



# HILLINGDON

LONDON

## Corporate Services & Partnerships Policy Overview Committee Review Scoping Report 2013/14

### **OBJECTIVE**

#### ***Reducing our Carbon Footprint***

##### **Aim of review**

The Committee wishes to review how the Council can corporately and cost effectively further reduce its carbon emissions, i.e. our Carbon Footprint, through efficient estate management and service operations.

##### **Terms of Reference**

1. To understand the Government's Carbon Reduction Commitment Energy Efficiency Scheme (CRC) and how it affects the Council;
2. To assess the level and types of carbon emissions that Council buildings produce;
3. To assess the impact of the removal of Academies and the inclusion of Street Lighting in the reporting requirements of the Carbon Reduction Commitment;
4. To understand the process of purchasing and surrendering CRC allowances for energy emissions and the consequences of breaching the CRC Order 2013;
5. To review the energy efficiency measures already in place and those that are planned to be introduced to improve the Council's environmental performance and save on fuel and energy costs;

6. To examine the carbon off-setting work which has been carried out and to suggest other possible work;
7. To better understand Corporate Social Responsibility & sustainability strategies in the private and not for profit sectors and how these help drive forward a comprehensive approach to tackling carbon emissions;
8. By reviewing best practice and the latest technologies, to identify and analyse any new opportunities, innovations and energy efficiency tools to further reduce our carbon footprint and;
9. To report to Cabinet on any recommendations which arise out of the review, in particular any proposals that would provide savings contributing to the Council's Medium Term Financial Forecast.

**Reasons for the review**

The Government's CRC Energy Efficiency Scheme (CRC EES) aims to regulate and reduce the carbon emissions (tonnes of carbon dioxide) of large consumers of energy in both the private and public sectors.

Participants in CRC EES are required to monitor and report on their energy consumption and incentivised to reduce their emissions primarily through a financial driver (the purchase of allowances to cover carbon emissions).

The Council has undertaken much work to reduce carbon emissions under its purview. The intention is that this review will add value and new ideas to the work being achieved by the Council to reduce its carbon footprint.

**Supporting the Cabinet & Council's policies and objectives**

The review will examine the Council's statutory obligations under the CRC Energy Efficiency Scheme legislation and support the Cabinet by making recommendations to improve the Council's environmental performance.

**INFORMATION AND ANALYSIS**

A basic definition of a carbon footprint is the total sets of greenhouse gas emissions caused by an organisation, event, product or person. However, because calculating total carbon footprints is impossible due to the large amount of data required and the fact that carbon dioxide can be produced by natural occurrences, a more practicable definition is:

"A measure of the total amount of carbon dioxide and methane emissions of a defined population, system or activity, considering all relevant sources, sinks and storage within the spatial and temporal boundary of the population, system or activity of interest. Calculated as carbon dioxide equivalent using the relevant 100 year global warming potential (GWP100)."

This Council as with all public sector organisations is required to purchase Carbon Reduction Commitment (CRC) allowances from the Department of Energy and Climate Change. The Council is required to measure and report its electricity and gas related carbon emissions annually, following a specific set of measurement rules. Following that measurement and reporting the Council is required to buy allowances for every tonne of carbon they emit (relating to electricity and gas), the purchase of those allowances for the year 2012-13 being the subject of recommendation 1 of this report. A reduction in the Council's consumption of electricity and gas could decrease the level of spending on the CRC in Phase II and later phases.

### **The Council's Carbon Emissions 2012/13**

The tonnes of carbon (gas and electric) emitted from Council buildings and street lighting for 2012/13 is as follows:

- Academies – 10,941
- General Fund – 9,023 (Civic Centre accounts for 50% of General Fund emissions)
- Housing Revenue Account – 237
- Street Lighting – 5,387
- LA Schools – 8,949

The above totals 34,536 tonnes of carbon.

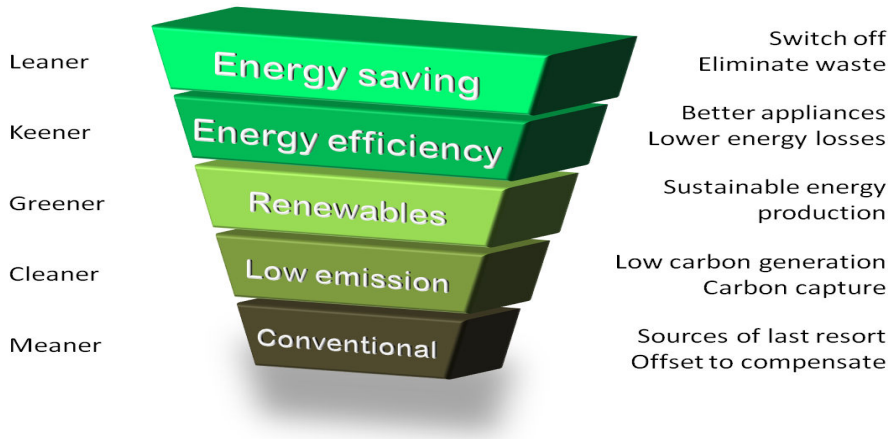
Reference was made to the levels of energy costs for this Council. The Committee was informed that energy contracts were approximately £21m over 4 years with the Council's Carbon Reduction Commitment (CRC) allowances cost being £357,000 per annum.

**The Council's Climate Change Levy** is £280,000 per annum. The Levy was an environmental tax on energy supplies and was levied to encourage greater energy efficiency and lower energy use.

The present total annual budget resource for the Council's energy was £2,047,324 for gas, £3,218,196 for electricity (total £5,265,520).

**Energy Hierarchy** (see diagram below) is a classification of energy options, prioritised to assist progress towards a more sustainable energy system. The highest priorities cover the prevention of unnecessary energy usage both through eliminating waste and improving energy efficiency. The sustainable production of energy resources is the next priority. Depletive and waste-producing energy generation options are the lowest priority.

For an energy system to be sustainable: the resources applied to producing the energy must be capable of lasting indefinitely; energy conversion should produce no harmful by-products, including net emissions, nor wastes which cannot be fully recycled; and it must be capable of meeting reasonable energy demands.



Various energy measures have been introduced by the Council to reduce energy costs and these will be examined during the review.

### **Energy Efficiency Measures which have been implemented**

A variety of energy efficiency measures have been undertaken within the Civic Centre which have involved improving the building fabric and insulation of the building and carrying out an extensive lighting programme which included the installation of LED tubes.

A Chiller replacement had taken place with the air conditioning system in the Civic Centre. A water chiller was a device used to exchange heat from water in a closed loop system to refrigerate. Heat was then filtered outside and chilled water was sent to its location. This was a very cost effective and energy efficient improvement and an example of an “Invest to Save” initiative.

Direct Hot Water Services had been introduced into the Civic Centre which was a well established means of operating efficient hot water systems.

ICT upgrades had taken place which reduced energy costs and usage. PCs in the Civic Centre automatically shut down in the evenings

### **Carbon Off-setting**

A **carbon offset** is a reduction in emissions of carbon dioxide in order to compensate for or to offset an emission made elsewhere.

Possible areas for carbon off-setting which could be investigated during the review could be:

- The displacing of energy from power stations.

- The sharing of the Civic Centre and corporate estates heat and power, perhaps with other public authorities or large organisations.
- On-site and off-site generation – Looking at investing facilities elsewhere?
- The use of rural Hillingdon to offset carbon emissions? Increased planting of trees and anaerobic digestion as a renewable energy source.
- Receiving credits for fuel poverty initiatives – This could include the improvements which have (and would) be made to the Council's housing stock.

**Key Issues**

1. A summary of site emissions for Council buildings in tonnes of CO2.
2. What are the legal, policy and economic factors around carbon footprints?
3. What energy efficiency measures are currently in place and what other measures could be introduced to reduce the Council's carbon emission further?
4. What will the impact be of the removal of Academies and schools from the reporting requirements of the CRC from 2014/15?
5. What will the impact be of the inclusion of Street Lighting into the reporting requirements of the CRC from 2014/15?
6. What initiatives and measures are other large organisations undertaking which this Council could apply to the Civic Centre and corporate estate?

**Local and National context**

For this review, Members should be aware of the wider local, national and international context.

It is essential that that the work carried out and the proposals which arise out of the review link with this Council's Local Development Plan in relation to sustainability.

Climate Local – This is an initiative, led by Local Government for Local Government, to drive, inspire and support council action on carbon reduction

[http://www.local.gov.uk/the-lga-and-climate-change/-/journal\\_content/56/10180/3574359/ARTICLE](http://www.local.gov.uk/the-lga-and-climate-change/-/journal_content/56/10180/3574359/ARTICLE)

Department of Energy & Climate Change – Reducing the UK's greenhouse gas emissions by 80% by 2050

Corporate Services & Partnership Policy Overview Committee – 15 October 2013

Part I – Members, Public and Press

<https://www.gov.uk/government/policies/reducing-the-uk-s-greenhouse-gas-emissions-by-80-by-2050/supporting-pages/carbon-budgets>

## Key information required

### **EVIDENCE & ENQUIRY**

This will include witness sessions looking at the matter from a local and wider perspective, including possible site visit to an exemplar organisation of best practice in reducing carbon use in their estate and service operations.

Locally, witnesses would include officers working on carbon reduction corporately and in their service i.e the Council's Energy Manager, officers responsible for Street Lighting, Open Spaces and Rural Hillingdon, officers working on housing energy efficiencies and Sustainability Officers working on developments and district heating. Officers in Procurement may also be invited to attend to review how contracts and agreements with suppliers are consistent with reducing energy use and emissions.

From a wider perspective, the review could invite witnesses from other local authorities, academics in this field and counterparts in the private sector. It will be useful for the Committee to better understand Corporate Social Responsibility & sustainability strategies in the private and not for profit sectors.

The Democratic Services Manager will also attend this Council's Carbon Reduction Working Group to feedback the work taking place to the Committee.

### **LOGISTICS**

#### Proposed timeframe & milestones

Meeting Date *	Action	Purpose / Outcome
15 October 2013	Agree Scoping Report and first witness session (reviewing local efforts)	Information and analysis. Evidence & enquiry from Council Officers
12 November 2013	<b>Witness Session 2</b>	Evidence and enquiry from external witnesses and to assess best practice.
Site Visit	<b>Site Visit</b> (to visit a private or not for profit organisation)	To seek out best practice, new technologies and cost-effective solutions.
14 January 2014	<b>Witness Session 3</b> (looking at the wider perspective)	Evidence and enquiry from external witnesses and to assess best practice.

12 February 2014	Consideration of draft final report and recommendations	
20 March 2013	Target date for Cabinet consideration	

*\* Specific meetings can be shortened or extended to suit the review topic and needs of the Committee*

**Risk assessment**

Failure to secure witnesses to provide evidence and advice to the Committee will impact on the thoroughness and completeness of the review.