

## Briefing note for the Forward Plan Select Committee on 27 January 2010

**SERVICE AREA:** Environment & Culture

Report ref	Report title
	Carbon Commitment Reduction Energy Efficiency Scheme

The Carbon Commitment Reduction Energy Efficiency Scheme (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 London boroughs have a legal obligation to participate in the scheme and to take responsibility for state funded schools and academies. 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:

i) 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.

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.

ii). 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  $\pm 10\%$  in Year One but rise to  $\pm 50\%$  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. 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	Year 2 (Oct	Year 3 (Oct 2013)
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	2011)	2012)	
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.

iii) 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.

**Implications for the Council**

i) 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 9% 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.

ii) 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. 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 the Director of Finance and Corporate Resources will be the Council's Lead Officer for its implementation. Members are responsible for supporting and overseeing CRC implementation within their respective service areas.

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.

iii) 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.

iv) 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. 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.

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

#### i) 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 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. PAM has and will actively work with all services to implement the Action Plan to help reduce CO<sub>2</sub> emissions.

#### ii) 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. 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

#### iii) 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.

### **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.

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		

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.

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) 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.

## Risks

Implementing CRC has a number of risks factors:

### i) 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.

### ii) 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.

iii) 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.

iv) 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.

### **Financial Implications**

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

In April 2011/12 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.



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.

The financing of the £432K would have to be dealt with as part of the Council's normal day to day cash management. 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.

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%.

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 CO2 emissions. 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.

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