

# THE HARINGEY CARBON COMMISSION REPORT A SUSTAINABLE NEW ECONOMY



HARINGEY



An initiative of Haringey Council



# FOREWORD

The Carbon Commission Report stands as a strong challenge to those who mistakenly believe there is a conflict between action on climate change, action on inequality, and economic prosperity.

When climate change is predicted to cost us 5% of global GDP, we cannot afford continued inaction. And we believe action will be a key driver for innovation that will deliver greater prosperity and jobs that our borough so desperately needs.

Haringey was the first borough in the UK to sign the Friends of the Earth pledge to reduce borough wide emissions by 40% by 2020. It was a promise we made because we believe the costs of climate change will impact on the poorest people the hardest, but critically because we believe it provides a strong economic platform to alleviating the core social and economic challenges in Haringey and a route to greater prosperity and opportunity for all.

Admittedly, we didn't have all the answers. That is why we created Haringey 40:20 and the Carbon Commission – to harness the power of our community activists and of experts alike to help us build this road map. It begins to answer a question that for too long has been left unanswered: How can we deliver the level of prosperity that will reduce levels of inequality while simultaneously reducing overall carbon emissions?

This report identifies how Haringey can take the first clear steps to becoming a centre of innovation for tackling the challenge climate change - the same challenge facing our cities the world over.

I am grateful to both the community representatives on Haringey 40:20 steering group, and the Commissioners for their work and in particular the support from the new economics foundation has been remarkable.

The report goes further than any other in local government to identify how we can reduce our addiction to fossil fuels that increasingly we need to source from questionable regimes. It sets out models for making our homes more energy efficient - a task that will sadly be hamstrung by the government's current Green Deal proposals.

It makes the case for alternative energy supply; again an area undermined by this government and its cut to the Feed-in-Tariffs, which have destroyed trust in the solar market. It sets out a vision for community-led provision in a world that is too dependent on the oligopolies in the energy market who have no incentive to re-imagine their industry and seek more efficient, cheaper and cleaner models of generation and distribution.

For businesses it sets out the importance of further innovation and an economic strategy to attract the best minds and most creative businesses to come to Haringey, with the prospect of creating anything up to 6,000 new jobs in the Upper Lea Valley, if not more.

In particular much of the report makes a strong case for cooperative enterprise models, creating new ways of working together to achieve common goals, putting power into the hands of ordinary people and making sure all are able to share equally in the benefits of action. By doing so we hope to guarantee that the dividend of



our efforts and the wealth generated will be re-invested back into Haringey. On the challenging area of transport, the Commission calls for us to re-imagine our streets and neighbourhoods, so we find ourselves less reliant on the car and for further incentives for the electrification of our vehicles.

I hope the ambition encapsulated within the 43 specific recommendations will inspire people in our neighborhoods to do their bit and to join us on our journey, I further hope it will get central government to think about how it can support our collective endeavor to realize the future that I believe this report demonstrates is possible.

There can be no doubt that the Commission's recommendations are extremely challenging, but they have succeeded in making an impossible journey, a difficult yet possible one. Haringey is up for the challenge the Commission have set us. It matches the scale of our ambition for a more equal, more prosperous and greener borough and our commitment to One Borough, One Future.

**Councillor Joe Goldberg**  
Cabinet Member for Finance  
and Carbon Reduction

# THE CLIMATE CLOCK IS TICKING. NORMAL ISN'T WORKING. WHAT WILL WE DO DIFFERENTLY?

Climate change seems far-removed from everyday life, but whether you live in the Himalayan plains or the London borough of Haringey it impacts your community and your home. We should all be able to have good lives without sacrificing the environment we depend on. The test of achieving this balance happens at the local and global level.

The tantalizing prospect for the Carbon Commission is that, if answers can be found in one area of London, the results could stand as a beacon for people wrestling with the same problems all around the world. When others have walked away from the issue, Haringey has done the opposite, setting an example with bold targets to cut greenhouse gas emissions in spite of the many other local issues that demand attention. We think the borough should be applauded, and this is what attracted us (the new economics foundation) to become involved.

Our experience of economic innovation at the local level and rethinking the national and global economy led us to believe that a great transition is necessary, desirable and achievable. We believe it is possible to lead lives of lower environmental impact and higher well-being. However, what we believe is irrelevant if it cannot be made a reality. For that reason we were grateful and excited to work with such an interesting part of one of the world's great cities.

Britain may be a wealthy country, but Haringey faces the same challenges as the international community. The borough is sharply divided in terms of wealth, and the consequence is far

from superficial: a significant difference of life expectancy between the richest and poorest areas. Just as within the international community, prosperity needs to be raised in some places while we cut the overall emissions of greenhouse gases stemming from economic activity.

Similar to the majority of the world, Haringey has a growing population and a high proportion of young people. There is a great variety to be found in both area and people. One quarter of Haringey is green space; one can find woods, conservation areas and nature reserves among the crowded, car-filled streets. It is also fabulously ethnically diverse, with nearly 200 different languages spoken in the borough. This gives Haringey one very important asset.

Inaction on climate change often gets blamed on the fact that consequences seem remote or only dimly visible in years to come. How can people form empathy and the urgency for action for a future they cannot imagine and people they haven't met? For too many, climate change becomes relegated as a problem for strangers and a distant time. Not so in Haringey.

Long convinced that climate change will bring greater weather extremes over coming decades, scientists are increasingly confident that the fingerprint of human-driven global warming can be found in the current spate of extreme weather events. Climate change is near and now for the ethnically-diverse residents of Haringey, as a cavalcade of disastrous floods, droughts and storms tumble around the world in the summer of 2012. Those with friends and relations

on the front line of global warming are not able to ignore it. In Haringey the sense of extended responsibility human society must develop to share a finite, overburdened planet is not a luxury of the affluent, but a normal feeling of concern any person would have for those they love.

Through human ties Haringey is already twinned with countless other villages, towns and cities around the world. Acting to achieve bold targets on global warming will not only put the borough at the cutting edge of social, economic and technological innovation for a modern, progressive low-carbon economy, it will be a statement of solidarity with a much larger international community. It will create a considerable virtual community in which knowledge can be exchanged on the best ways to tackle and adapt to global warming.

The Carbon Commission identified practical steps that can be taken now – using existing resources, technology and policy – to go a long way towards the cut of 40 per cent in greenhouse gas emissions by 2020. Improvements in transport, housing, energy and financial innovation will invigorate the local economy, improve the lives of local people, protect against high and volatile energy prices, and tackle climate change.

Faced with a new round of austerity cuts, some £20 million over the next two years, the Council will be required to think differently. It will need to invest in the future prosperity of the borough and have a long-term strategy. The Council has the enviable position of being able to leverage finance and direct it cleverly for the borough's



benefit by leading the development of a thriving, low carbon, local enterprise economy. Capturing that benefit means putting local businesses first – evidence and local opinion says this is the best approach to maximise gains for the people of Haringey. Here is a unique opportunity for the borough to be seen differently in the eyes of the world, to effectively rebrand itself as a leading modern transition economy. Instead of watching its benefits leak away to other areas of London and beyond, it can be distinctive, dynamic and designed to give the best to the local economy, community, and environment.

The Commission felt that even bolder action will also be necessary. To achieve and exceed the target, action by national government is unavoidable. However, we stand in the retreating shadow of the dismal theatre played out by political leaders at the Rio+20 conference in Brazil and regular climate summits. There is a bewildering, continuing failure of governments – including the UK's own – to see that investment in a great environmental transition would benefit the economy, society and the climate. In allowing the Carbon Commission to set a challenge for the Council of Haringey, the

borough has set itself the task of doing what we all must do when national and global leadership fails: to lead from below.

Based on a conservative assessment, from 1 October 2012 there will be 50 months left before the climate dice become loaded, making it no longer likely that we will remain on the safe side of critical threshold in temperature rise. The climate clock is ticking. Normal isn't working. What shall we all do differently? This report lays out what one London borough can do with the challenges and opportunities faced by the wider world. If we can get things right in Haringey, instead of melting glaciers, we could melt the excuses for inaction elsewhere. As Chair of the Commission, I would like to thank my fellow members, and all the people who contributed their time and energies to the Working Groups which promoted the debate leading to this set of recommendations.

**Andrew Simms**  
 nef Fellow  
 Chair of the Haringey Carbon  
 Commission

**Through human ties Haringey is already twinned with countless other villages, towns and cities around the world. Acting to achieve bold targets on global warming will not only put the borough at the cutting edge of social, economic and technological innovation for a modern, progressive low-carbon economy,**

# MEMBERS OF THE HARINGEY CARBON COMMISSION

**Andrew Simms**

Fellow, new economics foundation  
(nef) Chair

**Chris Brown**

CEO, Igloo Regeneration (Chair of  
Tottenham Working Group)

**Elizabeth Cox**

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**Nicky Gavron**

Greater London Assembly Member

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Coordinator of Tottenham & Wood  
Green Friends of the Earth, member  
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# EXECUTIVE SUMMARY

Haringey has committed to reduce CO<sub>2</sub> emissions by 40 per cent by 2020. As the most unequal borough in London, the challenge for Haringey is a microcosm of the global sustainability challenge – to live within environmental limits while reducing inequality.

Only by investing in the transformation of the economy of the borough will we be able to provide the basis of future prosperity. The economic prize is substantial. It is estimated that for the UK as a whole the UK low carbon and renewables sector in 2010 was worth £76 billion offering new employment opportunities as the sector grows.<sup>1</sup> For Haringey to capture its share of this economic prize, we need to support the growth of green industry in the borough through the creation of a low carbon enterprise district, and ensure enterprise and job opportunities are created locally.

Developing innovative enterprise models that retain wealth in the borough will ensure the benefits of this economic prize are shared more equitably and address the unacceptable levels of inequality within the borough.

Proactive action is required by the council, harnessing all the levers available to them to ensure that in greening the borough the economic benefits remain within the borough. Meeting local demand for eco-retrofitting and installing alternative energy generation could even in the short term create or safeguard an additional 3,000 local jobs, and contribute to a 10 per cent reduction in carbon emissions in Haringey. By 2031 up to 11,000 jobs could be created in Haringey in low carbon and renewable sectors.<sup>2</sup>

Residents and local sustainability groups need to play a key role in supporting people within the borough to live more sustainably.

The Carbon Commission, working with local groups, have developed a set of recommendations which together form the foundations of a transition to a low carbon economy. The various roles for civil society, business and government are detailed in the main body of the report. A supportive national policy framework is required to fully realise the 40 per cent reduction in carbon emissions and associated economic benefits.<sup>3</sup>

The council should use its ability to access low-cost finance to invest in shared ownership models that will kick start the new sustainable economy. We have estimated that the level of investment by the council in this low carbon transition will be in the region of £35 million over the next 7 years, or £5 million per annum, repaid over a 25 year period.

## 1. CREATE BUSINESS MODELS WHICH REINVEST WEALTH BACK INTO THE BOROUGH

The development of mutual enterprises is an effective way to reinvest wealth back into the borough by giving local people a stake and a share in the resulting benefits and responsibilities. Direct involvement in the enterprise as a member, employee or customer is also a way to encourage sustainable action more widely.

**Alternative energy supply mutual**  
Set up an **alternative energy supply mutual** working with at least one other

north London borough to create a scale of investment opportunity and reduce costs.<sup>4</sup> The company will finance and deliver heat and energy networks, serving residential, public and commercial buildings. Profits would be re-invested into further low-carbon development.

### A retrofitting co-operative network

Develop a retrofitting network of co-operatives with at least one other London borough to deliver the scale of intervention needed to reap the financial benefits.<sup>5</sup> The retrofitting co-operative would provide a flexible structure to deliver a range of local services associated with retrofitting activity and for **contracting with local installers**, including the Green Deal and ECO subsidy financed measures. This would build on previous technical and financial modelling work carried out with the London Borough of Islington and the wider north London Local Carbon Framework group involving Camden, Hackney, Newham and Waltham Forest to identify mechanisms to drive a large-scale retrofit programme.<sup>[5b]</sup>

## 2. BUILD A LOW CARBON ECONOMY

Establish a **low carbon enterprise district** in the Upper Lee Valley, safeguarding land for the purpose of pro-actively recruiting enterprises to co-locate in the area. Provide incentives and broker partnerships to support closed loop production systems with the support of the Low-Carbon Innovation Labs.

The Council should show leadership through its procurement strategy, business support services and influence over local business rates

## The development of mutual enterprises is an effective way to reinvest wealth back into the borough by giving local people a stake and a share in the resulting benefits and responsibilities.

to drive development of the local sustainable supply chain and retain value in the local economy.

**Develop partnerships with training providers** to carry out skills development initiatives in emerging sustainable industries. In the short term this should be focussed on eco-retrofitting and the Green Deal to support the development of the co-operative network.

### 3. BOOSTING INNOVATION

Continuing business as usual will not deliver the scale of change necessary. In this report we strongly recommend that the Council actively promotes innovation, and develops prototyping and demonstration projects to effectively launch ideas into borough-wide action.

This requires working in partnership with a range of lead businesses, higher education and research partner organisations, funders and local sustainability groups to establish Low-Carbon Innovation Labs in three areas of activity:

- (i) **Low-carbon technology** and building design demonstrator projects on Council properties, new developments and social housing.
- (ii) **Social innovation** in service provision, developing prototypes for new service offers and mechanism to drive adoption of long term low-carbon goods and services.
- (iii) **Financial mechanisms** to support the financing of infrastructure improvements, measures with longer payback periods and integrated delivery of measures.

### 4. INVEST IN LOW-CARBON TRANSPORT

Three priority areas of action are identified.

**“Go Dutch.”** Work with local people to identify where segregated **cycle lanes, improvements to urban design** and smaller scale changes such as cycle parking are needed. To enable these changes, space for walking and cycling will need to be created by progressively removing private car parking spaces.

**Develop the market for alternative fuelled vehicles** by providing incentives and supporting the growth of new alternative refuelling stations within a new low-carbon enterprise district in the Upper Lee Valley.

Develop strong **shared transport plans** with neighbouring boroughs to tackle the 88 per cent of journeys that start and end outside the borough, beginning with Enfield and Waltham Forest and Lobby for investment into transport (low carbon bus network, tube extension, east to west bus link).

### 5. STRENGTHEN COMMUNITY ORGANISATIONS

The Council needs to help **increase the reach and impact** of community and voluntary organisations that are already encouraging a transition to more sustainable lifestyles. Examples of support may include access to resources and know how as part of the social innovation lab and competitive funding to seed innovation.

Drawing on the diversity of the borough the Commission recommends an awareness campaign to **twin six Diaspora communities in Haringey to those around the world on the front line of climate change**. This is a mechanism not only to share best practice and innovation but also to tangibly connect local action to global consequences.

### THE BENEFITS OF ACTION

- The alternative energy supply, energy efficiency and transport measures outlined above will achieve a combined impact of a 30 per cent reduction of emissions. To fully realise the carbon target requires implementation of the actions on innovation outlined in this report and changes in national policy, in particular, in respect to Green Deal financing, and levelling the playing field for small and medium sized energy producers to enter the market.
- An immediate opportunity to create and safeguard up to 3,000 local jobs as a result of the alternative energy network and eco retrofitting activity.
- Eco-retrofitting, the alternative energy network and behaviour change would reduce fuel costs and provide lower carbon energy to households, public sector and the private sector based in the borough.
- Co-operative and shared ownership models would ensure that wealth is retained and re-invested in the borough strengthening the local economy.
- Increased walking and cycling will help to alleviate health problems associated with poor air quality and inactive lifestyles, resulting in savings to NHS Haringey who are currently faced with annual costs associated with obesity related illnesses of £76 million.
- The range of actions identified would lead to strengthened local economies and enhanced well-being of communities.

FIGURE 1: 30% CARBON REDUCTION SCENARIO BY 2020 (KILO TONNES CO2)<sup>6</sup>

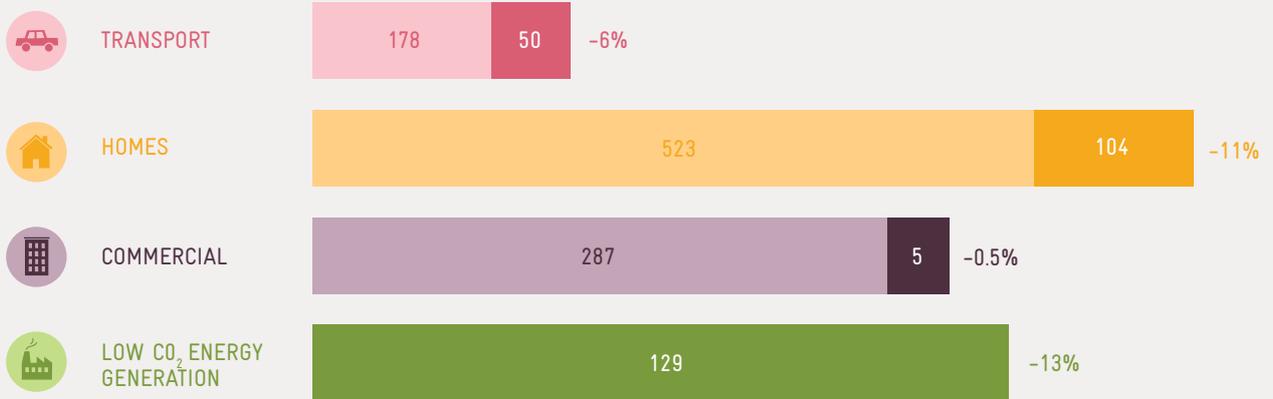


FIGURE 2. HOW THE COMMISSION'S RECOMMENDATIONS FIT TOGETHER



# INTRODUCTION

## THE JOURNEY SO FAR

The Commission is only one part of what has been a longer journey, the origins which are important to remember. This is particularly the case in a report that calls for the people of Haringey to drive action alongside the Council. People coming together in 2009 to call for this target effected a fundamental change in the policy direction of the Council – one which pointed towards sustainability and prosperity. Some of the key markers in the journey so far are captured as a timeline in Appendix 2.

In 2010, **nef** was invited to sponsor the Carbon Commission and work as a partner to develop five Working Groups, and membership of the Commission (see Appendix 1). A set of technical studies which assessed the potential for eco-retrofitting, solar renewable energy, green enterprise, decentralised energy networks and sustainable transport measures formed the evidence base supporting the Working Groups discussions (see Appendix 3).

*“Haringey can be seen as a microcosm of our global sustainability challenge; to live within environmental limits while lifting people out of poverty”*  
Andrew Simms

In the current economic climate many authorities are reducing their focus on the environmental agenda, believing that it is now an unaffordable luxury. In contrast, the Haringey Council has committed to tackle climate change locally, in the knowledge that investing in sustainability now will drive prosperity in the future.

2020 is a milestone year to judge whether we are on track to achieving our climate change commitments as a borough and a nation.<sup>7</sup> Failure to achieve 2020 targets across the globe will make it increasingly impossible to keep the global average surface temperature within the ‘safe’ limit of 2°C above pre-industrial levels.<sup>8</sup> Lord Stern’s influential review in 2006 detailed the escalating economic costs of delaying climate change action.<sup>9</sup> Recognising the urgency for action in 2009, Haringey Council supported the local campaign led by Friends of the Earth to reduce CO<sub>2</sub> emissions by 40 per cent by 2020.

The Carbon Commission is an independent expert group established in the autumn of 2011 to support Haringey to develop an approach to reducing carbon emissions levels.

The target of 472kt of CO<sub>2</sub> (representing a 40 per cent reduction from a 2005 baseline) is equivalent to the annual emissions of around 150,000 cars.<sup>10</sup>

People involved in the Commission, the related working groups, and the local 40:20 Community Steering Group are detailed in Appendix 1.

The purpose of the Commission was not to merely list a set of technical requirements to address carbon reduction across the borough. In the knowledge that a more equal, active and connected society supports higher levels of well-being within a community, the Commission has identified:

- a set of practical actions, which will significantly contribute to achieving the change necessary to meet to the carbon reduction target challenge;
- delivery approaches that create good local jobs, training and enterprise opportunities, which aim to reduce the high levels of inequality within the borough;
- a means to provide increasing opportunities to develop social connections across the borough to support sustainable lifestyles; and
- recommendations for local innovation and further Government action to

take the borough beyond the target and tackle CO<sub>2</sub> emissions caused by consumption activity.

Haringey can become a beacon for change, making a powerful case to Government for a further policy shift to fundamentally addressing a question that all areas will have to face: how can we live good lives, with opportunities for everyone, within the resource constraints of the planet?

We have not attempted to detail an exhaustive list of all possible actions. The greatest impact can be made by focussing action in three areas: business, households and transport. The Commissions fifty recommendations support a systemic change across the borough. Together, they are capable of forming the practical building blocks of a new economy, with the goal of providing good jobs and supporting the prosperity of people across the borough.

Achieving the 40 per cent carbon reduction targets requires equal commitment across the borough from residents, businesses, the Council and Government. There are already excellent examples of action taking place that can be built upon, some of which are highlighted throughout this report. We hope that this report serves to inspire further local debate and action.

# THE HARINGEY CONTEXT

The recent Borough Profile details a full socio-economic profile of Haringey, and it is therefore unnecessary to reproduce this information in this report.<sup>11</sup> However, in this section we have highlighted some of the key features of Haringey which are most relevant in terms of achieving the 40:20 goal.

## GEOGRAPHY

Created in 1965 by the amalgamation of three former boroughs and covering eleven square miles (28.5 km<sup>2</sup>), the London Borough of Haringey is typically referred to as an outer London borough with inner London characteristics. When considering changes to energy and transport infrastructure it is important to note that Haringey shares borders with six other boroughs: Enfield, Waltham Forest, Hackney, Islington, Camden and Barnet. The need for cross-borough collaboration at the Local Authority level is emphasised in the recommendations.

## ENVIRONMENT

Haringey is also a borough of geographic contrast. From the wooded high ground around Highgate and Muswell Hill at 426.5 feet (130.0 m), the land falls sharply away to the flat, open low-lying land beside the River Lea in the east. The borough includes large areas of green space, which make up more than 25 per cent of its total area.

Local Nature Reserves and a number of conservation areas can also be found in the borough including five distinct ancient woods (Highgate Woods, Queen's Wood, Coldfall

Wood, Bluebell Wood and North Wood). Amongst the larger open spaces are: Finsbury Park, Alexandra Park and the Lee Valley Park. There are three rivers still flowing above ground in the borough: the Moselle, New and the Lea. Familiar local landmarks include Alexandra Palace, Bruce Castle, Jackson's Lane, Highpoint I and II, and Tottenham Hotspur Football Club.

## POPULATION

The population increased by 8.6 per cent in 1991-2006 and is projected to grow by a further 5.4 per cent by 2016 to 233,125. Haringey has a high proportion of lone-parent households and young adults in the 20-39 age range, and a low proportion of residents aged 45 and over. Haringey is one of the most ethnically diverse boroughs in London with 193 different languages spoken by residents. This diversity is a great opportunity for communicating the sometimes complex message of climate change in a way that speaks to people's experience, by connecting local actions to global consequences and supporting sustainable lifestyles.

## INEQUALITY

In Haringey the carbon reduction challenges are intensified by the fact that it is the most divided borough in London, with four of its nineteen wards in the west of the borough in the richest 10 per cent (Alexandra, Highgate, Muswell Hill and Crouch End), and five wards in the east in the poorest 10 per cent of all London wards (Northumberland Park, Tottenham Green, Tottenham Hale, West Green and White Hart Lane).<sup>12</sup>

This inequality is reflected by the difference in life expectancy of 6.8 years for men and 3.8 years lower for women in the most deprived areas of Haringey compared to least deprived.<sup>13</sup> Government statistics suggest that almost 12 per cent of households in Haringey are fuel-poor, however taking into account housing costs (based on the Mayor of London's fuel poverty definition) this figure is likely to be significantly higher.<sup>14</sup> Recent research from the Greater London Authority indicates that the five poorest wards detailed are also among the areas facing the greatest levels of fuel poverty within London.<sup>15</sup>

**In Haringey the carbon reduction challenges are intensified by the fact that it is the most divided borough in London**

**This inequality is reflected by the difference in life expectancy of 6.8 years for men and 3.8 years lower for women in the most deprived areas of Haringey compared to least deprived.**



#### Dexter

in Seven Sisters is all too aware of the impacts of climate change on his home town of Kingston where projected sea level rises would completely flood the town.



#### Sam

in Noel Park is from the island of Montserrat where climate change is threatening to destroy valuable ecosystems.



#### Nasreen

is a young mum from Noel Park with family in Mauritius and regularly hears back from family members about increasingly hotter and drier summers and colder winters.



#### Paola

Is a student in Bruce Grove, from Colombia whose parents farm has been affected by severe drought.



#### Michael

is a mechanic from Tottenham but is from the Caribbean originally where the changing climate is drastically reducing the size of coral reefs around his childhood home.



#### Jo

has been living in Hornsey for years but can't help but think about friends and family back in New Zealand and the impact that the changing climate is having on them.

## Residential housing currently accounts for approximately 500,000 tonnes of CO<sub>2</sub> per annum, or 50 per cent of the total carbon footprint of the borough.

### HOUSING

Of the 97,101 dwellings in Haringey 46 per cent are owner occupied, with 55 per cent of residents in Haringey living in flats, apartments or maisonettes. In the rented sector 17.4 per cent are rented council properties, 10.8 per cent are rented from a registered social landlord; and 24 per cent are rented from a private landlord. Residential housing currently accounts for approximately 500,000 tonnes of CO<sub>2</sub> per annum, or 50 per cent of the total carbon footprint of the borough. In terms of applying measures to improve energy efficiency of the housing stock, the recommendations took into consideration this ownership pattern, and the challenges this brings to coordinating work at scale given the level of privately-owned property in the borough and the age of that housing stock.

For the year 2010/11, there were

3,294 households in temporary accommodation in Haringey.<sup>16</sup> This is a decrease on the previous year by 253 households. Given the high levels of temporary housing and homelessness in the borough there is the need to ensure that affordable housing availability meets those in priority need. The five year housing need for Haringey is 9,804 (1,960 units per year).<sup>17</sup> This more than doubles the housing capacity for the borough, which stands at 820 new homes per annum.

### TRANSPORT

Haringey Transport Commission 2010 provided an analysis of the context and challenges facing the borough in relation to key Council policies.<sup>18</sup> Haringey is a mixed borough in terms of transport provision and traffic conditions. About half of households do not own a car but 10 per cent own two or more. There is a good network of public transport services, although this favours north to south travel over east to west. Recent travel survey data suggest that 31 per cent of resident's journeys are by car. There are also heavy flows of commercial vehicles which amount to 15 per cent of traffic flow. Of all the trips undertaken, only 30 per cent remained entirely within the borough.

A critical challenge identified by the Haringey Transport Commission report in 2010 was that the road space

available is insufficient to meet the needs of pedestrians, parking and two way traffic. This is common of London as a whole and largely as a result of a preference for car based travel and the density of population.

### WASTE AND RECYCLING

The UK waste sector accounted for an estimated 3.2 per cent of all direct UK emissions in 2009.<sup>19</sup> Although national greenhouse gas emissions from the waste management sector decreased by 70 per cent from 1990 to 2009 (and projections suggest that this trend will continue as less waste is sent to landfill) the Committee on Climate Change has voiced its concern over the pace of reduction not being able to meet future national carbon budget limits.<sup>20</sup>

In Haringey, recycling and composting rates have been slowly increasing, reaching almost 28 per cent by 2010/11. Despite this, over the last 5 years the amount of waste produced per person per annum in the borough has increased from 341kg to around 400kg. The household recycling target for 2020 is 42 per cent, which is being driven up through a variety of measures including fortnightly waste collections, dry recycling wheelie bins and greater reuse and recycling from bulky waste collections. Developing closed-loop production systems which reuse these materials will go some way to mitigating this increasing trend.

FIGURE 3: HARINGEY'S TRAVEL CHOICE (PERCENTAGE OF RESIDENT'S JOURNEYS)



**BOX 1: EDUCATION AND TRAINING**

**CHENEL - construction training**

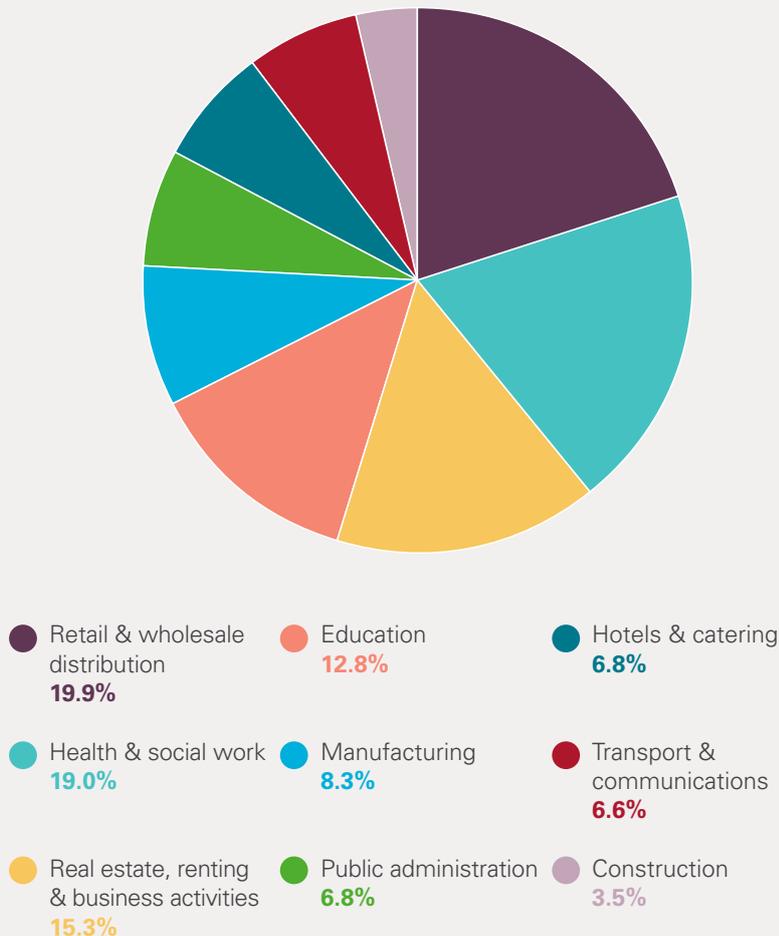
The College of Haringey, Enfield and North East London has specialised in construction since the 1970s. The Construction Centre located in Enfield will offer sustainable construction courses such as photo-voltaic and solar thermal panels for heating and electricity. Employer links are strong, including local companies such as Ardmore, Mulalley, Lee Valley and United House.

**Heartlands School, Best Green Design, Haringey Design Awards 2012**

The Heartlands School in Wood Green completed in 2012, funded by the Building Schools for the Future Programme, achieved BREEAM excellent standard and demonstrates to the wider community the following features: passive solar gain and shading, gas-fired heat and power, ground source heat pumps, photovoltaic panels, living willow walls, sedum roof, recycled material and locally-sourced bricks, as well as the incorporation of an existing historic wall.



**FIGURE 4: EMPLOYMENT SECTORS IN HARINGEY (%)**



**EDUCATION AND TRAINING**

Haringey has 63 primary (including infant and junior) schools, 10 secondary schools, a City Academy, 4 special schools and a pupil support centre. In addition, there are off-site provision and study support centres for those with additional learning needs. The number of pupils in Haringey Schools as at January 2006 was 34,990 (including those at nursery age). These buildings can demonstrate low carbon technology making energy saving an everyday message to young people and the wider community.

**THE HARINGEY ECONOMY**

In 2006, there were 8,200 businesses in Haringey employing a total of 64,700 people (equivalent to 1.6 per cent of employment in London). Small businesses are predominant in the economy, with 94.2 per cent employing less than 24 people and providing 39.3 per cent of total employment in the borough. There are five principal shopping areas in the borough, Wood Green and Turnpike Lane, Muswell Hill, Crouch End, Green Lanes and Tottenham. In addition, there are seven licensed traditional markets based in Wood Green and Hornsey. The Alexandra Palace farmers-style market also operates on a weekly basis, closing during the winter months. In Tottenham fourteen market traders also operate on match days.

## BOX 2: COUNCIL'S CORPORATE CARBON REDUCTION PLAN

Council operations account for 3.5 per cent of borough-wide CO<sub>2</sub> emissions. The council's 2006/07 CO<sub>2</sub> baseline was calculated at 36,583 tonnes per annum. The Council has committed to reducing CO<sub>2</sub> emissions by 40 per cent by 2015 for its own operations from a 2007 baseline, ahead of the borough target. Planned measures, taking into account rising fuel costs, mean bills could be reduced by more than £7 million per year, and the Council's carbon tax should fall more than £180,000.

The Sustainable Investment Fund is a £1.5 million ring-fenced budget, which supplements Business Unit budgets ensuring that installations and works are not simply replaced, but upgraded to the highest possible environmental standards. The programme has mainstreamed whole-life-costing by removing the 'price premium' barrier and focusing on the combined costs of price, operations and disposal. The scheme can also be used to finance entire projects requiring significant capital investment, with a return on investment of less than five years through energy cost reduction. The loan is open to all business units (interest free), and is repaid in instalments to match the energy cost savings made. The Council benefits from CO<sub>2</sub> reductions immediately.

In 2012-13, the Council is advancing two street lighting projects – dimming and LED street sign upgrades, as well as voltage optimisation installations. The combined predicted capital for these projects of £510,000 is anticipated to return annual savings of £142,000 and 646 tonnes of carbon based on a 5-year average predicted market price (11.5p/kWh).

Due to the success of the Sustainable Investment Fund, in 2009 Haringey Council created the Schools Sustainable Investment Fund from the overall sum of existing school balances. Projects have included lighting upgrades, installation of lighting and heating controls and voltage optimisation equipment.

"Arguably the most successful project to date has been a new water regenerative filtration system for the swimming pool at Tottenham Green Leisure Centre, based on fired volcanic glass material – the first of its kind in England. The new system is saving the equivalent of 106 tonnes in CO<sub>2</sub> emissions and almost £7,000 in water charges per year. Combined with other energy efficiency measures this saves £83,000 and 362 tonnes of carbon emissions per annum."

## BOX 3: GREEN SECTOR NETWORKS

The Green Sector Network run by North London Business aims to raise the profile of the green sector and support the development of local supply chains, share best practice, and lobby with a cohesive voice. Green sector businesses in Haringey include:

### **Diamond Build – green construction**

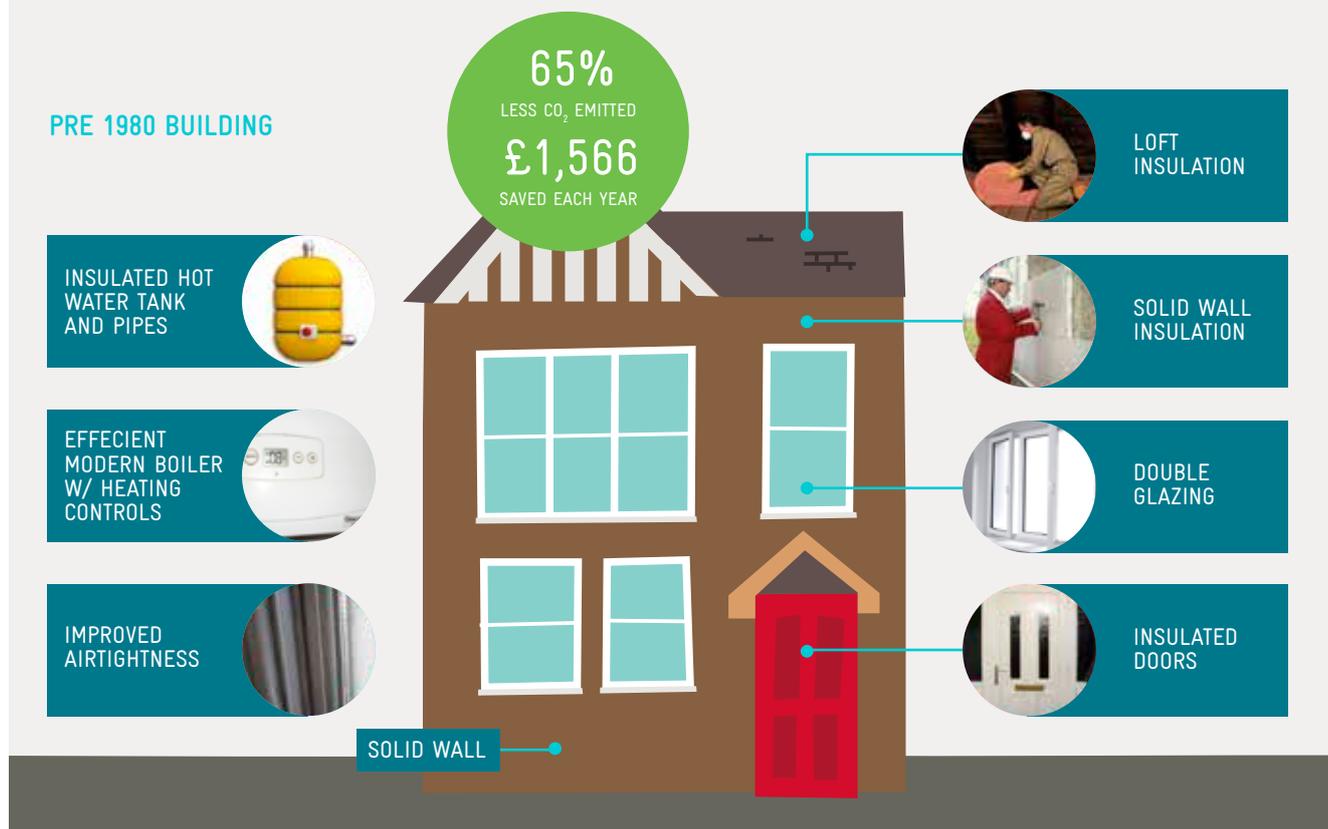
Diamond Build, founded in 1977 and based in Tottenham, is an award-winning building contractor and the principle sponsor of the Sustainable Homes Index For Tomorrow (SHIFT) initiative. SHIFT is the only comprehensive environmental benchmark for affordable housing providers and their supply chain members to measure and reduce environmental impact. It is supported by the Homes and Communities Agency, WWF, UK Green Building Council, the Mayor of London and has 37 members representing over one million homes nationwide.

### **Hiremech – electric vehicles**

Based in Tottenham, Hiremech were recently appointed the London Authorised Dealership for the TATA range of electric vehicles, and have introduced a new range of Ace EV Vans with 100 per cent electric powered drive.

## WHOLE HOUSE ECO RETROFITTING

The annual energy cost to heat space and hot water and light the house is £2,500 per year. A whole house approach to racking the fabric and services of the building would cost £18,500 and includes a range of energy saving measures. These measures could lead to an annual fuel bill saving of £1,566 per year (based on current energy costs) and reduce carbon emission by 65% to 3.8 tonnes per year. In addition to this, water saving measures could include: an eco shower head and dual flush system, installation of a water butt, grey water use in the garden, water plants during the coolest part of the day, select drought resistant plants.



Haringey is situated within what is termed the growth corridor connecting London with Stansted, Cambridge and Peterborough. Businesses within the borough are mainly based in the professional services (e.g. accounting and legal activities), retail, IT and creative and recreation sectors, with the Upper Lee Valley being home to approximately 256 green enterprises.

There are currently 9,995 people in Haringey who are unemployed, with youth unemployment standing at 10.1 per cent (2,020 young people) – 3.4 per cent higher than the London average. Approximately 65 per cent of unemployed young people live in Tottenham. This report focuses on drawing out and building on the enterprise skills within the borough. Haringey has a polarised skills base. Recent estimates show that 20.7 per cent of the borough's population have

low or no qualifications (NVQ level 1 and below) compared to London and England rates of 19 per cent and 24.4 per cent respectively. However, 42.8 per cent of the Haringey population aged 16-64 have NVQ level 4 or above (degree or above) qualifications, higher than the London and England rates of 41.8 per cent and 31.1 per cent respectively.

### LOCAL SUSTAINABILITY ACTIVIST GROUPS

There are a large number of activist groups in Haringey (see Appendix 6 for a map of sustainability groups). The single largest network in the borough is Sustainable Haringey, which has several hundred members and holds quarterly gatherings in addition to regular mail outs, promotion of local events and coordinated lobbying of the council. There are two Transition Town

groups (Crouch End and Finsbury Park) the second of which operates across boroughs. There is a considerable interest among these groups in sustainable food issues.

In June 2011 the Haringey 40:20 Steering Group was formed to take forward and coordinate action to achieve the 40:20 carbon reduction target. It is represented by local activist groups alongside representatives from the Homes for Haringey (the social housing ALMO), the local business community and local Councillors (see Appendix 1). The Haringey 40:20 Community Fund, which uses revenue generated from the feed-in tariff payments from solar panels installed on schools in Muswell Hill,<sup>21</sup> aims to support community-led carbon reduction action. The first round of funding was awarded to the Selby Centre Community Energy Lab and the Highgate Society 21st Century Homes project by the 40:20 Steering Group.

**BOX 4: FUNDING ACTION**

**Highgate Society**

The Highgate Society, working with Muswell Hill Sustainability Group are planning to encourage take up of green retrofitting measures among the local “able-to-pay” sector of their community through a weekend event followed by a series of outreach projects. The weekend event will include ask-an-expert sessions (‘house clinics’, ‘renewable energy clinics’, ‘window clinics’) plus an exhibition largely from local suppliers. Alongside ‘open house’ tours of local houses that have been eco-refurbished. An information pack for distribution via estate agents with information on refurbishment and energy, local contacts and funding will be developed. The Highgate Society plan to follow-up the event with a series of regular talks, house visits and local workshops on a monthly basis until February 2013. In January, a thermal imaging specialist will carry out a survey showing where heat is being lost from homes, and present the results to launch a spring programme promoting insulation.

*“We are very pleased that our bid was successful – taking part in the application process really helped our plans, and the funding will make a huge difference in getting our project off the ground”*  
 Jaqui Jones, Highgate Society

**Community Energy Lab**

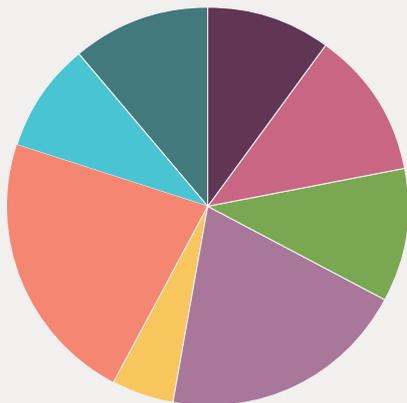
The Community Energy Lab, operating from the Selby Centre in North Tottenham, aims to retrofit existing hard to treat homes in Haringey. This will be done by training disadvantaged young people in retrofitting techniques using a variety of insulation materials, some of which will be waste insulation materials from construction sites diverted from landfill.

The project will take on two trainees, five work placements and two staff - over the first six months the project aims to retrofit over thirty homes, and some of the buildings at the Selby Centre, creating direct annual saving of approximately fifteen tonnes of CO<sub>2</sub>.

*“We are very excited to get this project off the ground. The opportunity to provide much needed training and green jobs in Tottenham is really fantastic”* Abigail Stevenson for Community Energy lab

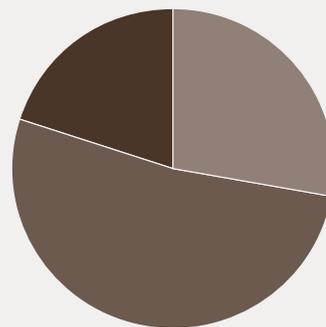
**FIGURE 5: COMPARISON OF INDIRECT AND DIRECT SOURCES OF CO<sub>2</sub> EMISSIONS IN HARINGEY**

**Indirect and direct CO<sub>2</sub> emissions**



- Food 10%
- Consumer goods 12%
- Private services 11%
- Personal transport 20%
- Housing infrastructure 5%
- Household energy 22%
- Built infrastructure 9%
- Public sector 10%

**Direct CO<sub>2</sub> emissions**



- Industry and Commercial 28%
- Domestic 52%
- Road transport 20%

## CARBON EMISSIONS QUICK FACTS

### Haringey greenhouse gas emissions

CO<sub>2</sub> accounts for more than **99 per cent** of Haringey's greenhouse gas emissions. Most carbon emissions come from everyday energy use such as travel, entertainment, heat and lighting, food and drink, detailed in figure 5.

### Total greenhouse gas emissions

Total carbon emissions for Haringey were 1,035kt in 2008, equivalent to the emissions from **325,000 average cars** over the course of a year – around one tenth of all cars owned in London.<sup>22</sup>

### Total CO<sub>2</sub> emissions for Haringey

In Haringey, more than **50 per cent** of direct emissions are domestic, around 30 per cent are from industry and commercial, and less than 20 per cent are from roads.

### London's carbon footprint

Haringey contributes to around **2.3 per cent** of the total carbon footprint of London, and has the ninth lowest emissions of all boroughs in London, as a result of high levels of income deprivation within the borough.<sup>23</sup>

### Link between household income and CO<sub>2</sub> emissions

Average direct household energy consumption is around one fifth lower in the east of the borough compared to the west of the borough.<sup>24</sup>

- In Tottenham Green ward **56 per cent** of the population do not own a car compared to 35 per cent in Highgate. Multiple car ownership in households in Highgate is more than double that found in Tottenham Green, 18 and 7.6 per cent respectively.<sup>25</sup>
- Overall, the average carbon footprint based on direct energy use and consumption based emissions is **38 per cent** lower in the east compared to the west of the borough.<sup>25</sup>
- If average incomes in the east of the borough increase to the levels of those in the west this could increase total CO<sub>2</sub> emissions by 1,266,300t or **35 per cent**.<sup>27</sup>

### Direct emissions versus consumption emissions

Taking into account the energy used to produce goods and services, it is estimated that this would more than double Haringey's carbon footprint from 1,035kt CO<sub>2</sub> per annum to **2,533kt CO<sub>2</sub>** per annum.<sup>28</sup> Shown in Figure 5 on the opposite page.

# RECOMMENDATIONS

Haringey's challenge is to raise prosperity in the east of the borough while reducing CO<sub>2</sub> emissions overall. In the long term, this will mean moving beyond a consumption based growth economy.<sup>29</sup>

Globally, traditional environmental activities (e.g. waste and recycling and solutions for pollution) account for £657 billion of the global market of environmental goods and services (21.6 per cent of the total), renewable energy for £940 billion (30.9 per cent) and the emerging low carbon activities for £1,449 billion (47.5 per cent).<sup>30</sup> The UK currently lags behind other European countries (Germany, Denmark, Netherlands and Spain) in benefiting from the growth of these sectors. In 2010 the UK low carbon renewables sector was worth £76 billion. The new low carbon job opportunities that could be created are likely to be across a broad skills range. However, as highlighted in a recent report by the Institute for Employment Studies, the UK has a significant skill gap to be able to respond to these opportunities.<sup>31</sup>

Demand for low carbon enterprise and create associated local skilled job opportunities in the east of the borough. We believe that the Council should use all the levers it has available, including the ability to access low-cost finance, influencing training provision, and supporting new enterprise to stimulate the growth of low carbon economic district and create associated local skilled job opportunities.

In the past three decades the UK has witnessed a growth in the proportion of both precarious low-paid jobs and

high-paid graduate jobs.<sup>32</sup> Wages for those with the same qualification levels vary hugely by sector. The result has been growing levels of in-work poverty and economic inequality, with the borough of Haringey being no exception to this trend. It is important therefore that there should be a concern for the quality of non-graduate job opportunities created through the environmental transformation of the Haringey economy, in addition to the number created.

Key barriers which slow down the transformation to a low carbon economy include lack of awareness and information, uncertainty surrounding regulations and policies, lack of financing to overcome high upfront costs, the development of the necessary skills and the failure of employers to demand new qualifications.

The sheer scale of the transformation required and the diversity of barriers mean that the Council needs to have a number of ways of supporting action, including direct provision, working in partnership, and fostering strong local relationships where people are supported to shape their own communities. A balance needs to be struck between the approaches adopted, not only to be able to practically deliver the recommendations within the timescale, but importantly, to support the wider economic and social change across the borough.

The Council has to use its position to create the momentum for change, providing a catalyst for investment in a more sustainable economy. Where community infrastructure exists the Council should be building on these existing assets, working alongside

communities and supporting innovation as an equal partner. In the absence of this community infrastructure, the Council needs to proactively encourage this infrastructure to emerge by creating opportunities to increase awareness and understanding: developing the notion of a common purpose for action across the borough.

## BOX 5: ATTITUDES TO GREEN INITIATIVES

Current research by nef in Haringey, looking at the impact of austerity on lower income communities highlights the potential for green initiatives that can help alleviate the squeeze that people are feeling – particularly around food and energy bills.<sup>12</sup> Residents, community groups, organisations and associations expressed a willingness to work on projects such as community buying (of food and energy), community growing (e.g. Incredible Edible) and time banking. This represents a real opportunity for Haringey Council to engage people in communities to reduce carbon emissions and improve people's material and non-material well-being. However, nef's research has also shown a good deal of local scepticism for the Localism and the Big Society ideas. People are wary of being asked to do it all themselves and are looking to the Council to engage with them in an equal and mutually beneficial way. Importantly, local people expressed interest in being "co-producers" of local initiatives, not the sole producers.

The Council should also use its mainstream activities and buildings to familiarise people with sustainability concepts. For example using Council buildings to demonstrate low carbon building technologies, and promoting the Council's own work to achieve 40:20 for its corporate estate.

Haringey cannot work in isolation. With 80 per cent of journeys starting or/and ending outside the borough, any transport measures requires strategic cross-border co-operation to achieve the scale of change required. We also recognise that a supportive national policy framework is also needed, and some of our recommendations are directed at changes at the national level, and Haringey's role in lobbying for that change.

To reflect these considerations, we recommend the following eight principles guide the development of activities going forward.

Icons are used to show the relative impact of each recommendation on health & wellbeing, social justice and jobs & enterprise, supporting local activism and reducing CO<sub>2</sub> emissions.

#### ICON KEY

HEALTH & WELL-BEING



SOCIAL JUSTICE



JOBS & ENTERPRISE



LOCAL ACTIVISM



CARBON



## PRINCIPLES

### Develop a collective response to the challenges:

It is essential that local people, enterprises and organisations work in partnership with the Council to ensure people have a stake and a share of the benefits and responsibilities arising from activities to reduce carbon.

**Take proactive action:** Making use of all of the local authority's leverage to develop an inclusive local economy for sustainable goods and services. The balance between direct provision, working in partnership and fostering strong local relationships will have to be established based on a clear rationale which will deliver the scale of action required. Noting that this role may change over time, and be different across the borough.

**Support experimentation:** Create safe environments where people are encouraged to creatively test ideas and develop local solutions.

**Create good jobs:** The jobs created should provide a decent income (a minimum threshold being set by the London Living wage), good conditions, secure employment, satisfying work and a work-life balance.

### Reinvest wealth to address inequality:

Enterprise models developed through this work should reinvest wealth back into the borough, in ways that explicitly aim to address inequality.

**Appropriate scale:** Actions and activities should be at an appropriate scale (local, borough and cross borough) to address actual need, and to achieve the desired positive impact on local economic and social life. The Council should proactively develop cross-border co-operation and appropriate alliances to effectively lobby for national policy changes, to support Haringey to develop an inclusive and sustainable economy.

### Make action on carbon commonplace:

Create visible, high-profile landmarks for sustainability in each community, which serve to make common place the physical infrastructure needed to reduce carbon.

**Measure what matters:** Ensure that mechanisms are developed to measure the impact of activities in terms of social, local economic and environmental impact. Make feedback accessible to the community, businesses and the Council.

The Commission's recommendations aim to establish an environment that encourages ideas and action for systemic change across the borough, presented in five categories. A summary list of the actions is detailed in Appendix 7, and details of the carbon impact scenarios are detailed in Appendix 8.

1. Business models which re-invest wealth back into the borough
2. Building a low carbon economy
3. Boosting innovation
4. Investment in low carbon transport
5. Strengthening community organisations

# 1. CREATE BUSINESS MODELS WHICH REINVEST WEALTH BACK INTO THE BOROUGH



In the age of austerity and continuing cuts to the Council's budget, we need to adopt business models that instil a clear mission, deliver improved services, and more broadly develop a common sense of purpose if we are to meet the carbon reduction targets.

The recommendations focus on the development of mutual enterprises as an effective way to reinvest wealth back into the borough by giving local people a stake and a share in the resulting benefits and responsibilities. The focus on mutual enterprise models is also a response to the need to develop delivery capacity more generally in the UK in the retrofitting and green energy sector. Direct involvement in the enterprise as a member, employee or customer is proposed as an effective way to support wider behaviour change, which is essential to support more sustainable lifestyles.

These mutual models will have to be developed over a period of time. A key role of the Council will be to not only use its ability to access low cost finance, but to ensure that the financing model selected provides the space for the mutual models to develop and thrive over-time. Uncertainties remain about the likely effectiveness of the Green Deal funding mechanism, in this report we focus on approaches to drive local demand, opening opportunities for small and medium sized enterprises (SMEs), and catalysing action through social housing investment.

## ALTERNATIVE ENERGY SUPPLY MUTUAL

Establish and invest in an energy supply company formed as a mutual

with a remit to operate across a number of north London boroughs to invest in, and deliver schemes. Working local authority models are in operation in a number of Scandinavian cities including Malmö in Sweden, and in Scotland (Aberdeen Heat & Power Ltd).<sup>34</sup>

The company will finance and deliver heat network services, serving residential, public and commercial buildings. Where services are contracted out, or a joint venture formed for the delivery of specific projects, each contract should embed as a core requirement of those services the wider social, and local economic outcomes required to support a more prosperous and fairer borough. Monitoring and evaluation of contracts should specifically measure the local economic impact achieved, including the quality of jobs created.

The company would be pool financed by Haringey and any other local authorities involved. Extending the scale of this enterprise to work across three to four boroughs would have the benefit of achieving a larger scale of investment opportunity as well as reducing set up, procurement and operating costs.

Profits generated would be re-invested creating a revolving fund for further low carbon development. Other activities would include collective purchasing of energy for local residents and businesses.

### Rationale

- Alternative Combined Heat and Power (CHP) energy networks will provide hot water via underground pipes to groups of buildings and feed locally-generated electricity into the national grid. They will serve large energy users such as colleges, industrial premises and new-build housing developments particularly in Tottenham.
- The technical and financial case for alternative energy schemes has already been identified for Haringey encompassing the White Hart Lane and South Tottenham regeneration areas, Hornsey Town Hall and Broadwater Farm social housing estate. The total capacity of this CHP

network is 5.6 MWe and is designed to provide hot water to a mix of residential, commercial and retail space, as well as a leisure centre, hospital, two town halls, several schools, and football stadium.

- The low return on investment typically available for alternative energy supply schemes resulting from the current energy market regulation, which disadvantages smaller energy producers and suppliers, means that local authorities will need to lead on the development of these networks using their planning powers; access to low cost finance and public sector heat loads to kick start development.<sup>35</sup> The asset lock on surpluses will allow re-investment in extension of the network.
- In the short-term, the supply will be powered by gas fired combined heat and power plant (approximately 30 per cent more efficient than small scale individual gas boilers). However, in the longer-term it will be ultra low or zero carbon powered by waste to energy technology managed by the North London Waste Authority. A partnership between Haringey, Enfield, Waltham Forest and GLA has already been established to develop plans. This scheme will become a landmark initiative for the future of waste to energy technology for London.
- Financial models, such as shares which offer people in the borough a local investment opportunity, affordable for lower income groups should be developed as part of the innovation lab activities (described in recommendation 3) and piloted within the first 3 years.

### Environmental benefit

- The gas fired CHP networks identified so far will reduce 6,400 tonnes of CO<sub>2</sub> emissions per annum. In the longer term these schemes could connect to an ultra low or zero waste to energy powered network, which has the potential to offset 200,000 tonnes of CO<sub>2</sub> emissions over a 25 year life cycle for the wider Upper Lea Valley area.<sup>36</sup>

### Social and economic benefit

- The scheme would contribute to the wider Upper Lee Valley network development across Enfield, Waltham Forest and Haringey. It would help to create or safeguard around 1,700 jobs by 2026 (across Upper Lee Valley area) by attracting new low carbon industry to locate in the area, based on the offer of low carbon, lower cost and more stable energy tariffs.
- The mutual would provide lower cost and lower carbon energy to households and public sector organisations.
- The company will support property developers with meeting stringent environmental standards required by BREEAM and the Code for Sustainable Homes.<sup>37</sup>

### Recommended roles

- **Haringey Council** working with other north London local authorities would provide low cost finance to kick start the scheme and establish a mutual energy company with local representatives on the board. The indicative range of the capital investment needed for Haringey's

schemes is £14-£24 million, invested over a 10 year period with a 25 year payback period.

- **Large private and public heat users** such as CHENEL, Tottenham Town Hall, the leisure centre and football stadium would play a key role in providing an initial market for the network by agreeing to sign up to long-term lower carbon energy contracts that are competitively priced.
- **Local residents and community groups** would play a key role in increasing acceptance of alternative energy sources by encouraging local share ownership in the company and by raising awareness of the benefits of the alternative energy supply through for example local events and networks such as Sustainable Haringey.
- **Haringey Council's** planning function will safeguard future network routes in policies and area plans, as well as establish a carbon offset fund to receive revenue from the Community Infrastructure Levy and Allowable Solutions. This is paid when developers cannot meet their full CO<sub>2</sub> reduction target on a site, or where the energy services mutual

is delivering the CO<sub>2</sub> savings on behalf of the developer.

- Haringey Council will need to work proactively to ensure that the seven north London boroughs represented by the **North London Waste Authority** gear future procurement towards maximising social, economic and environmental benefit. This will be achieved by providing a zero carbon source of energy for the alternative energy network in north London, and by creating job opportunities in increased re-use and up-cycling of materials, leading to greater levels of resource recovery.
- **OFGEM** must continue to work to level the playing field for smaller-scale energy producers and suppliers which would bring forward significant investment into decentralised energy schemes. In 2009 OFGEM introduced provisions "licence lite" to enable smaller-scale electricity suppliers to sell energy directly to customers, to increase competitiveness in the electricity market. However to date no organisation has applied for a licence due to the complexity and cost of developing contractual arrangements between the licence lite holder and fully licensed supplier.

## BOX 6: DISTRICT HEATING IN SCANDINAVIA

The evolution of district heating in Scandinavia and the changes in fuel mix are exemplified by the following cities:

- **Malmö:** The 550 km district heating network – originally owned by the municipality and now by E.ON – supplies 95 per cent of buildings in district heating areas. The fuel mix supporting the system has changed substantially since the 1950s, from oil and coal to energy-from-waste, surplus heat from industry, natural gas CHP and large biomass boilers. Approximately 65 per cent of district heating is supplied from renewable sources.
- **Gothenburg:** The district heating network, owned by energy company Göteborg Energi, extends over a length of 700 km, and provides heating for more than 90 per cent of all blocks of flats and commercial premises, and 20 per cent of all houses. In 2008, the energy used for district heating output was 81 per cent waste heat (including from refuse incineration, refineries and other industries), 15 per cent renewables and 4 per cent fossil fuel. Current plans include a major effort to produce biogas through the gasification of forestry waste.
- **Copenhagen:** The municipally-owned district heating system now covers more than 98 per cent of heating demand in Copenhagen through a 1,500 km network supplied mainly by CHP plants and waste incineration. In 2008 the fuel mix in the heat production was 41 per cent gas, 19 per cent coal, 33 per cent biomass and waste incineration, and 7 per cent oil. Current plans include replacing coal with renewable energy.

## AN ECO RETROFITTING CO-OPERATIVE NETWORK

The Council should invest in a developing a cross borough co-operative network installing energy efficiency measures in buildings working with Haringey 40:20 steering group. The network will be of a scale appropriate to achieving local impact, but also provide the opportunity for drawing increased capacity across the network of enterprises to be able to respond to the level of work and offer a complete service (See Box 7).

The co-operative will focus on delivering services across three to four north London boroughs to social housing, households self-financing measures and those taking up the Green Deal (which enables the household to spread the cost of measures over 20 years, repaying the loan through a green deal charge, that is less than the value of the energy saved) perhaps by acting as the main contractor for the national Green Deal provider or becoming a Green Deal Provider in its own right. How the national Green Deal provider finances this role is not discussed in this report. Finance could be provided by the Council through prudential borrowing to those residents either seeking fully or partially financed Green Deal packages. Catalyzing a new market and owned by employees, it will create jobs that will be targeted to local people.

In addition, small businesses outside of the Green Deal financing arrangements could also access the services of the co-operative, and benefit from the competitive rates. Green retrofitting measures would be delivered by local installers including energy efficiency measures such as draught proofing, internal and external solid wall insulation, cavity wall and loft insulation, boiler upgrade and renewable energy supply measures such as solar photovoltaic arrays and solar thermal and water saving measures. Local training provision should be developed to support the training and accreditation needed, with co-ordinated action to leverage in Green Deal apprenticeships and other funding to support this.

Apart from self-financed or Green Deal financed packages, some costly

measures will be eligible for Carbon Saving Energy Company Obligation (ECO) subsidy such as solid wall insulation. There is also an Affordable Warmth ECO subsidy intended to finance energy efficiency measures in fuel poor households.

In the short term while the co-operative network is being established there are immediate actions that can be taken to encourage Green retrofit: (i) Leveraging the ECO subsidy across a number of boroughs, particularly aimed at social housing and using this activity to develop local supply chains (ii) Increasing take up of draught proofing and remaining loft and cavity wall insulation, which is cheap and easy to install and could be particularly beneficial in the low income, private rented sector.

Once the local delivery infrastructure has been put in place and the service offer has been proven via the early adopters, the Council would need to introduce an opt-out scheme to ensure greater coverage. Other direct interventions may be introduced through the Council tax or Planning Policy to encourage uptake of measures.

Finance should be provided by the Council through prudential borrowing for social housing retrofit. If Green Deal interest rates remain at the anticipated rate, outside of the Green Deal financing arrangements, low income home owners should be supported to access low cost finance through home improvement loans from a community development finance institution (CDFI), run in partnership with the Council. A working model of tailored affordable loans has been developed by Wessex Home Improvement Loans which includes technical advice and support (homeowners pay 4 per cent with the local authority providing capital contributions and paying a 3 per cent service charge). A working model for Haringey should be developed as part of the innovation lab in partnership with an appropriate CDFI (see recommendation 3).

### Rationale

– **Carbon emissions:** Household energy use accounts for approximately 50 per cent of all Haringey's CO<sub>2</sub>

emissions. Take up of the Green Deal – the Governments' new policy for eco-retrofitting – is likely to be limited initially to a small number of early adopters primarily due to the concern over the high interest rate, anticipated to be 6-8 per cent.

- **Social housing:** The large proportion of Council-managed social housing (approximately 16,000 tenanted Homes for Haringey) and "able to pay" households (who may prefer to part or fully finance measures without a Green Deal charge on their property), can be targeted to kick start the local market for retrofitting and develop the local supply chains.
- **Ease of contracting:** Contracts for installation will go to large organisations possibly based outside of the borough unless a mechanism can be developed to reduce the hassle, cost and time involved in contracting SMEs. The co-operative network will provide that efficient conduit for collective SME engagement.
- **Need for low cost finance:** A DECC-funded study carried out for Haringey and the north London boroughs indicated that the high level of return on investment required by the private sector (approximately 12 per cent) would reduce the possible CO<sub>2</sub> savings by 50 per cent when compared to the saving that could be achieved under a local authority led not-for-profit scheme.<sup>38</sup>

The recent GLA-funded Green Deal London project analysed a model where four to five London boroughs developed a joint Green Deal provider.<sup>39</sup> This resulted in an indicative programme of investment in the region of £50 million over the next 12 years repaid to the Council over 25 years, matched with £30 million Carbon Saving ECO to treat 12,500 homes. The programme had the potential to create 550 FTE direct jobs by 2025.

- **Area based approach:** Delivering retrofitting on an area basis has been shown to reduce the cost of retrofitting activity and increases take up.<sup>40</sup> The backing of the retrofit service by the Council provides accountability to residents, and has been shown to increase take-up five fold compared to private sector-led

retrofit schemes.<sup>41</sup> An area-based scheme also offers the potential for planning solutions that can be developed in advance consultation with the community, rather than on a case-by-case approach.

- **Private rented sector:** In Tottenham there are a large proportion of private-rented properties being let in a poor condition, with illegal overcrowding and sub-standard unsafe housing. The Green Deal is unlikely to be suitable for these properties. Enforcement teams working with the community and voluntary sector should raise awareness of the minimum energy rating for privately rented properties, being introduced in 2018, to promote early take up of measures.<sup>42</sup>
- **Estate agents:** could take key roles as champions for change, providing information to new residents of the borough and promoting membership of eco-retrofitting cooperatives.
- **National policy:** Over the longer term to achieve the 40 per cent CO<sub>2</sub> reduction target the interest rate for the Green Deal would need to be reduced. The Council should actively lobby for a change in national policy as this is the single largest barrier to achieving the required target. Particularly drawing on the positive evidence from Germany, where the KfW bank is subsidised by the German Government to provide low interest loans to households, on the basis of the net revenue benefit generated in the form of increased national insurance and tax receipts.<sup>43</sup>

### Social and economic benefit

- Feasibility work carried out with support of the GLA, indicates that a three year programme encompassing four to five north London boroughs retrofitting 3,100 properties in Haringey, would create around 140 full time equivalent (FTE) direct jobs, 100 FTE indirect jobs and increase direct Gross Value Added (GVA) by £9.5 million in Haringey. The majority of jobs would be in relation to the installation of solid wall insulation. Over a 12 year period this could create 500 FTE jobs based on 12,500 households taking up the scheme.
- Fuel cost savings would be used to pay for the costs of measures.

Residents' thermal comfort would be improved, and households would be more protected from spiralling fuel costs in the future.

- A co-operative vehicle would ensure that revenue is re-invested for the benefit of the local community.
- A range of health impacts have the potential to be reduced through effectively supporting fuel poor households and helping to mitigate further fuel poverty as fuel prices rise:
  - The Building Research Establishment has calculated that poor housing costs the NHS at least £600 million per year.<sup>44</sup> (Locally, it is difficult to estimate what proportion of health care cost is directly attributable to poor housing, as distinct from other impacts linked to deprivation).
  - Evidence gathered from surveys suggests that 80 per cent of excess winter deaths are caused by fuel poverty.<sup>45</sup> Analyses suggest that the estimated health cost in Haringey due to excess winter deaths related to fuel poverty is in excess of £2 million. Furthermore, evidence suggests that approximately 39 per cent of people living in fuel poverty experience some level of mental health illness.<sup>46</sup>
  - Using various methodologies such as Housing and Health Safety Rating System and Quality Adjusted Life Years (QALY) used in a comprehensive study of health impacts of fuel poverty in Bolton, it has been estimated that the total health cost of mental illness for people over 65 years of age living in fuel poverty in Haringey is approximately £662,620 per annum.<sup>47</sup>

### Recommended roles

- The **Council** would play a co-ordinating role in setting up the co-operative network within the next financial year working with the Haringey 40:20 network, invest start-up grant funding, and provide access to low-cost finance.

– **Local community groups and residents** would play a key role in driving take-up of eco retrofitting and further investment into the co-operative.

For example, green networks such as Muswell Hill Sustainability Group which runs 100 Homes – a scheme whereby volunteers knock on doors of their local area to sign people up to take action – hold events with practical demonstrations of eco retrofitting measures and discussions on energy saving behaviours. Early adopters will play a key role in helping to make eco retrofitting tangible to people, opening their homes up to be green show homes. For example the Victor network showcases Victorian properties that have installed external solid wall insulation at the rear and the current cohort of approximately 40 Green Deal demonstration homes in the Muswell Hill Low Carbon Zone (see box 7).

- **Local community groups** working with Council officers and third sector organisations who are in contact with those suffering poor quality housing in the private rented sector, will raise awareness of the forthcoming ban on renting of F & G rated properties.
- The **Council's procurement and commissioning teams** would need to ensure that retrofitting contracts maximise job creation and social outcomes. Measurable social value requirements would need to be set out within the specification for the tender and included as part of the value for money assessment (for instance, the number of training weeks offered). The Public Services (Social Value) Act 2012 provides new powers to help achieve these priorities.
- The Council's social housing organisation, **Homes for Haringey** will need to reinvest in its housing stock as a priority action and in doing so leverage energy supplier obligation ECO funding. Advice on how to live more sustainably and save money should be carried out through peer-to-peer networks and frontline staff to help people manage their energy use and reduce costs.<sup>48</sup> The Council should provide access to low cost finance through prudential borrowing for social housing and this service should be able to pay home owners.

- The **Council’s Sustainable Planning Guidance** should introduce a presumption in favour of external solid wall insulation at the rear of existing brick properties not in Conservation Areas. In addition, this guidance should require simple cost-effective energy efficiency improvements to be carried out when a home extension is being built as has been implemented in Uttlesford.<sup>49</sup>
- The **Council’s Building Control service** would need to raise awareness of the Green Deal and commit to providing impartial advice on retrofitting to homeowners.
- The local **construction training provider CHENEL** – working with Council’s economic development team and the community and voluntary sector – would need to raise awareness of retrofitting assessment and installation as a new employment opportunity area, and ensure that higher education courses are appropriately focused on developing skills for these job opportunities. Community projects such as Living Under One Sun in Tottenham would need to play a key role in developing broader skills and confidence in deprived communities, and thereby helping people to access vocational training opportunities.
- **Local enterprises and contractors** would need to develop appropriate skills and accreditation to deliver the services where needed, be screened for a preferred supplier list, and be prepared to take part in the monitoring processes.
- By DECC’s own impact assessment, take-up of the Green Deal is likely to be low.<sup>50</sup> It is recommended that **Government** introduce additional support for the Green Deal in order to maximise carbon and economic benefits. The German Government backed KfW bank, provides low interest loans at 2.65 per cent to householders.<sup>51</sup> This contrasts starkly with the expected 6-8 per cent rate expected for the Green Deal.
- A clear and transparent process should be introduced by Government so that planned large-scale investments cannot be derailed by unexpected policy shifts, as was the case when the feed-in-tariff rate was reduced.

## BOX 7: PRACTICAL CASE STUDIES

### **Evergreen Cooperatives – a network approach (Cleveland, USA)<sup>52</sup>**

Launched in 2008 the Cleveland Evergreen Co-operatives offers an approach to successfully turning the mainstream spending, particularly of large institutions such as hospitals and Universities, into sustainable local employment generators for low income neighbourhoods in Cities. With a strategy focused on catalysing a network of green new businesses that are owned by their employees Evergreen take an enterprise approach by first creating job opportunities and then recruiting and training local residents to take them.

Focusing on environmentally sustainable energy and green collar jobs, Evergreen initiatives also help institutions to reduce their carbon footprint. For example, Evergreen Energy Solutions (E2S) design and install PV solar panel arrays for institutional, governmental and commercial markets. E2S also provides energy efficiency and home performance services for residential and commercial buildings. It is estimated that after approximately 8 years, a typical Evergreen worker-owner will possess an equity stake in their company of about \$65,000. The Evergreen Cooperative Laundry, established in 2009, is the greenest commercial-scale health care bed linen laundry in Ohio. Working at full capacity, it will clean 10 to 12 million pounds of health care linen a year, employ 50 residents, whilst having the smallest carbon footprint of any industrial-scale laundry in northeast Ohio.

### **EN10ERGY, community energy company “100 Homes” groups**

Based on the Muswell Hill 100 Homes project and learning some lessons from Low Carbon West Oxford’s Low Carbon Living Programme, a new project has been launched in 2012 to reach further communities, focusing on the Haringey Ladder, St Anns, Noel Park and Crouch End. Volunteers work with the paid coordinator to offer home visits where carbon footprinting and energy assessment questionnaires are completed with the householder. Workshops offering practical demonstrations are also held and participants are able to share details of reputable installers as well as participate in a Low Carbon Buying Scheme.

### **Muswell Hill Low Carbon Zone, Green Deal Demonstration**

The Muswell Hill Low Carbon Zone is part of the Mayor of London initiative with a target to reduce CO<sub>2</sub> emissions by 20 per cent by September 2012. Haringey’s Low Carbon Zone is particularly challenging given that part of it is covered by a Conservation Area, and is mostly comprised of old privately owned homes. The Green Deal Demonstration funded by Haringey Council and the Mayor of London is offering a low cost loan, and whole house energy assessments. To date 40 households have received their energy assessment and the first person to apply for a loan plans to install a solar panel, under floor insulation and double glazing. Households can get access to discounted retrofit measures from the local Low Carbon Buying Group set up by Muswell Hill Sustainability Group.

### **VICTERI – Victorian Terrace Energy Reduction Initiative – ECO House Weekend 2011**

Situated in the neighbouring boroughs of Camden, Islington, Haringey and Hackney, 15 Homes opened their homes to the public to exemplify the best in recent eco-renovation practice and techniques. Owners shared their experiences and offered guidance and advice on how local people can cut carbon emissions in their home by 60 per cent.

## 2. BUILDING A LOW CARBON ECONOMY



Establish a low carbon enterprise district in the Upper Lee Valley, safeguarding land for the purpose of pro-actively recruiting enterprises to co-locate in the area. Provide incentives and broker partnerships to support closed loop production systems with the support of the Low-Carbon Innovation Labs.

The Council should show leadership through its procurement strategy, business support services and influence over local business rates to drive development of the local sustainable supply chain and retain value in the local economy.

Develop partnerships with training providers to carry out skills development initiatives in emerging sustainable industries. In the short term this should be focussed on eco retrofitting and the Green Deal to support the development of the co-operative network.

### Rationale

- Haringey will need to grow enterprise activity while consuming its fair share of resources and staying within environmental limits. This will mean pursuing economic growth opportunities that do not undermine the wider objective for a sustainable future in the long term, and will need to be supported at a macro-economic level by policy to move beyond consumption based growth.<sup>53</sup>
- CO<sub>2</sub> emissions from commercial activity account for approximately 20 per cent of Haringey's CO<sub>2</sub> emissions. Haringey needs to support enterprise development in green building retrofitting, reduced embodied energy construction, water saving, waste and recycling, cradle to cradle design and manufacture and integrated technology systems and increase local spending and re-spending through local supply chain development in the wider economy.

- The Upper Lee Valley is already home to major waste recycling operations, with one site handling up to 10 per cent of London's waste. Other activities include salvaging construction/demolition waste for use in new-build construction projects, and recycling cooking oil into biodiesel.<sup>54</sup> This creates an opportunity to develop new products and processes which should be supported through the Innovation Lab (see recommended action 4).
  - Interventions need to include practical short-term measures and highly visible exemplar activity. Utilizing grant funding and working in partnership with research organisations the Council will need to maximise the impact of driving the sustainable economy and localising benefits of this spend through its procurement and reporting processes, as well as gearing up local training capacity towards emerging local sustainable markets.
  - The current North London Waste Authority procurement is moving in the wrong direction. The focus is on energy from waste and co-mingling and should be switched to increasing re-use and up-cycling so as to maximize resource recovery and job creation; generating greater value for the whole north London area. However, a large volume of waste arising is not covered by the waste contract.
- ### Roles
- The Council will use major development activity in the borough such as the Spurs development and social housing renewal to demonstrate low carbon building technology and develop visible, tangible examples of our sustainable future.
  - The Council will map its planned future spending and ensure it promotes its goals for sustainable and equitable outcomes, providing certainty for investors.
  - The Council will redefine 'value' in public procurement contracts in favour of local social and environmental sustainability outcomes.
  - The Council's Sustainable Design and Construction guidance will support a fabric first approach to construction – reducing the embodied energy in materials, reduced water and energy use and on-site renewable generation.
  - The Council will prioritise industrial space for sustainable enterprise and promote this through marketing activity, working with North London Business and the North London Strategic Alliance
  - The Council should prioritise business support services for low carbon economic activity, provide one-to-one technical/enterprise support for local enterprises, reduced cost office space or meanwhile lease for local enterprise start-ups.
  - Medium and larger enterprises operating in the borough will commit to a carbon reduction action plan.
  - The Council will jointly host a major green economy event with North London Business and the North London Strategic Alliance.
  - The Council will investigate the impact of using business rates and tax credits to encourage low carbon commerce.
  - The Council will work with Haringey 40:20 to introduce a minimum environmental standard for business members of 40:20. This could be supported by the Green Business Awards at the north London Sub-Region level, the current grant funded business support programme for SMEs, the creation of a local Green Business Directory and promotional signage for business premises.
  - The Council will broker discussions between the eco retrofitting co-operative and local SMEs to support the development of local supply chains. In the first instance the Council will encourage the creation of a network of SMEs, working closely with the Chamber of Commerce and North London Business, to begin to identify skills and training needs and opportunities for collaboration.

– The Council will develop partnerships with local training providers and the private sector to increase relevant green skills training capacity and carry out skills development initiatives. A key priority for the short term is on developing skills for the installation of internal and external solid wall insulation in homes which is eligible for support from the national £390m ECO subsidy during the period 2012-2015.

### 3. BOOSTING INNOVATION



Continuing business as usual will not deliver the scale of change necessary. In this report we strongly recommend that the Council actively promotes innovation, and develops prototyping and demonstration projects to effectively launch ideas into borough-wide action.<sup>55</sup>

This requires working in partnership with a range of lead businesses, higher education and research partner organisations, funders and local sustainability groups to establish Low Carbon Innovation Labs in three areas of activity:

#### (I) LOW CARBON INNOVATION



Delivering low carbon technology demonstrator projects to speed the transition from design and demonstration to large scale take up using Council buildings, major developments in the borough, and local networks of residents and businesses.

Unlike the other Labs the technology Labs require a physical research base. Locating the Lab in the Council-managed TechnoPark located in Tottenham Hale, situated in the centre of the Upper Lea Valley, would establish a low carbon enterprise district (see recommended action 2).

The Technology Lab should particularly encourage University departments and technology research establishments to work with Haringey as a test bed to practically apply ideas. To encourage local supply chain and expertise development as well as practical demonstration projects to impact on behaviour change, researchers should work closely with: sustainable enterprises in the Upper Lea Valley (see recommended action 2), green sector networks across the north London boroughs, and residents through the Haringey 40:20 steering group.

Activities should be focused on generating solutions to address Haringey’s challenges to reduce carbon, specifically: green retrofitting, reduced embodied energy construction, water-saving, waste and recycling, cradle to cradle design and manufacture and integrated technology systems.

As part of the prototyping process, the Technology Lab should work closely with the Finance Innovation Lab to develop possible funding models to support wider uptake.

The first project would aim to show case reduced embodied energy in the construction of a supermarket in Tottenham which will start construction in 2013.

The new Football Stadium in Tottenham should also incorporate a low carbon demonstrator project as part of the approach to developing visual landmarks to make common place the technology to reduce carbon emissions.

To raise awareness and disseminate the work of the Lab we recommend that the Technology Lab form a partnership with Ecobuild, which is the largest event for sustainable design, construction and the built environment in the UK.<sup>56</sup> The aim of this partnership would be to: encourage exhibitors to develop practical demonstrator projects across the borough and become part of the Technology Lab; and encourage development of a Living Lab in the borough which can be visited as part of the annual Ecobuild exhibition.

#### (II) SOCIAL INNOVATION



Developing prototypes and piloting low carbon public, private and not-for-profit services, and approaches to support wider behaviour change.

A grant fund to support the piloting process would need to be made available to support these ideas into action building on the One Borough One Future Fund.

This approach will serve not only to encourage innovation and innovative partnerships, but in addition will reduce the risk and costs of piloting approaches. Ideas should lead to solutions to local challenges, addressing key barriers to changing behaviour across the borough. These may be locally specific or more generally applicable. Importantly these ideas for action should originate from within the community.

The Social Lab locations should be dispersed across the borough using prominent community-based locations e.g. the high street, community centre, which encourage wider involvement, particularly encouraging the involvement of younger people within the borough. Most importantly, the Social Labs should locate to places where people want to take action. The Haringey 40:20 steering group will be both an important co-ordination point for wider community events which should serve to generate the initial ideas for innovation which start the prototyping process, and a dissemination hub to share more widely the results of the prototyping process.

Examples of ideas for action may include urban food growing, reinvigorating high streets as social spaces, behaviour change interventions to reduce consumption and waste, or developing effective awareness raising approaches within schools and their wider communities.

### (III) FINANCIAL INNOVATION



Addressing the funding need for schemes that do not have a clear payback mechanism such as sustainable transport infrastructure, or those that have a longer payback period of over 10 years.

Financing models should be developed which are capable of addressing more complex and interrelated outcomes sought over a longer period of time which lie beyond the present scope of innovations such as social impact bonds.

Examples of ideas for action should include developing:

- a mechanism for making share ownership affordable to lower income groups to support recommended action 4 to be piloted within the first 3 years.
- funding models for technology mainstreaming.

– an ecology of financial mechanisms which support the reinvestment of wealth back into the borough, which may include the development of local banks.

#### Roles

- **The Council** should forge partnerships with research organisations and the private sector supported by R&D funding (such as the Technology Strategy Board and European Commission) and Ecobuild organisers, to demonstrate the application of new technologies.
- **The Council** should coordinate action with other boroughs, particularly in the Upper Lee Valley area, to create a scale of opportunity for potential partners and investors and research organisations. The Council's corporate property should be offered as start-up office or storage space for new enterprise activity or pilot projects.
- **The Council** should work with research organisations to offer live project opportunities or research

activity. Examples include the cross-borough Green Light North London scheme working with local businesses to support take up of energy and water saving measures.

- The **Haringey 40:20 network** should encourage local groups, businesses and organisations to bring forward ideas for prototyping which could be linked to innovation funding available from the Council, or leveraged from other grant-giving bodies. The network would also capture and share learning from current social change initiatives to inform social innovation prototyping work.
- The **Haringey Sixth Form College, Higher education colleges and youth groups** should be involved in developing solutions to defined social and environmental problems.
- **Partner research organisations or think tanks** would be involved in sharing the learning from this activity and connecting it with similar activities elsewhere, leading to networks of innovators, for example Social Innovation Europe.

HEALTH COSTS RELATING TO MENTAL ILLNESS, OBESITY AND FUEL POVERTY WHICH COULD BE REDUCED THROUGH CARBON REDUCTION MEASURES E.G. ACTIVE TRAVEL AND ENERGY EFFICIENCY IMPROVEMENTS.	COST PER ANNUM
Cost to NHS Haringey of treating mental health illness <sup>57</sup>	£26 MILLION
Cost to NHS Haringey of disease related to obesity. This is projected to increase to £81.8m by 2015	£76.5 MILLION
80 per cent of excess winter deaths are caused by fuel poverty	£5.9 MILLION
The health cost in Haringey due to excess winter deaths related to fuel poverty	£2 MILLION
39 per cent of people living in fuel poverty have some level of mental health illness. The total health cost of mental illness for people over 65 years	£662,620
<b>TOTAL</b>	<b>£111,062,620</b>

DECENTRALISED ENERGY



4. INVEST IN LOW CARBON TRANSPORT



A number of policy recommendations and lobbying activity have been identified to support cross-borough co-operation, develop sustainable transport infrastructure and support a shift away from car travel.

Three priority areas of action are identified, outlined below.

– **“Go Dutch.”** Work with local people to identify where segregated cycle lanes, improvements to urban design and smaller scale changes such as cycle parking are needed. To enable these changes, space for walking and cycling will need to be created by progressively removing private car parking spaces.

Promote a toolkit for the DIY Streets approach to engaging communities in identifying measures needed to

upgrade their local neighbourhoods with smaller scale measures such as: cycle parking, car club bays and advanced stop lines for cyclists at traffic lights.

– **Develop the market for alternative fuelled vehicles** by providing incentives and supporting the growth of new alternative refuelling stations within a new low-carbon enterprise district in the Upper Lee Valley and use the Council fleet operations to provide an initial customer base for this development.

Enable small businesses with fleet vehicles to trial low carbon electric alternatives at no cost. Introduce a zero car parking charge for electric vehicles to help to incentivise take up by residents.

– Develop strong shared transport plans with neighbouring boroughs to tackle the 88 per cent of journeys that start and end outside the borough, starting with Enfield and Waltham Forest. And lobby for low carbon public transport (bus and tube line extension).<sup>58</sup>

Rationale

– **Journey types:** In Haringey 88 per cent of journeys in Haringey start or/ and end outside the borough. Cross-borough coordination on sustainable transport issues is currently limited.<sup>59</sup>

– **Targets:** Haringey’s current target agreed with Transport for London is to increase the number of cycle trips from approximately 10,000 cycle trips per day in 2008/9 to 14,000 trips in 2013/14. The target, an absolute increase of around 40 per cent is considered ambitious given the increases in population and employment in Haringey. Overall the target to increase travel by non-car mode is from 69 per cent in 2008/9 to 71 per cent in 2013/4. In the region of a 20 million per annum reduction in car passenger kilometres needs to be achieved by 2016 to put Haringey on track to achieve its long term carbon reduction target.<sup>60</sup>

– **Car ownership:** Haringey’s population is projected to rise by 14.8 per cent to 264,000 residents by 2026. With households getting smaller and people living longer, this growth will bring with it pressures for new

housing, associated infrastructure and an increase in travel demand on already congested sections of the transport network. Managing growth in car ownership and relieving congestion in Haringey will be a significant challenge which needs to be addressed through the provision of efficient and convenient alternatives to private car use.

In terms of future car ownership trends, the north London sub-region is forecast to have an additional 61,000 cars by 2031, which is the highest growth of all the sub-regions except east London. Managing for this growth in car ownership and associated increases in parking demand is a significant transport challenge.

– **Low carbon vehicles:** The current EU regulation on emissions levels of new cars has driven innovation in vehicles manufacture. Ongoing improvements to the fuel efficiency of new vehicles have the potential to contribute significantly to a reduction in carbon emissions of up to 14 per cent in Haringey by 2020.<sup>61</sup>

Haringey currently has 21 publicly accessible Electric Vehicle charging points; however for people without off-street parking, the ability to conveniently recharge the vehicle outside their home is a significant barrier to purchasing an electric vehicle.

– **Walking and cycling infrastructure:** Tackling traffic congestion in some parts of Haringey – particularly, along the Tottenham High Road – has the potential to support the wider regeneration aims for the area. Creating places that are attractive to pedestrians and cyclists has been shown to not only increase well-being but also local shop yields.<sup>62</sup>

### Recommended roles

– **The Council** should develop opportunities for cross-borough delivery of shared sustainable transport plans. Joint delivery of smarter travel initiatives and infrastructure improvements should focus on the 88 per cent of highways journeys which start or/and end outside the borough boundary.

Agreements with Enfield (with which 39 per cent of trips are linked) should be established within the first 6 months, and an agreement with Waltham Forest (to which 20 per cent of trips are linked) established within 10 months.

– **The Council** should coordinate a cycling and walking infrastructure study to identify the barriers and potential solutions for increasing non-car travel. Identifying how the “Go Dutch” principles developed by the London Cycling Campaign could be implemented to make Haringey accessible for cyclists and support trans-borough journeys. Scoping work for this study would be carried out in 2012-2013 with the full study being completed in the first half of 2013-14.

– **Local residents and community groups, particularly those who do not currently walk and cycle,** should be involved to ensure that upgrades are fit for purpose.

– **Transport for London and research organisations** should use the study as evidence of the scale of change and funding needed to deliver sustainable transport measures, beyond the current scale and pace of change.

– **Local residents and community groups** will be encouraged to take part in one of the two pilot areas to apply the Sustrans DIY streets approach (see Box 8 – Turnpike case study) to their area. Borough wide, groups would be provided with a Toolkit to help identify measures requiring funding.

– **The Council** will need to review its planning policy (Development Planning Document) to manage the growth of car ownership in the borough associated with new developments. Approximately 3,000 new cars could be expected as result of planned housing development up to 2020.

– **The Council** should implement a design policy for the progressive removal of on street parking spaces (see Box 8) and to be replaced with on-street cycle parking, allowing 8 bicycles per parking space or secure residential bicycle storage; a redesigned road layout, including

cycle lanes and advance stop lines for cyclists; wider pavements for pedestrian crossing points, seating and green space; car club parking bay and electric vehicle charging points.

– **The Council** should consider policies to incentivise the uptake of electric vehicles, such as the introduction of a zero car parking charge for electric vehicles, building on the existing variable parking charge policy linked to the CO<sub>2</sub> emissions of vehicles to be applied in the next financial year.<sup>63</sup>

– As a short-term solution, the **Council’s Transport and Enforcement teams** could investigate the potential to remove the barriers currently preventing residents without off-street parking from charging vehicles directly from their home energy supply, by providing appropriate guidance and safety equipment.

– **The Council** would work with other north London boroughs and the private sector to accelerate the development of local alternative refuelling infrastructure serving freight, waste collection vehicles and buses. The Thames Water Deephams Sewage works (located in Enfield) could accommodate a biogas refuelling station serving borough fleet vehicles as well as Coca-cola, Sainsbury’s and Tesco’s distribution vehicles located in the Upper Lee Valley.

– The London borough of Camden has already introduced a scheme to enable local businesses to trial electric fleet vehicles ranging from cars to small vans. This is an example of a scheme that could be expanded to a number of boroughs with minimal additional set up costs and reduce CO<sub>2</sub> emissions arising from trans-borough commercial activity. Haringey Council should look to extend this scheme into the borough and other neighbouring north London boroughs.

– **The Council** should co-ordinate with the North London Transport Forum and the **4020 Steering Group** to encourage greater activism in lobbying for increased investment in sustainable transport infrastructure, backed by clear evidence of the economic and social benefits for this funding.

## BOX 8: TRANSPORT CASE STUDIES

### Sustrans DIY Streets – Turnpike Lane

Working in partnership with the charitable organisation Sustrans, Haringey Council are the first borough in the country to deliver an area wide DIY Streets scheme. The DIY Streets project in Turnpike Lane (2010-2012) involved extensive engagement with the local community in re-designing their local streets to support sustainable travel. In total nineteen interventions were put in place to slow traffic and encourage active travel, including an entirely new junction layout, a shared space community hub, a much improved cycle and pedestrian path, and a playable green space. The project has been well received by residents and many have signed up to care for street planters and tree pits. The tiled street name 'art in the community' will be installed at seven locations once fabrication is complete. Residents are already talking about taking other projects forward, and Sustrans intend to hand over the blog and Facebook group to the local residents association. Haringey Council is delivering a similar Community (DIY) streets approach for an area of residential roads in Hornsey, N8 and Warwick Gardens, N15.

### Living Under One Sun delivering Council's smarter travel scheme

The Tottenham-based charity Living Under One Sun (LUOS) will be working with Haringey Council to deliver smarter travel by providing 10,000 households in the Northumberland Park and White Hart Lane area with information on cycling and public transport, focusing in particular on households who aspire to drive a car. Local volunteers will receive training and be paid to talk to residents in local streets about the benefits of sustainable travel.

### Removing car space in Copenhagen

In Copenhagen over the last 40 years highways engineers have made it a policy that every time works to roads are carried out a few car spaces are removed and either landscaped or turned over to cycle lanes and cycle parking, wider pavements, car club parking. As a result car usage has remained stable and people's health and well-being is enhanced. Haringey should implement a similar policy at a cross-borough level.



### Ghent: making cycling the new normal<sup>64</sup>

Following the launch of a Bicycle plan in 1993, and a subsequent 1997 Mobility Plan that included the introduction of a car-free city centre, Ghent has enjoyed a revolution in cycling levels achieved through a sustained package of marketing and infrastructure investment backed by cross-party political support.

#### Key information

- Innovative promotion campaigns run regularly throughout the year to broaden the appeal of cycling. In 2011, a Cycle Chic portrait exhibition of cyclists was seen by an estimated 130,000 people per week during its month-long run.
- The car-free city centre, coupled with one-way streets and reallocation of parking space, has made many journeys quicker by bike than by car.
- Cycling culture has become ingrained, with wide support from various stakeholders.
- The city subsidises 7,500 rental bikes through its student cycle hire scheme, and hundreds of rental bikes for wider public use.
- Ghent introduced a 'Cycle Street' on a key cycling artery – a new concept that views motor vehicles as 'guests on the street' which means they are not allowed to overtake bikes. This concept was introduced without a formal legal framework, but its success meant that formal legislation was introduced to make the Cycle Street official.
- Cycling is seen in Ghent as essential to economic viability and its goal to become a carbon neutral city by 2050. The city estimates additional cycling delivered through its programmes in the three years to 2012 is saving 1,500 tonnes of CO<sub>2</sub> per year.
- Cycling now accounts for 19 per cent of journeys, compared with 12 per cent in 2001.

- The 4020 Steering Group will need to make it quick and easy for people to get involved in campaigning activity, taking a similar approach to 38 degrees and building on the work of existing campaigning coalitions such as the London Cycle Campaign.
- Key lobbying issues are likely to be the extension of the Victoria Line to Northumberland Park; an east to west bus link; investment in walking and cycling upgrading and a low carbon bus network as used in many other European cities.

### Social benefit

- Transport infrastructure improvements supporting walking and cycling will enhance the quality of people's lives making Haringey an enjoyable place to travel. By 2020 there will be a significant increase in the number of people who feel confident cycling across north London in well-signposted segregated or on-road cycle lanes, no longer threatened by dangerous fast-moving traffic.
- The improvements to enhance active travel will help to mitigate physical and mental health problems associated with poor air quality and inactive lifestyles:
  - It is estimated approximately 4,000 Londoners die prematurely due to poor air quality with those individuals dying on average eleven years earlier than expected.<sup>65</sup> The UK wide cost to the NHS due to poor air quality is £15 billion.
  - The estimated total annual costs to NHS Haringey of disease related to obesity in 2010 were £76.5 million. This cost has been estimated to increase to £81.8 million by 2015.<sup>66</sup>
  - The estimated annual cost to the NHS related to mental health illness in Haringey is approximately £26 million and the total cost of respiratory illness is £5.9 million a year.<sup>67</sup>

### Economic benefit

- Over the long term (2020 onwards), once alternative fuelling infrastructure is installed, reduced reliance on fossil fuels will in turn reduce costs for businesses and improve economic competitiveness.
- As indicative investment doubling spend on sustainable transport measures over the three year period (2011-2014) from £1.7 million to £3.4 million could increase property values and shop rental yields by up to 5 per cent. For Haringey's 1,384 retail businesses this would increase annual yields by £1.5 million.<sup>67</sup>

## 5. STRENGTHEN COMMUNITY ORGANISATIONS



Actions should seek to build on existing passions and assets within the community. There are a number of innovative community and voluntary sector led initiatives to support sustainable lifestyles. Paid volunteer coordinators will be needed to increase capacity of behaviour change work and can be funded from revenue generating activities (i.e. capital investments and referral fees for the Green Deal) once these are operational. In the interim period additional start-up funding needs to be secured either through grants or core Council funding.

Activity will be supported through competitive innovation funding, capacity building, and the provision of support "in kind" from the Council.

To address the scale of change necessary will require ideas to capture hearts and minds. Drawing on the fantastic diversity within the borough of Haringey we recommend an awareness campaign which aims in the first two years to [twin six diaspora communities](#) in Haringey to communities around the world on the frontline of climate change.

### Rationale

- Face-to-face work through existing or new community hubs that support people in a holistic way will be needed, relating to their everyday concerns rather than a single focus on the green agenda.
- Haringey is fortunate in having significant capacity among a range of sustainability groups who have trail-blazed in this area. A coordinated approach needs to be taken to quickly increase the scale and reach of this activity; this would be effectively achieved through the recruitment of paid volunteer coordinators employed by local voluntary sector organisations.
- There is currently a gulf between existing activists and community leaders and the wider population. To some extent this is linked to the problem of having a transient population. As a community, Haringey needs to find ways to seed new activists and leaders through training and development, engagement of schools, further innovation funding and volunteering opportunities.

### Roles

- The Council would support a range of voluntary-led action, led by interests and ideas of local groups (see examples below) within an overall policy framework of sustainability and tackling inequality. Community engagement needs to be carried out by people rooted within the local community rather than those working at a distance.
- Funding for engagement work is easy to cut in times of austerity, but financial support could be channelled from [green deal referral fees](#) and capital investments in solar photovoltaic arrays, alternative energy, and to create revenue for engagement activity through cooperative models.
- The Council will need to review the impact of grant funding provided to the local charitable and voluntary sector against the principles for investment set out by the Commission.

- **Haringey 40:20 steering group** would continue to coordinate a Fund to support engagement work generated from capital investment, as with the recent solar PV scheme the Haringey 40:20 Fund.
- Haringey 40:20 will coordinate resident engagement with local businesses to encourage take up of environmental measures. Local businesses attaining the highest environmental standards should be promoted through local community hubs.
- **Paid volunteer coordinators** placed in local voluntary sector organisations would increase capacity of 40:20 by engaging different groups and networks to get involved e.g. Youth groups.
- **The Haringey Timebank** has indicated their intention to develop a ‘Greenbank’ providing a means for volunteers carrying out engagement activities to exchange their time. Haringey 40:20 should help to realise this vision by brokering connections between local networks and sustainability initiatives with the Timebank.
- **The Council** would in some instances lead on community involvement through key Council services – targeting disadvantaged groups where there is a lack of activity emerging through other interventions, for example the social housing provider, Homes for Haringey.
- **The Council** should leverage funding and discounts on behalf of local groups such as the Low Carbon Communities Challenge that helped to establish EN10ERGY.
- Make use of Council leverage to increase the visibility of activity through, for example, the Annual Carbon Report, Council communications (e.g. Council tax bills) and public communications space.

### Benefits

- Build capacity and leadership within local community-based organisations.
- Create volunteering, learning and employment opportunities.
- Build local social connections among diverse communities, increasing well-being.
- Build the local economy for exchange of skills and know-how.
- Activate the new sustainable economy for goods and services.
- Increase democratic involvement and activism.

## BOX 9: LOCAL PROJECTS

### Solar Schools Community Funding Approach

Solar Schools is a groundbreaking project that helps schools to cut carbon, boost budgets and teach pupils and staff about energy and climate change. As a mechanism to overcome the upfront costs which can prevent investment in solar energy, Solar Schools provides resources, training and support to help schools to crowd fund their investment from their community through individual websites. People can buy a solar tile online for £5. The crowd-sourcing funding approach can equally be used to pool funding for various activities <http://www.solarschools.org.uk/>

### Food Cycle – recycling food waste

The Haringey FoodCycle café received seed funding from Haringey Council in 2010 but now sustains itself on donations. FoodCycle is a registered charity, founded in the UK in 2009, with four main aims:

- reducing commercial food waste
- reducing ‘food poverty’ – the inability to obtain healthy food, for reasons such as lack of income, knowledge or time
- engaging volunteers through hands on training
- reducing social isolation by providing a place for people to socialise over food.

Haringey FoodCycle work with MIND in Haringey, who donate their kitchen space and host the café. Once a week FoodCycle volunteers pick up surplus food that would usually be thrown away from Sainsbury’s in Haringey, Stroud Green Fruit and Veg, Planet Organic, Gales Bakery and Budgens. The food used is perfectly fresh and good to eat, being within the ‘Use By’ date but past the ‘Best Before’ date.

Volunteers then prepare the food and they operate a ‘pay what you feel’ policy for meals to cover the cost of kitchen overheads and pay for the extra ingredients that need to be bought to complete certain meals.

## BOX 10: SUSTAINABLE SCHOOLS – EN10ERGY

EN10ERGY a community energy company supported with start-up funding from the Council in 2010 is currently working with Haringey Council's Sustainable Business on a pilot with six schools in Tottenham (due to complete in autumn 2012). The pilot aims to demonstrate the potential for bulk purchasing energy saving measures such as voltage optimisation and quick pay back of energy saving measures that can then be promoted more widely to schools in Haringey. In the past the Council has found it difficult to encourage schools to take part in ecoretrofitting despite the availability of the Schools Sustainable Investment Fund, a zero interest loan available for quick payback energy efficiency measures – this partnership aims to overcome this challenge.

Established as an industrial and provident society by Muswell Hill Sustainability Group, EN10ERGY has two main aims:

- to promote and invest in local renewable energy
- to encourage and facilitate the reduction in carbon emissions and waste by households, businesses and community buildings in Muswell Hill and surrounding areas

In July 2010 solar PV panels were installed on the roof of Marks and Spencer on Muswell Hill Broadway. The following year panels were also installed on the Muswell Hill Methodist Church on Colney Hatch Lane. These projects generate revenue through the government feed-in tariff for micro-generated electricity.



## BOX 11: FOOD GROWING – FOOD FROM THE SKY AND LIVING UNDER ONE SUN

FOOD from the SKY' is a world first – A pioneering Permaculture food growing and educational initiative on the roof top of Thornton's Budgens supermarket, Crouch End, North London. 'A new template for our future'.

Food from the Sky is about inspiring a healthy and sustainable relationship with food and supermarkets, through food-growing on roofs and educational programmes. By establishing an alternative approach to food production and consumption, the organization intends to build a 12-step template that can be easily used by other community groups, supermarkets and organisations.

### Living Under One Sun – healthy eating and community leadership



Living Under One Sun (LUOS) is a multi-award winning community project, run mainly by volunteers, which seeks to support thriving, enriched communities through 'village squares', training community leaders, and links with partner organisations to provide sustainable healthy living projects.

Starting in 2005 the organization worked with a group of mothers from Tottenham to promote healthy living and community leadership. LUOS has since evolved and now aims to inspire people across generations and cultures, to take responsibility, build, protect, share and celebrate a positive neighbourhood and environment both locally and globally.

<http://livingunder1sun.blogspot.co.uk/>

# FINANCE

The Council should work with the Haringey 40:20 Steering Group and other stakeholders to develop a draft action plan for agreement by the Cabinet in October 2012, drawing on the Carbon Commissions recommendations.

The action plan should identify actions being led by the Council and clear roles of other organisations and groups as well as actions being led by the community or businesses and organisations. The process used to develop the action plan should include The Council should use its ability to raise low-cost finance to strategically invest in a new sustainable economy. It is estimated that the level of investment required by Haringey for eco retrofitting buildings and the alternative energy network development is in the region of £35 million over the next 7 years, or £5 million per annum, to repaid over 25 years.

A detailed assessment of the costs and resources needed to implement the Commission's recommendations will need to be developed by Haringey Council during the action planning process involving Council officers, management teams and partner organisations.

The scale of activity required to activate the local market and contribute to CO<sub>2</sub> savings targets is not attainable under current market conditions, given the level of return on investment required by the private sector.

A number of measures to reduce CO<sub>2</sub> emissions from energy use in buildings are already cost-effective to deliver and provide a quick payback on

investment, but are currently not being implemented. This represents a market failure, and a clear case for the local authority to step in to address it.

Other measures are only cost-effective over long payback periods providing a low return on investment under the current policy regime, requiring public sector investment to deliver (e.g. Green Investment Bank or Public Works Loan Board see Figure 5). Some measures do not generate a direct financial return on investment (e.g. cycle lanes and travel behaviour change) but result in wider social benefits including avoided health costs, improved air quality, and reduced congestion.

The local authority role should not be seen as one of last resort, merely filling the gaps left by the private sector. The Council should be working in partnership locally to create markets and income generation that can be reinvested across the borough to support social objectives, particularly in times of austerity and reducing Council budgets.

Figure 5 shows the relative Net Present Value for investment into energy efficiency and energy supply measures in buildings based on Vantage Point Carbon Reduction Scenario modelling see Appendix 8.<sup>69</sup> The least cost effective measures can be cross subsidised by measures with a positive net present value for investment or supported by grant funding such as the ECO subsidy for solid wall insulation

FIGURE 5: INVESTMENT ANALYSIS

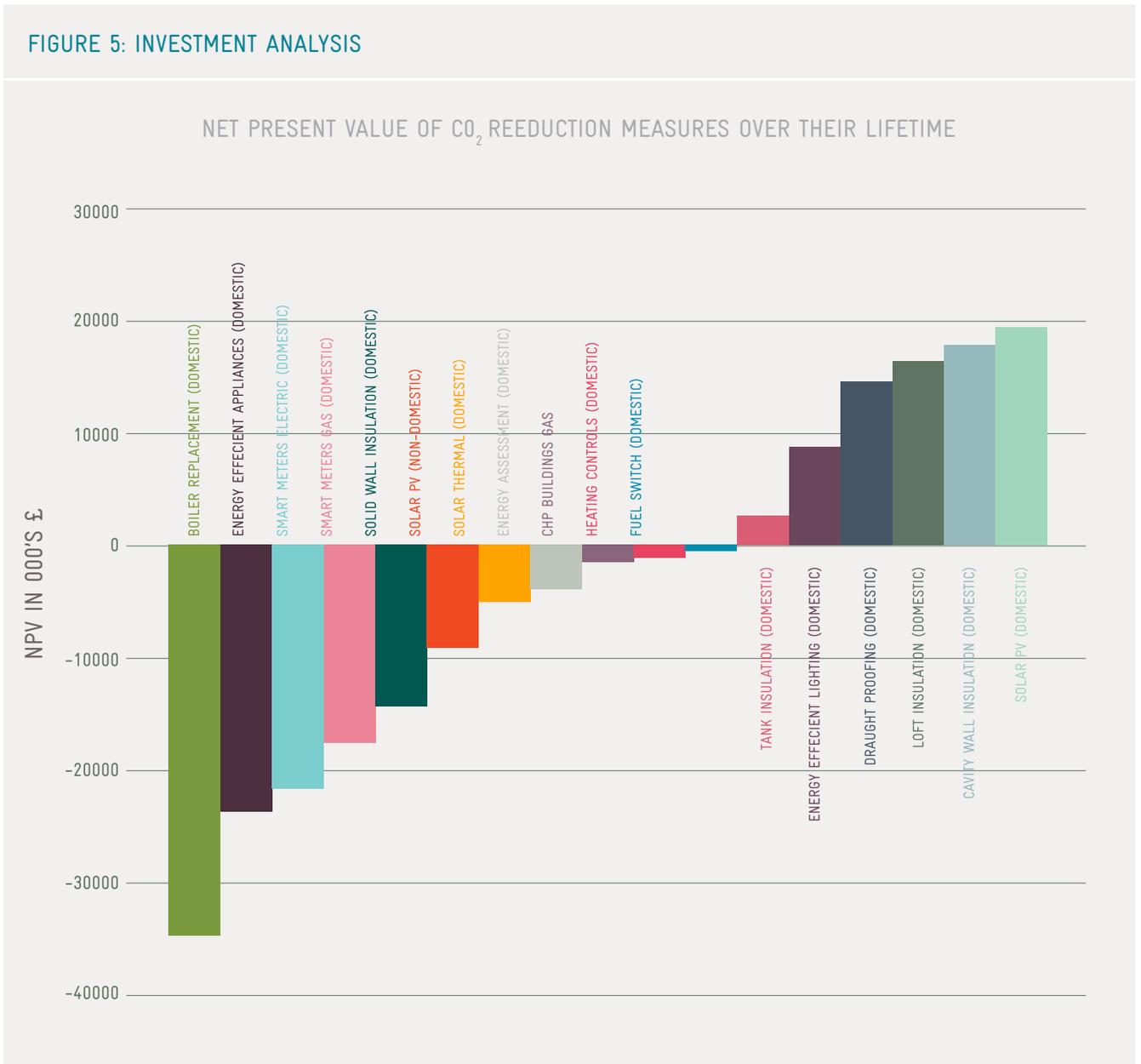


FIGURE 6: SUMMARY OF RECOMMENDATIONS

1

## CREATE BUSINESS MODELS WHICH RE-INVEST WEALTH BACK INTO THE BOROUGH

### Alternative energy supply mutual

- Set up of alternative energy mutual, financed by the Council, providing hot water through underground pipes to groups of buildings
- Large commercial and public sector heat users sign up to long term purchase agreements with the mutual
- Community networks encourage share ownership in the mutual
- Community networks take part in collective purchase of energy
- Council to establish Carbon Offset Fund to receive financial contributions from developers
- Council planning documents safeguard alternative energy networks routes
- National and OFGEM enable small and medium scale energy producers to sell directly to customers

### Eco retrofitting co-operative network

- Council and Haringey 40:20 establish co-operative network providing a range of energy efficiency related services. Council provides access to low cost finance.
- Homes for Haringey re-invest in social housing stock and lever ECO funding and provide advice to residents on cost saving and sustainable lifestyles when retrofit works are being out, working with frontline staff and peer to peer networks.
- Community networks drive take up of eco-retrofitting through door knocking, events and awareness raising.
- Council procurement is geared to maximise job creation and social outcomes, as part of the value for money assessment.
- Develop network of green show homes across the borough.
- Government to introduce additional support for the Green Deal to maximise job creation and carbon emissions reduction benefits.
- Community networks work with Council enforcement teams to raise awareness of forthcoming ban on letting the lowest energy rated homes
- Planning guidance introduced to support solid wall insulation at the back of prosperities and require energy improvements when a home extension is being built

2

## BUILDING A LOW CARBON ECONOMY

- Establish low carbon enterprise district in the Upper Lee Valley, safeguarding land for low carbon enterprises to co-locate and providing incentives
- Use major development activity in the borough such as the Football Stadium and social housing renewal to provide visible examples of low carbon technology
- Map future Council spending into the long term providing certainty for sustainable investors
- Redefine “value” in public procurement in favour of local benefits for jobs, training and sustainability
- Prioritise Council business support services for sustainable enterprise activity
- Medium and large enterprises operating in the borough commit to a carbon reduction plan
- Build a network of local retrofitting installers to develop skills and capacity. Skills and training partnerships between private sector and local HE colleges CHANEL.
- Skills and training partnerships between private sector, local HE college CHANEL and community organisations
- Investigate the use of business rates and tax credits to incentivise low carbon enterprise
- Jointly host a major event for low carbon businesses

## 3

BOOSTING  
INNOVATION

- Council to work with private sector, research organisations, higher education and R&D funders to develop Low Carbon Innovation Labs.
- Council to offer up property, Council led developments and social housing to support activity.
- Haringey 40:20 network to encourage local groups and businesses to bring forward ideas supporting sustainable lifestyles for prototyping and piloting.
- Innovation Labs will develop approaches to funding for measures with a long term payback period and address inequality.
- Haringey Sixth Form, Higher Education Colleges and youth groups to develop innovative ideas for prototyping.
- Partner research organisations and think tanks will share learning from this activity.
- Develop partnership with ECO build to form a Living Lab
- First two demonstration projects to focus on new football stadium and supermarket planned for Tottenham

## 4

INVEST IN LOW  
CARBON TRANSPORT

- Develop shared transport plans with neighbouring borough to tackle car journeys starting and ending outside the borough, beginning with Enfield and Waltham Forest.
- Walking and cycling infrastructure study carried out by the Council, Transport for London and community groups to identify where cycle infrastructure and other improvements are needed. DIY streets tool kit provided to identify measures requiring funding.
- Council policy to support the removal of private car parking spaces when road works are being carried out, to be replaced with public amenities (e.g. cycle lanes or wider pavements, green landscaping).
- Enterprises to take up free electric vehicle car and van trial. Council to introduce zero parking charge for electric vehicles and support to enable households without off-street parking to charge vehicles directly from their home.
- Council and 40:20 Steering Group to develop campaigning activity promoting public transport and investment in walking and cycling facilities.
- Council to work with neighbouring boroughs and private sector (Tesco's, Sainsbury's, Coca Cola, Veolia) to develop alternative refuelling infrastructure serving freight, waste collection and buses.

## 5

STRENGTHENING  
COMMUNITY  
ORGANISATIONS

- Council to provide a flexible range of support for community led action, led by interests of local groups.
- Use capital investment and referral fees to create revenue of engagement activity through cooperative models. Haringey 40:20 coordinate fund to support engagement work.
- Paid voluntary coordinators to increase capacity of groups and networks.
- Work with Haringey Timebank to develop a green bank providing a means to exchange time and skills.
- Haringey 40:20 to coordinate resident engagement with local business to encourage take up of environmental measures.
- Council to leverage grant funding and discounts, on behalf of local groups.
- Increase the visibility of activity through public communications spaces and other Council space

# CONCLUSION

By investing in the transformation of the economy Haringey can help to provide the basis for the boroughs future prosperity. The purpose of the Commission was not to list a set of technical requirements to address carbon reduction but rather, to identify actions and approaches that address inequality and increase well-being. The set of recommendations detailed in the report aim to support systemic change across the borough, requiring social, technological and financial innovation.

The Council needs to play a proactive role and support action in a number of ways including direct provision, working in partnership and fostering strong local relationships where people are supported to shape their own communities. A supportive national policy framework is required to fully realise the 40% CO<sub>2</sub> reduction and associated economic and social benefits.

The actions recommended by the Commission are not exhaustive but aim to inspire further debate and local action. There are already excellent examples of action taking place that can be built upon as have been highlighted throughout this report.

## Action Plan & Timescale

Council should work with the Haringey 40:20 Steering Group and other stakeholders to develop a draft action plan for agreement by the Cabinet in October 2012, drawing on the Carbon Commissions recommendations.

The action plan should identify actions being led by the Council and clear roles of other organisations and groups as well as actions being led by the community or businesses and organisations. The process used to develop the action plan should include people from across the borough as widely as possible. An indicative timescale for implementation of the Commission's recommendations is provided below.

In **November 2012** the Council will introduce its second Annual Carbon Report to full Council. This will report on progress from 2011-12 at the corporate and borough-wide level, for example:

- the implementation of the solar photovoltaic array scheme for corporate buildings and social housing introduced in July 2011;
- the implementation of the Green Deal Demonstration pilot within the Muswell Hill Low Carbon Zone;

- the progress of key pilot projects such as the 100 Homes scheme in Noel Park, EN10ERGY schools pilot scheme, 40:20 Community Fund projects, the Low Carbon Lab at the Selby Centre, and;
- the progress of the Corporate Carbon Management Plan and Sustainable Investment Fund working towards a 40 per cent CO<sub>2</sub> reduction by 2015.

The **Annual Carbon Report** will include the 40:20 Action Plan and establish two **carbon budgets** for the period up to 2020 based on the actions that have been agreed. The Annual Carbon Report to full Council will provide a means for the community as a whole to monitor progress on implementing the action plan.

A full list of all the Commission's recommendations is provided in Appendix 7.

# ENDNOTES

- <sup>1</sup> Low Carbon Environmental Goods and Services (LCEGS), Report for 2010/11, Department for Business Innovation & Skills, May 2012
- <sup>2</sup> GLA Economics: 2009 employment projections (<http://data.london.gov.uk/datastore/package/gla-employment-projections>)
- <sup>3</sup> Key national policies that contribute to delivery of this locally include EU Fuel Efficiency Targets for new vehicles, obligations on energy suppliers and decarbonisation of the national grid. A full list of the Low Carbon Transition Plan policies is given in Appendix 8.
- <sup>4</sup> A mutual, mutual organization, or mutual society is an organization (which is often, but not always, a company or business) based on the principle of mutuality. A mutual exists with the purpose of raising funds from its membership or customers (collectively called its members), which can then be used to provide common services to all members of the organization or society. A mutual is therefore owned by, and run for the benefit of, its members - it has no external shareholders to pay in the form of dividends, and as such does not usually seek to maximize and make large profits or capital gains. See: A Guide to Mutual Ownership Models, Department for Business Innovation & Skills, 2011.
- <sup>5</sup> Co-operatives are a flexible business model. They can be set up in different ways, using different legal structures, depending on what works for the members. The definition of a co-operative business is that they are owned and run by the members - the people who benefit from the co-operative's services. <http://www.uk.coop/what-co-operative>
- <sup>15b</sup> A north London housing retrofit study and business plan was carried out in 2011 as part of the Local Carbon Framework pilot funded by the Department of Energy & Climate Change (see [www.haringey4020.org.uk/lcf](http://www.haringey4020.org.uk/lcf)). In 2012 a business case for the Green Deal Provider model was carried out for Haringey and Islington with support from the Greater London Authority.
- <sup>6</sup> Based on a 2005 baseline (CO<sub>2</sub> emissions data, DECC 2007). Commercial CO<sub>2</sub> reduction are low due in part to the lack of information about the potential for CO<sub>2</sub> reductions in this sector and the large number of small and medium sized businesses in Haringey.
- <sup>7</sup> The Climate Change Act 2008 aims to encourage the transition to a low carbon economy in the UK through unilateral legally binding emissions reduction targets. This means a reduction of at least 34 percent in greenhouse gas emissions by 2020 and at least 80 per cent by 2050. [www.decc.gov.uk/en/content/cms/...budgets/carbon\\_budgets.aspx](http://www.decc.gov.uk/en/content/cms/...budgets/carbon_budgets.aspx)
- <sup>8</sup> In 2010, at an international climate change conference in Cancun, Mexico, governments from around the world agreed that the 'safe' limit of climate change was 2 °C above pre-industrial levels.
- <sup>9</sup> The Economics of Climate Change, The Stern Review, Nicholas Stern (2006)
- <sup>10</sup> Based on the 2005 emission baseline of 1034.93 ktCO<sub>2</sub> plus an additional 58 ktCO<sub>2</sub> by 2020 due to housing growth a 40 per cent reduction of this figure is 472kt which equates to approximately 148,000 cars (assuming DECC figures for average car emission at 3.184 t).
- <sup>11</sup> Haringey's Borough Profile [http://www.haringey.gov.uk/index/news\\_and\\_events/fact\\_file/boroughprofile.htm](http://www.haringey.gov.uk/index/news_and_events/fact_file/boroughprofile.htm)
- <sup>12</sup> <http://www.londonpovertyprofile.org.uk/indicators/topics/inequality/income-inequalities-within-london-boroughs/> [Accessed July 10, 2012]
- <sup>13</sup> Slope Index of Inequality for Local Authorities accessed at The network of Public Health Observatories <http://www.apho.org.uk/resource/item.aspx?RID=110506> last accessed 22/08/12
- <sup>14</sup> Department of Energy and Climate Change, Fuel Poverty Sub Regional Statistics, 2010
- <sup>15</sup> London Fuel Poverty Risk Indicators Wards (March 2012), [Accessed August 1st 2012] <http://data.london.gov.uk/datastore/package/london-fuel-poverty-risk-indicators-wards>
- <sup>16</sup> Haringey LDF Annual Monitoring report 2010-2011 [http://www.haringey.gov.uk/index/local\\_development\\_framework/amr.htm](http://www.haringey.gov.uk/index/local_development_framework/amr.htm) [Accessed July 27th 2012]
- <sup>17</sup> The North London Sub-regional Strategic Market Housing Assessment, 2010
- <sup>18</sup> Haringey's Transport Commission 2010 was established to consider a range of key policy issues. This recommended that a detailed delivery plan be developed to pursue the 40 per cent CO<sub>2</sub> reduction target. [www.minutes.haringey.gov.uk/mgConvert2PDF.aspx?ID=22457](http://www.minutes.haringey.gov.uk/mgConvert2PDF.aspx?ID=22457)
- <sup>19</sup> Waste Data Overview, 2011 [www.defra.gov.uk/statistics/files/20110617-waste-data-overview.pdf](http://www.defra.gov.uk/statistics/files/20110617-waste-data-overview.pdf). This includes emissions from waste sent to landfill, incineration without energy recovery, and waste water handling. Haringey's waste contractor, Veolia, have a carbon reduction target of 40 per cent by 2015 related to operations. This does not include the carbon savings associated with diversion from disposal.
- <sup>20</sup> Meeting Carbon Budgets – 3rd Progress report, June 2011 <http://www.theccc.org.uk/reports/3rd-progress-report>
- <sup>21</sup> Solar Panels on Muswell Hill school were installed as part of the DECC Low Carbon Communities Challenge which sponsorship from British Gas, and donations from residents as part of a low cost LED light bulb scheme. (The Government backed Feed-in-Tariffs provide a guaranteed payment for renewable electricity produced as well as a guaranteed payment for unused surplus electricity exported back to the national grid).
- <sup>22</sup> Annual average car emits 3.184 tonnes CO<sub>2</sub> per car per annum (Defra 2008). In 2008 there were 2,707,218 licensed private and light good vehicles in London at the year end, so 325,000 represents 12 per cent of all cars, or approximately one tenth. <http://data.london.gov.uk/datafiles/transport/vehicles-licensed-borough.xls>
- <sup>23</sup> Department of Energy and Climate Change, Local and Regional Carbon Emissions (2009)
- <sup>24</sup> Based on household CO<sub>2</sub> emissions of energy and gas consumption (DECC 2010).
- <sup>25</sup> 2001 Census
- <sup>26</sup> Based on BioRegional average income and direct and indirect carbon footprint calculation; average footprints of 21.9t in the west and 13.5t in the east
- <sup>27</sup> Based on average footprints and per capita footprint of direct and indirect emissions of the population in east of borough increasing by 8.4t
- <sup>28</sup> Using research carried out for London and apportioning this based on Haringey's population and average income levels and estimated total CO<sub>2</sub> emissions (including direct and indirect sources) have been produced. Capital Consumption 2009, [www.bioregional.com/files/publications/capital-consumption.pdf](http://www.bioregional.com/files/publications/capital-consumption.pdf)

- <sup>29</sup> See Jackson, T (2009) Prosperity without growth? The transition to a sustainable economy' Sustainable Development Commission. London.
- <sup>30</sup> Low Carbon Environmental Goods and Services: An Industry Analysis (2009), Department for Business Innovation and Skills [www.bis.gov.uk/files/file50254.pdf](http://www.bis.gov.uk/files/file50254.pdf)
- <sup>31</sup> Green Skills and environmental awareness in vocational education and training synthesis report. Research Paper 24, European Centre for the Development of Vocational Training (CEDEFOP), June 2012 <http://www.cedefop.europa.eu/EN/publications/20092.aspx>
- <sup>32</sup> Shaheen F and Seaford, C (2012) Good Jobs for Non-graduates. London: nef
- <sup>33</sup> See [www.neweconomics.org/projects/the-big-society-and-the-new-austerity](http://www.neweconomics.org/projects/the-big-society-and-the-new-austerity)
- <sup>34</sup> In Malmö, the 550 km district heating network – originally owned by the municipality and now by E.ON – supplies 95 per cent of buildings in district heating areas. The fuel mix supporting the system has changed substantially since the 1950s, from oil and coal to energy-from-waste, surplus heat from industry, natural gas Combined Heat and Power and large biomass boilers. Approximately 65 per cent of district heating is supplied from renewable sources (Committee on Climate Change, 2012).
- <sup>35</sup> The Commission discussed various approaches to delivering a renewable energy supply, however research demonstrated that smaller electricity suppliers have found difficulty in trading in the electricity market because the costs, risks and complexities of doing so are disproportionate to the size of their businesses. It was against this background that Ofgem produced its licence lite proposals in 2009 however, to date no organisation has successfully applied for a licence lite. [http://www.haringey4020.org.uk/index/useful-information/lcf\\_studies/licence\\_lite.htm](http://www.haringey4020.org.uk/index/useful-information/lcf_studies/licence_lite.htm)
- <sup>36</sup> Parsons Brinkerhoff (2012) North London Strategic Alliance, Upper Lea Valley Decentralised Energy Network.
- <sup>37</sup> (ibid) See Code for Sustainable Homes [www.planningportal.gov.uk/uploads/code\\_for\\_sust\\_homes.pdf](http://www.planningportal.gov.uk/uploads/code_for_sust_homes.pdf)
- <sup>38</sup> North London Sub-Regional Retrofit Potential and Business Plan, CAMCO (2011) [http://www.haringey4020.org.uk/camco\\_north\\_london\\_retrofit\\_potential.pdf](http://www.haringey4020.org.uk/camco_north_london_retrofit_potential.pdf)
- <sup>39</sup> The final "Provider" role business case report is due to be published in September 2012
- <sup>40</sup> Sustainable Development Commission (2010) The Future is Local: Empowering communities to improve their neighbourhoods [www.sd-commission.org.uk/pages/the-future-is-local.html](http://www.sd-commission.org.uk/pages/the-future-is-local.html)
- <sup>41</sup> The final "Provider" role business case report is due to be published in September 2012
- <sup>42</sup> [http://www.decc.gov.uk/en/content/cms/tackling/green\\_deal/gd\\_industry/private\\_rented/private\\_rented.aspx](http://www.decc.gov.uk/en/content/cms/tackling/green_deal/gd_industry/private_rented/private_rented.aspx)
- <sup>43</sup> [http://www.kfw.de/kfw/en/KfW\\_Group/Press/Latest\\_News/PressArchiv/2011/20111107\\_54412.jsp](http://www.kfw.de/kfw/en/KfW_Group/Press/Latest_News/PressArchiv/2011/20111107_54412.jsp)
- <sup>44</sup> Nicol S et al Quantifying the cost of poor housing BRE Press 2010 quoted in Houses of Parliament Postnote 371 January 2011 – Housing and Health
- <sup>45</sup> Barker A: Assessment of the Impact on Health and Health Costs due to Fuel Poverty in Bolton, 2011. NHS Bolton.
- <sup>46</sup> ibid
- <sup>47</sup> ibid
- <sup>48</sup> A housing stock analysis carried out for Homes for Haringey in 2012 indicates that a total £160m investment would be required to bring all stock up to SAP 80 but would have the potential to leverage ECO, Green Deal and FIT.
- <sup>49</sup> Uttlesford Council introduced supplementary Planning Guidance in 2005 requiring the installation of simple, cost-effective energy efficiency measures within the existing house .
- <sup>50</sup> DECC, The Green Deal and Energy Company Obligation Impact Assessment, 2011
- <sup>51</sup> [http://www.kfw.de/kfw/en/KfW\\_Group/Press/Latest\\_News/PressArchiv/2011/20111107\\_54412.jsp](http://www.kfw.de/kfw/en/KfW_Group/Press/Latest_News/PressArchiv/2011/20111107_54412.jsp)
- <sup>52</sup> See <http://evergreencooperatives.com/>
- <sup>53</sup> See Jackson, T (2009) Prosperity without growth? The transition to a sustainable economy Sustainable Development Commission
- <sup>54</sup> GVA (2011) Upper Lee Valley Low Carbon Economy: opportunities, barriers and interventions, [www.haringey4020.org.uk/ulv\\_low\\_carbon\\_economy\\_final\\_report-3.pdf](http://www.haringey4020.org.uk/ulv_low_carbon_economy_final_report-3.pdf)
- <sup>55</sup> Nesta (2011) Prototyping Public Services <http://www.nesta.org.uk/library/documents/PrototypingLearning.pdf>
- <sup>56</sup> Environmental Audit Committee - Fifth Report, Air Quality, 2010 see <http://www.publications.parliament.uk/pa/cm200910/cmselect/cmenvaud/229/22902.htm> last accessed 22/08/12
- <sup>57</sup> Department of Health (2011): Healthy Weight, Healthy Lives: A call to action on obesity in England, 2, Department of Health (2012) Programme Budgeting PCT Benchmarking Tool.
- <sup>58</sup> The low carbon bus network would contribute a 5.4 per cent CO<sub>2</sub> reduction from transport emissions by 2020. Buchanan C (2011) A Review of Sustainable Transport Measures to achieve 40:20 [www.haringey4020.org.uk/review\\_of\\_sus\\_transport\\_measures.pdf](http://www.haringey4020.org.uk/review_of_sus_transport_measures.pdf)
- <sup>59</sup> Buchanan, C (2011) A Review of Sustainable Transport Measures to achieve 40:20 [www.haringey4020.org.uk/review\\_of\\_sus\\_transport\\_measures.pdf](http://www.haringey4020.org.uk/review_of_sus_transport_measures.pdf)
- <sup>60</sup> SEA RENEUE (2007) London Borough of Haringey, Carbon Reduction Scenarios Technical Report
- <sup>61</sup> Buchanan, C (2011) A Review of Sustainable Transport Measures to achieve 40:20 [www.haringey4020.org.uk/review\\_of\\_sus\\_transport\\_measures.pdf](http://www.haringey4020.org.uk/review_of_sus_transport_measures.pdf)
- <sup>62</sup> Paved with Gold: The real value of good street design, CABE 2007, Available at [www.cabe.org.uk/files/paved-with-gold-summary.pdf](http://www.cabe.org.uk/files/paved-with-gold-summary.pdf) last accessed 22/08/12
- <sup>63</sup> Electric Vehicles are currently charged £20.60 per annual resident parking permit (this is the charge for vehicles up to 100 CO<sub>2</sub> g/km - including electric vehicles). [http://www.haringey.gov.uk/index/environment\\_and\\_transport/parking/parkingpermits/resident-parking-permits.htm#prices](http://www.haringey.gov.uk/index/environment_and_transport/parking/parkingpermits/resident-parking-permits.htm#prices)
- <sup>64</sup> Ashden Awards (2012) Case Study, City of Ghent, Belgium <http://www.ashden.org/files/Ghent%20full%20winner.pdf>
- <sup>65</sup> Department of Health (2012) Healthy Weight, Healthy Lives: A call to action on obesity in England
- <sup>66</sup> Department of Health (2012) Programme Budgeting PCT Benchmarking Tool
- <sup>67</sup> CABE 2007. Based on GLA figures on retail units in Haringey (2008) and assuming an average unit rental cost is £17 sqft, based on 1,750,000 sqft of retail unit space in Haringey with an average turnover of £300k.
- <sup>68</sup> Based on Carbon Descent, Vantage Point Scenario Modelling, (2012)

# APPENDIX 1

## MEMBERS LIST

Membership of the 40:20 Steering Group, the Carbon Commission core group and working groups.

### 40:20 STEERING GROUP MEMBERS

[Cllr Joe Goldberg](#) Cabinet Member for Finance and Sustainability, LBH Chair

[Dermot Barnes](#), EcoDomus

[Johnathan Boswell](#), Highgate Climate Action Network

[Quentin Given](#), Friends of the Earth, Ferry Lane Action Group

[Anne Gray](#), Green Party, Growing in Haringey

[Cara Jenkinson](#), EN10ERGY

[Leyla Laksari](#), Living Under One Sun

[Cllr Antonia Mallett](#), West Green Ward Councillor, LBH

[Alan Morton](#), Muswell Hill Sustainability Group

[Nicky Price](#), Tottenham Traders Association, Tottenham Carnival

[Joyce Rosser](#), Tottenham Civic Society, Sustainable Haringey

[Nick Powell](#) Head of Carbon Management & Sustainability, LBH

[Jessica Sherlock](#), Policy & Projects Manager, LBH

[Adam Parvez](#), Environmental Resources Officer, LBH

[Cllr Juliet Solomon](#), Alexandra Ward Councillor, LBH

[Peter Maddison](#), Homes for Haringey

### CARBON COMMISSION CORE GROUP

[Andrew Simms](#), Fellow, new economics foundation (nef) Chair

[Chris Brown](#), CEO of Igloo Regeneration

[Elizabeth Cox](#), Connected Economies Lead, nef

[Nicky Gavron](#), Greater London Assembly

[Quentin Given](#), Tottenham & Wood Green Friends of the Earth & Haringey 40:20 Steering Group

[Cllr Joe Goldberg](#), Cabinet Member for Finance & Sustainability

[Dr Mattia Romana](#), from the Grantham Institute of Climate Change

[Ian Short](#), CEO of the Institute for Sustainability

[Stephen Tate](#), Assistant Director, Environment & Transport, Greater London Authority

[Prashant Vaze](#), author of the Economical Environmentalist

### WORKING GROUPS - CONTRIBUTORS

#### COMMUNITY INVOLVEMENT

[Quentin Given](#), Friends of the Earth, Chair

[Natalie Butler](#), Environmental Resources Officer, LBH

[Elizabeth Cox](#), Connected Economies Lead, nef

[Cara Jenkinson](#), Muswell Hill Sustainability Group

[Adam Parvez](#), Environmental Resources Officer, LBH

[Daisy Byaruhanga](#), Innovative Vision for African Communities

[Judy Hallgarten](#), Groundwork north London

[Haringey Youth Climate Change Ambassadors](#)

[Anastasia Harrison](#), Transition Highgate

[Leon Joseph](#), Community Participation Officer, LBH

[Jude Luckett](#), London Sustainability Exchange

[Loreana Padron](#), Architect

[Sofie Pelsmaker](#), Architect

[Nicky Price](#), Tottenham Traders Association

[Ruth Schamroth](#), Sustainable Haringey network

[Vickie Schellert](#), Haringey Timebank

[Jessica Sherlock](#), Policy & Projects Manager, LBH

[Derrick Walker](#), Tottenham renewable start up energy business

### SUSTAINABLE TRANSPORT

#### (HARINGEY TRANSPORT FORUM)

[Cllr Nilgun Canver](#), Cabinet Member for the Environment Chair

[Edwin Leigh](#), Transport Planning Officer, LBH

[Malcolm Smith](#), Transportation Planning Team Leader, LBH  
Representatives from campaigning groups and transport operators.

### LOW CARBON INVESTMENT

[Prashant Vaze](#), Author, Chair

[Jonathan Boswell](#), Highgate Climate Action Network

[Cara Jenkinson](#), EN10ERGY

[Mathew Gaynor](#), Head of Finance, Place and Sustainability, LBH

[Michael King](#), CHPA

[Kelly Lee](#), British Gas

[Peter North](#), Greater London Authority

[Duncan Price](#), CAMCO Global

[Justine Prain](#), Energy Saving Trust

Jessica Sherlock, Carbon Management, Policy & Projects Manager, LBH

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## GREEN ENTERPRISE

Ian Short, Institute for Sustainability Chair

Rory Bergin, HTA

Billy Devine, CONEL training college

Ben Earl, B& Q

Chris Ronketti, British Gas

Nicky Price, Tottenham Traders Association

Andrew Raingold, Aldersgate Group

Ellen Scrimgeour, North London Business

Cllr Alan Strickland, Cabinet Member for Regeneration

Lawrence Hewitt, Economic Policy Officer, LBH

Martin Tucker, Economic Development Manager, LBH

Ambrose Quashie, Business and Employment Initiative Officer, LBH

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## REGENERATION OF TOTTENHAM

Chris Brown, Igloo Regeneration Chair

Judith Hannah, Clyde Road Residents Association

Juilet Codet-Boisse, Bio-Regional

Anne Lippit, Team Tottenham Director, LBH

John Norman, Team Tottenham, LBH

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## RESPONDENTS

Steve Boniface and Mick Hale, Diamond Build PLC

Bryn Lockwood, Sustrans

Leyla Laksari, Living Under One Sun

Peter Maddison, Homes for Haringey

Sona Matahni, The Selby Trust

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## LEARNING PARTNERS

Peter Lipman, Policy Director, Sustrans

Peter Jones, Transport Professor, University College London

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## THE CARBON COMMISSION

Five Working Groups were formed and charged with identifying the role/s the Council should play in driving low-

carbon investment in the borough, and supporting wider actions. Additionally they were asked to consider actions that aim to reduce inequality, increase involvement in decision making and share benefits more equally with people in the borough. The five Working Groups developed a set of recommendations which were discussed by the Carbon Commission:

**Low Carbon Investment** developed recommendations on energy efficiency improvements to buildings and creating low carbon, decentralised energy networks across the borough.

**Community involvement** developed recommendations on what role the Council should play to increase the capacity within networks and partnerships to widen their reach and effectiveness, in order to bring about borough-wide involvement in achieving 40:20.

**Regeneration of Tottenham** proposed possible changes to the Tottenham High Road area to increase the quality and supply of housing, support a flourishing local economy, produce low carbon heat and electricity, improve transport networks and enhance well-being.

**Green enterprise** developed recommendations for low carbon enterprise growth and related skills development in the Upper Lea Valley. This area, which has been experiencing economic decline, stretches from the Olympic fringe six miles north. With 6,000 hectares of land it is London's largest Opportunity Area.

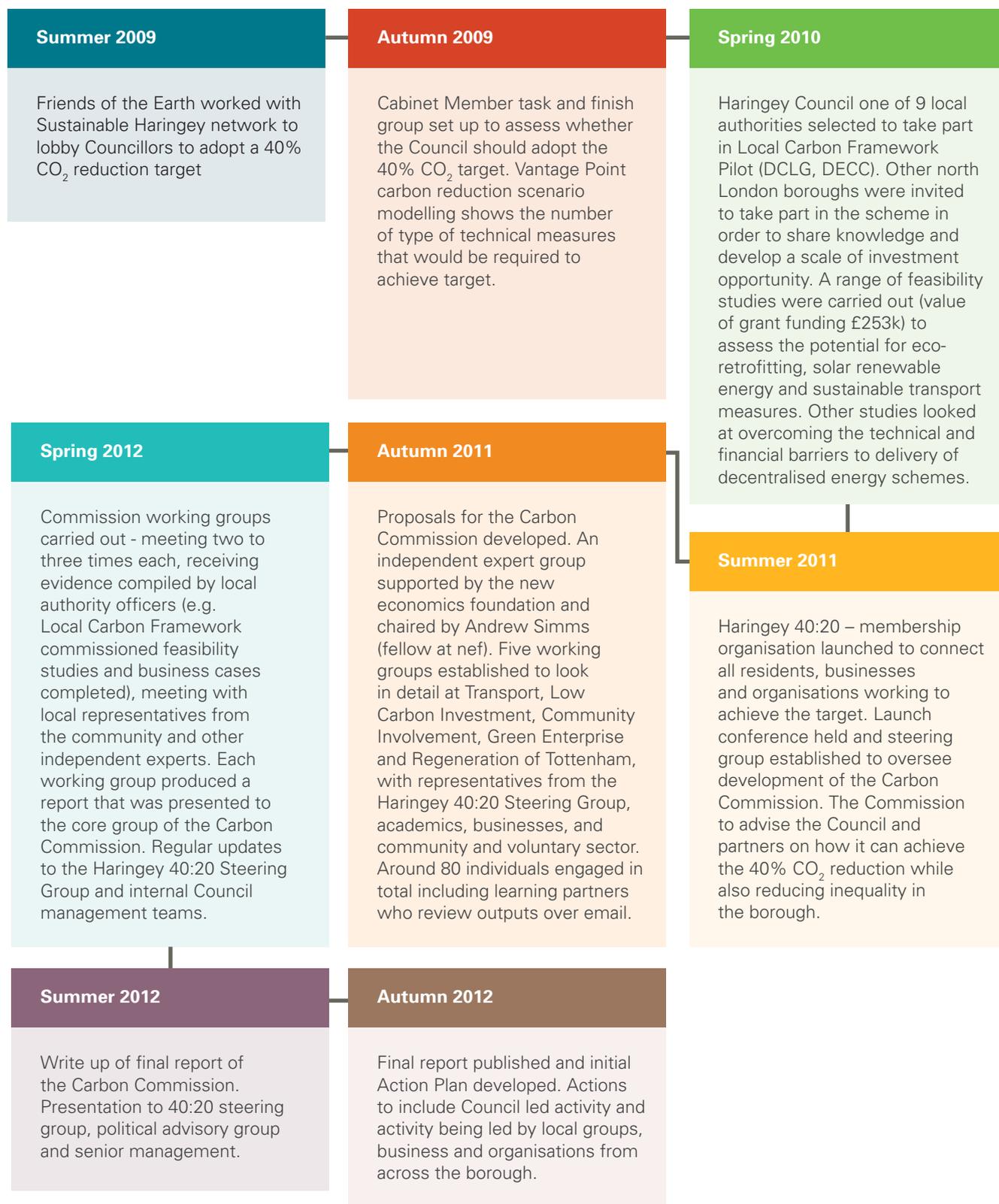
**Sustainable transport** developed recommendations on the changes needed within the transport system to support a modal shift towards the use of public transport, cycling and low carbon vehicles. Rather than forming a specific working group for the Commission, we worked directly with the existing Council Transport Forum. The Forum involves a range of local stakeholders such as campaign groups, councillors and transport operators, and provides a place for a consultative forum for emerging transport strategy and the Local Implementation Plan (LIP). The Commission asked the Forum for their recommendations to: prioritise existing LIP funding to

maximize CO<sub>2</sub> and other outcomes, increase funding and resources available, and target CO<sub>2</sub> emissions from journeys starting and ending outside the borough.

At least one Commission member was part of the Working Groups, with the exception of the transport group, who was then responsible for leading the discussion on that element within the Commission meetings. The Carbon Commission reviewed the recommendations emerging out of each of the groups' discussions over a series of meetings and then decided how these could come together to form the basis of a coherent set of actions. The terms of reference for each of these groups are detailed in Appendix 5.

## APPENDIX 2 THE JOURNEY SO FAR

Key events in the timeline of the process leading up to and during the Carbon Commission.



# APPENDIX 3 LOCAL CARBON FRAMEWORK KEY TECHNICAL STUDIES



Haringey was one of nine local authorities selected to take part in the Department of Energy and Climate Change (DECC) Local Carbon Framework (LCF) Pilot Project. This nationwide initiative was set up to explore how national carbon targets can be achieved on a local spatial level. Funding for several projects was awarded to help the Council develop a 40:20 Action Plan.

Haringey has been working in partnership with a number of boroughs in the north London region on the LCF pilot. Many of the key priorities for local authorities such as decentralised energy, retrofitting building and transport infrastructure, growing the green economy, employment and skills are likely to benefit from working together to attract economies of scale and investment and enable Councils to share expertise. The five LCF studies we have can be accessed at:

[www.haringey4020.org.uk/lcf\\_studies](http://www.haringey4020.org.uk/lcf_studies)

## 1. NORTH LONDON SUB REGIONAL HOUSING STOCK ANALYSIS AND BUSINESS PLAN

The aim of this study was to produce a detailed housing stock database for the boroughs involved. The database can then be used to develop technical specifications for housing retrofit for the most common types of dwellings, to deliver the housing sector's contribution to a 40 per cent CO<sub>2</sub> reduction target by 2020.

In addition a business plan and strategy has been developed for delivering a major retrofit programme for 20-30,000 homes per year in the North London Sub-Region (approximately 5,000 per borough).

## 2. SOLAR RENEWABLE POTENTIAL IN NORTH LONDON

This study aimed to gain investment in solar power while maximising the benefit to the north London region. The project looked at non-domestic and domestic buildings, including social housing, and included the following elements:

- Collecting data from across the north London region
- Developing an assessment method for the potential suitability of buildings for solar power and to deliver training to relevant officers
- An assessment of the ownership and type of delivery model for a solar power installation scheme
- An analysis of the potential local economic benefit
- Set up framework contract for use by London local authorities, Local Strategic Partners and local commercial organisations
- Producing guidance for other Local Authorities.

## 3. GREEN ENTERPRISE IN THE UPPER LEE VALLEY

The Upper Lee Valley has been identified in the London Plan as the capital's largest Opportunity Area. This project aimed to develop an understanding of the current low carbon economy and potential for green growth, together with clear, strategic actions to support that economic expansion.

This project produced a study that outlines the current green economy landscape, with an action plan for taking advantage of growth areas. Haringey aims to contribute to

the economic development and regeneration of the borough, by engaging local businesses to help deliver low carbon projects.

Haringey already has a Sustainable Procurement Strategy and Action Plan to support delivery on social, economic and environmental objectives – this project will provide an evidence base for future direction and implementation of this work.

## 4. SELLING ELECTRICITY FROM COMBINED HEAT AND POWER SCHEMES

Acquiring a "Lite Supply Licence" would allow a district heating operator to sell electricity at retail rates to consumers with fewer risks and complexities. To date, no applications have been made for a Lite Licence due to uncertainty over the willingness of licensed suppliers to enter into the agreement required for the Lite Licence, along with the costs of developing the licence agreement and procuring a licensed supplier partner. This project produced a draft Supplier Services Agreement contract.

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## 5. PRODUCING GUIDANCE FOR DECENTRALISED ENERGY SCHEMES

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The purpose of this project was to gain an understanding of the potential for district heating networks in the borough based on heat loads and likely capital costs and cash flows, and set up organisational structures to oversee a strategic approach to delivering DE networks.

This allowed Haringey and other local authorities to gain a real understanding of the practical potential for district heating schemes in their areas and the contribution these schemes can make to achieving carbon targets.

Carrying out a feasibility study using external consultants is extremely costly and therefore a pre-feasibility method would allow the public sector to target their resources most cost effectively.

This energy master-planning guidance includes a Decentralised Energy Pre-feasibility Assessment Tool. Together the guidance and pre-feasibility tool represent an energy master-planning toolkit that will allow local authority officers to perform high-level assessments of potential decentralised energy network opportunities.

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# APPENDIX 4 OTHER STUDIES

Background evidence used by the Commission (downloadable at [www.haringey4020.org.uk](http://www.haringey4020.org.uk))

## HARINGEY CONTEXT

Greenest Borough Strategy Summary  
(PDF, 427KB)

Greenest Borough Strategy Annual  
Report 2011 (PDF, 311KB)

Haringey Council 1st Annual Carbon  
Report 2011 (PDF, 1MB)

Haringey Council Carbon Management  
Plan (PDF, 2.8MB)

Haringey Core Strategy Summary  
(PDF, 235KB)

## COMMUNITY INVOLVEMENT

The 40:20 Steering Group (PDF, 70KB)

Haringey Sustainable Communities  
Strategy Summary (PDF, 239KB)

Low Carbon Zone Mid Project Report  
(PDF, 957KB)

Working Together - A Report by  
London Sustainability Exchange (PDF,  
180KB)

Working with Local Communities to  
Tackle Climate Change (PDF, 725KB)

## SUSTAINABLE TRANSPORT

Haringey's Local Implementation Plan  
(PDF, 168KB)

A Review of Sustainable Transport  
Measures to Achieve 40:20 (PDF,  
908KB)

Haringey Sustainable Transport  
Commission Report, 2010 (PDF, 92KB)

The Mayor of London's Transport  
Strategy (PDF, 3.1MB)

Creating Growth, Cutting Carbon - A  
Department for Transport White Paper  
(PDF, 2.5 MB)

## LOW CARBON INVESTMENT

Haringey Business Case for Solar PV  
by OMNI Group (PDF, 337KB)

Haringey's Green Deal Pilot Report  
(PDF, 58KB)

Summary of the Broadwater Farm  
Decentralised Energy Feasibility Study  
(PDF, 51KB)

Summary of the Hornsey Town Hall  
Decentralised Energy Feasibility  
(PDF, 52KB)

Summary of Potential for Solar PV  
Investment in Haringey (PDF,50KB)

Summary of Upper Lea Valley Green  
Enterprise Potential Report (PDF, 53KB)

Fuel Poverty Report 2009-10  
(PDF, 204KB)

Haringey Sustainable Procurement  
Guidance (PDF, 758KB)

Summary of Haringey Decent Homes  
work (PDF, 102KB)

Haringey 'Fair Insulation' Briefing - May  
2011 (PDF, 45KB)

Haringey's Sustainable Schools  
Investment Fund Brochure  
(PDF, 198KB)

## GREEN ENTERPRISE

People, Places, Prosperity- Haringey  
Regeneration Strategy (PDF, 868KB)

Unlocking Green Enterprise: A Green  
Strategy for the UK (PDF, 263KB)

Summary of Potential for Solar PV  
Investment in Haringey (PDF,50KB)

Green Enterprise District East London  
(PDF, 2.68 MB)

An Economic Future for the Upper Lea  
Valley Report (PDF 2.47 MB)

Upper Lea Valley Low Carbon  
Opportunities Report (PDF 6.27MB)

Barrier to Small Businesses Going  
Green Report (PDF 625KB)

## REGENERATION OF TOTTENHAM

Low Carbon Investment and  
Decentralised Energy Potential in  
Haringey (PDF 5.55MB)

Briefing on Draft Tottenham  
Regeneration Strategy (PDF, 540KB)

Haringey Core Strategy Summary  
(PDF, 235KB)

Transport Investment for Tottenham  
(PDF, 64KB)

Upper Lee Valley Opportunity Area -  
Cabinet report July 2011 (PDF, 322KB)

Summary of Community Infrastructure  
Study (PDF 199KB)

Haringey Borough Investment Plan  
(PDF, 6MB)

Housing Exemplars in Haringey  
(PDF 54.9KB)

Solar Renewable Potential North  
London (PDF, 1.2MB)

Summary of Potential for Solar PV  
Investment in Haringey (PDF,50KB)

# APPENDIX 5

## CARBON COMMISSION

### TERMS OF REFERENCE

In the current economic climate, with large cuts to local government budgets, many authorities are reducing their focus on the green agenda, in the belief that it is now a luxury they cannot afford. In Haringey, we see it differently and have made a real commitment to tackle climate change – and to tackle it locally – by becoming the first major authority to sign up to a pledge to reduce carbon emissions in our borough by 40% by 2020.

Haringey's Carbon Commission, in partnership with nef (new economics foundation), brings together experts drawn from across the business, government and research communities to explore how this ambitious target of a 40% reduction in carbon emissions can be practically achieved in the timeframe, while taking an approach that puts reducing inequality at the heart of our low carbon transition. A range of evidence to support this work has been developed with the support of funding from the Department of Energy & Climate Change, Local Carbon Framework Pilot. The resulting recommendations developed by the Carbon Commission will be considered by the Council and Haringey 40:20 Steering Group in Summer 2012.

Haringey 40:20, a membership organisation open to all businesses, residents and organisations in Haringey was launched in July 2011. The steering group is working closely with the Council to design and implement the Carbon Commission and will be integral to ensuring the long term success of the 40:20 Action Plan.

#### 1. MEMBERSHIP

The Carbon Commission includes the following core group members supported by a wider range of experts taking part in five working groups.

##### Core members

1. Andrew Simms, Fellow, new economics foundation (Chair)
2. Chris Brown, Chief Executive, Igloo
3. Elizabeth Cox, Connected Economies lead, new economics foundation
4. Nicky Gavron, London Assembly Member
5. Ian Short, Chief Executive, Institute for Sustainability (Chair of Green Enterprise Working Group)
6. Quentin Given, Tottenham & Wood Green Friends of the Earth, Haringey 40:20 Steering Group, Chair of Community Involvement Working Group
7. Prashant Vaze, Consumer Focus, Author, chair of Low Carbon Investment Working Group
8. Mattia Romani, Fellow at Grantham Institute for Climate Change Research

Learning partners are invited to review and comment on the outputs from the working groups:

- Peter Lipman, Head of Policy, Sustrans
- Peter Jones, University College London

#### 2. SCOPE, TIMESCALE, PROCESS

Five working groups will support the work of the Carbon Commission. These will explore:

1. Low Carbon Investment
2. Community Involvement
3. Sustainable Transport
4. Green Enterprise
5. Regeneration of Tottenham

Each working group will meet two or three times, review materials and produce a report. Ideally each group will include a Carbon Commission member, and be supported by a Council officer.

The Carbon Commission will meet three times from December to early spring (dates to be agreed) to discuss and review evidence from the Working Groups and agree a set of recommendations to be put forward to the Council and Haringey 40:20. The draft report will be presented to the Council and Haringey 40:20 and any amendments required will be agreed by the Chair of the Commission.

The meetings will be chaired by Andrew Simms and supported by Haringey Council.

### 3. CARBON COMMISSION WORKING GROUPS

A summary of each working group brief is provided below. The full working group briefs are available to download at: [www.haringey4020.org.uk](http://www.haringey4020.org.uk).

#### 3.1 LOW CARBON INVESTMENT

To achieve a 40% reduction from direct CO<sub>2</sub> emissions, evidence from carbon reduction scenario modelling indicates that an investment of over £400m will be required in Haringey. This would allow for energy efficiency improvements to buildings and the development of low carbon, decentralised energy networks.

The working group will be asked to develop clear recommendations with respect to what role/s the Council should play in driving low carbon investment in the borough, reflecting on the prospectus of investment opportunities. Consideration will need to be given to the wider aims of the Council to reduce inequality, increase involvement in decision making and share benefits more equally with people living and working in the borough.

Recommendations will be made for the short (2011-2014), medium (2015-2018) and long term action (2018 – 2020). Consideration will need to be given to cross-borough working opportunities that have already been initiated as part of the Local Carbon Frameworks pilot.

#### 3.2 COMMUNITY INVOLVEMENT

This working group will assess what role the Council should play to increase capacity within existing networks and partnerships, or support the creation of new ones, in order to bring about borough-wide involvement in achieving 40:20. The working group will be asking existing groups in Haringey what is working well and what they need in order to increase their reach and effectiveness. Among sections of the borough that are not involved the working group will identify the networks and incentives required and how could they be delivered.

### 3.3 REGENERATION OF TOTTENHAM

Tottenham High Road area is one of the most deprived areas in London and has been heavily damaged by the recent London riots. The area will need to be upgraded in order to increase the quality and supply of housing, support a flourishing local economy, produce low carbon heat and electricity, adapt to climate change, improve transport networks and enhance the well-being of communities. A major challenge for Haringey's 40:20 Action Plan will be to achieve dramatic reduction in CO<sub>2</sub> emissions while also increasing prosperity and reducing inequality.

The group will assess the opportunity to work in an integrated way across a whole community, linking social, economic and environmental sustainability. The recommendations will be presented to the working group leading the overall Regeneration Strategy for Tottenham, reporting to Sir Stuart Lipton. Key considerations will be given to current planned investment, existing assets and resources and links to adjacent opportunity areas such as the Olympic Park and Lee Valley Regional Park.

#### 3.4 GREEN ENTERPRISE

The Upper Lea Valley stretches from the Olympic fringe 6 miles north and with 6,000 hectares of land it is London's largest Opportunity Area. Historically the area has been in decline and now needs a strategy for low carbon economic growth. The Carbon Commission will be asked to consider how the Council can secure local economic benefit from emerging markets for low carbon goods and services.

The working group will review evidence on the potential for low carbon economic growth and consider the innovative approaches, models and programmes that can stimulate growth and develop new skills.

### 3.5 SUSTAINABLE TRANSPORT

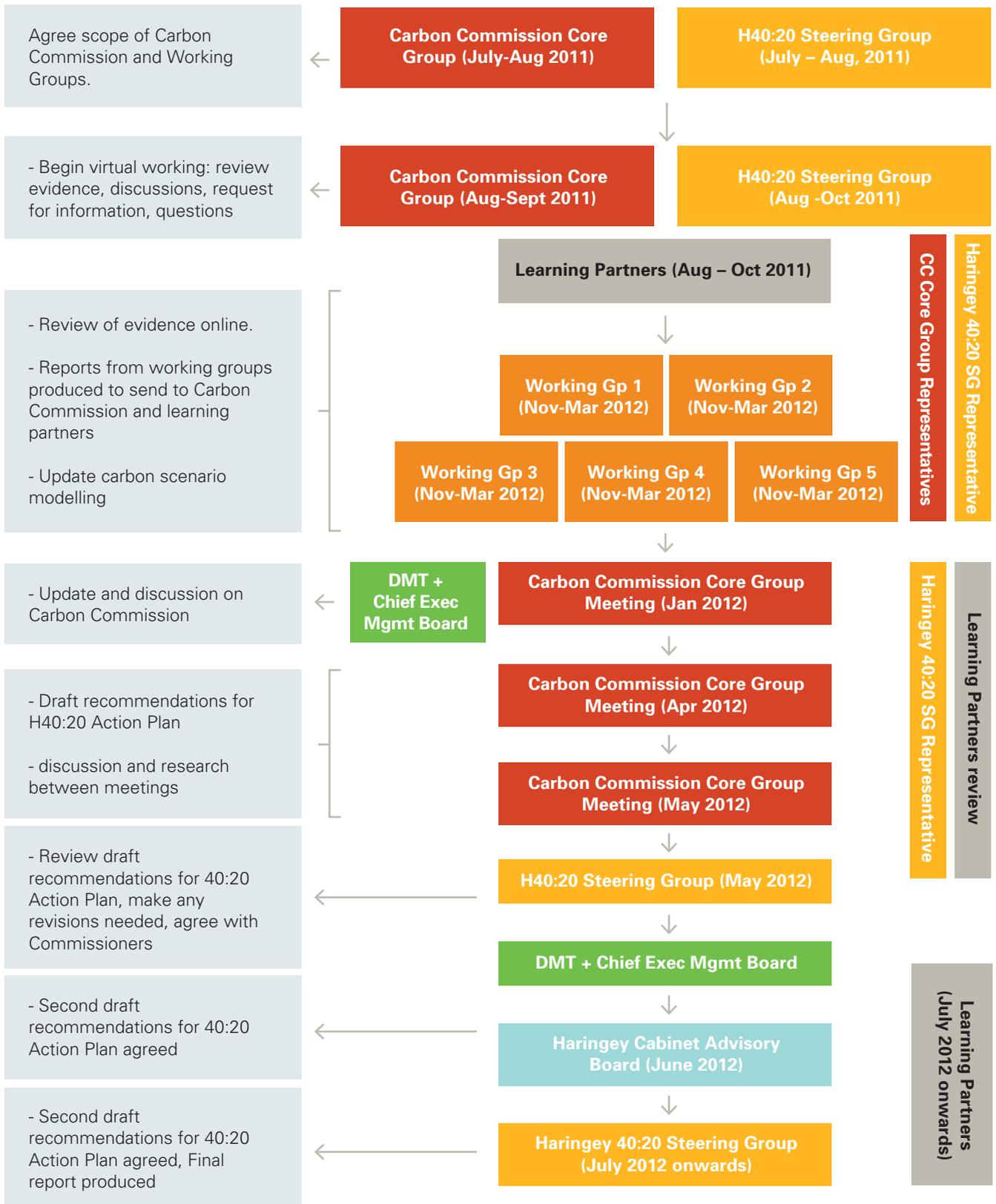
The Council's Local Implementation Plan to 2014 includes a number of policies and measures aimed at achieving modal shift, use of public transport and take up of low carbon vehicles. An expert review of the LIP has been carried out to identify the CO<sub>2</sub> saving potential from these measures and those being delivered through regional, national and European policies. The report provides recommendations on the mix of physical infrastructure and behaviour change measures likely to be needed to deliver a greater contribution to the transport sector, leading to a significant funding deficit.

The working group will be asked to review this evidence and make recommendations for 1) prioritising existing LIP funding to maximize CO<sub>2</sub> and other outcomes 2) increasing funding and resources available and 3) targeting CO<sub>2</sub> emissions from journeys starting and ending outside the borough.

## 4. IMPLEMENTATION OF 40:20

It is hoped that the Carbon Commission will retain a longer-term involvement in advising the Council and reviewing the progress being made to implement the action plan as part of the Council's Annual Carbon Report to full Council.

HARINGEY 40:20 CARBON COMMISSION: KEY DATES



# APPENDIX 6 A MAP OF SUSTAINABILITY GROUPS IN HARINGEY

This map gives the location of key community initiatives known to be currently active in the borough.

The groups mapped out are listed below, and although not an exhaustive list, provide some evidence for the range and distribution of projects with community networks developed around them.

- 1 Highgate Climate Action Network
- 2 Crouch End Transition Town
- 3 Muswell Hill Sustainability Group
- 4 Food From the Sky (food growing and young person training)
- 5 Hornsey Meadow Orchard Project (food growing)
- 6 eN10ergy, Muswell Hill Sustainability group & Muswell Hill Low Carbon Zone
- 7 Transition Town Finsbury Park
- 8 Sustrans DIY Streets Initiative (sustainable transport measures)
- 9 Tottenham Civic Society
- 10 Friends of the Earth Tottenham
- 11 Friends of Tottenham Marshes (nature and good growing)
- 12 Living Under One Sun (Community Allotment and Big Lottery Funded scheme focussed on building social capital)
- 13 Back 2 Earth (Community Allotment with strong health and wellbeing focus)
- 14 Haringey Timebank
- 15 Selby Centre (2nd largest community centre in England; the base of 33 charities)



# APPENDIX 7

## A SUMMARY THE RECOMMENDED ACTIONS

1. Set up of north London alternative energy mutual
  2. Large local commercial and public sector heat users to purchase from mutual
  3. Planning framework agreed to safeguard alternative energy networks and to receive contributions from developers
  4. Community networks encourage share ownership in the mutual
  5. Community networks take part in collective purchase of energy
  6. OFGEM to level the playing field for small and medium scale energy producers to sell energy to customers
  7. Council to finance set up eco-retrofitting co-operative network
  8. Homes for Haringey to re-invest in social housing stock and lever ECO funding to fund advanced energy improvements
  9. Homes for Haringey to provide advice to residents on cost saving and sustainable lifestyles when retrofit works are being carried out, working with Frontline staff and peer to peer networks.
  10. Revised Sustainable Design and Construction Planning Guidance agreed, supporting solid wall insulation and consequential improvements
  11. Community networks to drive uptake of eco-retrofitting through door knocking,
  12. Develop a network of green show homes
  13. New procurement strategy and contracts clauses agreed to redefine “value” in Council contracts, maximising job creation and social outcomes.
  14. Government to introduce additional support for the Green Deal to maximise economic and carbon emissions reduction benefits
  15. Establish low carbon enterprise district in the Upper Lee Valley, safeguarding land for low carbon enterprises to co-locate and providing incentives
  16. Use major development activity in the borough such as the Football Stadium and social housing renewal to provide visible examples of low carbon technology
  17. Map future Council spending into the long term providing certainty for sustainable investors
  18. Prioritise Council business support services for sustainable enterprise activity
  19. Medium and large enterprises operating in the borough commit to a carbon reduction plan
  20. Build a network of local retrofitting installers to develop skills and capacity.
  21. Skills and training partnerships between private sector, local HE college CHENEL and community organisations.
  22. Investigate the use of business rates and tax credits to incentivise low carbon enterprise
  23. Jointly host a major event for low carbon businesses
  24. Council to work with private sector, research organisations, higher education and R&D funders to develop Low Carbon Innovation Labs.
  25. Council to offer up property, Council led developments and social housing to support activity.
  26. Haringey 40:20 network to encourage local groups and businesses to bring forward ideas supporting sustainable lifestyles for prototyping and piloting.
  27. Innovation Labs will develop approaches to funding for measures with a long term payback period and address inequality.
  28. Haringey Sixth Form, Higher Education Colleges and youth groups to develop innovative ideas for prototyping.
  29. Partner research organisations and think tanks will share learning from this activity.
  30. Develop partnership with ECO build to form a Living Lab.
  31. First two demonstration projects to focus on new football stadium and supermarket planned for Tottenham.
  32. Develop shared transport plans with neighbouring borough to tackle car journeys starting and ending outside the borough, beginning with Enfield and Waltham Forest.
-

33. Walking and cycling infrastructure study carried out by the Council, Transport for London and community groups to identify where cycle infrastructure and other improvements are needed.
  34. DIY streets tool kit provided to identify measures requiring funding.
  35. Council policy to support the removal of private car parking spaces when road works are being carried out, to be replaced with public amenities (e.g. cycle lanes or wider pavements, green landscaping).
  36. Enterprises to take up free electric vehicle car and van trial. Council to introduce zero parking charge for electric vehicles and support to enable households without off-street parking to charge vehicles directly from their home.
  37. Council and 40:20 Steering Group to develop campaigning activity promoting public transport and investment in walking and cycling facilities.
  38. Council to work with neighbouring boroughs and private sector (Tesco's, Sainsbury's, Coca Cola, Veolia) to develop alternative refuelling infrastructure serving freight, waste collection and buses.
  39. Council to provide a flexible range of support for community led action, led by interests of local groups. Community engagement to be carried out by people rooted in the community rather than those working at a distance.
  40. Use capital investment and referral fees to create revenue of engagement activity through cooperative models. Haringey 40:20 coordinate fund to support engagement work.
  41. Council to review the impact of grant funding provided to local charitable and voluntary sector against the principles for investment set out by the Commission.
  42. Paid voluntary coordinators to increase capacity of groups and networks.
  43. Work with Haringey Timebank to develop a green bank providing a means to exchange time and skills.
  44. Haringey 40:20 to coordinate resident engagement with local business to encourage take up of environmental measures.
  45. Council to leverage grant funding and discounts, on behalf of local groups.
  46. Increase the visibility of activity through public communications spaces and other Council space.
  47. Council to lead on community engagement in some cases through Council services – targeting disadvantaged groups where there is a lack of activity emerging through other interventions for example the Housing ALMO.
  48. Develop an awareness campaign to twin six Diaspora communities in Haringey to communities around the world on the frontline of climate change
-

# APPENDIX 8

## MODELLING CARBON REDUCTION IN HARINGEY AND THE POLICY ENVIRONMENT

The combined impact of national and local carbon reduction measures for Haringey have been modelled using Vantage Point software by Carbon Descent.

The software sets a maximum potential for each carbon saving measure based on what is technically feasible drawing on local studies completed for Haringey.<sup>1</sup>

The scenarios take into account growth in CO<sub>2</sub> emissions using projections for population growth, housing and commercial new build (with building regulations applied) and demolition

rates and the impact of the UK Low Carbon Transition Plan (LCTP) including EU policies.<sup>2</sup>

The scenario then models the impact of measures outlined in this report and supported by evidence from a range of studies carried with support from the DECC Local Carbon Framework (2010-11), Greater London Authority DEMAP and DEPDU programmes (2009-2012) and subsequent Green Deal Provider Model development (2012).<sup>3</sup>

The results of this work indicate that approximately a 30 per cent reduction can be achieved by 2020

(i.e. approximately 70 per cent of the target 40 per cent reduction).

A second scenario has been developed based on the local development plans and scaling up each carbon saving measure proportionately, not exceeding the overall maximum potential for each measure until the 40 per cent reduction has been achieved. The results of both scenarios are shown below.

No specific allowance is made for rebound effect in the Vantage Point scenario model.

2005 Baseline	
Baseline kT CO <sub>2</sub> per annum	989
Commercial and Industrial	287
Domestic	524
Transport	179

Targets and Savings	2005-2009	2010-2015	2016-2020
Growth (BAU) ktCO <sub>2</sub>	-	16	19
Target Savings ktCO <sub>2</sub>	99	214	414
Actual Savings	99	146	290
Percentage of Target Met	100	68	70

Measure	Unit	Local delivery			40% target
		2005-2009	2010-2015	2016-2020	2016-2020
Large Generation					
CHP biomass	MWe*	0	0	0	0
CHP large gas	MWe	0	0	0	0
CHP buildings gas	MWe	0	2	5	7
Heat from power station	MWth**	0	0	2	4
Power only biomass	MWe	0	0	0	0
Green grid	%	1	2	3	3
Wind large	MWe	0	0	0	0
Wind medium	MWe	0	0	0	0

Measure	Unit	2005-2009	2010-2015	2016-2020	2016-2020
<b>Domestic Measures</b>					
Solar PV (Domestic)	Homes	3,064	4,386	8,771	12,926
Solar thermal (Domestic)	Homes	1,729	2,475	4,949	7,293
Biomass boilers (Domestic)	Homes	39	55	110	2,749
Air source heat pump (Domestic)	Homes	227	325	649	957
Ground source heat pump (Domestic)	Homes	39	55	110	162
Cavity wall insulation (Domestic)	Homes	3,991	5,712	11,424	33,360
Solid wall insulation (Domestic)	Homes	3,811	5,455	10,910	37,975
Loft insulation (Domestic)	Homes	6,652	9,520	19,040	31,549
Tank insulation (Domestic)	Homes	4,891	7,000	14,000	56,037
Draught proofing (Domestic)	Homes	11,878	17,000	34,000	32,854
Double glazing (Domestic)	Homes	1,027	1,470	2,940	4,333
Energy efficient lighting (Domestic)	Lamps	487,859	698,250	1,396,500	929,670
Energy efficient appliances (Domestic)	Homes	24,398	34,920	69,840	92,967
Boiler replacement (Domestic)	Homes	7,018	10,045	20,090	31,871
Fuel switch (Domestic)	Homes	7	11	21	0
Heating controls (Domestic)	Homes	5,135	7,350	14,700	21,663
Smart meters Electric (Domestic)	Homes	34,236	49,000	98,000	100,418
Smart meters Gas (Domestic)	Homes	30,352	43,442	86,884	94,833
Energy assessment (Domestic)	Homes	13,694	19,600	39,200	57,769
<b>Non-Domestic Measures</b>					
Solar PV (Non-Domestic)	MWe	1	1	3	11
Biomass boilers (Non-Domestic)	MWth	1	3	3	5
Energy efficient street lighting	Lamps	2,978	4,262	8,524	8,524
<b>Overall Transport</b>					
5.2% Local Savings	Ktpa***	3	5	9	9
12.3% EU, National and Sub-regional Policy Savings	ktpa	8	11	22	22
Additional 10.8% Local Savings (£750k)	ktpa	7	10	19	19
<b>Transport breakdown of measures</b>					
Travel demand management	ktpa			9	9
EU carbon standards for the production of new vehicles by 2020	ktpa			16	16
Population changes	ktpa			1	1
Infrastructure improvements (e.g. cycle superhighways)	ktpa	8	11	5	5
Total				22	22
Personalised Travel Planning	ktpa			4	4
Low Carbon Bus Corridors	ktpa			11	11
Driver training	ktpa			4	4

\*MWe (Megawatt Electrical) \*\*MWth (Megawatt Thermal)

\*\*\*ktpa (kilotonnes per annum)

TABLE 1: CARBON PLAN/LOW CARBON TRANSITION PLAN POLICIES

Sector	Carbon Plan / LCTP Policy
Power & Heavy Industry	Renewables Obligation Additional measures in Renewable Energy Strategy (RO extension, FITs) CCS
Homes and Communities	Energy Efficiency Commitments 2002-5 & 2005-8 Building Regs Warm Front & Fuel poverty programmes Product Policy CERT (2008-11) Obligation on Energy Suppliers CESP Domestic Smart Metering Roll Out Zero Carbon Homes Renewable Heat Incentive (residential)
Workplace & Jobs	Building Regs (commercial) Building Regs (Industry) Carbon Trust measures (industry) Carbon Trust measures (commercial) Climate Change Agreements Revolving Loan Fund (salix) Product Policy (commercial) Energy Performance of Buildings Directive Smart Metering (SMES) Carbon Reduction Commitment (commercial sector) Carbon Reduction Commitment (industry) Renewable Heat Incentive (commercial sector) Renewable Heat Incentive (industry) One-off interest free loans to SMEs Carbon Reduction Commitment (public sector) Renewable Heat Incentive (public sector) Product Policy (public sector) One-off interest free public sector loans Energy intensive industries
Transport	Renewable Transport Fuel Obligation EU Voluntary Agreements on new car CO <sub>2</sub> (to 2009) inc supporting fiscal measures EU new car average fuel efficiency standards of 130g CO <sub>2</sub> /km by 2015 Extension of biofuels to 10% (by energy) Low carbon emissions buses SAFED training for bus drivers Complimentary measures in cars Low rolling resistance tyres in HGVs Additional impact of new car fuel efficiency standards Potential EU new van regulation Rail electrification (illustrative savings)

## National policy context

The need for a more supportive national policy framework is widely recognised. The UK Government's own research commissioned as part of the development of the Green Deal and ECO Consultation predicts low take up of the Green Deal.<sup>4</sup> This indicates that additional Government support is likely. At the Global Business Summit on Infrastructure in August 2012, the Treasury announced that Green New Deals were to be underwritten by the Government with the details on how this will function yet to be determined.<sup>5</sup>

By contrast the German Government backed KfW bank, provides low interest loans at 2.49 per cent to householders. This contrasts starkly with the expected 7 per cent green deal rate. The KfW bank calculates that for every one Euro invested by the Government, a 5 Euro return through tax receipts and National Insurance contributions is achieved.

Work carried out as part of Haringey's Local Carbon Framework pilot highlighted the potential to increase low carbon heat and energy generation by enabling small scale suppliers to retail energy to customers.<sup>6</sup> A total of nine decentralised energy clusters were identified for Haringey based on density of heat loads, however only four schemes were considered to be financially viable. If these schemes could retail energy directly to customers this could have the potential to add an additional 2.1 MWe installed capacity, equivalent to 2,256 tonnes CO<sub>2</sub> savings per year (comparable to an approximate 30% increase in carbon savings).

Particularly since the introduction of the New Electricity Trading Arrangements in 2001, smaller electricity suppliers have found difficulty in trading in the electricity market because the costs, risks and complexities of doing so

are disproportionate to the size of their businesses. It was against this background that Ofgem produced its licence lite proposals in 2009.

Unless there are exceptional considerations influencing the commercial relationship between a licensed supplier and a smaller generator, the price offered by the licensed supplier for the small packets of power involved reflects the poor negotiating position of the generator and, in general, the lack of financial interest on the part of the suppliers in purchasing the electricity. That should be distinguished from the purchase of derivatives, such as Renewables Obligation Certificates and Climate Change Levy Exemption Certificates, which carry their own value.

Work carried out by consultants appointed by the Greater London Authority has demonstrated that if smaller suppliers were able to sell the electricity (as distinct from any derivatives that may be attached to it) direct to consumers at or even somewhat below prevailing retail prices, the effect, particularly on larger schemes, is to double the financial returns.

The enhanced net revenue estimated to be available under licence lite operation increases the number of schemes that are capable of earning adequate returns and have the potential to attract external investment.

Finding a means of successfully implementing Ofgem's licence lite proposals would support a number of wider policy aims;

- The opportunity to retail locally-produced energy to local energy users offers the potential to connect people to their energy supply in a new way, rather than this being remote and distant. This could impact on the way

people value and use energy.

- It is the Government's stated ambition to increase competitiveness in the electricity supply market and encourage new entrants. The successful implementation of licence lite is a significant move in that direction.
- The powers of local authorities have recently been extended to enable them to supply renewable electricity other than in the course of operating a CHP scheme. The implementation of licence lite will help local authorities use their new powers more effectively.
- The more the electricity market is adjusted to enable operators of zero carbon electricity generating plants to supply their electricity at optimal prices, the lower the need for external support through policy measures instigated by central government and ultimately paid for by consumers.

<sup>1</sup> Haringey has used local studies for decentralised energy deployment, housing efficiency measures and transport, using bespoke analysis carried out as part of the DECC local Carbon Frameworks Pilot.

<sup>2</sup> A full list of EU and National measures modelled are included in the Appendix.

<sup>3</sup> Details of these studies can be found at [http://www.haringey4020.org.uk/index/useful-information/lcf\\_studies.htm](http://www.haringey4020.org.uk/index/useful-information/lcf_studies.htm)

<sup>4</sup> DECC, The Green Deal and Energy Company Obligation Impact Assessment, 2011

<sup>5</sup> <http://www.link2portal.com/green-deal-loans-be-underwritten-government>

<sup>6</sup> Local Carbon Framework Pilot – Licence Lite 2011 [http://www.haringey4020.org.uk/index/useful-information/lcf\\_studies.htm](http://www.haringey4020.org.uk/index/useful-information/lcf_studies.htm)

# SUPPORTERS

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