

CRC energy efficiency scheme

putting a price on carbon

This report has been commissioned by MITIE from Oxford Carbon Consultants, as part of a series on climate change, energy and real estate. The series provides a straightforward guide to the present position and likely future developments, for owners and occupiers of commercial and public sector buildings. These reports have been prepared by Dr Mark Hinnells, who has been involved in policy advice to government and industry for 15 years and is a senior researcher at the University of Oxford. The series comprises:

Report 1 Climate change policy

Report 2 EPCs and DECs

Report 3 CRC energy efficiency scheme

Report 4 Low carbon leases

Report 5 The energy market

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Background and overview

The Carbon Reduction Commitment (CRC) - Energy Efficiency Scheme is a UK mandatory 'cap and trade scheme' imposed by the Government on larger commercial and public sector organisations. The name of this mechanism has been through several changes and the addition of 'Energy Efficiency Scheme' now reflects its primary objective. It will not produce additional incentives for renewables.

The target reduction is 1.2 million tonnes of carbon per year by 2020, across the UK. The allowances will cost an estimated £1.4bn when they go on sale at the end of the scheme's first year in 2011, though this will be recycled amongst participants depending on how well they perform in terms of emissions reduction¹.

Around 5000 organisations will be required to participate, including large offices, hotel chains, large shops, supermarkets, shopping centres and public sector organisations (including education, health, local authorities and central government departments).

The application of the CRC is complex for organisations over many sites, or with many subsidiaries, or who are partners to a leasehold relationship.

There is strong evidence that businesses are ill-prepared for the CRC. From research published in

April 2009, only a third of UK bosses know if they are affected by the CRC scheme, a third feel they need advice and support to meet the CRC requirements, and only a third currently measure their carbon emissions. Larger firms are more likely to have taken the first steps, but actions to reduce carbon are very limited².

Who is required to participate?

CRC assesses both direct energy use emissions (from burning gas, oil, etc.) and electricity use emissions. The CRC applies to all organisations whose annual half-hourly metered electricity use is above 6000 MWh. In general, organisations that spend more than about £500,000 per year in the UK on electricity are likely to be included in the scheme.

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The main exemptions are energy-intensive industries already covered by the UK Climate Change Agreements (CCA) or EU Emission Trading Scheme (EU-ETS). Companies within a corporate group which has more than 25% of its energy-use emissions in CCA's will also be exempt.

The 6000 MWh threshold applies to the aggregate of electricity use by all subsidiaries and operations within a corporate group, so it is not possible for organisations to avoid CRC by registering as a number of separate businesses or units. Responsibility falls to the 'highest UK parent organisation'. However, large subsidiaries that qualify in their own right can now choose whether to disaggregate themselves from their organisational group and participate independently. There are a number of case-specific arrangements, summarised as follows.

- Where an **overseas parent company** has several intermediate UK holding companies, the Government proposes to group them to form a single CRC organisation (effectively, the 'UK arm' of the overseas-based business).
- **Joint ventures:** where there is a majority stake (51% or more), the joint venture's energy use will be aggregated with that of the majority shareholder. Where there is no majority shareholder, the jointly owned company will be included only if it meets the CRC threshold in its own right.
- **PFI/PPP/Outsourcing/Facilities Management:** this covers situations where a business or government outsources its energy procurement to a third party or contractor, who takes on the obligation to supply. If more than one party has an interest in the use or procurement of the same energy, the organisation responsible for the emissions under CRC rules will be the 'counterparty to the electricity supply contract'. If electricity supply has been outsourced to a facilities management or energy services provider, the 'counterparty to the electricity supply contract' may be the contractor, who will therefore be responsible for liabilities under the CRC.
- **Leasehold arrangements:** owner-occupiers and sole tenants under a full repairing lease who pay their own half-hourly metered electricity bill will be responsible for the energy use under CRC. In the case of multi-let properties, if the

landlord is paying the half-hourly metered electricity bill for all electricity use within the building (even where the costs are passed to the tenant through the service charge) the landlord will be responsible. Where there is separate metering for tenant space, such as in shopping centres, the landlord will be responsible for energy use in the common areas and the tenant for energy use in their tenanted area.

- **The Public Sector:** all central government departments are included in the scheme, regardless of whether they meet the inclusion threshold. The majority of public sector organisations within the scheme will participate as separate CRC organisations.

Most of the money will go back to the participants, adjusted by a bonus or penalty related to their league table performance.

The introductory phase

There is a three-year introductory phase commencing in April 2010, during which organisations covered by the scheme will need to measure and record their energy use, calculate their CO₂ emissions and purchase corresponding carbon 'allowances' for the period 2011-12 from the Government at a fixed price of £12 per tonne of CO₂. There will be no cap on allowances during this introductory phase.

The auction

The capped phase will begin in April 2013, when the number of permits will be reduced and carbon prices will be set by the market in an auction. If an organisation holds too few allowances, it will have to buy more from other participants. If it holds too many, it can sell them.

A 'safety valve' will be used to prevent prices rising too high, in the form of a link to the EU-Emissions Trading Scheme.

The CRC league table

The CRC is intended to be broadly revenue-neutral and the Government plans to recycle most of the money raised in the introductory phase and auction process back to the CRC participants, in proportion to their emissions, adjusted by a bonus or penalty related to their performance on the published CRC league table. In the first year, the participants at the top of the table get a 10% bonus, the participants at the bottom get a 10% penalty, and each year this margin increases: to 20%, 30% up to 50% in 2015.

The league table will be based on the CRC participant's performance measured in three different ways:

- 'absolute' metric - the organisation's percentage reduction in emissions, comparing their current annual emissions to their average emissions over the preceding rolling five years.
- 'early action' metric - recognises good energy management undertaken prior to the start of the scheme. The metric will be based on a) the percentage of emissions covered by voluntarily installed automatic metering beyond the legal minimum and b) the percentage of the organisation's emissions covered by the Energy Efficient Accreditation Scheme³.
- 'growth' metric - recognises organisations that are able to grow cleanly within the scheme, as well as accounting for the effects of decline. The metric will be based on the organisation's percentage reduction in emissions per unit turnover (revenue expenditure for public sector), comparing their current level against their average over the preceding rolling five years.

The three metrics are to be weighted 60:20:20 (absolute: early action: growth). It is proposed that the Government will reduce the early action metric over three years and maintain a 3:1 ratio between the absolute and growth metrics.

Penalties and audit

The scheme will be lightly regulated but the penalties for non-compliance will be strict. Failing to participate, the supply of false or misleading information, failing to supply data or failure to register or surrender allowances would be punishable by a penalty or a fine. Non-compliance will also be stated in the league table, which could result in an adverse stakeholder reaction. To ensure compliance, a risk-based audit (likely to focus on larger organisations in the first instance) will take place during the introductory phase, with an audit of 20% of CRC registered organisations annually.

The implementation time table

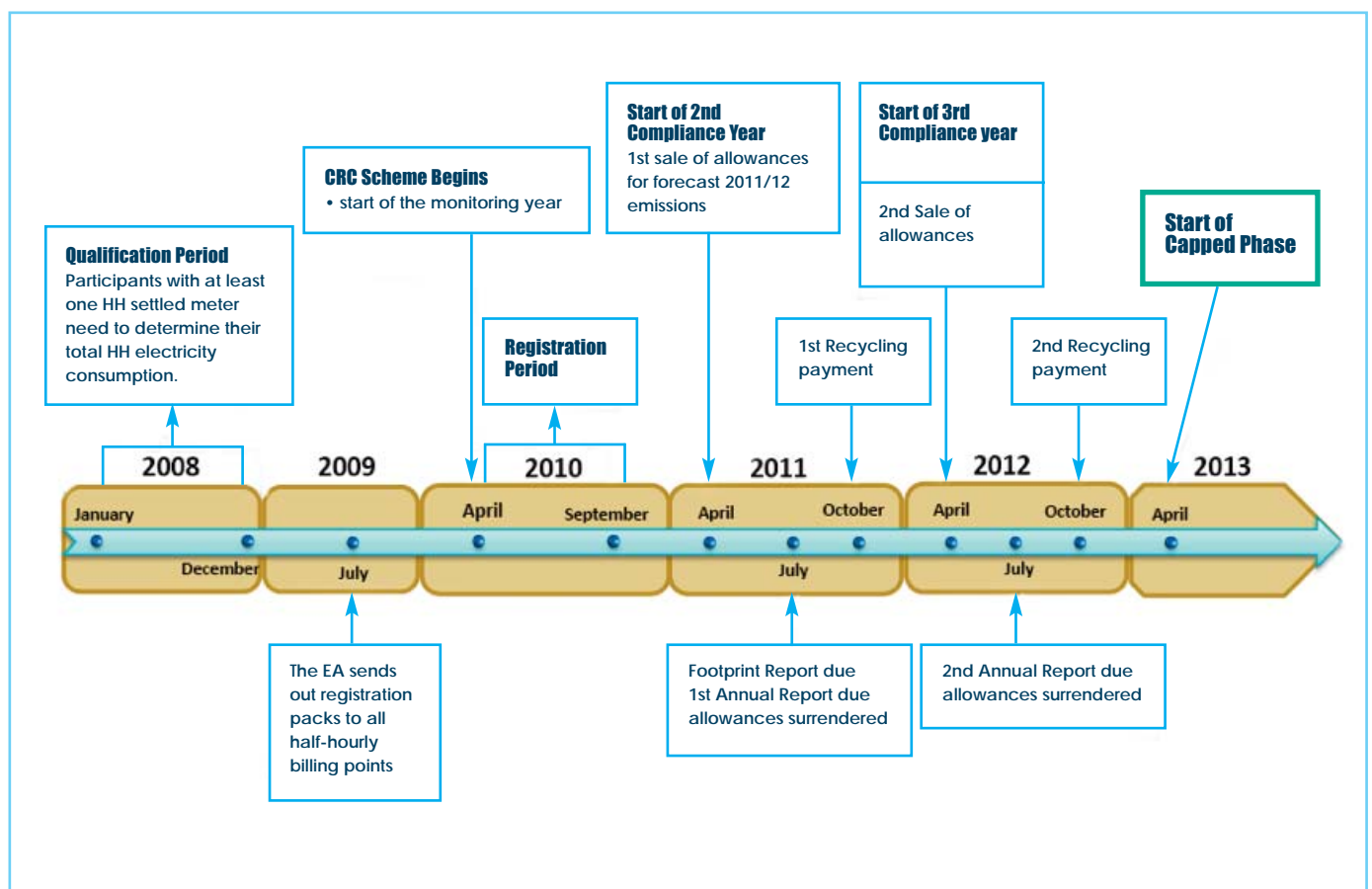
The CRC will come into force in stages:

- 2009: DEFRA user guide issued to help organisations assess whether they qualify for the scheme and guide them through the registration process⁴. The CRC regulations open to consultation. Registration packs when published will be available on the Environment Agency website and its equivalents in Scotland and Northern Ireland.
- April 2010: Participants must submit data on their total annual fuel use (electricity/gas/diesel) to an online registry. Official conversion factors

will then be used to translate this into a level of CO₂ emissions. This is a monitoring year.

- April 2011: Participants must buy permits for each tonne of CO₂ they expect to emit in the next year, at £12/tonne.
- April 2013: The number of permits will be capped and they will be sold off in a sealed-bid auction. The total number of permits will then be reduced each year.

The Government's timeline for CRC



Actions for qualifying organisations

Qualifying organisations should be identifying who is liable, especially in complex organisations, and who therefore needs to provide leadership and budgeting.

Data on electricity consumption and lists of meters, which may not be readily accessible in one place, should be pulled together in readiness for the registration packs.

Development plans should be assessed to establish what can be done to reduce projected increases in emissions.

Costs of energy efficiency measures, CHP or on-site renewables should be assessed. One option is to develop 'marginal cost abatement curves' that rank measures by cost of saving and show the total amount of carbon saved. Mckinsey have developed a national cost curve and this might serve as a useful example⁵.

Consideration should be given to engaging an expert external partner to help manage carbon assets in the light of the risks and obligations presented by CRC and/or to advise on grant and loans.

Landlords and tenants face particular complexity. The British Property Federation have issued very useful guidance⁶ for landlords and tenants on the CRC, which sets out:

- Key steps for landlords and tenants to consider.
- Advice on how costs should be apportioned between landlords and tenants.
- What should happen when a building is bought or sold to/from a party outside the scheme.
- How landlords can use the CRC recycling payments to make their whole portfolios more energy efficient, for everyone's benefit.

More information

For more information see

- The Defra website: www.defra.gov.uk/environment/climatechange/uk/business/crc/index.htm. Updates are made at least quarterly as key dates approach. You may want to join DEFRA's mailing list for the latest information.
- The comprehensive source is the CRC User Guide. www.defra.gov.uk/environment/climatechange/uk/business/crc/comply.htm#userguide.
- The CRC scheme is still subject to enactment through regulations through the Department for Energy and Climate Change. See www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/crc/crc.aspx
- 2 degrees has a network on the Carbon Reduction Commitment and regularly holds webinars on aspects of implementation. See www.2degreesnetwork.com

1 Estimate by research group Datamonitor, June 2009 see www.imserv.com/uploads/originals/imserv-summit-rsa-4th-june-09.pdf

2 www.bpf.org.uk/pdf/21378/CRC%20research.PDF.

3 The independent emission reduction award scheme in the UK (EEAS) supported by the Carbon Trust

4 www.defra.gov.uk/environment/climatechange/uk/business/crc/comply.htm#userguide

5 www.mckinsey.com/clientservice/ccsi/pathways_low_carbon_economy.asp

6 www.bpf.org.uk/topics/document/23672/carbon-reduction-commitment-crc---a-guide-for-landlords-and-tenants