



**Executive**  
15 February 2010

**Report from the Director of Finance &  
Resources and the Director of  
Environment and Culture**

**Carbon Reduction Commitment Energy Efficiency Scheme**

Forward Plan Ref E & C-09/10-21

**1. Summary**

This report introduces the Carbon Reduction Commitment Energy Efficiency Scheme which is a mandatory carbon emission trading scheme starting from April 2010. It sets out the processes required, explains the implications for its implementation and highlights the actions the Council is taking to reduce CO<sub>2</sub> emissions from its operations

**2. Recommendations**

Members are asked to:

1. Note the introduction and implications of implementing the government Carbon Reduction Commitment Energy Efficiency Scheme
2. Approve that the Director of Finance and Corporate Resources has responsibility as Lead Officer for implementing Carbon Reduction Commitment for the Council
3. Approve that the Carbon Management Steering Groups develop a framework for penalising departments including schools that have not reduced their CO<sub>2</sub> emissions.
4. Note that the outcome of the review of the bronze project 'Review of energy supply and costs' will determine whether to install Automatic Meter Readers for Council's offices and schools.
5. Note the requirement for an annual budget of approximately £43K plus lost interest on the cash flow from 2011/12 and note the implications of losing approximately £43K in the first year as a penalty for being at the lower end of the Carbon Reduction Commitment Performance League Table.
6. Note that for each subsequent year from 2012 the penalty increases by 10% each year should the Council remain at the lower end of the Performance League table
7. Note that as final regulations are yet to be published, any detail referred to is subject to change

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Version 1.1  
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### 3. Detail

#### 3.1. Introduction

#### 3.2 Carbon Commitment Reduction Energy Efficiency Scheme (CRC)

The CRC is an obligatory emissions trading scheme covering non-energy intensive users in both public and private sectors, and is a core part of the UK's strategy to deliver the emission reduction targets set out in the Climate Change Act 2008. Qualification for the scheme took place in 2008 and registration will take place in April 2010. It is intended to help generate a shift in awareness, behaviour and infrastructure.

All Local Authorities using over 6000MWh of Half Hourly Electricity during the calendar year of 2008 will have to participate in the scheme and to take responsibility for state funded schools and academies. The Council meets the threshold and is therefore qualify for the scheme. This means that all Council operations, administrative offices, leisure centres, social care centres, etc will be included. It also includes landlord/tenant relationships and pending final agreement may be extended to certain PFIs and joint ventures, etc.

The main features of CRC are as follow:

##### 1. Emission Trading

Organisations that qualify for CRC will be required to report their annual CO<sub>2</sub> emissions to the Government at the end of each scheme year. Each participant will be required to hold and cancel a number of "emissions allowances" at the end of each scheme year that corresponds with its total CO<sub>2</sub> emissions. The Government will sell allowances to participants from April 2014 and will control the amount of CO<sub>2</sub> emitted by the participants in total by limiting the number of allowances available for sale. Participants will be able to trade allowances amongst themselves and those that do not hold sufficient allowances at the end of each year, or who incorrectly report their emissions will be subject to a stringent penalty regime. The scheme is scheduled to start in April 2010 and will target emissions at an organisational rather than site level basis. Responsibility for emissions will be assigned to the organisation that is the customer of the energy supplier, e.g. the Council will be responsible for the CO<sub>2</sub> used by buildings it leases to other organisations if it is responsible for paying the energy bills.

Participants will monitor their total energy use during a Footprint Year, which will normally take place prior to the start of compliance years. In the Introductory Phase, the Footprint Year is concurrent with the first compliance year of the scheme (April 2010-2011). Data on footprint and emissions to be included in the scheme must be reported to the Environment Agency in a Footprint Report, submitted four months after the end of the Footprint Year. Each year participants will have to monitor and record their CRC emissions and submit a report on their emissions data by the last working day of July, following the end of that compliance year.

By the July reporting deadline, participants will also have to obtain and cancel a sufficient number of allowances to cover their reported emissions. These allowances can be purchased in one of three ways:

- There will be an annual Government sale or auction at the start of the year. During the Introductory Phase, an unlimited number of allowances will be sold at a fixed price of £12 per tonne of CO<sub>2</sub>. There will be no sale of allowances in the first year (2010/2011) of the scheme. The first Government sale is in April 2011 when organisations have to purchase allowances to cover their forecast emissions for 2011/12.
- During the capped phases from 2013/14 the number of allowances for sale will be limited by Government and sold via an auction.
- Outside of these Government sales or auctions, allowances can be bought and sold by trading with others on the secondary market.

Organisations can bank unused allowances to cover emissions up to the end of the introductory phase when all remaining allowances will be cancelled and cannot be banked for the capped phase.

## 2. Revenue recycling & league table

Revenue raised from the Government sale of allowances will be recycled back to participants, based on their performance in the scheme. In the Introductory Phase payments will be proportional to each participant's 2010/11 emissions with a bonus or penalty according to their improvements in energy efficiency, as measured by their ranking in the Performance League Table (PLT). The league table is designed to incorporate reputational incentives in CRC, as well as to provide the basis for the financial incentives on an equitable basis. PLT will be publicly available and it is widely expected that it will have PR value for participants. Importantly, league table position will also determine a bonus or penalty factor applied to a participant's recycling payment. The aim being to reward a well performing organisation while penalising those with poor performance. The bonus or penalty payment will start at ± 10% in Year One but rise to ± 50% by Year Five.

Although these performance metrics are fixed, the actual penalty and bonus can be greater or lower than these percentages. The first year of the league table is based exclusively on the 'early action metric' which will determine the full bonus/penalty amount, rewarding those organisations that have taken 'early action' to reduce carbon emissions on a voluntary basis before 2010. The early action metric has been included in the first phase of the scheme to give credit to organisations that have been practicing good energy management prior to the introduction of CRC.

The early action metric is based on two equally weighted factors: 100% installation of voluntary Automatic Meter Reading (AMR) across 90% of an organisation's properties portfolio; achieving the Carbon Trust Standard certification or other similar certification which confirms that an organisation has genuinely reduced its carbon footprint and is committed to making further reductions year on year. To achieve certification against the Carbon Trust Standard an organisation must meet the requirements in all three areas by measuring its key greenhouse gas emissions, showing good carbon management performance and being able to show emissions

reduction over the years – either on a total emissions basis, or on a relative basis (e.g. emissions / £m revenue budget).

The weighting of the early action metric is reduced gradually from 100% in the first year to 40% in the second year and 20% in the third year of the introductory phase.

Subsequent performance from 2012 is assessed on the inclusion basis of two differently weighted metrics: Absolute Matrix, which measures changes in a participant's absolute emission compared with a five year rolling average; Growth Matrix, which measures a change in emissions relative to turnover or revenue expenditure, as shown below:

	Year 1 (Oct 2011)	Year 2 (Oct 2012)	Year 3 (Oct 2013)
Early Action Metric	100%	40%	20%
Absolute Metric	0%	45%	60%
Growth Metric	0%	15%	20%

However public sector revenue expenditure will decline in coming years due to the combined effect of spending cuts, whilst energy use and emissions may not reduce as services will not necessarily decline in line with expenditure. This may result in public sector performance comparing unfavourably to private sector participants in the PLT published in October at the end of each compliance year.

### 3. Record keeping & penalties

Participants will be required to keep records of the data they report, including evidence for exemptions, in an evidence pack. In order to verify that participants are reporting correctly and cancelling sufficient allowances, a proportion of participants will be audited each year.

The Government proposes a number of civil penalties based on a combination of fixed and variable fines, as well as publication on non-compliance, e.g. failure to surrender allowances or under-reporting (error margin greater than 5 per cent) will mean participants must purchase and cancel their outstanding balance of allowances and pay £40/tCO<sub>2</sub> in respect of each tonne that should have been reported and surrendered. Failure to provide an annual report will incur £500 per working day fine. After the forty day variable fine period, the total fine accumulated will be doubled and the participant would be placed at the bottom of the league table alongside the worst performer, and total emissions for the year would be doubled. Failure to keep adequate records will incur £40/tCO<sub>2</sub> against total emissions last reported. In addition to financial penalties any non-compliance will impact on the reputation of an organisation. A limited number of criminal offences are also proposed, along with a system for appeals and powers of inspection.

#### 3.3 Implications for the Council

##### 3.3.1 Policy Context

The Climate Change Act which introduces the Carbon Reduction Commitment from April 2010 calls for an overall CO<sub>2</sub> reduction of 80% by 2050, with a milestone target of 34% by 2020.

Through its Corporate Strategy the Council sets out its vision to be an exemplar of environmental practices and performance on sustainability issues and supported by the Carbon Trust has adopted the Carbon Management Strategy & Implementation Plan (CMS&IP)- second review to meet the recent changes in national, regional and corporate legislation and policies, e.g. the introduction of National Performance Indicators (NI) such as NI 185 (carbon reduction within the Council's own operations), NI 186 (carbon reduction within Brent's community), NI 188 (adaptation to Climate Change) and NI 194 (reduction of air pollution emissions as a result of reducing CO<sub>2</sub>)

NI 185 is also one of the Council's 35 Local Area Agreement (LAA) indicators with a target of reducing CO<sub>2</sub> emissions by 6% over three years from the 2008/9 baseline. The data for NI 185 is also used for calculating NI 194 on minimising air pollution emissions from the Council's fuel/energy transport activities as well as from its buildings. Through NI 188 the Council recently developed a Climate Change Strategy for the borough helping to address adaptation to climate change and also outlining measures to mitigate climate change with a focus on carbon emission reduction.

The Council's Improvement and Efficiency Strategy requires services to improve their working practices whilst reducing costs. Reducing energy costs through implementing CRC effectively will contribute to these objectives.

### 3.3.2 Leadership and responsibility

Compliance with CRC is largely an administrative process but to do well and benefit from energy savings requires a One Council cultural and management approach. The Council will also need to ensure that schools are specifically engaged in the process. Head teachers, governors and bursars alike will all need to understand and prepare for the arrival of the CRC. The requirements to collate and report energy information plus the need to plan for the financial implications of the CRC are all relevant for schools. The Government has also introduced an additional tick box question on employee engagement to reduce emissions in order to encourage behavioural change throughout Participant organisations.

Whilst all services are responsible for CRC it is recommended that the Director of Finance and Corporate Resources be the Council's Lead Officer for its implementation. Members are responsible for supporting and overseeing CRC implementation within their respective service areas. It is proposed that the current membership of the Carbon Management Steering Group has responsibility for overseeing the implementation of CRC.

It is recommended that an additional senior officer from Children & Families is made responsible for communicating and coordinating between schools and the Carbon Management Steering Group to help ensure that the Council achieves year on year CO<sub>2</sub> reductions.

Implementing CRC requires a 'One Council' approach where all staff take responsibility for minimising their carbon footprints to reduce both environmental impact and cost to the Council. However ongoing responsibilities for administrative

processes such as registration, data reporting, preparing and submitting the evidence pack and arranging finances to purchase allowances will need to be allocated to specific staff. It is therefore recommended that the Carbon Management Steering Group under the leadership of the Director of Finance & Corporate Resources assigns responsibility for the ongoing and new tasks to relevant staff within each service area, ensuring that roles for the implementation of CRC are clearly defined and included in the staff work programmes.

It is also recommended that the Carbon Management Steering Group be responsible for developing a league table similar to the CRC PLT to reward or penalise tenants of buildings for their CO<sub>2</sub> emissions.

#### 3.3.4 Timeline

A CRC timeline highlighting the critical deadlines and output required for compliance is attached in appendix A. The first task is to measure the Council's carbon footprint in line with the protocols defined in the CRC framework. This will require the Council to register for the scheme this year, monitor its carbon footprint in 2010, purchase CO<sub>2</sub> allowances in April 2011 and produce an evidence pack by July 2012.

#### 3.3.5 Data collection

There is already a Monitoring Officer post in Environment & Culture to collect data for the various national environmental performance indicators. It is expected that this post will also be responsible for the CRC data collection.

Data for CRC is a subset of NI 185 albeit in more detailed format. The key difference between CRC and NI 185 is that CRC only applies to CO<sub>2</sub> emissions from energy used, whilst NI 185 includes CO<sub>2</sub> emissions from both energy and transport. NI 185 measures CO<sub>2</sub> emissions arising as a direct result of the Council's own services and operations, whilst under CRC guidance 90% of properties for which the Council is responsible for paying energy bills - regardless of whether it arises from the Council's own services and operations - will be counted. The reasons for excluding the remaining 10% (i.e. very small sites) have to be justified and verified.

The current data collection process for NI 185 relies on the Monitoring Officer contacting relevant staff within each department to obtain meters readings and invoices. A database is used to store, analyse and report on the Council's annual usage on CO<sub>2</sub> to DECC. Part of the CRC requirements is to establish an accurate emissions inventory, which the Council has already partially collected to meet NI 185. The Council will be utilising the data toolkit developed by Capital Ambition and the London Energy Project for defining datasets and methodology of calculating CO<sub>2</sub> emissions for the CRC return. Further information such as types of meters and location, etc will have to be collated. The Council is also in the process of implementing a computerised energy system to manage the data and to report the analyses required for both NI 185 & CRC.

The collection of energy data for NI 185 highlighted that some services were unsure of the number of meters they had and the amount of energy used. Bills were paid based on estimated usage. However processes are now in place to capture this information, ensuring that all meters are read regularly and in particular at the beginning and end of each financial year.

### 3.3.6 Baseline for CRC

The Footprint year (baseline) for calculating CRC starts in April 2010 to March 2011, however for the purpose of this report energy data collected in 2008/9 for NI 185 is used as baseline. The total Council CO<sub>2</sub> emission is 35,960 tonnes as shown in appendix B which lists the emissions used by each Council building and school and includes street lighting. Emissions from buildings leased by the Council to other organisations (for which the Council pays the energy bills) will have to be collected and added to this list for calculating CRC baseline, which has to be submitted as part of the CRC registration in 2010.

## 3.4 The Council's progress in reducing its CO<sub>2</sub> emissions

### 3.4.1 Energy Management

CRC is concerned mainly with CO<sub>2</sub> emissions from buildings and as such the Council has focussed on energy management in all properties it manages. The Property and Asset Management (PAM) service has made a commitment to the green agenda with maintenance works that are increasingly sustainable in both design and construction and has actively encouraged the use of renewable and energy efficient resources that minimise waste. PAM has also developed an Energy Strategy with the overarching principal "Be Lean, Be Clean, Be Green" and provides a framework for achieving these green objectives in Council buildings.

The implementation of the Energy Strategy for Brent will follow the guidelines set out in the Energy Management Strategy document produced by the Carbon Trust:

- Get Commitment
- Understand the Issues
- Plan and Organise
- Implement
- Monitor on-going performance

The aim of the Energy Strategy Action Plan will be to reduce energy usage in Council owned and run buildings (and schools) and reduce the costs of energy wherever possible. By achieving the lowest energy consumption for each building (*Be Lean*) and maximising the efficiency of plant and equipment (*Be Clean*), the lowest kWh/m<sup>2</sup> per building (or building type) will be established and like-for-like building comparisons can be made. The use of renewable energy sources (*Be Green*) will be assessed on a building by building basis where practicalities and cost will decide their feasibility. PAM has and will actively work with all services to implement the Action Plan to help reduce CO<sub>2</sub> emissions.

### 3.4.2 Carbon Management Strategy & Implementation Plan (Second Review)

The government recommends that all organisations develop a Carbon Abatement Strategy to actively reduce CO<sub>2</sub> emissions. The Council's revised Carbon Management Strategy & Implementation Plan (CMS&IP) – Second Review agreed by the Executive in October 2009 sets out action plans and resources intended to achieve technical and behavioural change across the Council and schools to reduce

CO<sub>2</sub> emissions. It also sets out targets for CO<sub>2</sub> reduction and a framework for charging penalties for non-achievement as detailed in Appendix 3.

The revised CMS&IP sets out the success of eight projects that have delivered a total CO<sub>2</sub> savings of 3,048 tonnes. It also states that 19 of the original projects will continue to help achieve further targets for carbon reduction and introduces 55 proposed school projects including insulation, the upgrading of boilers, buildings and lighting as well as behavioural change. In addition there are a further nine projects for 'greener' building maintenance. Implementation of these planned projects is however subject to funding availability.

The CM&IP also introduced the staff Green Champion Network, which has staff across the Council actively promoting and supporting their colleagues in behavioural change and moving towards a 'greener lifestyle' in the work place

#### 3.4.5 Brent's Improvement & Efficiency Action Plan 2010-2014

This Action Plan was launched in September and includes two bronze projects i.e. the Carbon Management programme and a Review of energy supply and costs to support the reduction of energy costs. CRC will play a key part in the scoping, developing and implementing these projects.

#### 3.5 Revenue budgeting

The CRC scheme proposes that revenue raised from the sale of carbon allowances will be recycled back to participants after a six-month period. However the amount of money recycled will vary depending on the performance of the organisation as an incentive to reduce carbon emissions. The first year of the scheme (2010/11) is a footprint and reporting period. However a set payment based on the organisation's proportion of the total CRC emissions in year 2 (2011/12) is required. As the Council improves it will spend less each year on allowances and receive a higher fraction of the recycling pot - a double financial benefit for good performance.

Table 1 below sets out the possible budgetary implications for the Council in using 35,960 tonnes (based on 2008/9 data) of CO<sub>2</sub> each year. The calculations assume that the cost per tonne of CO<sub>2</sub> remains at £12 and that the total CO<sub>2</sub> emissions remain at 35,960 tonnes per year. If the Council performs well in the PLT a cumulative 10% allowance will be 'recycled' to the Council as a bonus starting with 10% from 2011/12 rising to 50% in 2015/16. However if Council performance is at the lower end of the PLT then the same percentages will apply as penalties. The best and worst case scenarios are set out below only to illustrate the methodology. It is incorrect however, to assume that the maximum penalty or bonus that an organisation faces is limited to the quoted percentage rate for that year. The final calculations which are based on a percentage of the organisation total CO<sub>2</sub> emissions, its position in the PLT, its baseline, performance by all participants and size of the overall allowance pot. Table 2 provides an example of how the calculation works (this assumes there are only two organisations in the league table, giving an extreme result, but the principles remain true. This illustrates that the amount an organisation receives in revenue recycling is related to its proportion of the 2010/11 (first year) total reported energy use, adjusted by a bonus/penalty percentage linked to their performance in the league table.



Table 1

Financial Year	Buying Allowances	Allowance recycling		Net budgetary impact	
		Indicative Best Case	Indicative Worst Case	Indicative Best Case	Indicative Worst Case
<b>2009/10</b>					
<b>2010/11</b>	£0k	£0k	£0k	£0k	£0k
<b>2011/12</b>	-£432k	£475k	£388k	£43k	-£43k
<b>2012/13</b>	-£432k	£518k	£345k	£86k	-£86k
From Apr 2013 the scheme enters the capped phase and the cost of allowances will be set by the market					
The following assumes the cost of allowances remain at £12 per tonne					
<b>2013/14</b>	-£432k	£561k	£302k	£129k	-£129k
<b>2014/15</b>	-£432k	£604k	£259k	£173k	-£173k
<b>2015/16</b>	-£432k	£647K	£216k	£216k	-£216k

Table 2

A	B	C	D	E	F	G	H	I	J
organisation	Allowances purchased	Cost at £12 per tonne	Actual emissions	Rank	Base year emissions	Bonus / penalty %	Base = % (F*G)	% of total	Year 1 recycling repayment (Total of C*1)
1	750	£9,000	750	1	1000	10%	1100	50.459	£ 16,651
2	2000	£24,000	2000	2	1200	-10%	1080	49.541	£ 16,349
		£33,000	2750		2200		2180		

### 3.5.1 Options in the Introductory Phase:

To achieve a favourable position in the CRC League Table (i.e. to achieve the maximum 10% bonus) in the introductory phase the Council must have installed AMR in all of its relevant sites *and* comply with the Carbon Trust or other similar standards matrices. Recent communication with the Carbon Trust has confirmed that based on the current data available the Council is unlikely to achieve the Carbon Trust standards. However, if CO<sub>2</sub> emissions are reduced in 2009/10 and again in 2010/11 the Council may still achieve the standards in 2011/12.

The Council has also to decide on whether to:

#### Option A - Install AMRs in relevant sites

This would also allow regular energy consumption to be monitored from April 2010. The data available would also enable the Council to purchase energy more efficiently, validate supplier invoices, provide accurate data and for energy

management. However the cost of installing an estimated 330 AMRs across the Council would incur an ongoing annual cost of £43,560 (based on annual cost of £132 per AMR). With AMRs installed in all relevant properties and meeting half of the Early Action Matrix the Council would achieve a 5% bonus in 2011/12 (approx £21k). However by not complying with the Carbon Trust or similar standards the Council could incur a 5% penalty for being in the 'middle' of the league table during the introductory phase.

Or

#### Option B - Not install AMRs

This would necessitate regular and accurate systems for meter readings to be put into place as an alternative to capture data robustly for accurate reporting and billings. Without AMRs installed in all Council properties and not complying with the Carbon Trust or similar standards the Council could incur a 10% penalty of £43K in 2011/12 to compensate for being in the 'lower end' of the league table. There are also potential reputational risks associated with being in the lower end of the PLT.

#### Considerations

The business case for AMRs, which includes the cost of installation and data recovery, should be considered against the consumption, energy expenditure and ability to make use of the data. Whilst Option A may potentially enable the Council to achieve a favourable 5% (£21k) bonus in 2011/2 and improved energy management, the annual recurring cost of installing AMRs in all properties is in excess of £43K. Furthermore the benefits of the Early Action Matrix are reduced to only 40% in 2012/13 and 20% in 2013/14.

Whilst AMRs would provide up to date and robust data this could instead be achieved through vigorous and frequent meter readings carried out by Council Caretakers (trained by PAM) and the Energy companies. However, AMR would provide detailed and accurate daily reading which will help to monitor energy usage and help to purchase energy more effectively. Installing AMRs would also ensure that the Council has robust data to comply with external audit requirements.

One of the Council's bronze projects is to review energy supply and costs and includes a study on the possibility of installing AMRs for all Council's properties (excluding social housing and communal areas) portfolio. It is recommended therefore that the decision of whether to install AMRs would be decided when the report is finalised and approved. The most critical matrix for achieving a favourable position in the PLT is through demonstrating year on year CO<sub>2</sub> reductions and energy costs.

### 3.6 Risks

Implementing CRC has a number of risks factors:

#### (1) Position in PLT

The CRC provides a platform that encourages better energy management, creates greater corporate awareness of energy and carbon performance and offers the ability to design and implement efficiency projects specifically aimed at reducing carbon and

energy expenditure, whilst the league table provides financial and reputational benefits as emissions are reduced. However the London Energy Project believes that most councils will be at the lower end of the league table due to the difficulties of dealing with a diverse portfolio, e.g. offices, leisure centres, care homes, schools and also the age, nature and capital investment that is likely to be required. It should also be noted that schools energy consumption is rising year on year with school buildings extended use and the increasing technology deployed. These factors are likely to have a negative impact on councils' league table positions, particularly compared to organisations that have a standardised approach and resources for aggressive carbon reduction programme.

## (2) Data Integrity

Data collection for NI 185 highlighted a number of data integrity issues that will need to be resolved to implement CRC successfully. Often energy bills are paid based on estimates provided by suppliers with no actual meter readings. In some instances meter readings by caretakers have been inaccurate, leading to problems in calculating CO<sub>2</sub> emissions and compiling returns. To ensure that data is robust and to reduce the above risks PAM would take a lead in explaining the reasons for accuracy and advising Caretakers on how to conduct effective meter readings. In addition, standard letters requesting quarterly reading would be sent to all relevant suppliers. There is also a considerable risk from financial penalties in the form of fines. The Government has determined that fines for misstatements of carbon footprints greater than 5% could incur a penalty of £40 per tonne of carbon misstated above the 5% threshold. In addition the Council could be deemed non-compliant and fined if it submits its carbon footprint report late.

## (3) Reputation

The Council has a leadership role in assisting the community to both adapt and mitigate climate change effects. The Council's own Climate Change Strategy sets out actions to reduce carbon emissions and its Corporate Strategy sets out its vision of being an exemplar on Environmental practices and performance on sustainability issues. The Council's reputation will be at risk should its position in the PLT be rated to be in the lower position constantly and it is likely that there will be significant Press attention in the first few years of the CRC.

## (4) Unable to project future emissions

The implementation of the EU Energy Performance of Buildings Directive energy certificates has highlighted that the performance of most of the Council buildings and in particular schools are of poor ratings. Unless infrastructure of these buildings are upgraded as recommended in the CMS&IP the Council is unlikely to be able to compete favourably with other organisations. The planned move to the Civic Centre will help to reduce the Council carbon footprint but by what percentage remains unknown. Similarly CO<sub>2</sub> emissions for schools are of great concern as the move to use more technology increases year on year.

Furthermore the Council may not be able to influence the behaviours of its tenants to reduce CO<sub>2</sub> emissions.

## **4.0 Financial Implications**

### **4.1 Registration & administration fee**

The registration fee for CRC payable in 2009/10 is £950 plus an annual administration fee of £1,290. This will be contained and funded from existing revenue budget.

4.2 In April 2011 the Council will have to purchase its first carbon credits allowances. It is estimated that about £432,000 (35,960 tonnes of CO<sub>2</sub>) per annum of credit will need to be purchased. The Government will publish the first PLT in October 2011 and the first recycling payment will be made soon after.

4.3 There is currently ongoing discussion about how organisations should account for the assets and liabilities associated with participation in the CRC. From April 2011 the Council will have to purchase allowances on the balance sheet but will also need to recognise that each allowance is entitled to a refund from the government. This also presents an issue as the level of refund is determined by a number of factors, namely the size of the recycling fund and its position in the annual league table.

4.4 The financing of the £432K would have to be dealt with as part of the Council's normal day to day cash management. There will be a cost of borrowing for the nine months but at the current rate of interest this is not material. However, although funds paid may be recycled back to all participants the amount recycled to the Council (being lower in the PLT) will be lower since the organisations that perform well in the CRC league tables will benefit from a greater share at the cost of the poor performers.

4.5 There is a considerable risk from financial penalties in the form of fines. The Government has determined that fines for misstatements of carbon footprint greater than 5% could incur a penalty of £40 per tonne of carbon misstated above the 5% threshold i.e. if the misstatement is 6% the penalty will only apply to the 1% not the full 6%.

4.6 The Carbon Management Steering Group is developing a Performance League Table for the Council based on the methodology used for CRC. It is proposed that penalties will be apportioned to services that have not reduced their CO<sub>2</sub> emissions. Appendix 3 details the draft framework. To incentivise schools the Department of Children, Schools and Families (DCSF) has amended the regulations to enable local authorities to charge any loss attributable to schools to the Schools Budget. The Council will be able to treat this sum as centrally held expenditure but be allowed to apportion the loss amongst schools according to their individual performance. If schools have contributed to the Council gaining money then the Council could ensure that gain due to schools be added to the Schools Budget and perhaps use to help schools which have made the greater savings.

## **5.0 Legal Implications**

### **5.1 The Carbon Reduction Commitment**

CRC is a new mandatory carbon emissions trading scheme that aims to improve energy efficiency and reduce the amount of CO<sub>2</sub> emitted in the UK. This is vital to achieving overall targets of reducing greenhouse gas emissions by 2050 by at least 80% compared with the 1990 baseline.

### **5.2 EU Energy Performance of Buildings Directive (2002/91/EC)**

As a requirement of the EU Energy Performance of Buildings Directive (2002/91/EC) energy certificates for the performance of most of the Council's buildings and schools will need to be publicly displayed. The current energy efficiency of buildings indicates that these certificates provide poor ratings. The directive when fully implemented is likely to require a minimum performance to be achieved for refurbishments and new builds.

## **6.0 Diversity Implications**

6.1 There are no diversity implications as the report mainly concerns the reporting, financing and management of carbon emissions arising from energy used by Council buildings and schools and those properties leased to other organisations.

## **7.0 Staffing/Accommodation Implications**

7.1 The Monitoring office post in Environment & Culture will have the added responsibility for collating and compiling the data for the CRC return. In addition staff will be nominated by the CRC Steering Group for other CRC related tasks e.g. registration, purchasing CO<sub>2</sub> allowance, compiling the Carbon Footprint report, reporting etc.

## **8.0 Environmental Implications**

6.1 This report supports the reduction of the Council's CO<sub>2</sub> emissions. In addition to cost savings it will also have a positive effect on the environment. Reducing CO<sub>2</sub> emissions will help mitigate the effect of climate change at both a local and global level and the environment will benefit in the long term.

## **Background Papers**

Preparing for the Carbon Reduction Commitment (Revised December 2009) – Capital Ambition & London Energy Project  
[www.capitalambition.gov.uk/londonenergy](http://www.capitalambition.gov.uk/londonenergy)

Government Response and Policy Decisions on the Consultation on the Draft Order to Implement Carbon Reduction Commitment (Oct 2009) – Department of Energy & Climate Change  
[www.decc.gov.uk/en/content/cms/consultations/consultations.aspx](http://www.decc.gov.uk/en/content/cms/consultations/consultations.aspx)

Carbon Reduction Commitment (CRC) Energy Efficiency Scheme (Oct 2009) – The Chartered Institute of Public Finance & Accountancy  
<http://www.cipfa.org.uk/pt/sustainability/publications.cfm>

Carbon Management Strategy & Implementation Plan - Second Review (Revised Oct 2009)

Energy Strategy and Action Plan – Property & Assets Management

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**Appendix A  
Carbon Commitment Reduction Timeline**

	2009/10 2009/10	2010/11 2010/11	2011/12 2011/12	2012/13 2012/13	2013/14 2013/14
Phase	<i>Preparatory Tasks</i>	<i>Three year Introductory Phase</i>			<i>Capped Phase...</i>
Description		<ul style="list-style-type: none"> <li>• <b>CRC Scheme begins (Apr 10)</b></li> <li>• <b>Registration Period (Apr 10- Sept 10):</b> Qualifying organisations to register online with EA as a participant. Account created to report emissions / surrender allowances</li> <li>• <b>Footprint Year (Apr 10- Mar 11):</b> Participants monitor up to 90% of total emissions from energy use and determine what emissions to include in CRC</li> <li>• <b>1<sup>st</sup> Compliance Year (Apr 10- Mar 11):</b> although no purchasing of allowances</li> </ul>	<ul style="list-style-type: none"> <li>• <b>2<sup>nd</sup> Compliance Year (Apr 11- Mar 12):</b> start of purchasing allowances</li> </ul>	<ul style="list-style-type: none"> <li>• <b>3<sup>rd</sup> Compliance Year (Apr 12- Mar 13):</b> continued purchasing of allowances</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Capped Phase begins (Apr 13):</b> start of purchasing capped allowances at auction</li> <li>• <b>New Qualification Period</b></li> <li>• <b>New Registration Period</b></li> <li>• <b>New Footprint Year:</b> based on two previous years data</li> </ul>
Allowances			<ul style="list-style-type: none"> <li>• <b>1<sup>st</sup> Sale of Allowances (Apr 11 -12)</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>2<sup>nd</sup> Sale of Allowances (Apr 12):</b> to cover 2012/13 emissions</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Sale of Allowances (by auction) (Apr 13):</b> to cover 2013/14 emissions with a cap on total number of allowances available</li> </ul>
Recycling Payments			<ul style="list-style-type: none"> <li>• <b>1<sup>st</sup> Recycling Payment (Oct 11):</b> Annual sale of allowances is 'recycled' back to participants based on Performance. The <b>League Table</b> determines how much revenue each organisation</li> </ul>	<ul style="list-style-type: none"> <li>• <b>2<sup>nd</sup> Recycling Payment (Oct 12):</b> Annual sale of allowances is 'recycled' back to participants. <b>League Table</b> performance determines how much revenue each</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Recycling Payment (Oct 13):</b> Annual sale of allowances is 'recycled' back to participants. Performance in the <b>League Table</b> determines how much revenue each organisation receives</li> </ul>

			receives.	organisation receives	
Key Actions / Dates	<ul style="list-style-type: none"> <li>• Receive Registration Pack from Environment Agency/ administrator (EA) (planned Sept 09 deferred to Dec 09)</li> <li>• Receive qualification pack providing further details on registration process</li> </ul>	<ul style="list-style-type: none"> <li>• Submit Registration Pack</li> <li>• List compiled of all sources of emissions in footprint year (which have to be reported on and purchase allowances for) will be included in an <b>evidence pack</b>. This pack should be disclosed to the regulator (EA) if audited</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Footprint Report Due (29 Jul 11)</b>: Submit footprint report on 2010/11 emissions to EA via CRC registry</li> <li>• <b>1<sup>st</sup> Annual Report Due (29 Jul 11)</b>: Submit report on 2010/11 emissions to EA via CRC registry</li> <li>• <b>Allowances Surrendered (29 Jul 11)</b>: Surrender corresponding allowances submitted in annual report for 2010/11 emissions</li> <li>• Update <b>Evidence Pack</b></li> <li>• <b>League table published (Oct 11)</b>: EA gathers annual reports and compares performance using absolute, early action and growth metrics. Top performer has highest bonus and the bottom the highest penalty (10%)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>2<sup>nd</sup> Annual Report Due (29 Jul 12)</b>: Submit report on 2011/12 emissions via CRC registry</li> <li>• <b>Allowances Surrendered (29 Jul 12)</b>: Surrender corresponding allowances submitted in annual report for 2011/12 emissions</li> <li>• Update <b>Evidence Pack</b></li> <li>• <b>League table published (Oct 12)</b>: EA gathers all annual reports and compares performance using absolute, early action and growth metrics. Top performer has highest bonus and the bottom the highest penalty (20%)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Submit Bid Schedule</b>: setting out the no. of allowances wish to buy at different prices</li> <li>• <b>Annual Report Due (29 Jul 13)</b>: Submit report on 2012/13 emissions via CRC registry</li> <li>• <b>Allowances Surrendered (29 Jul 13)</b>: Surrender corresponding allowances submitted in annual report for 2012/13 emissions</li> <li>• Update <b>Evidence Pack</b></li> <li>• <b>League table published (Oct 13)</b>: EA gather all annual reports and compare performance of participants using absolute and growth metrics. Top performer has highest bonus and the bottom the highest penalty (30%)</li> </ul>



Expenditure		<ul style="list-style-type: none"> <li>• Registration fee (Apr 10- Sept 10)</li> </ul>	<ul style="list-style-type: none"> <li>• Administration fee</li> <li>• 1<sup>st</sup> Sale of allowances (Apr 11):</li> </ul>	<ul style="list-style-type: none"> <li>• Administration fee</li> <li>• 2<sup>nd</sup> Sale of allowances (Apr 12): purchase of allowances at £12 t/CO<sub>2</sub></li> <li>• Buy / sell extra allowances</li> </ul>	<ul style="list-style-type: none"> <li>• Administration fee</li> <li>• Sale of allowances (Apr 13): purchase of allowances at 'clearing price'</li> <li>• Buy / sell extra allowances</li> </ul>
Income			<ul style="list-style-type: none"> <li>• 1<sup>st</sup> Revenue Recycling Payment (30 Oct 11): recycling payment including 10% bonus/penalty from league table</li> </ul>	<ul style="list-style-type: none"> <li>• 2<sup>nd</sup> Revenue Recycling Payment (30 Oct 12): recycling payment including 20% bonus/penalty from league table</li> </ul>	<ul style="list-style-type: none"> <li>• Revenue Recycling Payment (30 Oct 13): recycling payment including 30% bonus/penalty from league table</li> </ul>
Deadlines / Fines		<ul style="list-style-type: none"> <li>• Registration deadline (30 Sept 10): failure to register will result in fixed fine of £5,000 and additional £500 per working day</li> <li>• Evidence pack: failure to complete an annual evidence pack on the regulator's request will result in a fine of £5 / tonne CO<sub>2</sub></li> </ul>	<ul style="list-style-type: none"> <li>• Footprint Report deadline (29 July 11): failure to submit report results in £5,000 fine plus additional £0.05 / working day for each tonne of CO<sub>2</sub></li> <li>• Annual Report deadline (29 July 2011): failure to submit report results in a £5,000 fine plus £0.05 / working day for each tonne of CO<sub>2</sub></li> </ul>	<ul style="list-style-type: none"> <li>• Annual Report deadline (29 July 2012): failure to submit report will result in a fixed fine of £5,000 and additional £0.05 per working day for each tonne of CO<sub>2</sub></li> </ul>	<ul style="list-style-type: none"> <li>• Annual Report deadline (29 July 2013): failure to submit report will result in a fixed fine of £5,000 and additional £0.05 per working day for each tonne of CO<sub>2</sub></li> </ul>

Appendix 2

**Extract from NI 185 sheet: Council Buildings**

<b>Building or site</b>	<b>Gross Internal Area (m2)</b>	<b>Energy type</b>	<b><a href="#">Amount used (kWh)</a></b>	<b>CO2 emission (kg)</b>
BRENT CEMETERIES OFFICE	200	Electricity (grid)	9,838	5,145
BRENT CEMETERIES OFFICE	200	Natural gas	4,300	795
WILLESDEN NEW CEMETERY	60	Electricity (grid)	4,626	2,419
WILLESDEN NEW CEMETERY	60	Natural gas	33,362	6,171
CARPENDERS PARK CEMETERY	120	Electricity (grid)	1,485	777
MORTUARY NORTHWICK PARK HOSPITAL		Electricity (grid)	87,483	45,753
PADDINGTON CEMETERY	129	Electricity (grid)	560	293
PADDINGTON CEMETERY	129	Natural gas	15,757	2,915
ASHLEY GARDENS	491	Electricity (grid)	15,804	8,265
ASHLEY GARDENS	491	Natural gas	106,784	19,752
Carlton Centre	1,710	Electricity (grid)	54,093	28,291
Carlton Centre	1,710	Burning oil	182,149	44,683
Harlesden Centre	306	Electricity (grid)	19,716	10,311
Harlesden Centre	306	Natural gas	68,037	12,585
Madison House	597	Electricity (grid)	30,116	15,751
STONEBRIDGE CENTRE	1,666	Electricity (grid)	152,550	79,783
STONEBRIDGE CENTRE	1,666	Natural gas	292,159	54,041
BARHAM PARK LIBRARY	524	Electricity (grid)	9,506	4,972
BARHAM PARK LIBRARY	524	Natural gas	122,298	22,621
CRICKLEWOOD LIBRARY	458	Electricity (grid)	48,742	25,492
EALING ROAD LIBRARY	536	Electricity (grid)	53,279	27,865
EALING ROAD LIBRARY	536	Natural gas	77,488	14,333
HARLESDEN LIBRARY	619	Electricity (grid)	64,484	33,725
HARLESDEN LIBRARY	619	Natural gas	25,494	4,716
KENSAL RISE LIBRARY	592	Electricity (grid)	46,598	24,371
KILBURN LIBRARY		Electricity (grid)		

	651		41,129	21,510
KILBURN LIBRARY	651	Natural gas	11,164	2,065
KINGSBURY LIBRARY		Electricity (grid)	15,091	7,893
KINGSBURY LIBRARY		Natural gas	24,516	4,535
NEASDEN LIBRARY	752	Electricity (grid)	52,076	27,236
NEASDEN LIBRARY	752	Natural gas	25,808	4,774
PRESTON ROAD LIBRARY	255	Electricity (grid)	15,184	7,941
PRESTON ROAD LIBRARY	255	Natural gas	2,771	513
TOKYNGTON LIBRARY	360	Electricity (grid)	79,923	41,800
WILLESDEN GREEN LIBRARY CENTRE	5,000	Electricity (grid)	737,495	385,708
WILLESDEN GREEN LIBRARY CENTRE	5,000	Natural gas	754,428	139,547
WELSH HARP EEC	428	Electricity (grid)	9,743	5,096
WELSH HARP EEC	428	Natural gas	40,967	7,578
GRANGE ROAD OFFICES AND STORE		Electricity (grid)	44,957	23,512
ALPERTON SPORTS GROUND PAVILION	87	Electricity (grid)	2,447	1,280
ROE GREEN PARK	140	Electricity (grid)	2,020	1,056
ROE GREEN PARK	140	Natural gas	11,408	2,110
GIBBONS RECREATION GROUND PAVILION	118	Electricity (grid)	170	89
PRESTON PARK PAVILION	340	Electricity (grid)	28,714	15,017
VALE FARM SPORTS GROUND (Sudbury)	1,094	Electricity (grid)	244	128
VALE FARM SPORTS GROUND (Sudbury)	1,094	Natural gas	2,048	379
VALE FARM SPORTS GROUND (North Wembley)	552	Electricity (grid)	5,823	3,045
GROVE PARK PAVILION	240	Electricity (grid)	16,234	8,490
GROVE PARK PAVILION	240	Natural gas	43,583	8,062
KING EDWARD VII PARK PAVILION	237	Electricity (grid)	6,436	3,366
WOODCOCK PARK TENNIS PAVILION		Electricity (grid)	7,620	3,985
NORTHWICK PARK OPEN SPACE PAVILION	1,162	Electricity (grid)	2,003	1,048
BARHAM PARK OFFICES	573	Electricity (grid)	25,732	13,458
BARHAM PARK OFFICES		Natural gas		

	573		207,262	38,337
VALE FARM SPORTS GROUND DEPOT	548	Electricity (grid)	17,540	9,173
VALE FARM SPORTS GROUND DEPOT	548	Natural gas	3,214	594
GLADSTONE PARK DEPOT	3,240	Electricity (grid)	25,818	13,503
Gladstone park pavilion	473	Electricity (grid)	10,322	5,398
JOHN BILLAM SPORTS GROUND Changing rooms	81	Electricity (grid)	6,642	3,474
Townsend Lane Allotments		Electricity (grid)	612	320
Pellatt Road		Electricity (grid)	4,485	2,346
Roundwood Park		Electricity (grid)	27,431	14,346
Roundwood Park		Natural gas	4,506	833
Hovenden Road Recreational Park		Electricity (grid)	114	60
Silver Jubilee Park		Electricity (grid)	30	16
New Office by Lodge		Electricity (grid)	61	32
VALE FARM SPORTS CENTRE	4,799	Electricity (grid)	761,869	398,456
VALE FARM SPORTS CENTRE	4,799	Natural gas	1,494,613	276,459
VALE FARM SPORTS CENTRE	4,799	Burning oil	1,009,315	247,595
BRIDGE PARK COMMUNITY LEISURE CENTRE	5,387	Electricity (grid)	738,426	386,195
BRIDGE PARK COMMUNITY LEISURE CENTRE	5,387	Natural gas	880,542	162,874
CHARTERIS	801	Electricity (grid)	736,368	385,119
CHARTERIS	801	Natural gas	114,603	21,198
WILLESDEN SPORTS CENTRE		Electricity (grid)	1,356,530	709,462
WILLESDEN SPORTS CENTRE		Natural gas	2,995,990	554,168
ALBERT ROAD DAY CENTRE	1,500	Electricity (grid)	56,497	29,548
ALBERT ROAD DAY CENTRE	1,500	Natural gas	544,029	100,629
DOLLIS HILL DAY CENTRE	228	Electricity (grid)	25,088	13,121
DOLLIS HILL DAY CENTRE	228	Natural gas	129,483	23,950
STONEBRIDGE DAY CENTRE	1,370	Electricity (grid)	17,618	9,214

STONEBRIDGE DAY CENTRE	1,370	Natural gas	667,860	123,534
STRATHCONA SOCIAL EDUCATION CENTRE	1,230	Electricity (grid)	69,527	36,362
STRATHCONA SOCIAL EDUCATION CENTRE	1,230	Natural gas	504,769	93,367
MILLENNIUM DAY CENTRE	1,020	Electricity (grid)	86,652	45,319
MILLENNIUM DAY CENTRE	1,020	Natural gas	364,829	67,482
WESTBROOK DAY CENTRE	162	Natural gas	50,814	9,399
ASIAN MENTAL HEALTH DAY CENTRE	162	Electricity (grid)	21,341	11,161
ASIAN MENTAL HEALTH DAY CENTRE	1,770	Natural gas	100,842	18,653
Barnham Park Library Workshop Project		Electricity (grid)	905	473
Cafe Kiosk Primary Care Centre		Electricity (grid)	12,145	6,352
KNOWLES HOUSE	1,860	Electricity (grid)	128,090	66,991
KNOWLES HOUSE	1,860	Natural gas	614,854	113,730
MORTIMER ROAD 181	392	Electricity (grid)	20,352	10,644
MORTIMER ROAD 181	392	Natural gas	63,121	11,675
BRENT HOUSE	7,080	Electricity (grid)	2,248,639	1,176,034
BRENT HOUSE	7,080	Natural gas	768,143	142,083
BRENT HOUSE ANNEXE	11,844	Electricity (grid)	198,980	104,066
BRENT HOUSE ANNEXE	11,844	Natural gas	269,769	49,899
BRONDESBURY ROAD	1,433	Electricity (grid)	156,524	81,862
BRONDESBURY ROAD	1,433	Natural gas	221,315	40,937
CHALLENGE HOUSE	548	Electricity (grid)	67,543	35,325
CHALLENGE HOUSE	548	Natural gas	127,474	23,579
COTTRELL HOUSE	968	Electricity (grid)	37,157	19,433
COTTRELL HOUSE	968	Natural gas	254,347	47,047
ELIZABETH HOUSE	1,138	Electricity (grid)	550,000	287,649
ELIZABETH HOUSE	1,138	Burning oil	215,236	52,800
KINGSBURY ROAD OSS	336	Electricity (grid)	88,847	46,467
KINGSBURY ROAD OSS	336	Natural gas	32,679	6,045
LONDON ROAD		Electricity (grid)		

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	1,403		245,000	128,135
LONDON ROAD	1,403	Natural gas	127,727	23,626
MAHATMA GANDHI HOUSE	4,961	Electricity (grid)	931,705	487,280
MAHATMA GANDHI HOUSE	4,961	Natural gas	585,014	108,210
PYRAMID HOUSE	1,100	Electricity (grid)	230,249	120,420
QUALITY HOUSE	1,622	Electricity (grid)	120,549	63,047
QUALITY HOUSE	1,622	Burning oil	328,640	80,619
TOWN HALL	6,412	Electricity (grid)	1,186,515	620,545
TOWN HALL	6,412	Natural gas	1,300,238	240,505
TRIANGLE HOUSE	4,670	Electricity (grid)	46,170	24,147
TRIANGLE HOUSE	4,670	Natural gas	79,663	14,735
Kingsbury Resource Centre		Electricity (grid)	36,465	19,071
Kingsbury Resource Centre		Natural gas	21,329	3,945
Treetops at ANANSI DAY NURSERY	427	Electricity (grid)	10,203	5,336
Treetops at ANANSI DAY NURSERY	427	Natural gas	35,470	6,561
Curzon Crescent Childrens Centre	1,083	Electricity (grid)	104,734	54,776
Curzon Crescent Childrens Centre	1,083	Natural gas	129,809	24,011
Fawood Childrens Centre	620	Electricity (grid)	112,887	59,040
St Raphaels CC		Electricity (grid)	4,247	2,221
St Raphaels CC		Natural gas	59,916	11,083
Treetops	366	Electricity (grid)	15,786	8,256
Treetops	366	Natural gas	94,476	17,475
HARMONY CHILDRENS CENTRE	500	Electricity (grid)	332,906	174,109
HARMONY CHILDRENS CENTRE	500	Natural gas	299,121	55,328
WILLOW CHILDREN'S CENTRE	800	Electricity (grid)	134,307	70,242
WILLOW CHILDREN'S CENTRE	800	Natural gas	74,352	13,753
CHALKHILL YOUTH AND COMMUNITY CENTRE	1,291	Electricity (grid)	78,786	41,205
CHALKHILL YOUTH AND COMMUNITY CENTRE	1,291	Natural gas	53,259	9,851

GRANVILLE YOUTH AND COMMUNITY CENTRE	1,628	Electricity (grid)	75,363	39,415
GRANVILLE YOUTH AND COMMUNITY CENTRE	1,628	Natural gas	246,353	45,568
ROUNDWOOD CLUB AND ANNEXE	1,139	Electricity (grid)	60,559	31,672
ROUNDWOOD CLUB AND ANNEXE	1,139	Natural gas	517,287	95,683
CHESTERFIELD HOUSE	3,288	Electricity (grid)	356,753	186,581
CHESTERFIELD HOUSE	3,288	Burning oil	458,381	112,445
GWENNETH RICKUS BUILDING	3,312	Electricity (grid)	55,228	28,884
GWENNETH RICKUS BUILDING	3,312	Natural gas	297,074	54,950
DOUGLAS AVENUE RESOURCE CENTRE	392	Electricity (grid)	34,201	17,887
DOUGLAS AVENUE RESOURCE CENTRE	392	Natural gas	161,064	29,792
GORDON BROWN OUTDOOR EDUCATION CENTRE	500	Electricity (grid)	121,344	63,463
INGLEWOOD (Children's Home)	354	Electricity (grid)	33,182	17,354
INGLEWOOD (Children's Home)	354	Natural gas	97,796	18,089
RESPIRE CARE HOME	300	Electricity (grid)	23,224	12,146
RESPIRE CARE HOME	300	Natural gas	123,321	22,811
Key Stage 3 PRU	260	Electricity (grid)	32,567	17,032
Key Stage 4 PRU	350	Electricity - CHP	2,773	818
Key Stage 4 PRU	350	Natural gas	16,003	2,960
PRU	176	Electricity (grid)	33,808	17,682
Brent Transport Services		Electricity (grid)	191,299	100,049
Brent Transport Services		Natural gas	497,058	91,941
BHP Chancel House		Electricity (grid)	76,672	40,099
<b>TOTAL</b>			32,939,038	10,906,685

#### Schools

Building or site	Gross Internal Area (m2)	Energy type	Amount used (kWh)	CO2 emission (kg)
Anson Primary School	2,009	Electricity (grid)	68,658	35,908

Anson Primary School	2,009	Natural gas	315,983	58,447
Avigdor Hirsch Torah Temimah Primary School	1,094	Electricity (grid)	105,854	55,361
Barham Primary School	3,841	Electricity (grid)	160,484	83,933
Barham Primary School	3,841	Natural gas	614,980	113,753
Braintcroft Primary School	3,488	Electricity (grid)	186,159	97,361
Braintcroft Primary School	3,488	Natural gas	887,223	164,110
Brentfield Primary School	2,222	Electricity (grid)	125,700	65,741
Brentfield Primary School	2,222	Natural gas	291,598	53,937
Byron Court Primary School	2,678	Electricity (grid)	141,508	74,008
Byron Court Primary School	2,678	Natural gas	581,263	107,516
Carlton Vale Infant School	1,890	Electricity (grid)	75,391	39,429
Carlton Vale Infant School	1,890	Natural gas	151,506	28,024
Chalkhill Primary School	2,568	Electricity (grid)	95,028	49,699
Chalkhill Primary School	2,568	Natural gas	387,880	71,746
Christ Church (C of E) Primary School	1,586	Electricity (grid)	58,021	30,345
Christ Church (C of E) Primary School	1,586	Natural gas	274,102	50,701
Convent of Jesus & Mary Roman Catholic Infant School	1,525	Electricity (grid)	64,712	33,844
Convent of Jesus & Mary Roman Catholic Infant School	1,525	Natural gas	43,299	8,009
Convent of Jesus & Mary Roman Catholic Infant School	1,525	Burning oil	133,510	32,751
Donnington Primary School	1,620	Electricity (grid)	77,647	40,609
Donnington Primary School	1,620	Natural gas	297,348	55,000
Elsley Primary School	2,342	Electricity (grid)	68,233	35,686
Elsley Primary School	2,342	Natural gas	285,657	52,838
Fryent Primary School	3,623	Electricity (grid)	152,854	79,942
Fryent Primary School	3,623	Natural gas	742,886	137,412
Furness Primary School	3,738	Electricity (grid)	199,405	104,288
Furness Primary School	3,738	Natural gas	1,548,236	286,377

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Gladstone Park Primary	3,141	Electricity (grid)	91,885	48,056
Gladstone Park Primary	3,141	Natural gas	622,911	115,220
Harlesden Primary School	1,517	Electricity (grid)	63,782	33,358
Harlesden Primary School	1,517	Natural gas	266,066	49,214
Islamia School	2,045	Electricity (grid)	153,353	80,203
Islamia School	2,045	Natural gas	905,951	167,574
John Keble CE Primary School	3,292	Electricity (grid)	146,350	76,541
John Keble CE Primary School	3,292	Natural gas	525,609	97,222
Kensal Rise Primary School	3,826	Electricity (grid)	50,455	26,388
Kensal Rise Primary School	3,826	Natural gas	711,033	131,520
Kilburn Park School Foundation	1,600	Electricity (grid)	130,289	68,141
Kilburn Park School Foundation	1,600	Natural gas	127,692	23,619
Kingsbury Green Primary School	3,182	Electricity (grid)	187,374	97,996
Kingsbury Green Primary School	3,182	Natural gas	714,154	132,097
Leopold Primary School	3,946	Electricity (grid)	143,559	75,081
Leopold Primary School	3,946	Natural gas	299,533	55,405
Lyon Park Infant & Jnr School	4,994	Electricity (grid)	215,911	112,921
Lyon Park Infant & Jnr School	4,994	Natural gas	788,132	145,781
Malorees Infant School	1,215	Electricity (grid)	60,701	31,747
Malorees Infant School	1,215	Natural gas	332,896	61,576
Malorees Junior School	1,534	Electricity (grid)	48,127	25,170
Malorees Junior School	1,534	Natural gas	177,287	32,793
Michael Sobell Sinai School	4,119	Electricity (grid)	255,177	133,457
Michael Sobell Sinai School	4,119	Natural gas	607,512	112,371
Mitchell Brook Primary School	2,993	Electricity (grid)	113,645	59,436
Mitchell Brook Primary School	2,993	Natural gas	517,062	95,641
Mora Primary School	3,380	Electricity (grid)	124,374	65,047
Mora Primary School	3,380	Natural gas	576,203	106,580

Mount Stewart Infant +Jnr School	1,642	Electricity (grid)	195,197	102,087
Mount Stewart Infant + Jnr School	1,642	Natural gas	71,882	13,296
Mount Stewart Infant + Jnr School	1,642	Burning oil	613,119	150,404
Newfield Primary School	1,477	Electricity (grid)	81,780	42,771
Newfield Primary School	1,477	Natural gas	310,846	57,497
Northview Primary School	1,135	Electricity (grid)	63,109	33,006
Northview Primary School	1,135	Natural gas	258,440	47,804
NW London Jewish Day Primary School	2,354	Electricity (grid)	162,322	84,894
NW London Jewish Day Primary School	2,354	Natural gas	520,779	96,328
Oakington Manor Primary School	5,522	Electricity (grid)	306,268	160,178
Oakington Manor Primary School	5,522	Natural gas	700,129	129,503
Oliver Goldsmith Primary School	3,775	Electricity (grid)	95,315	49,850
Oliver Goldsmith Primary School	3,775	Natural gas	516,218	95,485
Our Lady of Grace (RC) Infant & Nursery School	1,200	Electricity (grid)	63,158	33,032
Our Lady of Grace (RC) Infant & Nursery School	1,200	Natural gas	145,812	26,971
Our Lady of Grace (RC) Junior School	1,521	Electricity (grid)	87,250	45,632
Our Lady of Grace (RC) Junior School	1,521	Natural gas	134,159	24,815
Our Lady of Lourdes (RC) Primary School	1,828	Electricity (grid)	118,177	61,806
Our Lady of Lourdes (RC) Primary School	1,828	Natural gas	209,248	38,705
Park Lane Primary School	1,879	Electricity (grid)	158,386	82,836
Park Lane Primary School	1,879	Natural gas	929,038	171,844
Preston Park Primary School	3,281	Electricity (grid)	92,885	48,578
Preston Park Primary School	3,281	Natural gas	825,952	152,776
Princess Frederica (C of E) Primary School	3,095	Electricity (grid)	319,821	167,266
Princess Frederica (C of E) Primary School	3,095	Natural gas	1,015,177	187,777
Roe Green Infant School	2,152	Electricity (grid)	180,762	94,538
Roe Green Infant School	2,152	Natural gas	648,794	120,007

St Andrew & St Francis (C of E) Primary School	1,977	Electricity (grid)	71,201	37,238
St Andrew & St Francis (C of E) Primary School	1,977	Natural gas	197,619	36,554
St Josephs (RC) Junior School	1,301	Electricity (grid)	59,427	31,080
St Josephs (RC) Junior School	1,301	LPG	22,849	4,894
St Josephs (RC) Junior School	1,301	Burning oil	10,270	2,519
St Jospheh (RC) Primary School	4,024	Electricity (grid)	118,695	62,077
St Jospheh (RC) Primary School	4,024	Natural gas	602,722	111,485
St Josephs (RC) Infant School	1,203	Electricity (grid)	53,569	28,016
St Josephs (RC) Infant School	1,203	Natural gas	119,104	22,031
St Marget Clitherow (RC) Primary School	1,274	Electricity (grid)	69,830	36,521
St Marget Clitherow (RC) Primary School	1,274	Natural gas	128,921	23,846
St Mary's (RC) Primary School	2,422	Electricity (grid)	102,447	53,580
St Mary's (RC) Primary School	2,422	Natural gas	366,688	67,826
St Mary's (C of E) Primary School	2,880	Electricity (grid)	123,174	64,420
St Mary's (C of E) Primary School	2,880	Natural gas	327,076	60,499
St Mary Magdalen's (RC) Junior School	1,309	Electricity (grid)	90,116	47,130
St Mary Magdalen's (RC) Junior School	1,309	Natural gas	185,733	34,355
St Robert Southwell (RC) Primary School	1,569	Electricity (grid)	98,189	51,352
St Robert Southwell (RC) Primary School	1,569	Natural gas	230,173	42,575
Salisbury Primary School	4,229	Electricity (grid)	84,772	44,336
Salisbury Primary School	4,229	Natural gas	176,316	32,613
Salisbury Primary School	4,229	Burning oil	227,994	55,929
Stonebridge Primary School	3,082	Electricity (grid)	85,849	44,899
Stonebridge Primary School	3,082	Natural gas	1,086,607	200,990
Sudbury Primary School	4,490	Electricity (grid)	115,158	60,227
Sudbury Primary School	4,490	Natural gas	325,311	60,173
Uxendon Manor Primary School	3,117	Electricity (grid)	84,498	44,192

Uxendon Manor Primary School	3,117	Natural gas	270,352	50,007
Uxendon Manor Primary School	3,117	Burning oil	261,885	64,243
Wembley Primary School	5,495	Electricity (grid)	246,860	129,107
Wembley Primary School	5,495	Natural gas	1,570,238	290,447
Wykeham Primary School	1,079	Electricity (grid)	172,408	90,169
Wykeham Primary School	1,079	Natural gas	825,489	152,691
Alperton Community School	13,340	Electricity (grid)	633,764	331,458
Alperton Community School	13,340	Natural gas	1,790,097	331,114
Alperton Community School	13,340	Burning oil	508,365	124,707
Cardinal Hinsley Mathematics and Computing College	7,329	Electricity (grid)	304,315	159,156
Cardinal Hinsley Mathematics and Computing College	7,329	Natural gas	145,339	26,883
Cardinal Hinsley Mathematics and Computing College	7,329	Burning oil	1,107,774	271,748
Claremont High School	13,113	Electricity (grid)	673,479	352,228
Claremont High School	13,113	Natural gas	1,219,656	225,600
Convent of Jesus & Mary Language College	9,713	Electricity (grid)	475,396	248,631
Convent of Jesus & Mary Language College	9,713	Natural gas	1,799,531	332,859
Copland - A Specialist Science Community College	14,676	Electricity (grid)	784,985	410,546
Copland - A Specialist Science Community College	14,676	Natural gas	2,737,189	506,298
JFS	22,118	Electricity (grid)	1,609,791	841,917
JFS	22,118	Natural gas	3,248,055	600,793
John Kelly Boys Technology Centre	5,250	Electricity (grid)	1,213,592	634,706
John Kelly Boys Technology Centre	5,250	Natural gas	2,744,140	507,584
Kingsbury High School	9,755	Electricity (grid)	96,737	50,593
Kingsbury High School	9,755	Natural gas	2,309,442	427,178
Kingsbury High School	9,755	Burning oil	874,306	214,476

Preston Manor High School	11,188	Electricity (grid)	607,546	317,745
Preston Manor High School	11,188	Natural gas	514,954	95,251
Preston Manor High School	11,188	Burning oil	267,020	65,503
Queens Park Community School	11,584	Electricity (grid)	729,271	381,407
Queens Park Community School	11,584	Natural gas	1,442,420	266,804
St Gregory's RC High School	8,950	Electricity (grid)	363,852	190,294
St Gregory's RC High School	8,950	Natural gas	1,682,365	311,187
Wembley High Technology College	10,126	Electricity (grid)	507,309	265,322
Wembley High Technology College	10,126	Natural gas	981,441	181,537
Grove Park School	2,545	Electricity (grid)	154,729	80,923
Grove Park School	2,545	Natural gas	448,744	83,004
Grove Park School	2,545	Burning oil	253,751	62,248
Hay Lane School	2,749	Electricity (grid)	126,590	66,206
Hay Lane School	2,749	Natural gas	448,744	83,004
Hay Lane School	2,749	Burning oil	253,751	62,248
Manor School	3,578	Electricity (grid)	156,683	81,945
Manor School	3,578	Natural gas	473,856	87,649
Vernon House School	1,099	Electricity (grid)	41,427	21,666
Vernon House School	1,099	Natural gas	119,561	22,115
Woodfield School	2,441	Electricity (grid)	127,731	66,803
Woodfield School	2,411	Natural gas	448,339	82,929
College Green Nursery		Electricity (grid)	52,170	27,285
College Green Nursery		Natural gas	202,054	37,374
WINKWORTH HALL	1,020	Electricity (grid)	10,802	5,649
WINKWORTH HALL	1,020	Natural gas	62,798	11,616
<b>TOTAL</b>			69,181,567	18,320,829

## Streetlights

Building or site	Energy User	Energy type	<a href="#">Amount used (kWh)</a>	CO <sub>2</sub> emission (kg)
Streetlighting	Streetlights (kWh)	Electricity (grid)	11,268,185	5,893,238
Streetlighting: Traffic Furniture	Bollards & Signs (kWh)	Electricity (grid)	1,605,656	839,755
Total				6,732,993

### Appendix 3 - Departmental Targets and Penalty

In order to ensure that future Local Area Agreement CO2 reduction targets are met and a good position within the Carbon Reduction Commitment the Council Executive, under the Carbon Management Strategy – Second Review has agreed to introduce a departmental target and penalty system.

In order to ensure a fair and cost effective system each council building has been broken down into floor area occupied by Council department. On this basis each department has been assigned an individual yearly CO2 reduction target based on non weather corrected data recorded for National indicator 185. To ensure that the council also complies with the Carbon Reduction Commitment only the data which will be included in under the CRC has been used from the NI185 baseline.

Data required for the Carbon Reduction Commitment (CRC) will differ slightly. Subject to formal Government guidance it is likely that emissions from all bills which the Council is responsible for paying will be included under CRC. In addition to data covered under NI185 this additional data will cover on-site vehicle emissions (non road vehicles), academies schools and any other building which the council currently leases out but pays the gas, electricity and oil bills for. It is expected that emissions from contractor's buildings, contractor's transport, Council mileage claims and council fleet which are reported on for NI185 will not be included under the Carbon Reduction Commitment.

It is suggested that the council will get a 10% penalty of £43K in 2011-2012 to compensate for being in the lower part of the league table therefore it is suggested in the first year that each area will have a target of 10% this will be review annually.

In preparation for penalties incurred we suggest that a trail year is set for 2010 – 11 based on NI 185 baseline 2008-09. Failure to meet set targets will result in the responsible department remaining percentage being penalised for example if Environment and Culture only achieve 8% reduction the remaining 2% will incur a financial penalty based on £12 per tonne CO<sub>2</sub>. This is in line with the financial penalty system adopted under the Carbon Reduction Commitment for the first year.

Future calculation will be based on the 2010 – 11 CRC baseline and appropriate percentage will be allocated depending on league table position. A margin of error will be decided based on credits bought and position in the league table from previous years. Departmental targets will be reviewed on a yearly basis to ensure accurate targets are assigned. In some cases departments may gain or loss floor space or entire buildings therefore the yearly targets will be adjusted annually to reflect this.

The targets are aimed to instil behaviour change amongst staff and senior management. An adjustment has been made to each target to reflect the contribution of Property and Asset Management has on the building and possible inefficiencies in the building management systems.

Below are the proposed targets for the forthcoming year.

NI 185 council buildings including schools and street lighting (non weather corrected data closest data set to CRC)

Department	2008/09 CO2 emissions	10 % reduction target by end of year 2010	% of reduction target	Target CO2 emissions for year end 2010
<b>E&amp;C (including Vale Farm &amp; Willesden sports centres)</b>	4,986	498	13	4,487
<b>C&amp;F (ex schools)</b>	1,928	192	5	1,735
<b>H&amp;CC</b>	1,577	157	4	1,419
<b>F&amp;C</b>	1,279	127	3	1,151
<b>Central</b>	193	19	1	174
<b>Business transformation</b>	944	94	3	850
<b>Schools</b>	18,321	1,832	51	16,489
<b>Street lighting</b>	6,733	673	19	6,060
<b>Total:</b>	<b>35,960</b>	<b>3,596</b>	<b>100</b>	<b>32,364</b>

The figures for each department are derived from buildings managed by the Department. A proportion of 10% has also been assigned to Finance and Corporate for their part in managing and operating the buildings.

However there is one exception, ITU moved from Elisabeth House to Brent House and at the same time opened a new data centre in the basement of Brent House; this had to be accounted for this year. The reason for this is that it has not been possible to get data on the energy consumption for the new data centre. In light of this anomaly it has been decided assign Elisabeth House to ITU and then subtract the same amount of electricity from Brent House and assign the specific proportion to ITU before splitting the remainder amount between all users.

#### Actions moving forward

- A static worksheet will be set up monitor this data
- Reviewing the targets and penalties system on a yearly basis
- Contact PAM for floor space data on the buildings managed by F&C
- Assign the percentage used by each department in each building using floor space data
- Once building floor space have been assigned calculate each buildings carbon emission and add the percentage to each