

London Borough of Harrow

Climate Change Strategy

April 2013 onwards

POST CONSULTATION DRAFT - February 2013

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Contents

Foreword

Introduction

Appendix A –Action Plan

- Planning and Development
- Water and Flooding
- Waste
- Biodiversity and the Natural Environment
- Transport
- The Council's Footprint

and

- Warmer Homes

Appendix B - How we will measure progress

Foreword

The Earth's climate is changing. We have to plan and act now to limit the scale of the change (mitigation) and to adapt to the changing climate (adaptation). Preparing for these changes is not an alternative to reducing our greenhouse gas emissions, it is parallel and complementary.

Harrow signed the Nottingham Declaration in July 2007. We recognised then that there was much to be done and the Strategy would need to undergo change and development as global, European and national legislation drove change. This new Strategy takes on board a number of changes that have either taken place or are about to be introduced

We envisaged in the previous strategy that fossil fuels such as oil and gas would continue to increase in price as world demand increases and capacity either lags behind or falls. Events have confirmed this trend and all the indications are that energy prices will continue to rise as (nationally) we have to undertake prolonged and significant investment in our energy generation and distribution infrastructure. As before, changes in the way we use fossil fuels are inevitable and we need to prepare for a future where fossil fuel is expensive and its use restricted.

This Strategy describes various activities that the Council is undertaking on climate change, and complements the existing plans and strategies of the Council. This is the next step in a long journey which all of us must make. The Council is committed to playing its part as a community leader. However the success of the Strategy depends on the whole community taking the threat of climate change seriously and, together, making the changes that are necessary.

As part of the revised Strategy the council will sign up to Climate Local, the Local Government Association (LGA)'s new climate change initiative, to demonstrate our continuing commitment to tackling this issue

Michael Lockwood

Cllr Phillip O'Dell

Introduction

This strategy sets out plans for Harrow as a Council and community to take action on climate change. Addressing climate change requires all of us to work together to make changes to the way we live as individuals and communities so that the well-being of future generations is secured.

As a nation we use 31% of fossil fuel for power generation, 22% for road transport, 20% for industry, 15% for residential use and heating and 12% for other uses.

75% of our electricity is generated from fossil fuels (coal, oil, gas); 18% from nuclear energy and only 3% from renewable sources (hydro electric, wind and solar)].

Using fossil fuels is ultimately unsustainable as they are finite resources and will eventually run out. Burning fossil fuels also releases carbon dioxide into the atmosphere and this is a significant driver behind climate change. Economically, fossil fuels such as oil and gas will also increase in price as world demand increases and capacity either lags behind or falls. Changes in the way we use fossil fuels are therefore inevitable and we also need to prepare for a future where fossil fuel is expensive and its use restricted.

What is climate change?

Climate change is happening because of an increase in greenhouse gases – predominantly carbon dioxide – caused by human activity such as the burning of fossil fuels and deforestation. The greenhouse effect is a natural phenomenon in which naturally occurring gases trap the sun's energy and warm the planet. The main greenhouse gas is carbon dioxide, (CO₂).

Climate change is a global issue. Internationally, targets and frameworks have been established to tackle the issue – starting with the Rio conference in 1992 and the Kyoto Protocol, which was agreed in 1997 and came into force in 2005. Further international agreements are expected in the future.

It is now accepted that if we do not address this issue, the Earth's climate will change significantly.

Mitigation

Mitigation of climate change is those actions which reduce fossil fuel emissions and thereby reduce the overall impact we have on the environment. A significant part of this Strategy deals with mitigation. I.e. improved insulation, energy efficiency etc.

Adaptation

Climate change is already happening. These following effects are expected to increase in severity despite our efforts at mitigation.

- increased demand for summer cooling
- buildings becoming uncomfortably hot
- an increase in the risk of flooding and erosion
- greater pressure on drainage systems
- increased likelihood of winter storm damage
- summer water shortages and low stream flows
- increased risk of subsidence (in areas where subsidence is already a problem)
- loss of habitat for wildlife / changes to wildlife and biodiversity
- a range of health issues

We are not alone

Addressing climate change is a significant challenge. We need to meet the challenge to ensure that development is sustainable and the well-being of future generations is safeguarded. The environmental, social and economic impacts of climate change are already measurable and these are predicted to continue and to grow in severity.

The Government has agreed a target to reduce national CO2 emissions by 80% by 2050 – compared to a 1990 baseline. This currently excludes emissions from international shipping and aviation but these are expected to be included in the future.

The Mayor for London has also published a Climate Change Strategy to address this issue. The Climate Change Action Plan sets a target for London to limit its total carbon dioxide emissions to 600 million tonnes between now and 2025 – a reduction of 4% per annum. In addition to large scale changes to the way we meet our energy demands, such as using Combined Heat and Power (CHP), it also

highlights the significant amount of CO₂ that can be saved by making small changes such as cavity wall and loft insulation and energy audits (by the public sector and businesses). London's Climate Change Adaptation Strategy proposes a series of risk management actions:

- Prevent – action taken to reduce the probability of an impact or change occurring, for example raising flood defence barriers
- Prepare – action taken to better understand the climate risk or opportunity, to reduce vulnerability and improve resilience, for example raising public awareness
- Respond – action taken to limit the consequences of an event, for example restricting non-essential water use during a drought
- Recover – action taken after an event to enable a rapid and cost-effective return to a normal, more sustainable state, for example enhancing the flood resilience of a property when undertaking flood damage repairs

The Harrow Strategic Partnership adopted the Sustainable Community Strategy on 2nd April 2009. The Strategy included objectives of encouraging businesses and residents to reduce emissions, to find cost effective measures to tackle climate change and to respond to extreme weather events through emergency planning.

The strategy included aims to:

- Increase environmental sustainability and air quality through reduced use of cars as the main mode of travel to Harrow schools;
- Reduce CO₂ emissions in Harrow;
- Agree a Climate Change Strategy and develop an action plan;
- Improve street and environmental cleanliness;
- Increase domestic waste recycling and composting;
- Continue to undertake a tree replacement programme to preserve and enhance Harrow's trees; and
- Deliver the decent homes standard to Council owned homes.

The Sustainable Community Strategy is now out of date and is unlikely to be renewed as the requirement for such strategies has been removed by Government. However, joint action through initiatives such as Community Budgets, joint commissioning and seeking economies of scale continue to drive partnership work including action that has a beneficial environmental impact.

The council signed the Nottingham Declaration in 25 July 2007. By signing it the Council acknowledged “that evidence shows that climate change is occurring and that it will continue to have far reaching effects on the UK’s people and places, economy, society and environment.”

We signed the Climate Local Commitment from the LGA (Local Government Association) in **November 2012** using it as an opportunity to reiterate/reinvigorate our existing commitments and the previous climate change strategy.

Who will be responsible for delivering the strategy?

This revised strategy reflects the new council structure and devolves responsibilities for delivering the strategy as follows :

Enterprise and Environment

The merger of Place Shaping and Community and Environment will bring together the following broad headings from the Climate Change Strategy. This provides an opportunity to improve the coordination of policy and actions under the leadership of the new Corporate Director.

- Planning
- Water and flooding
- Biodiversity
- Transport
- Waste
- Street lighting
- Carbon Reduction (corporate buildings). This is delivered using the GLA’s RE:FIT carbon reduction programme.

Children and Families

School buildings currently account for more than 50% of the council's carbon emissions. It remains the case that schools need to play a major role in delivering the targets set by the climate change strategy. Control of the schools capital maintenance and capital programmes resides with Children and Families who have responsibility for ensuring that schools deliver carbon reduction will also be transferred. Schools will still have access to Carbon Reduction funding and the RE:FIT programme.

From April 2014 responsibility for reducing carbon emissions from all publicly funded schools will transfer to DfE (Department for Education). We will review the impact of this change once details of DfE's scheme are known.

Community Health and Well-being

It seems clear that in the area of housing, reducing carbon emissions needs to be considered as part of a wider programme of action to address well-being, social justice and fuel poverty. There are clear links between improving the energy efficiency of homes and improving people's physical health; helping to address mental health problems; improving educational attainment; and reducing costs to the NHS and social services.

The government has issued new guidance under the Home Energy Conservation Act (HECA) requiring councils to provide an initial report to the Secretary of State for Energy and Climate Change by 31 March 2013 setting out the measures that the council will take to improve the energy efficiency of homes in the borough.

Our Delivering Warmer Homes (HECA) report will address these issues.

Our Commitments and Actions Plan (Appendix A) has been drawn up using the Climate Local templates. All future actions will be set out using this template.

Appendix A – Our Commitments, Actions and Targets

Climate Local Commitment

Climate local – Harrow Council:

Our Commitments and Actions

Harrow Council signed the Climate Local Commitment on 30 November 2012 in recognition of the important role that local authorities have in tackling climate change.

In signing the Commitment we pledged to set locally-owned and determined targets and actions on both mitigation and adaptation and publish these within six months.

The table below sets out our priorities commitments the actions will undertake to deliver them. We will monitor our performance against these actions and report regularly on our progress. We will also regularly refresh this list of actions to ensure they are up-to-date and reflect local priorities.

The revised Action Plan has been drawn up using the Climate Local templates, which support two broad aims: -

Low Carbon Pathways – contributing towards an “energy smart” low carbon future

Climate Resilience – adapting to the risks and opportunities that our changing climate presents.

Appendix A – Our Commitments, Actions and Targets

1 Planning and Development

Low Carbon Pathways

Commitment: We will ensure that we plan for a low-carbon future		
Justification: Over 50% of all CO2 emissions come from buildings. Core Strategy includes a strategic objective to contribute to a 60% reduction in London's CO2 emissions by 2025.		
Specific Action(s)	Measure/Target	Timescale
All new major development within the Heart of Harrow area to prioritise connection to a decentralised energy network.	100% of all major development proposals granted within the Heart of Harrow area to prioritise connection to a decentralised energy network.	Ongoing
In accordance with the Infrastructure Delivery Plan, implement an area wide district energy network to be part funded through CIL receipts.	Feasibility study to be completed by end of 2013/14 Costed network plan approved by 2014/15 Delivery Partner secured by 2015/16	Scoping and feasibility work – 2013/14 Network piping to commence 2015/16
Council, through Pre-application procedure, to encourage and support retrofitting of energy efficiency measures and renewable energy generation on/within existing buildings	80% of all planning applications approved, including householder applications, to include energy efficiency measures and/or renewable energy generation on/within existing buildings	Ongoing
New residential development encouraged to exceed existing building regulation requirements for carbon reduction	% of all new residential development proposals achieving Code for Sustainable Homes level 4 or better.	Until such time as Code 4 becomes national building regulation standard

Measures/Targets are set out in more detail in Appendix B

Appendix A – Our Commitments, Actions and Targets

2 Transport

Low Carbon Pathways

Commitment: We will ensure that low carbon forms of transport are supported and encouraged		
Justification: Emissions from transport accounts for 22% of all carbon emissions in London – excluding aviation and shipping, This is from the following sources: - cars and motorcycles (49%); road freight (23%); ground-based aviation – taxiing etc. (11%); and the remainder is from public transport (trains, the underground, buses and taxis etc. – approx. 4% each).		
Specific Action(s)	Measure/Target	Timescale
<p>The Council's agreed LIP (Local Implementation Plan), with the Mayor for London, is the council's transport policy and addresses all sustainable transport issues within the borough. Schemes which are supported include: -</p> <ul style="list-style-type: none"> • 20mph zones • Bus priority schemes • Local safety schemes • Increased sustainable transport promotions • Improved walking and cycling environment • Improved greenways <p>Progress on these measures will be reported via TARSAP (Transport and Road Safety Advisory Panel)</p>	CO2 emissions from ground based transport	Ongoing
	Mode share of resident walking trips	Ongoing
	Mode share of resident cycling trips	Ongoing
	Schools within a 20 mph zone	Ongoing

Appendix A – Our Commitments, Actions and Targets

<p>Car Parking policy</p> <p>We will continue to encourage residents to improve the environmental impact of their cars by providing free resident parking permits for environmentally friendly vehicles.</p>	<p>Number of free permits issued</p>	<p>Ongoing</p>
<p>Car Parking policy</p> <p>We will continue to protect residential parking and parking at local shops by discouraging commuter parking through introducing controlled parking zones.</p>	<p>Percentage of borough roads included in CPZ (Provisional)</p>	<p>Ongoing</p>

Measures/Targets are set out in more detail in Appendix B

Appendix A – Our Commitments, Actions and Targets

3 Water and Flooding

Climate Resilience

Commitment: We will ensure that flood risks are understood and plans are put in place to mitigate the risks		
<p>Justification: Climate change is expected to lead to two problems with water supply – periods of drought; and periods of heavy rainfall. Coupled with an anticipated growth in population and the number of households, there is likely to be pressure on the availability of water resources and more incidents of flooding.</p> <p>Daily water consumption per head is relatively high in Harrow at 170 litres/head of population (cf. the national average of 150 litres/head).</p> <p>Provision for reduced water consumption will be made progressively for new housing under planning and building regulations but, as with energy use, bringing down consumption in the existing housing stock will prove to be more difficult.</p>		
Specific Action(s)	Measure/Target	Timescale
New development to make provision for the installation and management of measures for the efficient use of mains water, with a target of 105ltrs of less per person per day.	95% of planning applications approved for new residential development that achieve water use efficiency of 105ltrs per person per day or better	Ongoing but with the ambition over time to reduce the target further to 80ltrs per person per day
	% of homes within Harrow that have a water meter	Ongoing
New development to incorporate SUDS to control the rate and volume of surface water run-off to green-field rates where feasible.	75% of qualifying planning applications achieve green-field run-off rates	Ongoing

Measures/Targets are set out in more detail in Appendix B

Appendix A – Our Commitments, Actions and Targets

4 Waste

Low Carbon Pathways

Commitment: We will ensure that the way we manage our waste minimises the carbon impact of the collection and disposal system		
Justification: The production and management of waste has a significant effect on carbon emissions. We will seek to minimise waste, increase recycling and composting, reduce the land-filling of waste and reduce the overall carbon footprint of our waste management system		
Specific Action(s)	Measure/Target	Timescale
Reduce the carbon footprint of our waste management service	We will use the wastedataflow metric to measure the carbon footprint of our waste management service.	From April 2013
Waste minimisation plan work with the West London Waste Authority (WLWA) to encourage residents and businesses to reduce the amount of waste they produce	Total amount of household waste. Household waste per head of population.	From April 2013
Waste recycling We will continue to explore ways in which we can increase recycling of domestic and business waste	Total amount of waste recycled and composted. Percentage of waste recycled and composted.	From April 2013
Reduce landfill Work with WLWA to reduce the amount of waste sent to landfill	Total of waste land-filled. Percentage of waste land-filled.	From April 2013

Measures/Targets are set out in more detail in Appendix B

Appendix A – Our Commitments, Actions and Targets

5 Biodiversity and the Natural Environment

Climate resilience

Commitment: We will ensure that our natural environment is protected from and helps to protect us, from the adverse effects of climate change		
<p>Justification: Climate change means that the seasonal weather patterns we are familiar with are changing. It is difficult to predict precisely what these changes will be but it seems clear that we will experience milder winters, earlier springs and warmer summers. Periods of drought or low rainfall will become more frequent as will instances of heavy, prolonged rainfall. There is also a significant danger that storms will become more frequent and of higher intensity. All this will have an effect on the natural environment and biodiversity.</p> <p>Trees in the urban environment have the potential to reduce the heat island effect by providing shade and cooling. However the management of such trees needs to be carefully considered to ensure that they can survive in the sort of conditions that will exist.</p>		
Specific Action(s)	Measure/Target	Timescale
Urban Greening – Council to continue to support and promote Harrow’s Green Grid and Tree Planting programmes	500 trees to be planted p.a. within the public realm	Ongoing
Urban Greening – Council to protect all existing open space, whether public or private, from inappropriate development.	No net loss in the amount of open space provided within the borough (2011 base year)	Ongoing
Urban Greening – Council’s urban realm improvements to include and integrate green infrastructure from the beginning.	Major urban realm improvements to increase the amount of surface area greened by at least 5%	Ongoing
Manage public open space to maximise its multifunctional use , and increase its capacity to provide shade and take up CO2	Council to prepare and publish an Open Spaces Strategy	2013/14

Appendix A – Our Commitments, Actions and Targets

Ensure Site of Importance for Nature Conservation (SINC) within the borough are under active management	Increase the portion of SINC's under active management from 33% (10/30) to 66%	3 p.a. to 2015/16
The Harrow Biodiversity Action Plan expires in 2013 and therefore needs review and updating	Revised Harrow Biodiversity Action Plan prepared and published	2013/14

Measures/Targets are set out in more detail in Appendix B

Appendix A – Our Commitments, Actions and Targets

6 The Council's Footprint

Low Carbon Pathways

Commitment: We will ensure that our buildings and operations are energy efficient and low carbon		
<p>Justification: Climate change means that the seasonal weather patterns we are familiar with are changing. It is difficult to predict precisely what these changes will be but it seems clear that we will experience milder winters, earlier springs and warmer summers. Periods of drought or low rainfall will become more frequent as will instances of heavy, prolonged rainfall. There is also a significant danger that storms will become more frequent and of higher intensity. All this will have an effect on the natural environment and biodiversity.</p> <p>Trees in the urban environment have the potential to reduce the heat island effect by providing shade and cooling. However the management of such trees needs to be carefully considered to ensure that they can survive in the sort of conditions that will exist.</p>		
Specific Action(s)	Measure/Target	Timescale
Reduce our overall carbon footprint by 4% a year	Tonnes of carbon emitted under CRC and GHG schemes	Ongoing
Rationalise the buildings we use to minimise floor space and use space more efficiently	Total floor space (m2) Floor space (m2) /staff at civic centre	Ongoing Ongoing
We will continue to retrofit our buildings to reduce their energy consumption via the RE:FIT programme	Annual investment Annual payabck	Ongoing
We will continue to replace our street lighting with energy efficient LED lighting and introduce the energy saving measures agreed following the public consultation in Jan/Feb 2012	Reduced energy consumption of our public lighting (street lighting and illuminated street furniture)	Ongoing
Illuminated street furniture will be de-illuminated wherever possible		

Appendix A – Our Commitments, Actions and Targets

<p>Reduce the amount of fossil fuel we use in our fleet operations</p> <ul style="list-style-type: none"> - Reduce the number of vehicles - Route optimisation and planning - Introduce low carbon vehicles 	Total amount of fuel used	Ongoing
<p>Reduce the carbon footprint of our staff: -</p> <ul style="list-style-type: none"> - Produce new travel Plan for staff at the Civic centre - Encourage the use of public transport, cycling and walking - Review car allowances - Review staff parking policy - Consider the introduction of low-carbon pool cars 	No of staff with essential user car allowances	From April 2013
	Total Grey fleet mileage per year	From April 2013
Schools improvement programme.	New local authority school buildings to achieve BREEAM 'very good' standard	Ongoing
Removal of publicly funded schools from CRC scheme to DfE administered scheme	We will review this plan when details of the DfE scheme are known	By April 2014

Measures/Targets are set out in more detail in Appendix B

Appendix A – Our Commitments, Actions and Targets

7 Delivering Warmer Homes

Low carbon Pathways

Commitment: We will ensure that all homes in the borough are energy efficient and affordable to heat		
Justification: Heating our homes accounts for 66% of carbon emissions in Harrow. This is used for space heating/cooling (54%); hot water (18%); appliances (18%); lighting (5%) and cooking (3%). The Mayor of London's Climate Change Action Plan envisages the domestic sector contributing 39% of the 2025 carbon reduction targets		
Specific Action(s)	Measure/Target	Timescale
Submit HECA report to the Secretary of State for Energy and Climate Change	Report to Cabinet with draft Delivering Warmer Homes (HECA) report.	Nov 2012
	Issue consultation draft	Dec 2012
	Public consultation	Dec 2012/Jan 2013.
	Report back to Cabinet	March 2013
	Submit HECA report to SoS	31 March 2013.
Green Deal/ECO	Delivery	April 2013 onwards
	Appoint contractor under RE:NEW framework to deliver ECO programme	April 2013 onwards
Warm Homes, Healthy People	Liaise with GLA on pan London programme	April 2013 onwards
	Submit bid to DoH	October 2012
	Run programme	Dec 2012 to March 2013

Measures/Targets are set out in more detail in Appendix B

Appendix B – How we will measure progress

1. Planning and Development

Description	Target	Performance Measure
Percentage of all major development proposals granted within the Heart of Harrow area to prioritise connection to a decentralised energy network.	100%	Percentage
Percentage of all planning applications approved, including householder applications, to include energy efficiency measures and/or renewable energy generation on/within existing buildings	80%	Percentage
Percentage of all new residential development proposals achieving Code for Sustainable Homes level 4 or better.	No target	Percentage

Appendix B – How we will measure progress

2. Transport

Description	Target	Performance Measure
CO2 emissions from ground based transport	No target	Carbon emissions per capita per year (NI 186). <i>Source : DECC</i> http://www.decc.gov.uk/en/content/cms/statistics/local_auth/co2_las/co2_las.aspx
	137.82 k tonnes per year by 2013 86.97 k tonnes per year by 2025	K tonnes per year <i>Source: London Energy and Greenhouse Gas Emissions Inventory</i> <i>Note: this is not annual data</i>
Mode share of resident walking trips	30.5% by 2013/14 31.5% by 2026 but to be reviewed each 5 years.	Percentage <i>Source: London Travel Demand Survey</i> <i>Note: this is not annual data</i>
Mode share of resident cycling trips	1.5% by 2013/14 5% by 2026 but to be reviewed each 5 years.	Percentage <i>Source: London Travel Demand Survey</i> <i>Note: this is not annual data</i>
Schools within 20mph zone	29 by 2013 43 by 2019/20	Number of schools
Number of free resident parking permits issued	No target	Number of permits
Percentage of borough roads included in controlled Parking Zones	No target	Percentage

Appendix B – How we will measure progress

3. Water and Flooding

Description	Target	Performance Measure
Percentage of planning applications approved for new residential development that achieve water use efficiency of 105 litres per person per day or better	95%	Percentage
Percentage of homes within Harrow that have water meters	No target	Percentage
Percentage of qualifying planning applications that achieve green-field run-off rates (using SUDS design)	75%	Percentage

Appendix B – How we will measure progress

4. Waste

We will track the following performance measures over time.

	2010/11 (actual)	2011/12 (actual)	2012/13 (estimate)	2013/14 (prediction)
Total tonnage of household waste	87,939	90,646	87,400	89,000
Population	228,100	230,100	<i>tbc</i>	<i>tbc</i>
Household waste per head of population (kg)	385.5	393.4	<i>tbc</i>	<i>tbc</i>
Tonnage of waste recycled	23,767	22,041	19,700	19,700
Tonnage of composted	20,160	21,653	21,400	21,800
% household waste recycled	27.03	24.32	22.5	22.1
% household waste composted	22.92	23.89	24.5	24.5

Source: wastedataflow website (operated by the Environment Agency)

Tonnage of municipal waste land-filled	43,060	46,714	30,000	30,000
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Source: West London Waste Authority

Carbon footprint of Harrow's WM system	n/a	n/a	n/a	<i>(to be developed)</i>
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Source: Wastedataflow is expected to provide a measure of the carbon footprint.

The Mayor for London is also expected to develop a carbon metric for the waste management process.

A decision will be made as to which metric to use once the above have been published.

Appendix B – How we will measure progress

5. Biodiversity and the Natural Environment

Description	Target	Performance Measure
Number of trees to be planted each year within the public realm	500	Number
Net loss in the amount of open space provided within the borough (compared to 2011 base year)	Nil	Percentage
Increase in the amount of surfaced area that is greened in major urban realm improvements	5%	Percentage
Percentage of sites of importance for Nature Conservation (SINC) within the borough that are under active management	66% (Currently 33%)	Percentage

Appendix B – How we will measure progress

6. The council's carbon footprint

We will track the following over time

Carbon Reduction Commitment (CRC)

All emissions in Tonnes of Carbon

	CORE (A)			RESIDUAL (B)			TOTAL (A) + (B)			
	Gas	Electricity	Electricity Public Lighting	Gas	Electricity	Oil	Including Public Lighting		EXcluding Public Lighting	
							Tonnes	% reduction	Tonnes	% reduction
2010/11	9,050	9,602	4,078	0	0	74	22,804	N/A	18,726	N/A
2011/12	6,995	9,399	4,107	0	0	0	20,501	10.1%	16,394	12.5%

Shaded figure show the value of public lighting which are excluded from the CRC report in 2011/12. This is due to changes in the CRC rules and a technical change in the way we measure public lighting consumption

Bold figures show the values reported in the CRC return. Comparing the bold figures would show a reduction of 28%. This is distorted because of the exclusion of public lighting figures in 2011/12. Comparing like with like shows a reduction of 10.1 or 12.5%

Carbon Intensity (EXcluding public lighting)

	Carbon Emissions Tonnes	Turnover £	Carbon intensity Kg of Carbon/£ turnover
2010/11	18,726	435,023,000	.043
2011/12	16,394	425,024,000	.039

Appendix B – How we will measure progress

Greenhouse Gas Emissions (GHG)

All emissions in tonnes of Carbon

		Gas	Transport	Oil	Electricity	LESS Green Electricity	TOTAL
CO2	2009/10	10,945	2,120	116	15,508	4,066	24,623
	2010/11	11,288	2,014	76	15,946	4,066	25,250
	2011/12	9,977	1,942	Nil	16,384	4,095	24,208
CH4	2009/10	15.9	3.2	Neg	7.7	2.04	24.76
	2010/11	16.5	3.1	Neg	7.9	2.04	25.46
	2011/12	14.6	2.9	Nil	8.1	2.05	23.55
NOx	2009/10	190.0	2.1	1.0	32.5	8.5	217.1
	2010/11	195.8	1.8	0.6	33.4	8.5	218.0
	2011/12	174.4	1.2	Nil	34.2	8.6	201.2

The above transport emissions measure the carbon footprint of the council's vehicle fleet.

The following table tracks the litres of fuel consumed (from which the above emissions are calculated)

	2009/10	2010/11	2011/12	2012/13	2013/14
Litres of diesel	752,009	721,408	707,668		
Litres of petrol	53,750	47,102	31,591		
Litres of Autogas	6,895	647	0		

Appendix B – How we will measure progress

Public lighting

	2010/11	2011/12	2012/13 (estimated)	2013/14 (estimated)
Annual energy used by old fittings removed from service (kWh)	n/a	n/a	533,182	tbc
Annual energy used by new fittings (KWh)	n/a	n/a	180,471	tbc
Annual energy consumption saved by replacement programme (kWh)	n/a	n/a	352,711	289,600
Total kWh used in year	7,539,128	7,592,735	7,240,024	6,950,423
Percentage reduction	n/a	-0.7%	4.6%	4%

Staff Travel

		2011/12	2012/13	2013/14
No of staff with essential user car allowances	Number	c. 500	tbc	tbc
Total grey fleet* mileage travelled per year	Miles	516,572	tbc	tbc

* Grey fleet is private cars driven by staff whilst carrying out council duties

Appendix B – How we will measure progress

7. Warmer Homes

Heating our homes accounts for 66% of carbon emissions in Harrow. The government publishes central data on carbon emissions which we shall use to track changes in our emissions : -

Carbon Emissions per capita (NI 186)

Per capita carbon emissions data is calculated by DECC centrally

http://www.decc.gov.uk/en/content/cms/statistics/local_auth/co2_las/co2_las.aspx

The following tables show the history of investment in improving energy efficiency in the borough. We will report future investment in a similar way.

Appendix B – How we will measure progress

Community Carbon Reduction Budgets - (excluding salary costs)

	LB Harrow	LDA	GLA		TSB	Warm Front			DoH	DECC	TOTAL	
	Affordable Warmth	HEEP	RE:NEW	Warm Zones	Resident contributions	Retrofit for the Future	Main scheme	WLHP top-up scheme	60 plus scheme	Harrow House-warmers	Fuel Poverty/ Green Deal	Investment in energy saving
Pre 2009	83,827	-	-	467,309	97,522	-	832,392	63,084	659,100	-	-	2,203,234
2009/10	68,662	124,500	-	290,269	7,035	-	873,793	14,471	-	-	-	1,378,729
2010/11	46,215	-	-	338,340	13,966	170,000	774,998	6,381	-	-	-	1,349,900
2011/12	7,147	-	262,504	187,136	14,422	-	138,299	4,021	-	66,789	-	680,318
2012/13	75,000 (budget)	-	80,000 (estimate)	50000 (estimate)	2000 (estimate)	-	20,000 (estimate)	10,000 (estimate)	-	82,065	193,600	512,665

Number of households assisted

	LB Harrow	LDA	GLA		TSB	Warm Front			DoH	DECC	TOTAL	
	Affordable Warmth	HEEP	RE:NEW	Warm Zones	Resident contributions	Retrofit for the Future	Main scheme	WLHP top-up scheme	60 plus scheme	Harrow House-warmers	Fuel Poverty/ Green Deal	
Pre 2009	n/a	-	-	418	n/a	-	481	120	2197	-	-	3216
2009/10	n/a	674	-	159	n/a	-	445	33	-	-	-	1311
2010/11	n/a	-	-	373	n/a	1	517	12	-	-	-	902
2011/12	n/a	-	1702	263	n/a	-	88	7	-	303	-	2363
2012/13	n/a	-	1200 (estimate)	100 (estimate)	n/a	-	22 (to date)	Nil (to date)	-	-	100 (estimate)	1422