

REPORT FOR: **CABINET**

Date of Meeting:	15 December 2010
Subject:	Progress Report – The Carbon Reduction Commitment Scheme
Key Decision:	Yes
Responsible Officer:	Brendon Hills, Corporate Director Community and Environment
Portfolio Holder:	Councillor Phillip O'Dell, Portfolio Holder Environment and Community Safety
Exempt:	No
Decision subject to Call-in:	Yes
Enclosures:	Appendix A – Draft Corporate Carbon Reduction Plan

Section 1 – Summary and Recommendations

This report sets out progress on registering for the Carbon Reduction Commitment scheme and sets out the actions that need to be taken to ensure compliance and good performance in the scheme

Recommendations:

Cabinet is requested to:

1. Note the progress made to date on registering and preparing for the CRC scheme
2. Agree the Corporate Carbon Reduction Plan outlining necessary actions and responsibilities to deal with the CRC at a corporate level. See draft Plan in Appendix A.
3. Give delegated authority to the Corporate Director (Community and Environment), in consultation with the Portfolio-holder, Environment and Community Safety, to progress the actions in the Plan including setting up the steering group
4. Confirm that further investigations into the RE:FIT programme should be undertaken with a view to reporting back to cabinet by March 2011.

Reason: (For recommendation)

Participation in the CRC is a statutory requirement. The CRC carries potentially significant costs with an overall aim of reducing the amount of energy being used.

Reducing energy use requires a coordinated response from the whole council. The actions set out above need corporate and political endorsement to enable them to be delivered from the whole council.

The RE:FIT programme provides the capital necessary to deliver the required energy efficiency programme.

Section 2 – Report

2.1 Introduction

The re-named Carbon Reduction Commitment – Energy Efficiency Scheme (CRC), was introduced on April 1st 2010, with the emphasis that the CRC is an energy efficiency scheme.

The CRC is a mandatory emissions trading scheme covering non-energy intensive users in both public and private sectors. It is a central part of the UK's strategy to deliver the emission reduction targets set in the Climate Change Act 2008.

Significant changes in the scheme were introduced as part of the Comprehensive Spending Review (CSR), which will increase the council's net costs under the scheme.

2.2 Current situation – Carbon Reduction Commitment

We completed registration for the Scheme in September 2010.

Under the scheme local authorities are responsible for the cost of carbon emissions of state funded schools and academies as well as all council operations (e.g. administrative offices, leisure centres, social care homes, etc).

The London Energy Project (LEP) advises that “Complying with the CRC, is largely an administrative overhead (i.e. process). To do well, and benefit from energy saving, the CRC requires a cross council cultural and management approach (i.e. outcomes). Reducing carbon and improving energy efficiency are essential, not just in the ‘energy manager’ domain, but facilities management, schools, investment in energy administration, management and infrastructure.”

Reported Emissions

Under the CRC scheme, sources of emissions are identified as core, residual, or not included for the purposes of the CRC scheme. i.e. Emissions from social housing are not included in the scheme.

Approx. 77% of our total stationary emissions will need to be reported under the CRC. These include: -

TABLE A

	No. of Premises	Total – Tonnes
All First and Middle Schools	44	8,293
All High Schools	12	7,202
All corporate buildings (including the civic centre)	16	4,619
Street lighting	n/a	3,726
Car parks	3	327
Council care homes	10	1,104
Total		25,271

I.e. Schools account for 62% of CRC emissions, Community and Environment for 35% and Adult Services, 3%.

Under the CRC scheme we need to buy carbon allowances for the carbon emissions within the scheme. In 2012 we will need to budget approx. £303k to buy allowances.

Strategic approach to Introductory Phase

Until the publication of the CSR, success within the CRC scheme was dependent on an organisation's position in the scheme's league table. This is no longer the case. The league table will be a simple reputational driver and organisations will simply pay for the relevant allowances. The league table will no longer determine the size of any recycling payment as these have been abolished

Success in the scheme will be enhanced by the following actions which have been completed:

- Automatic Meter Reading (AMR) of electric meters. This will allow improved monitoring of electricity consumption.
- Similarly installation of AMR for gas meters, will allow improved monitoring of gas consumption.
- Public lighting - dynamic supplies. We have changed to a dynamic method of recording our street lighting consumption. This means that we will not have to purchase 10% extra carbon allowances to allow for system inaccuracies.

Installation of AMR (gas and electricity) will be completed in the new year. Following completion we will provide training to the relevant building managers so they can track their own consumption. Central monitoring of consumption will be introduced by April 2011. This will enable better control of energy use across the council.

The changes introduced in the CSR indicate that the CRC payment will be the equivalent to a carbon tax. No account will be taken of an organisation's growth or contraction of their operations.

2.3 Options

Options for developing the council's strategy are considered in the following sections.

2.4 Improving the council's carbon performance

The council needs to have a plan setting out how it will deliver this Commitment. It is recommended that the draft Corporate Carbon Reduction Plan (set out in appendix A) - outlining necessary actions and responsibilities to deal with the CRC at a corporate level – is adopted.

The following actions will also need to be developed over the next year:

- The Corporate Director (Community and Environment) has been registered with the Environment Agency as the senior corporate sponsor responsible for the CRC. However, it needs to be recognised that responding to the CRC is a whole council issue.
- Integrate the implications of the CRC scheme into the transformation programme to ensure that our carbon density decreases. Without this focus there is a danger that the carbon density will increase.
- Ensure that rationalisation of our estates results in an improvement of the carbon performance of our buildings.

Develop the Property Asset Register for school buildings and the corporate estate to identify the backlog in maintenance that is developing and which requires urgent action. Some of these measures offer opportunities to address carbon reduction. The Property Asset Register will be further developed to include carbon management/reduction measures that need to be undertaken.

- Understand how the CRC may affect investment decisions, as there is a real cost to carbon. Ensure other programmes of work are involved. I.e. the Building Schools for the Future programme would have been a major opportunity to address this.

Auction Strategy

In 2012, we will need to purchase allowances at £12/tonne. This will be a relatively straightforward exercise.

The changes announced in the CSR indicate that there is no longer a need to develop an auction strategy to purchase carbon allowances. It is anticipated that the government will simply set a price for carbon.

There will be significant penalties for emitting carbon without the necessary allowances.

2.5 Future Energy Prices/Budgets

Ofgem report. The figures in Tables 1 and 2 assume that there is no energy price inflation. A recent report from Ofgem predicted that energy prices would rise by approx. 20% by 2020. Reducing energy use is therefore an important business target.

Assumed savings in energy costs by Central Government

The previous government built into its budgets an assumption that the public sector would achieve a £300m saving (10%) in energy costs by 2012. This is in addition to a £320m saving in procurement costs over the same period (which Harrow has already benefited from as a result of centralised procurement and the work carried out by the London Energy Project).

Reducing our carbon footprint will therefore be an important element in cost reduction over the next few years. The CRC scheme is entirely consistent with this approach.

2.6 Financing Energy Saving Retrofits

2.6.1 Barriers to reducing emissions

- A significant barrier is the financial arrangements for schools. i.e. schools pay the energy bills directly but maintenance and provision of energy infrastructure is provided by corporate maintenance via an SLA. Schools therefore have no direct financial incentive to improve energy efficiency by installing more efficient equipment as, if they wait until it fails and needs to be replaced, they get the reduced energy costs for free. Corporate maintenance cannot apply for an energy saving loans as they have no access to the energy budget (and the reduced energy costs that would pay back the loan).

To resolve this, a mechanism needs to be found to incentivise schools to participate fully in achieving the CRC targets. One mechanism could be to allocate carbon budgets to the education department, identifying each individual school's performance. This could be developed into a league table to encourage schools to compete for better carbon reduction performance. More work is required in this area.

In the medium to long term reductions in energy use will result in reduced energy costs.

- The existing programmed maintenance budget is insufficient. This has resulted in a significant backlog of maintenance. This prevents a holistic approach to maintenance and energy reduction.
- Another significant barrier is the absence of a planned boiler replacement programme in corporate maintenance. This has three effects:
 1. old inefficient boilers are kept operational for as long as possible;
 2. failures tend to be catastrophic and do not allow for a consideration of low carbon alternatives. The emphasis is on providing a new boiler as quickly as possible. Consideration of carbon efficiency is a low priority.

3. maintenance is largely reactive and annual costs are not predictable and subject to fluctuation.
- Project management of a significantly enhanced energy saving programme is also a potential barrier. Staffing levels in the climate change section are minimal and there is already a significant workload in delivering the CRC, and related projects such as AMR installation.

2.6.2 Finance

Capital Expenditure

- **Existing capital programme**

The council has allocated a capital budget in 20010/11, of £100k for carbon reduction. £63k of this money has been allocated to a major project in the CCTV room to replace the old cathode-ray screens with flat screens. This produces a significant reduction in energy use and heat production in the room. It is anticipated that the lower heat load will result in a big reduction in air-conditioning in the room, which (because it is a secure room) has four units installed to control the room's temperature.
- **Prudential Borrowing**

Going forward, the Council could use Prudential Borrowing to finance investment in energy saving measures. Schemes would be approved if the savings made covered the financing costs of the capital expenditure. Were the Council to adopt this approach then provision would need to be made in the Capital Programme that will be approved by Council in February.

Disadvantages of this scheme are: -

 - The lack of in-house technical expertise and capacity to deliver a substantial energy reduction programme.
 - The council would retain risk
 - A procurement process would be difficult and lengthy

RE:FIT (Building Energy Efficiency Programme)

RE:FIT is a ready to use, cost neutral procurement initiative, run by the LDA, that allows the public sector, in London, to retrofit existing buildings with energy saving measures, reduce carbon emissions and achieve substantial annual cost savings.

The LDA has procured 12 energy performance contractors (ESCOs), under a Framework Agreement, to deliver guaranteed energy savings for participating public sector organisations. The scheme is funded by £100m of public money and the LDA is looking for commercial partners to increase the fund size by another £500m. All the funding is provided under a loan scheme to ensure the continuation of the scheme. Loans are paid back from the resultant energy savings.

Once a public sector organisation has internal support for the scheme and backing from RE:FIT the process can proceed relatively quickly. The LDA have indicated that a separate procurement is not needed. A mini-competition is held to which all 12 contractors are invited. The selected ESCO then prepares detailed proposals in discussion with the client. This guarantees a level of carbon saving and the payback period. The risk in terms of delivering the saving remains with the ESCO.

The payback period selected by the client is an important element in this process. Short payback periods favour simple saving measures. Experience from the pilot projects, indicate that to deliver deeper carbon reductions, it is better to specify longer payback periods. This allows higher investment - and bigger reductions. In the pilot schemes, average savings have been in the region of 25%. It is recommended that a pay-back period of up to 10 years be used.

This process would also: -

- Address the existing maintenance backlog;
- Reduce the reactive maintenance budget
- Provide early and significant reductions in carbon emissions

Having proved the RE:FIT concept via the pilot projects, the LDA will start the main phase of the scheme in April 2011. Organisations can start the application process now to ensure an early start.

The RE:FIT scheme offers the following advantages:

- The guaranteed carbon savings
- the transfer of risk to the ESCO, and
- the buying in of technical expertise of the ESCO to cover the lack of internal capacity.

It is recommended that, as part of the Corporate Carbon Management Plan, the Council should (subject to further reports to Cabinet): -

- Conduct negotiations with LDA on participating with the RE:FIT programme.
- Establish a phased programme with each phase comprising in the region of 10 to 12 buildings. (i.e. this indicates a total programme of 8 or 9 phases to cover the 85 buildings covered by CRC).
- Begin negotiations on an initial phase in the new year (Jan 2011)
- Set a initial payback period for each phase of approx. 10 years
- Work on phase 1 should start as soon as possible after April 2011

2.7 New initiatives

The following new initiatives are also proposed.

2.7.1 Renewable energy. The introduction of Feed-in-Tariffs in April 2010 provides local authorities with a significant opportunity to both reduce our

carbon footprint and generate income. Tariffs increase in line with RPI for the period of the FIT agreement

- **Solar PV on corporate buildings and schools** would similarly generate guaranteed income for a period of 25 years.

However it is recommended that the provision of solar PV be tied into the RE:FIT programme so that an holistic approach is utilised for carbon reduction.

The alternative would be to invest £4m over the next four years to install solar PV on schools and corporate buildings. This would generate an annual income in the region of £280k by year 5, which would be payable over a 25 year period.

- **Wind energy** is probably unsuitable for most of the borough. However we will explore options with commercial companies and report back if viable.
- **Hydro:** there may also be some opportunities for hydro power in some of the rivers in Harrow. As above, these will also be investigated further.

2.7.2 Street lighting policy review: Reducing our carbon footprint from street lighting is a major challenge. The policy review will report in March 2011. Options could include: -

- i) Dimming street lights (principally in residential areas) between the hours of 12 midnight and 6am.
- ii) Introducing a modernisation programme for street lighting – with the aim of achieving a minimum of 20% reduction in total revenue spend for the replacement. This would be a combination of reduced energy spend and maintenance. The revenue and carbon savings will be reported in the March 2011 report.

2.8 Consultation

Consultation on the street lighting options will be required once the report on options has been submitted to cabinet in March 2011.

Consultation will need to be undertaken with schools to agree the best way to support them to achieve carbon reductions through energy saving initiatives. Wider consideration will need to be given to the school's maintenance programme to ensure this is aligned to achieving reductions in the carbon footprint through boiler replacement.

2.9 Legal comments

The Climate Change Act 2008 provides for the introduction of domestic emissions trading schemes through secondary legislation. The CRC Scheme was brought in by the CRC Energy Efficiency Scheme Order 2010 and took effect from 1 April 2010. Participation in the CRC Scheme is mandatory for all public sector bodies and large businesses who meet the qualifying energy usage criteria.

2.10 Financial Implications

Under the CRC scheme we will need to purchase our first allowances by July 2012 relating to our 2011-12 emissions. This will be a charge in the 2011-12 accounts. The likely cost of allowances for Harrow will be approx. £303k - at the fixed price of £12/tonne. The government has indicated that the introductory phase of the scheme will be extended to March 2014 (from March 2013) – during which the £12/tonne price will apply. Details are still awaited from the Government on whether the CRC costs relating to schools can be passed on to schools.

Provision has been made within the draft MTF5, reported elsewhere on this agenda, for revenue growth of £303k p.a.

As a result of the changes in the CSR, the money collected by the CRC scheme will no longer be recycled to participating organisations but will be used to support the public finances. I.e. it has essentially become a tax or levy on the carbon we use. The net impact of the scheme is therefore significantly larger than previously envisaged.

TABLE 1 - Capital:

NOTE: The use of RE:FIT funding allows the income from energy reductions, water saving and Feed-in Tariffs to pay back energy saving investment. It also means that the council does not have to identify capital resources to carry out these works.

TABLE 2 – Revenue impacts

With the extension of the introductory phase to March 2014, revenue impacts up to 2014/15 will be broadly similar to 2011/12 (shown below).

Future prices are more difficult to predict. The table shows a range of prices and the total costs at the current levels of carbon emissions (i.e. @ 25,000 tonnes per year).

Description	2011/12 25,271 tonnes	Future annual costs @£/tonne for 25,000 tpa After April 2014				
		£16	£20	£25	£30	£40
Assumed cost/tonne	£12					
Total cost of CRC	£303k	£400k	£500k	£625k	£750k	£1000k

If these were to be allocated departmentally, they would be split: -
Schools:General Fund:Adults (62:35:3). (See TABLE A, section 2.2).

		£248k	£310k	£388k	£620k	£620k
Schools (62%)	£188k					
General Fund (35%)	£106k	£140k	£175k	£219k	£350k	£350k
Adults (3%)	£9k	£12k	£15k	£18k	£30k	£30k

2.11 Performance Issues

NI 185 measures the carbon footprint of all the council's operations (e.g. buildings, street lighting and transport related emissions). The measure is the annual percentage reduction. The climate change strategy set an annual target to achieve a 4% reduction for this indicator. Good performance in the CRC scheme will help to deliver reductions in NI 185.

However the scope of emissions measured in the CRC and NI 185 are not identical. CRC emissions only cover 77% of static emissions. NI 185 covers all static emissions plus transport related emissions. Static emissions account for 91% of NI 185 emissions. Thus the CRC only covers 70% of the council's total emissions and we will need to ensure that non-CRC emissions are also reduced.

NI 186 measures the per capita emissions of residents in the borough from all emissions. The CRC will have minimal impact on this indicator

NI 187 measures the percentage of people receiving benefits who live in fuel poverty. The CRC will have minimal impact on this indicator

NI 188 – Adapting to climate change. The CRC will have minimal impact on this indicator

NI 194 measures the NOx and PM10 emissions from the council's operations. This data is collected via the same spreadsheet as NI 185. (As with NI 185) we are awaiting clarification from the government as to the future of this indicator. The CRC will have minimal impact on this indicator

2.12 Environmental Impact

The main impact of the CRC should be to reduce the council's energy usage , increase the use of renewable energy sources and to reduce the council's carbon footprint.

2.13 Risk Management Implications

Risk included on Directorate risk register? See Strategic Risk 3: Fail to actively contribute to sustaining the environment in the Strategic Risk Register.

The following risks are identified throughout this report: -

- Financial arrangements for schools
- Insufficient planned maintenance budget
- Absence of planned boiler replacement programme
- Lack of financial and staff resources to develop strategy
- Development of corporate carbon reduction strategy
- Lack of capital resources for a retrofitting programme

The risks, and the actions to mitigate the risks, will be incorporated into the C&E Directorate Risk Register.

2.14 Equalities implications

The CRC scheme is now effectively a levy on energy usage within the council and in schools.

The aim of this report is to set in place a framework to deliver the CRC. At this stage there are no specific impacts on equality that can be identified but there will be a range of impacts across a range of services as the additional costs are identified. Equalities issues will be addressed as and when required.

2.15 Community safety

Community safety implications will be considered prior to a decision on any specific proposal.

2.16 Corporate Priorities

This proposal addresses the corporate priority to deliver cleaner and safer streets, by reducing the council's carbon emissions and helping to deliver the targets set in the climate change strategy.

Section 3 - Statutory Officer Clearance

Name: Steve Tingle	<input checked="" type="checkbox"/>	on behalf of the Chief Financial Officer
Date: 23 November 2010		
Name: Sarah Wilson	<input checked="" type="checkbox"/>	on behalf of the Monitoring Officer
Date: 24 November 2010		

Section 4 – Performance Officer Clearance

Name: Martin Randall	<input checked="" type="checkbox"/>	on behalf of the Divisional Director Partnership, Development and Performance
Date: 22 November 2010		

Section 5 – Environmental Impact Officer Clearance

Name: Andrew Baker

on behalf of the
Divisional Director
(Environmental
Services)

Date: 17 November 2010

Section 6 - Contact Details and Background Papers

Contact: Andrew Baker, Head of Climate Change. Tel: 020 8424 1779,

Background Papers:

Cabinet report: September 2009: Climate Change Strategy – Adoption

Cabinet report: January 2009: Draft Climate Change Strategy

Climate Change Act 2008

Carbon Reduction Commitment – Energy Efficiency Scheme Order 2010

<http://www.legislation.gov.uk/ukxi/2010/768/contents/made>

Energy Act 2008

Feed In Tariffs

http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/renewable/feedin_tariff/feedin_tariff.aspx

LDA RE:FIT programme <http://www.lda.gov.uk/news-and-events/media-centre/press-releases/2010/top-university-and-nhs-trust-are-first-to-use-mayors-energy-efficiency-framework.aspx>

OFGEM report: Project Discovery (Future energy prices)

http://www.ofgem.gov.uk/Markets/WhlMkts/Discovery/Documents1/Discovery_Scenarios_ConDoc_FINAL.pdf

**Call-In Waived by the
Chairman of Overview
and Scrutiny
Committee**

NOT APPLICABLE

DRAFT Corporate Carbon Reduction Plan

To identify that reducing carbon is an important objective, the council should clearly identify its aim: -

To use resources responsibly and sustainably.

Initial Targets (from the climate change strategy) will be:

- To reduce corporate carbon emissions by 4% a year (compared to a 2009/10 baseline)
- To reduce the use of potable water by 2.5% a year (2009/10 baseline)
- To recycle 50% of waste from each location

In response to the Carbon Reduction Commitment – Energy Efficiency Scheme, the council will adopt the following:

- The Corporate Director – Community and Environment is the lead officer for ensuring that the council meets its responsibilities under the CRC. E.g. registration, monitoring and reporting.
- Each Corporate Director is responsible for ensuring that their department delivers the council's targets (set out above) within their own department.
- Ensure that schools contribute effectively to the reduction of emissions.
- The Place Shaping directorate is responsible for ensuring that the strategic provision of corporate buildings contributes to the delivery of the council's targets in the medium to long term
- The Community and Environment directorate is responsible for ensuring that the council's Asset Management Plan identifies the measures necessary to deliver the council's targets.
- The Corporate Director – Community and Environment will establish and chair a corporate Carbon Management/Reduction Steering Group, whose task will be to:
 - Coordinate the council's response to the CRC scheme
 - Ensure delivery of the council's targets
 - Develop, monitor and review the council's corporate Carbon Management/Reduction Plan
 - Develop a strategy to redistribute net CRC costs/ income between departments based on their relative performance.

The Steering Group will have representatives from all directorates including Chief Executives, Finance and Legal.

Timeline:

- Agree terms of reference – April 2011
- Publish first annual Action Plan – September 2011