 per property.

At the end of this programme there was a small amount of funding left which has been reserved for emergency heating works, such as when an elderly person has no heating or hot water due to the breakdown of an old and inefficient boiler. In 2013-2014 Haringey Council accessed funding to replace old boilers and install new heating systems for 11 vulnerable homeowners.

### High-rise Cavity Wall Insulation

Between January and March 2014 Homes for Haringey worked with Haringey Council to deliver cavity wall insulation to 500 'hard to treat' homes in 13 high rise blocks of flats. This work was funded by a £500,000 Energy Company Obligation (ECO) grant and was carried out without charge by Kershaw Consulting.

A specialist abseiling team installed the insulation which will make homes warmer and more energy efficient. Residents of Stellar House, which had a large 130mm cavity, in particular should really notice a difference in thermal comfort.

HIGH RISE FLATS INSULATED	No. homes
Joyce Butler House, Wood Green	26
Basil Spence House, Wood Green	26
Wordsworth House, Hornsey	18
Cordell House, South Tottenham	48
Sheridan, Hornsey	12
Kenneth Robbins House, Tottenham	128
130- 160 High Cross Road, South Tottenham	16
165 -195 High Cross Road, South Tottenham	16
2-24 Markfield House, Tottenham	12
26- 48 Markfield House, Tottenham	12
Stellar House, Tottenham	106
Henrietta House	28
Lowry House	52
Total	500

500 high-rise flats insulated Page 25

Personalities

POR STO

### **Decent Homes Improvements**

The Decent Homes programme began in 2008. This government funded programme provides grants to bring all social housing up to a minimum standard of decency, including decent insulation, modern heating systems and double glazing, all of which will improve a home's energy performance. In 2013/14 a total of 2,298 energy saving measures were installed under the Decent Homes programme. Homes for Haringey also carried out additional boiler upgrades, outside of the programme, which are included in the table below.

Energy Saving Measure Installed	No. of homes
Loft/Roof Insulation	140
Wall Insulation	386
Heating/Boiler Renewal	157
Double Glazing	519
Additional Boiler Renewals	1,096
Total	2,298

### Supported Housing Retrofit

In 2013/14 twelve supported housing units received upgrades which will provide a greatly improved level of control over heating, including installation of thermostatic radiator valves and replacement of hot water control valves. Energy efficiency improvements of around 15% will be achieved at:

- John Clifford House
- Russell Road
- Gosport Walk
- Runcorn Close
- Queen's Ferry Walk
- Larkspur Close

- The Lindales
- Latimer House
- Clements House
- Bracknell Close
- Coombe House
- William Atkinson House

### Housing Energy Strategy

A draft Housing Strategy produced for Home for Haringey in 2013 proposed a target of bringing all housing up to a SAP level of 80. (The higher a property's SAP level, the lower its energy costs to ensure a defined level of warmth. SAP 80 is the level of energy efficiency appropriate to ensure affordable warmth.) The strategy was placed on hold pending the outcome of the Housing Investment and Estate Renewal (HIER) Strategy which considered Haringey Council's priorities for its housing stock, including investment in energy efficiency measures.

The HIER Strategy, agreed by Haringey Council in November 2013, indicates that energy efficiency improvements to social house stock will be delivered through the existing Decent Homes programme and any additional external funding that can be obtained, such as ECO funding. Work is currently ongoing to identify additional funding resources.

### Looking Forward

### **Passive Ventilation Pilot**

A zero-energy, zero-carbon technology designed to significantly reduce damage to homes caused by high humidity, condensation and mould growth, is being trialled in a small number of void properties.

### **New Opportunities**

The Greater London Authority's RE:NEW programme aims to increase the scale of home energy efficiency retrofit in London by providing tailored support to local authorities, social housing providers and private landlords. RE:NEW will work with Homes for Haringey to identify cost effective energy saving works and grant funding that may be available to subsidise these works, including:

- → Review of the Decent Homes programme to understand where additional energy measures can be cost effectively included.
- → Detailed advice on practical solutions for properties that are particularly hard to treat
- $\rightarrow$  Investigate the potential for further ECO funding
- → Assessing the opportunity for installation of solar PV panels alongside planned Decent Homes and maintenance works.
- → Analysis of below SAP35 properties to identify cost effective improvement works.

### **Supported Housing Retrofit**

In 2014/15 five supported housing blocks (Coombe House, William Atkinson, Lowry House, The Lindales, Clement House) with communal heating and hot water systems will be retrofit with new condensing boilers and digital building management systems. In combination with improved internal controls these upgrades will achieve energy savings of around 12% a year.

### New Asset Management Strategy

In spring 2015 Homes for Haringey will produce a new draft Asset Management Strategy which will set out its priorities for housing stock over the coming years and define new standards for Haringey homes. Improving the environmental performance of housing and tackling fuel poverty have been identified as key priorities.

### The The Haringey Big Community Switch

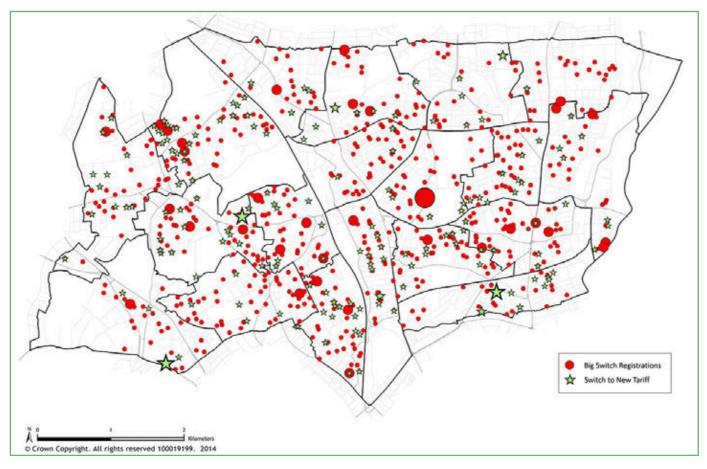
The Haringey Big Community Switch helps people cut their gas and electricity costs. Four times a year an auction is held where energy companies compete to offer the lowest energy tariffs. The winning tariffs continue to get better and better – for the most recent auction almost 100% of people who registered with the scheme could save money by switching to the new offer, with the average yearly savings of over £200 per customer.

The Big Community Switch is open to all people in Haringey. The project provides focused support the most vulnerable and those who would like help to save money on their fuel bills. A community energy advisor, employed via Living Under One Sun in Tottenham, offers one-to-one energy advice at locations across the borough, helping people to



access Warm Homes Discounts and the Priority Services Register, understand their energy bills and correct bill overcharging, reduce energy use and switch to a better energy deal. The Big Community Switch is funded by Haringey Council's One Borough One Future Fund.

To find out more about the Big Community Switch please visit www.haringey4020.org.uk/switch



#### Map: Big Community Switch Registrations (April 2013 – March 2014)

### The Haringey 40:20 Community Fund

The Haringey 40:20 Community Fund supports community-led projects that will help to achieve a 40% reduction in  $CO_2$  emission in Haringey by 2020 and engage new people in working towards this target. The fund is generated by Feed-in-Tariff revenue received from solar panels installed on Council owned buildings in the borough.

In 2012 two community organisations, the Highgate Society and the Community Energy Lab, were awarded the first Haringey 40:20 Community Fund Grants. These projects were successfully completed in May 2013:

### 21st Century Homes: Character, Comfort, Low Carbon

The Highgate Society proposed a programme of activities under the banner '21st century homes: character, comfort, low carbon' to raise awareness of home energy efficiency and support local residents to carry out energy saving retrofit of their home.

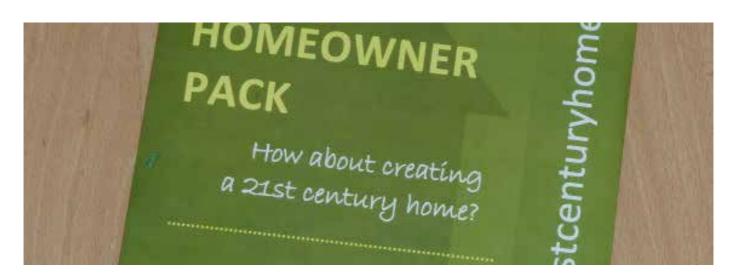


The project was awarded £2,600 and additional funding was provided through in-kind support from the Highgate Society.

The activities carried out included:

- Developing an estate agents pack to promote home retrofit. This can be viewed at http://21stcenturyhomes.org.uk/get-started/ homeowner-packs
- Holding a weekend awareness event attended by 250 people, which included open home visits to local eco-homes, and follow up events on solar power, winter-proofing homes, sustainability and conservation, which are now being used as a model for events by other local sustainability groups
- Carrying out thermal imaging of 30 properties, including 8 typical properties which were funded through the project. The remainder were charged £25, providing £750 income for additional project activities

The Highgate Society continues to hold 21st Century Homes events in the borough and has passed on a package of materials and ideas to other sustainability groups in Haringey and North London who now also run similar campaigns.



### Community Energy Lab, Selby Trust

Young volunteers at the Selby Centre presented the Community Energy Lab; a hands-on, educational programme. They proposed that retrofit of existing buildings in Tottenham could provide a pathway into learning and employment for disadvantaged young people, while promoting energy-efficient and sustainable construction methods in the borough.

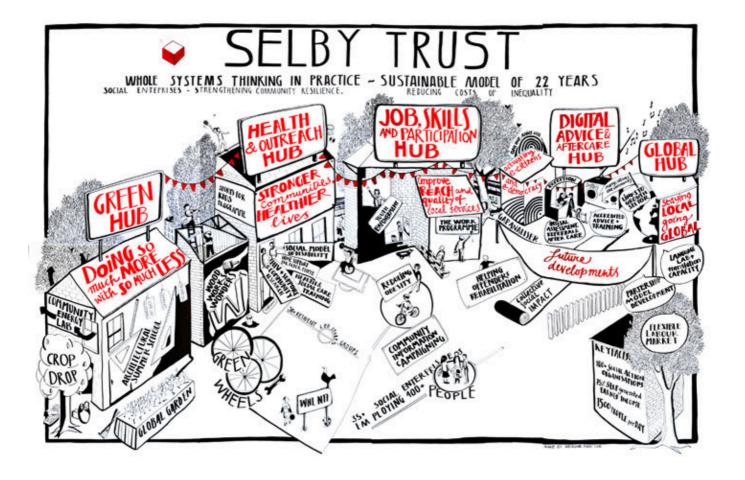
The project was awarded £10,500 seed funding. Additional funding was provided by Job Centre Plus and in-kind support from the Selby Centre. To date the Community Energy Lab (CEL) has:

- Recruited 4 members of staff (1 full-time, 3 parttime) and provided 11 work placements, offering office, building and architectural experience; 3 volunteers have moved on to successful employment.
- Developed marketing materials including a website, social media, flyers and posters, conducted a door-to-door local promotion campaign and attended events including Ecobuild, International Women's Day, Haringey People's Day, the Haringey 40:20 Green Fair and

multiple 21st Century Homes events.

- Collected 10 cubic meters of Rockwool insulation from the Olympic Park, half of which has been re-used locally.
- Reduced energy use in local community centres, through providing energy saving advice, draught-proofing and insulation.
- Provided surveys and reports to 12 properties, retrofit 4 homes and held a sash window draught-proofing workshop.
- Facilitated the set up of a re-use project at the Selby centre an addition to the Selby Centres growing 'Green Hub'.

The Community Energy Lab has also secured an additional £4,200 funding to help build a training facility where, in partnership with local charity HEET, Open College Network training in insulating lofts will be offered. The project's long term aim is to become a self funding social enterprise.



# Page 31 BUSINESS EMISSIONS

### **Green Light North London**

Green Light North London (GLNL) offered small to medium sized businesses specialist support to improve their environmental and economic performance. The project was part funded by the European Regional Development Fund (ERDF), and delivered by Haringey Council, alongside Islington, Hackney, Centa and Enterprise Enfield working in their respective boroughs.

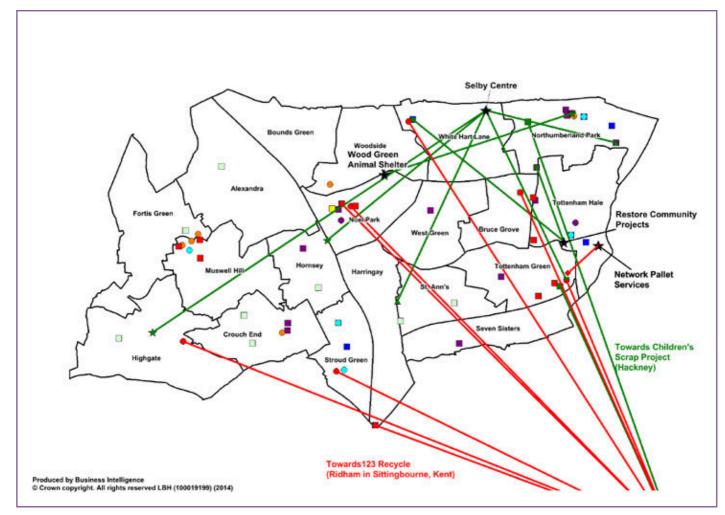
During the two year lifespan of the project Haringey Council provided 101 businesses with one to one information and advice on environmental themes including energy, water saving, waste minimisation and recycling, sustainable purchasing and environmental management, much of which offered businesses operational cost savings. Three businesses also received start-up advice to support their continued growth and commercial viability. Highlights of the Green Light North London programme in Haringey include:

- Facilitating recycling or reuse by linking local businesses and community organisations, which diverted 15 tonnes of waste from landfill.
- A local manufacturer saved £1,000 a year by introducing mixed recycling.
- One multi-tennanted office block set up a recycling contract which has diverted 5 tonnes of waste from landfill each year and proven so successful that more recycling facilities are being considered.
- A local dentist reported savings of £1,200 a year after installing LED lighting throughout the practice and a local baker could save 21,065 kWh of energy enough to power a home for 15 months.
- One business alone will save over 8 tonnes of CO2 and £4,500 a year by employing the eco-driving techniques learnt – that's a 26% reduction in fuel consumption.
- Window panes from Homes for Haringey's Decent Homes upgrades and glaziers in the borough will be reused by Wood Works Wonders, a social enterprise based at the Selby Centre, to create greenhouses and cold frames



### Reclaimed window panes will be reused to create greenhouses

#### Map: Green Light North London Outcomes



So far Green Light North London businesses have saved over 250m3 of water, that's 3,150 bathtubs full, by installing free toilet cistern water saving devices. The project has also encouraged Haringey businesses to save over 42 tonnes of carbon a year – enough to fill 255 double decker buses, and more savings are expected as businesses put their action plans in place and as a result of the Smart Business programme, which offers businesses grants towards the cost of installing energy saving upgrades.

In addition, further work will be carried out to develop re-use or recycling links between businesses and community organisations in the borough.



### **Smart Business**

Building on the success of Green Light North London, Smart Business, part of the Green Deal Communities Programme (funded by DECC) will offer local businesses grants towards the cost of installing energy saving measures, such as those identified by the GLNL business support service.

Smart Business grants are open to small and medium sized businesses, charities and social enterprises in Haringey and 5 other participating boroughs – Camden, Enfield, Hackney, Islington and Waltham Forest. Smart Business will offer grants covering up to 50% towards the cost of installing energy saving upgrades, such as a new heating system, LED lighting or insulation. Up to £2,500 is available for retrofit of properties less than 100 square meters, or £5,000 for larger properties. With energy prices continuing to rise, this presents an excellent opportunity for businesses to reduce their operating costs.

Business owners interested in a Smart Business grant should contact contact smartbusiness@haringey.gov.uk



### Haringey Council's Carbon Management Plan

Haringey Council is now in the final year of its Carbon Management Plan. Since adopting the plan in 2009, steady progress has been made towards achieving a 40% target of carbon reduction from Council operations by 2015 (from a 2006/7 baseline), and carbon emissions from the Council's estate have reduced every year.

	Target CO <sub>2</sub>		Actual CO <sub>2</sub>		On	Cars off the	
Year	Tonnes	% change from baseline	Tonnes	% change from baseline	target?	road <sup>8</sup>	
2006/7	Baseline		41,430	-	-		
2007/8	-	-	40,875	-1.3%	-	174	
2008/9	40,394	-2.5%	40,070	-3.3%		427	
2009/10	39,151	-5.5%	38,021	-8.2%		1071	
2010/11	37,287	-10.0%	36,407	-12.1%		1578	
2011/12	35,216	-15.0%	32,294	-22.1%		2869	
2012/13	33,144	-20.0%	32,865	-20.7%		2690	
2013/14	29,001	-30.0%	28,139	-32.1%		4174	
2014/15	24,858	-40.0%					

#### Table: Haringey Council's CO, Emissions (2006/7 – 2014/15)<sup>7</sup>

Over the past year a further 14% reduction in carbon emissions has been achieved (this is an additional 11% decrease on the baseline). This reduction is largely due to:

- An additional four schools converting to Academy status. This means that, by the end of 2013/14, fifteen schools were removed from the Council's financial control and no longer fell within the scope of the Council's carbon management programme
- Optimisation of the Council's corporate estate to reduce the number of buildings from which Council services operate
- The Council has invested in the following solar photovoltaic arrays:

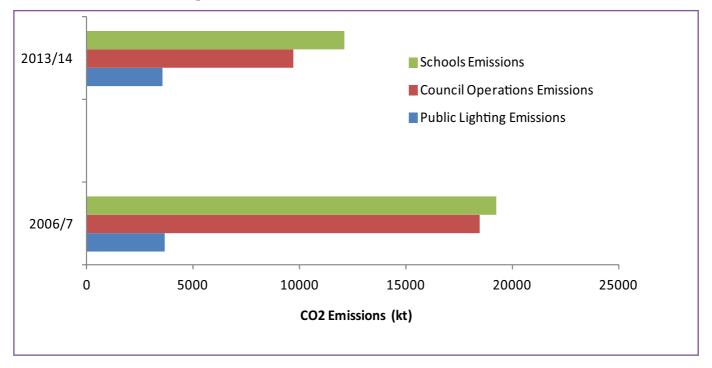
Renewables	Date	Lasstian	Utility	Savings per annum CO2 (t) Cost (£) CRC (£)		
Renewables	Installed			CO2 (t)	Cost (£)	CRC (£)
Solar PV		Gladesmore Community School	Elec	9	4,500	108
Solar PV	July 2013	Highgate Wood School	Elec	9	4,500	105

- Previously in-house Council operations continue to be contracted out. Funeral Services, and their associated carbon emissions, have been transferred to a third party provider. 2013/14 is also the first full year that emissions from Leisure services were outside of the Council's scope.
- The Council's street lighting inventory was updated in 2013 to reflect energy efficiency works carried out in the previous year. This reduced emissions from public lighting by nearly 100 tonnes.

Although rationalisation of the Council's assets and the conversion of schools into academies has removed buildings from the Council's carbon management plan, their emissions remain and must be reduced to ensure that the borough-wide target of a 40% carbon reduction by 2020 is achieved. Fusion Leisure have created a carbon reduction plan to reduce emissions from leisure facilities by 40% by 2020 and are currently carrying out works to achieve this.

Over the past 8 years, since 2006, Haringey Council has reduced its carbon emissions by 32%. Emissions from Council operation have almost halved, emissions from schools have fallen by nearly 40% and emissions from street lighting emissions by 2.5%.

#### Graph: Haringey Council CO<sub>2</sub> Emissions (2006/7 and 20013/14)



#### Looking forward

In the final year leading up to the Council's carbon target deadline, two major projects will be prioritised:

- → The Council will continue to invest in new solar PV arrays whenever market conditions are favourable. Currently a solar programme is being delivered across seven schools, six commercial assets and one residential block, which is expected to yield £13,000 a year and save 137 tonnes of carbon.
- → An energy efficiency programme will be delivered across the Council's operational portfolio. To benefit from lower installation costs (due to economies of scale) and guaranteed energy savings, all underwritten by the installer, the Greater London Authority's RE:FIT programme will be utilised. Predicted savings, based on an initial desktop assessment are £197,000 and 1,082 tonnes of carbon a year.

690 new trees planted in Haringey

# Page 37 TRANSPORT EMISSIONS

# **Community Streets**

The Harringay Gardens area has benefitted from road safety and streetscape improvement carried out over the past three years. From inception to implementation the scheme was designed and delivered in partnership with the local community.

This is the first neighbourhood in the borough to trial secure on street cycle parking facilities managed by local residents. Traffic calming, built-out pavements and dropped curbs, benefitting both pedestrians and cyclists, were installed at eight junctions.

Innovative materials were used to create a distinctive look in the area and to add greenery trees and planters, which will be cared for by the local community, were funded.

A 'community streets' approach will be used to engage and work with local communities when developing future road safety, smarter travel and urban improvement schemes.



# **Cycling Improvements**

Key improvements to cycling facilities in 2013/14 included:

- Installation of 50 new cycle parking stands across the borough
- A cycle crossing and cut through at Park Avenue South, improving cycle access between Shepherds Cot Playing Fields and Alexandra Palace.
- 8 junctions were treated to improve cyclist safety

# **On Street Car Clubs**

Haringey's on street car club network is extremely popular. During 2013 membership grew by 20% to over 4,800 Zipcar members. Car club provision in the borough has expanded rapidly to keep up with increasing demand. There are now 72 Zipcar vehicles located across the borough, plus 3 City Car Club cars at New River Village, Hornsey.

Analysis of future demand suggests there is huge scope for further car club expansion in Haringey, with over 34,000 potential members. So far Haringey car club provision has only met 14% of this potential demand. If membership continues to rise during 2014, further expansion of the network will be possible in 2015.

Car club users are more likely to cycle or use public transport, as they often give up owning a first or second car on joining. Others will choose not to purchase a car if there is a car club vehicle located conveniently close to home. Each car club car can effectively replace ten private cars by providing a convenient alternative.

# Personal Travel Planning

A personal travel planning pilot, delivered by Tottenham based social enterprise Living Under One Sun, was completed in 2013. This project created 13 part-time jobs, and engaged with 3,365 households to provide cycling, walking and greener driving advice.

# Looking Forward (2014-2016)

### **Electric Vehicle Charging Network**

Haringey's 21 publically accessible electric charging bays are part of the Source London network, which provides its members with access to over 1,400 charging points across London.

In September 2014, Transport for London transferred management of the Source London network to IER, the French company behind the successful Paris Autolib EV car club and charging network. IER have a two phase plan to expand the current network of London charging points and increasing their utilisation through the introduction of an electric car club for London.

## Cycling and Walking Schemes

A programme of cycling and walking improvements will be developed based on the proposals identified in the cycling and walking study carried out in 2013 and locations identified by the Haringey Cycling Campaign as priorities. The schemes will focus on the borough's main town centres, key transport interchanges and improving cycling on the Borough's main roads.

#### Cycle Superhighway 1

Haringey Council is working with Transport for London to develop Cycle Superhighway 1 which will link Tottenham and Liverpool Street in central London. Consultation on the schemes design will commence in autumn 2014 and construction is expected to begin in spring 2015 for completion late 2015.

#### 20mph speed limit

Haringey Council will introduce 20mph speed limits on all residential roads and in town centres. Lower speeds within the borough will help to encourage more cycling as cyclists feel safer when traffic moves at a slower speed. Additional traffic calming measures will be considered at locations where traffic speed may remain high.

## Personal Travel Planning

London is one of five European Cities (the others being Antwerp, Burgos, Riga, and Ljubljiana) participating in a European Union funded project to overcoming habitual car use and create a shift towards cycling as a preferred mode of travel. Over 3 years (2013-2016) Haringey, alongside Greenwich, will deliver Personal Travel Planning in London.

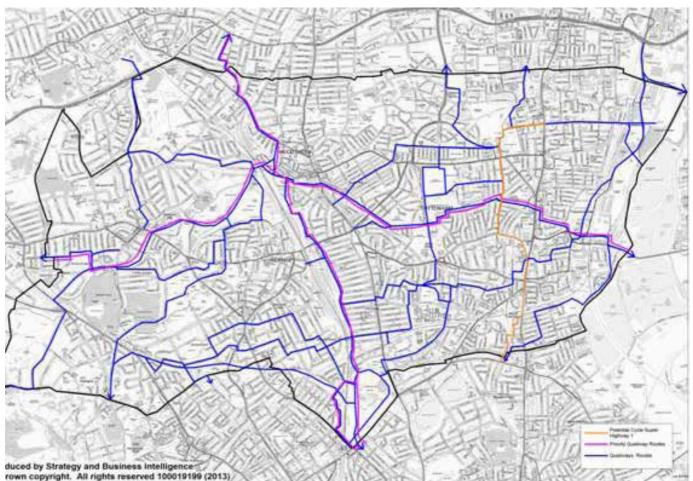
Over 10,000 households will be contacted by Personal Travel Planning advisors to discuss their travel habits with the aim of increasing cycling, walking, public transport use and reducing car use. Follow up surveys will identify how successful the project has been in encouraging healthy, low carbon travel.



#### **Quietway programme**

The Council has identified a Quietway network of cycle routes focused on off road and quiet residential roads. Transport for London is supporting the development of two priority Quietway routes running east-west and north-south through the borough, and three Ouietways linking Haringey to neighbouring boroughs by 2016. The proposed Quietways cycle routes are:

- East Finchley (borough boundary with Barnet) to Blackhorse Road (Waltham Forest)
- Bowes Park (Enfield/Haringey boundary) to Finsbury Park (Haringey/Islington boundary) via Wood Green and Hornsey
- North Finchley (Barnet) to Hornsey (Haringey) via Muswell Hill and Alexandra Palace
- East Finchley to Holloway (Islington) via Highgate
- Finsbury Park to Seven Sisters



#### Map: A network of cycling Quietways will be developed in Haringey

**Electric Bicycle Hire** 

Haringey has been chosen as the optimal location to trial an electric bicycle hire scheme in London. Transport for London are working on a feasibility study which could lead to the introduction of electrical hire bikes in Muswell Hill and Finsbury Park by 2016. These areas have been selected due to their particularly hilly terrain and potential for integrating e-bike usage with the public transport network. The scheme is likely to operate in a similar way to the existing Barclays Bicycle hire scheme in inner London, with users riding between docking stations (although it could be a completely self-contained network) and could provide a valuable addition to the buses that are currently Muswell Hill's only public transport.

# Cycle Superhighway 1 will connect Haringey to central London

Stamford Hill 之

White Hart Lane

Tottenham Hale ⊖

Seven Sisters ⊖ 之

Stoke Newington

Dalston Junction

Horton

Hoxton

Shoreditch Triangle

**Liverpool Street** 

# Smarter Travel

Smarter Travel Haringey, funded by Transport for London, provides a range of activities, funding and training to encourage active travel (cycling and walking), improve health and air quality, reduce carbon emissions, traffic congestion and road accidents.

The latest Smarter Travel results show:

- An overall increase in cycling over 2012 and 2013 up to 2% (traffic flow data). Our target is 3% by 2014.
- An overall decrease in traffic over 2012/13, and a continuing gradual decline in car use since 2000, in spite of population increase (traffic count data)
- The number of schools with travel plans, which set out how safer, sustainable travel to school will be promoted, increased more than threefold between 2011 and 2014.
- 78% of respondents to a telephone survey agreed that Smarter Travel Haringey was the type of service Haringey Council should invest in.

Smarter Travel activities in 2013/14 included:

#### **Cycle Training**

- 1005 primary school pupils received Bikeability cycle training.
- 359 individuals over primary school age received cycle training.

#### **Organised Cycle Rides**

- 14 Skyrides longer guided rides organised by British Cycling
- 16 Breeze Rides guided rides for female cyclists
- 6 Social Cycling rides organised by local cycling groups

#### Page 41 Doctor Bike

Dr Bike events, offering free bicycle maintenance, are held every few weeks in Priory Park, Finsbury Park and Lordship Recreation Ground on Sundays from 2-5pm and also at ad hoc events around the borough. 1,221 bikes were serviced at Dr Bike events in 2013/14.

#### **Cycle Maintenance Courses**

Cycle Maintenance courses began in February 2014 and will be held once or twice a month for people who would like to learn how to fix and maintain their bike. In February and March 2014 a total of 21 people took the course.

#### **Smarter Travel Road Shows**

Smarter Travel held 37 road show events across the borough, offering information and advice to encourage waking and cycling in Haringey.

#### **Active Travel Community Projects**

Smarter Travel funded community organisations to run projects which promote walking or cycling, including:

- 'Recycle the Way You Travel' run by Bike Works offered the opportunity to build a bike, maintain it and undertake Bikeability training.
- 'Cycling for Healthier and Closer Communities' by Living Under One Sun purchased 10 bikes, organised 23 bike rides, a cycle cafe, Dr Bike events, where over 250 bikes were fixed and cycle training around Hale Village and the Ferry Lane estate. In total 29 events were held, involving 500 volunteering hours, and 14 women who were complete beginners learned to cycle.
- 'Green Wheels' by the Selby Centre included cycle training, bike recycling and a cycle club that will develop into a bike hire scheme. Recovered bikes, which the police were unable to reunite with their owners, were used to teach local residents how to fix bikes and participants were able to keep a bike, enabling them to continue cycling.
- 'Cycle Fun' by Tottenham Hotspurs Foundation offered organised cycle rides, instructor ride leader training and beginners one to one cycling.
- 'Bike Maintenance' offered by Tottenham Hotspurs Foundation aimed to give young people the skills to maintain their own bike.

# WAY to A healthy heart

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1,221 bikes fixed1,364 pupils taught to cycle1 brilliant Festival of Cycling

## **Cycling Clubs**

The following cycling clubs were supported with funding:

- Haringey Cycling League which works with six Primary Schools in Haringey. The club offers cycling events and activities for children including day trips and cycle racing in local parks.
- Pedal Power All Ability Cycling Club which offers cycling activities for people with disabilities in Haringey and neighbouring boroughs.

#### **Bike it Plus**

Sustrans Bike it Plus engaged children and parents at five primary schools and a secondary school in the Wood Green area offering numerous cycling activities to encourage young people to cycle to school, including organised bike rides, Dr Bike maintenance and bikers breakfasts for cyclists. The scheme was part funded by Transport for London with match funding from Smarter Travel and ran for the school year from September 2013.

#### **Festival of Cycling**

Haringey, Hackney and Islington Council worked in partnership with community organisations and businesses to host the first tri-borough Festival of Cycling at Finsbury Park, aimed at encouraging more people to cycle for fun, health and as their main choice of transport. The festival, held during Bike Week in June 2013, featured crazy bikes, Rollapaluza racing, Dr Bike and an organised SkyRide. The event was a great success, attracting visitors from all three boroughs and across London.

#### **Travel Plans**

In the school year from September 2013, 53 schools were offered training to create a School Travel Plan and small grants were provided to schools with Travel Plans to help pupils and teachers to travel to school more sustainably.

30 primary schools joined the Walking Teddy Club which offered resources and promotional activities to encourage pupils to walk to school with their parents and carers during Walk to School Week.

17 organisations in Haringey were also supported with workplace travel plans, helping their staff travel to work in a low carbon way.

#### Sustainable Travel Awards

Two Haringey schools received awards in recognition of their work:

- In November 2013 Riverside School won a 'Modeshift Sustainable School Travel Award' for its independent travel programme which offers training to special needs pupils.
- In October 2013 the School Travel Plan Coordinator at Stroud Green School was presented with the TfL award for 'School Travel Plan Champion of the North London Region'.

# **Looking Forward**

The priorities for Smarter Travel in 2014/15 include:

- → Engaging with schools by:
  - → undertaking School Travel Plans.
  - → creating a map of where pupils are travelling from to get to school, making it easier to find sustainable travel solutions.
  - → offering cycle training in secondary schools and during the school holidays
  - → providing cycle route planning for year six primary pupils, to give them the confidence to cycle to secondary school.
- → Organising a second Festival of Cycling, working with Hackney and Islington Council.
- → Supporting local community organisations to run sustainable, healthy travel projects which encourage walking and cycling
- → Working with Sustrans to deliver EU funded Personal Travel Planning in Crouch End.
- → Recruiting an Air Quality Apprentice, funded by the Mayor's Air Quality Fund, who will work in schools to help young people understand how they can improve air quality

Free cycle training for everyone living, working or studying in Haringey

Page 44

# Page 45 ENERGY GENERATION & SUSTAINABLE DEVELOPMENT

# New Build & Planning Policies

The Council continues to develop a planning policy framework which will ensure that new buildings are designed and constructed to reduce energy use and their impact on the natural environment, while maximising health and well being for local people.

Policy developments during April 2013 – March 2014 relating to carbon and energy include:

 In early 2013, Haringey Council's Local Plan: Strategic Policies and the Sustainable Design and Construction Supplementary Planning Document were adopted. Following this public consultation was carried out on the Development Management Policies (DMP), which will assist in delivering the objectives set out in the Local Plan and the London Plan and provide further detailed policies used to assess and determine planning applications.

The DPM includes environmental protection policies for air quality, noise and light pollution, additional energy and carbon reduction policies, such as a carbon offset fund for developments, and policy proposal that will:

- protect and enhance the boroughs green spaces and biodiversity assets
- promote climate change mitigation and adaptation measures
- ensure new developments are built to the highest environmental standards, incorporating the latest sustainable design and construction methods
- reduce and mitigate flood risk

- fully optimise sustainable energy provision at new developments
- 2. **A Call for Sites consultation** to identify key strategic sites in the borough and consultation on the Council's draft Sites Allocations Document, which includes proposals for infrastructure and sites to support decentralised low carbon energy generation and networks across the borough
- 3. A Strategic Regeneration Framework (SRF) was agreed by Haringey Council in March 2014. This document sets out a 20-year vision for the future of Tottenham through long-term regeneration, with a commitment to:

Establish sustainable and quality development standards to ensure all major development and redevelopment activities support Haringey's commitment to carbon reduction and deliver buildings people can enjoy and admire.

The SRF was also influenced by the work on the Tottenham Physical Development Framework, which makes a series of recommendations for regeneration and identifies six key spatial objectives, two specifically for low carbon development:

- Establishing a district heating network serving existing and new developments
- Increasing the supply of energy-efficient homes in new developments and through retrofitting

# Regional & National Planning Policies

From 2013, as set out in London Plan Policy 5.2 for 2013-2016, major developments must meet a 40 per cent carbon reduction target (beyond Part L 2010 of the Building Regulations). This is an increase from the policy position for 2010-2013 of 25% improvement on Building Regulations or Code for Sustainable Homes Level 4.

# Low Carbon Heat Networks

The Council's Local Plan: Strategic Policies, supports the development of decentralised energy networks in the borough. Policy 'SP4 - Working towards a low carbon Haringey' sets guidelines for:

- Requiring all developments to assess, identify and implement, where viable, site-wide and area-wide decentralised energy facilities including the potential to link into a wider network; and;
- Establishing local networks of decentralised heat and energy facilities by requiring developers to prioritise connection to existing or planned networks where feasible.

In 2013 construction began on Brook House (Northumberland Park) and Lawrence Road (Tottenham Green); two regeneration developments which were designed with their own on-site low carbon heat generation and site-wide heat distribution networks. Once completed, these sites will add to the existing decentralised energy networks in the borough, including Hale Village (Tottenham Hale) and Haringey Council's network connecting Broadwater Farm estate and a nearby school; the Broadwater Farm Inclusive Learning Campus.

The Council has continued to develop its strategy to enable low carbon decentralised energy generation and distribution in the borough. Over the last year the technical, financial and commercial aspects of proposals for low carbon heat networks have advanced. Options for local combined heat and power (CHP) are under consideration, which could provide an economical means for developers in North Tottenham to meet their carbon and energy reduction targets.

In addition, in 2013-14 the Council secured funding from the Greater London Authority, and the Department for Energy and Climate Change to further develop its plans for low carbon heat networks in Haringey, including mapping of heat production and use in the borough and a borough wide decentralised energy masterplan. This work will be completed in 2014/15.



# Durham University Innovation Partnership

One of the Carbon Commission's key recommendations was that Haringey Council should build partnerships with "lead businesses, higher education and research partner organisations" to develop low carbon innovation labs, that will carry out and evaluate cutting-edge research on low carbon technological, social and financial solutions in the borough.

In January 2014, Haringey launched a two year partnership with Durham University, one of the top ranking teaching and research universities in the UK and home to the internationally renowned Durham Energy Institute (DEI), the first multi-disciplinary school devoted to holistic research on energy issues.

The partnership will translate research into the real world by creating a 'living laboratory' for pioneering low carbon research in the borough. Research activities will focus on key themes that will to help inform policy decisions made by Haringey Council:

- 'Smart cities' decarbonisation of energy and local energy generation and distribution
- Sustainable regeneration optimal solutions to reduce carbon emissions, stimulate economic development and reduce inequality
- Eco-retrofit assessing the role of the local authority in the retrofit market, the opportunities presented and the barriers to retrofit
- Tackling inequality addressing links between inequality, energy vulnerability, wellbeing and inclusion
- Green growth Understanding how to facilitate low carbon enterprise activity and the barriers to low carbon economic development



Three main streams of work have begun:

- The Council will benefit from two highly qualified Impact Acceleration researchers (part funded by the Engineering and Physical Sciences Research Council) who will undertake focussed research to explore the real world impact of:
  - the future role for local authorities in the retrofit market
  - solutions to ensure affordable warmth
- Two MSc Energy and Society scholarships have been awarded; one to undertake research into the carbon and sustainability impacts of the work of a local community group – Living under One Sun (LUOS); the second will explore take-up and responses to domestic retrofit.
- The Council, along with Durham and two other leading European universities based in Germany and Holland, is participating in a project that will look at 'Governance of Urban Sustainability Transitions', in particular the role of local living laboratories. The project will investigate how Haringey could test innovative technologies and low carbon solutions in the borough.

# How to Save a Tonne of Carbon

Each of these ideas could save 1 tonne of CO2 a year (that's about the weight of a cow). How will you save yours?

#### Home

- Give your home an energy makeover; use thermostats and heating timers, installing solar hot water panels, insulating your roof, replace old boilers, swapping appliances for A rated ones and washing clothes at 30 degrees.
- Switch your thermostat 3 degrees lower
- Share your house with an extra person like a friend, relative or lodger

# Food

- Eat 75% of your food UK-grown and in season
- Reduce meat and dairy consumption by 75%

## Travel

- Fly one less long haul trip
- Fly three less short haul trips
- Drive a 40mpg car instead of a 30mpg one; or a 60mpg car instead of a 40mpg one
- Drive 3,000 less miles per year

# Stuff

 Collect memories, not things. Shift £2,000 from high carbon, physical goods like electronics and things that won't last long, to experiences such as live entertainment and education, or low carbon durable products and second hand goods.

# Page 49 INDIRECT EMISSIONS

Indirect emissions relate to the 'embedded energy' of goods and services used in the borough. These emissions may have been generated outside of the borough, even on the other side of the world. They include for example emissions related to food growing, manufacturing and waste disposal. In contrast direct emissions relate to energy and transport fuels used in the borough. Haringey's direct emissions are presented in the first section of this report 'Haringey's Carbon Emissions (2005-2012).

Currently there is no nationally agreed method for reporting on indirect emissions, however the estimated carbon savings from activities such as minimising waste, recycling, composting, growing food and reducing consumption are significant. To give an example, the carbon savings from UK recycling are estimated to be more than 18 million tonnes a year – equivalent to taking 5 million cars off the road<sup>9</sup>.

# **Recycling and Reuse**

In 2013/14 the percentage of waste recycled or reuse in Haringey was 36.5%.

- 7,585 tonnes of food and garden waste were composted
- 24,115 tonnes of 'waste' was recycled including household plastics, glass, tins/cans, paper, cardboard and electrical items.
- 173 tonnes of furniture, textiles and household appliances were reused

Recycling and reuse has increased from 32% from the previous year. This improvement is due to increased household recycling, the change to fortnightly residual waste collections and the provision of larger wheelie bins for recycling. Around 1,000 tonnes of street sweepings are now also recycled each year by separating out recyclables on the street. In total, 31,873 tonnes of waste were recycled or reused.

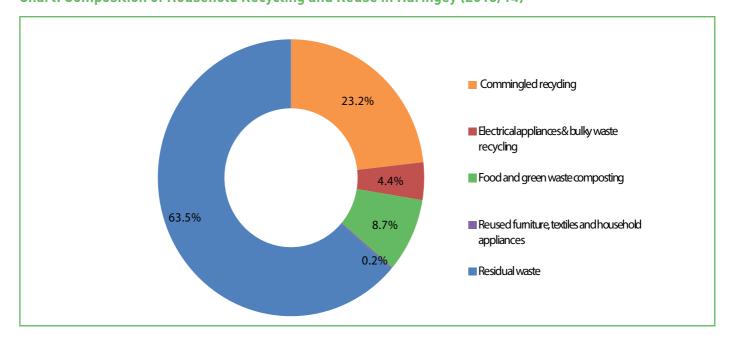
Residual waste per household (i.e. waste not recycled or reused) reduced by 10% in 2013/14 from 579kg to 528 kg. This is a 21% reduction since 2011/12, the first year of the council's current waste contract. Over the past three years Haringey Veolia has reduced carbon emissions from waste and recycling vehicles by 31% through reducing diesel fuel use.

Year	Target Fuel Saving	Fuel Saving Achieved
2011/12	20%	28%
2012/13	25%	26%
2013/14	30%	31%

#### Looking Forward

- → Haringey is on course to reach a target 40% recycling rate by 2016.
- → In the coming year, a focused campaign will continue to encourage greater recycling, and in particular to promote food waste services and waste minimisation across the borough.
- → The amount of recycling separated from street cleaning will be maximised, including through the introduction of further dual recycling/litter bins on high roads in the borough.
- → In 2015, following a highly successful trial project, food waste collections will be rolled out to all estates and blocks of flats in the borough. Once complete, all households will be in receipt of a comprehensive recycling service, enabling approximately 70% of their waste to be recycled.
- → Food waste collections will also be expanded to encompass all schools in Haringey.

Page 50 Chart: Composition of Household Recycling and Reuse in Haringey (2013/14)



# **Waste Prevention**

#### Love Food, Hate Waste

In the UK households throw away 7 million tonnes of food and drink every year, either by cooking too much or not using food in time. The majority of this food could have been eaten, saving at least 17 million tonnes of carbon, equivalent to taking 1 in every 4 cars off our roads<sup>10</sup>.

The North London Waste Authority (NLWA) held 31 food waste events at libraries, shopping centres, community centres and leisure centres in Haringey in 2013/14, engaging with 2,270 people on reducing food waste.

- A stall was held during CONEL College's 'Go Green' week. A six month on survey revealed 73% of respondents throw less food away and that the majority of people saved money on food purchases through better food planning.
- In September 2013, The Big Free Lunch was held at Ducketts Common providing a free lunch for 930 people on a budget of £700 - the amount of money the average UK family with children wastes on uneaten food each year. The food was prepared following recipes from the North London Food Lovers' Cookbook. To download the cookbook visit www.wiseuptowaste.org.uk
- In a follow-up survey 80% of residents said they had reduced their food waste as a result of attending a Love Food, Hate Waste event.

#### Give or Take days

Give or Take days provide an opportunity to give away unwanted items, so that others can re-use them. In partnership with the London Community Reuse Network the NLWA held three Give or Take days in Haringey, redistributing 2 tonnes of unwanted items.

#### **Compost Crusaders**

Theatre company Circus Takeaway was commissioned by the NLWA to deliver an educational show 'Compost Crusaders' at Lancastrian Primary and St Francis de Sales Junior School. Although the show is written for children, parents were also invited and welcome to attend.

Haringey-Veolia run a composting assembly in schools and offer composting workshops, held at the Environmental Education Centre (based at the Reuse and Recycling Centre in Wood Green) where children learn how compost is made and meet womery worms. An annual grant scheme is also offered. Schools can apply to for up to £500 to run a sustainable waste project, such as creating a school garden. To find out more contact education. haringey@veolia.co.uk.

# Choose from 21 award winning Green Flag parks in Haringey

# **Green Spaces**

Green spaces provide a place for wildlife to live, they absorb pollution and can help to counteract the effects of climate change by cooling urban temperatures. Grass land, soil and trees absorb carbon dioxide. The amount of carbon a tree absorbs will depend on the type of tree, its life span, where it is planted and the amount of space it has to grow, but on average, a broad leaf tree, such as Ash, Silver Birch or Oak, will absorb one tonne of carbon dioxide during its 100 year life-time<sup>11</sup>.

#### **Green Flag Awards**

The Green Flag Award scheme is the benchmark national standard for excellent parks and green spaces in the UK. Launched to reward the best green spaces in the country and encourage others to achieve high environmental standards, Green Flag sites are judged to be welcoming, safe and well managed, with active community involvement and high sustainability standards.

In 2014 Down Lane Park and Ducketts Common became the latest Haringey parks to be awarded a Green Flag. Green Flags were also awarded to Highgate Wood (managed by the Corporation of London), Alexandra Park (run by the Alexandra Palace Trust) and Tottenham Marshes (run by the Lee Valley Regional Park Authority).

In total 19 parks and open spaces managed by Haringey Council, 6 green spaces managed by other organisations, and 4 community sites in the borough have been awarded Green Flags bringing the total number of Green Flag parks in Haringey to 21.

The Council will enter two new sites - Queens Wood and Parkland Walk - for Green Flag awards in 2015.

#### **Food Growing**

Growing food locally is a crucial step in reducing our carbon emissions. Taking in to account growing, importation, transportation, packaging, retailing and cooking, food contributes up to 30 percent of the UK's carbon footprint. Eating home grown fruit and vegetables, particularly if combined with eating less dairy and meat, will have a significant impact on carbon emissions.

Haringey has a very active food growing community. There are 115 registered Capital Growth food growing sites in Haringey. Haringey Council manages 27 allotment sites, with a total number of 1,780 plots, spread across the borough. Since January 2013, 203 new tenants have registered on allotment sites.

The Council is currently investigating whether community growing spaces can be created in a number of Council owned parks. Suitable sites will be identified based on criteria including; allotment deficiency, commitment to project by local residents or voluntary groups and potential use of produce by local businesses. Consultation on potential sites will be carried out during early 2015.

# **'Sustainability'** meeting this generation's needs without compromising the ability of future generations to meet their needs.

Composting at home can bake as much greenhouse gases as the CO<sub>2</sub> your kettle produces in a year.

#### **Tree Planting**

Haringey Council planted 567 new trees during the 2013/2014 planting season:

- 404 trees on-street
- 104 at Homes for Haringey sites
- 59 trees in parks and open spaces

A diverse range of species were planted, including trees which have a large canopy at maturity such as London plane, Beech, Hornbeam, Sweet chestnut, Tulip tree, Walnut, Birch trees. Trees that provide edible fruit and nuts, including varieties of Apple (Cox's, Orange, Pippin), Pear (Beurre, Hardy), Victoria Plum and Medlar trees were planted in Bounds Green, Harringay, Hornsey and Seven Sisters.

Of the 163 planted at Homes For Haringey and parks sites, 155 were planted adjacent to the public highway, providing the added benefit of reducing traffic pollution.

Our tree planting programme was funded by Haringey Council, the Mayor of London's Street Tree Initiative (MSTI) which funds trees in areas with low tree cover and high levels of airborne pollution, S106 payments from developers and resident sponsorship.

In addition, Transport for London planted 123 new trees in the borough as part of the Tottenham Gyratory works.

Harmful emissions released by road traffic include particulate matter which causes respiratory health problems, exacerbates heart disease, and contributes to global warming and ozone creation.

A study by Lancaster University found that Silver Birch trees absorb this pollution. Planting a row of trees in front of a house reduced particulate traffic pollution inside the house by at least 50%<sup>12</sup>.

#### **Looking Forward**

- → During the November 2014 April 2015 planting season up to 50 new trees will be planted in the following wards; Highgate, Muswell Hill, White Hart Lane and Woodside.
- → A bid will be submitted for further Mayor of London's Street Tree Initiative funding to plant an additional 200 trees.
- → In 2015 three Community Streets projects will begin in Tottenham Green, Tottenham Hale and Hornsey Park. Tree planting will be carried out as part of these projects with at least 50 new trees in each area.

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- Source: DECC, Local authority carbon dioxide emissions estimates 2012: Statistical release 26th June 2014. The document is available at www.gov.uk/government/publications/localauthority-emissions-estimates
- 2. Source: www.gov.uk/government/statisticaldata-sets/annual-domestic-energy-pricestatistics
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- 7. These figures are derived from gas and electricity consumption based on bill data and are weather corrected to ensure consistency with previously reported figures under NI185 requirements.

- 8. The figure for 'number of cars equivalent' assumes 3.184 tonnes CO<sub>2</sub> per car per annum. (Defra 2008)
- 9. Source: www.recyclenow.com
- 10. Source: http://england.lovefoodhatewaste.com
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year % change from previous		-0.8%	-6.6%	-1.1%	-12.8%	3.2%	-12.1%	5.7%		1.6%	-3.8%	-2.3%	-11.9%	3.6%	-12.9%	6.8%		-0.8%	-2.8%	-3.1%	-10.4%	3.8%	-11.0%	4.7%
% change from baseline Year (2005)	0.0%	-0.8%	-7.4%	-8.6%	-22.5%	-18.6%	-33.0%	-25.5%		1.6%	-2.2%	-4.6%	-17.0%	-12.8%	-27.4%	-18.8%		-0.8%	-3.6%	-6.9%	-18.0%	-13.5%	-26.0%	-20.1%
Per Capita Emissions (t)	4.5	4.5	4.2	4.2	3.7	3.8	3.4	3.6	6.1	6.2	6.0	5.8	5.2	5.4	4.8	5.1	7.4	7.4	7.2	7.0	6.3	6.6	5.9	6.2
year % change from previous		1.7%	1.5%	3.1%	2.1%	1.1%	1.1%	1.3%		1.0%	1.2%	1.5%	1.6%	1.5%	1.7%	1.3%		0.7%	0.8%	0.8%	0.7%	0.8%	0.8%	0.7%
% change from baseline Year (2005)	0.0%	1.7%	3.2%	6.2%	8.2%	9.3%	10.3%	11.4%		1.0%	2.3%	3.8%	5.3%	6.7%	8.4%	9.5%		0.7%	1.5%	2.3%	3.0%	3.7%	4.5%	5.2%
Population ('000s, mid-year estimate)	229.3	233.2	236.8	244.5	249.8	252.7	255.5	258.9	7,519.0	7,597.8	7,693.6	7,812.4	7,942.5	8,061.3	8,204.1	8,308.4	60,413.7	60,827.3	61,319.1	61,824.5	62,260.9	62,759.8	63,285.3	63,705.0

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2.0%

-4.4% -14.5% -9.2%

> 393,000.7 411,877.8

8.0%

-7.5% 0.0%

42,720.0

1.0%

16.8%

7,134.2

104,643.4

449,904.

10.1% 5.3%

-20.3%

374,082.0

-10.8% -12.3%

94,447.9

129,014.6

6.2%

12.5% 26.0%

158,130.4

2008 2009 2010 2011 2012

National Total

-18.6%

159,999.

93,180.0

96,097.5

-9.6% -14.1% 9.1%

13.3% -20.5% -9.5%

137,180.0 147,158.6 -13.8%

395,179.1

# Appendix

Local and Regional CO<sub>2</sub> Emissions Estimates (2005-2012)

HARINGEY

Haringey 40:20 brings together people, businesses and community groups across Haringey. Our goal is to reduce CO<sub>2</sub> emissions in Haringey by 40% by 2020 and create a happier, healthier, greener, more prosperous borough.

To find out more visit www.haringey4020.org.uk

