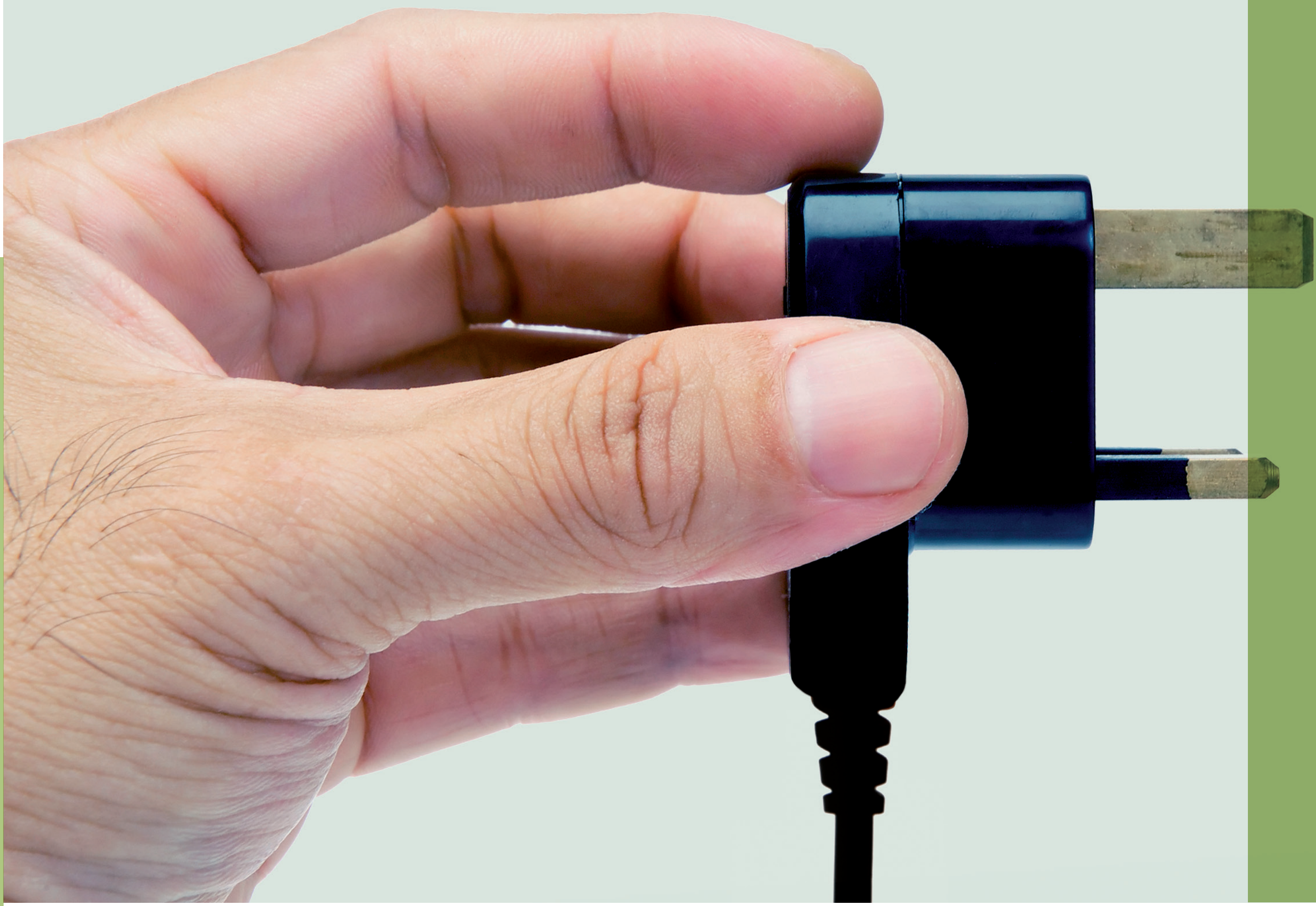
The Carbon Reduction Commitment (CRC) – Are You Ready?

Preparing Your UK Organisation: Five Key Steps



If your UK organisation consumed over 6,000 MWh of electricity through half-hourly meters in 2008, and had at least one meter settled in the half hourly market, then it is likely to be one of the estimated 5,000 organisations due to participate in the Carbon Reduction Commitment Energy Efficiency Scheme (CRC). Following Defra's distribution of letters to potential scheme participants in May 2009 and the publishing of the response to the third consultation in October 2009, there is significant and growing interest in this pending legislation. With the scheme due to commence in April 2010, many are wondering what the implications will be and how best to respond.

This paper incorporates current understanding of how the CRC will work and outlines the key steps to be taken during 2009 and 2010 to prepare for it.

Overview of the CRC

The CRC is a mandatory, auction-based, cap & trade scheme aimed at reducing CO_2 emissions in the non-energy intensive sector. It covers UK companies, regardless of where headquartered, and includes public as well as private sector organisations. The scheme is revenue neutral to the exchequer with proceeds from allowances being fully recycled back to participants. Whilst the CRC exhibits many characteristics typical of cap & trade schemes (see box out to the right), its focus on the non-energy intensive sector and use of league table positioning, to determine revenue recycling payments to participants, is currently unique.

From a compliance perspective, the UK Government's stated intention is to keep the scheme as simple as possible. The reality is that there are areas of significant complexity. The ease with which these can be navigated is a function of an organisation's operational complexity and the maturity of any existing carbon management programme.

What is a cap & trade scheme?

A CO_2 cap & trade scheme restricts (i.e. caps) the amount of CO_2 that organisations can emit by issuing/selling a limited number of emission allowances. Through the laws of supply and demand, this imposed scarcity results in a value for each tonne of CO_2. Trading facilitates the optimal sourcing of emission reductions, as participants can purchase allowances from others rather than making reductions themselves. Establishing an efficient trading platform improves liquidity and enhances price stability. Country-level reduction targets can be met by decreasing the number of allowances issued over time. Prices will increase if progressive reduction targets become more challenging, particularly where economic growth puts upward pressure on energy consumption. Mandatory schemes such as the CRC are underpinned by legislation, with stringent penalties to ensure compliance.

The EU Emissions Trading Scheme (EU ETS) is the world's largest emissions trading scheme, covering over 10,000 installations (accounting for 40% of the EU's emissions). It experienced trading volumes of over $90bn in 2008[1]. Other schemes include regional initiatives in North America and the voluntary Chicago Climate Exchange. Proposed mandatory cap & trade schemes are at various stages of development in Australia, New Zealand, Japan, Canada and the US amongst others. With the growth in these schemes comes the prospect of future linkage between them. Such a linkage would create a large multi-geo market with significant volumes and move the world closer to the concept of a global price for CO_2.

[1] State and Trends of the Carbon Market 2009, the World Bank, May 2009

However, the CRC aims to go beyond pure reporting and administrative compliance, and result in real CO_2 reductions. The achievement of success in this regard will be the subject of much debate, but companies that respond pro-actively are likely to benefit from the financial and reputation levers that are central to the scheme's design.

How can you prepare for the CRC?

There are five key steps that should be taken in preparation for the CRC scheme.

The CRC – Five Key Preparatory Steps

Step 1: Define the CRC organisation

Step 2: Establish an accurate emissions inventory

Step 3: Assess likely financial and reputation impacts

Step 4: Develop the strategy for CRC response and carbon reduction

Step 5: Ensure appropriate management information systems are in place

Figure 1

1) Define the CRC organisation

The CRC organisation is the aggregated entity that is required to participate under the scheme, and determining its scope could be a challenge in itself. Whilst UK parent and subsidiary companies would result in a CRC organisation which is well aligned with normal consolidation principles, this picture becomes more complex when foreign parents and subsidiaries are involved. UK subsidiaries of a foreign parent should be grouped into a CRC organisation with a nominated UK lead subsidiary.

Creating an inventory of half-hourly meters (HHMs) across the organisation is the next data challenge. Energy suppliers will have an obligation to provide this information together with related electricity use, but the parent company's role as the consolidation point could be onerous in complex organisational structures.

Getting an early view of the organisation's structure, and establishing whether 2008 consumption from HHMs exceeds the 6000 MWh scheme threshold, will prove very valuable.

2) Establish an accurate emissions inventory

Whilst half-hourly metered electricity is the sole criterion for initial scheme inclusion, once in the scheme, all electricity related CO_2 emissions are included as well as direct CO_2 emissions from gas and other fossil fuel combustion. Transport related emissions are specifically excluded, as are emissions covered by the EU ETS and Climate Change Agreements (CCA's). Subsidiaries (or entire organisations) where more than 25% of their emissions are covered by Climate Change Agreements are fully excluded.

It is mandatory to include emissions from electricity and gas meters of a defined type or exceeding defined consumption levels. Further sources need to be included to ensure that at least 90% of all emissions are accounted for across the CRC, EU ETS and Climate Change Agreements. All electricity consumption is sized at grid average regardless of tariff structure, and credits can be achieved for onsite generation provided Renewable Obligation Certificates and Feed-in Tariff incentives are not claimed.

Particular care should be taken not to underestimate emissions in the first year (April 2010 to March 2011). This is not only because of potential penalties for non-compliance, but because it is an important base year that impacts the size of revenue recycling payments for years to come.

It is clear, therefore, that organisations will need to establish a comprehensive view of their CO_2 emissions inventory and have the capability for ongoing monitoring and reporting. This information is essential for CRC submissions and their justification in any subsequent audit. It is also essential for monitoring the level of CO_2 allowances required and any decisions on source exclusions under the 90% de minimis rule. Accurate inventories also provide baselines which are a key ingredient for business cases that evaluate and prioritise carbon reduction activities.

3) Assess likely financial and reputation impacts

The CRC league table is central to the scheme's design, creating the reputation incentive as well as being the basis for revenue recycling. A participant's position on the annual league table is based on a combination of absolute emission reduction (the compulsory 'Absolute' metric) as well as a metric linking growth impacts to emission levels (the voluntary 'Growth' metric). The Absolute metric has the largest impact on the calculation, outweighing the Growth metric in the ratio of 3:1. A further 'Early Action' metric applies in the initial three year introductory phase only. Recycling payments are based on a participant's relative share of first year scheme emissions, with a bonus or penalty percentage based on current year positioning. Maximum bonus/penalty percentages will rise annually from 10% in the first recycling payment in October 2011, to 50% in 2015 and potentially higher thereafter.

Financial impacts

The financial gain or loss resulting from league table performance is unlikely to be material in the introductory three-year phase of the scheme. With an uncapped number of allowances being sold at a fixed £12 per tonne, and with maximum bonuses/penalties rising to 20% for the second recycling payment in 2012, even the worst performing organisations will probably experience an incremental cost equating to less than 2% of their energy bills. However, the impact from phase II (2013) and beyond could be substantially higher, when capped allowances drive higher prices and bonuses/penalties could conceivably rise to 100%.

The cashflow implications may already prove material in year 2 though. With the first year of the scheme now modified to a 'reporting only' period following the latest consultation response, the first cashflows will start in April 2011 with the prospective purchase of a single year's worth of allowances for the 2011/2012 year. As recycling payments will be made in October each year, this means an average six month gap between allowance purchases and receipt of recycled monies. At £12 per CO_2, this will equate to a six month financing requirement for the smallest participants of approximately £40,000 in both 2011 and 2012. From April 2013, when the price of capped allowances is determined by auction, the impact could be substantially higher if allowance prices rise. Delayed purchase of allowances in the open market rather than at auction would mitigate this initial cashflow impact, but would add financial risk due to fluctuating allowance prices.

Lack of preparedness for the scheme, with an inability to produce accurate submissions and evidence packs, and failure to surrender the appropriate number of allowances, could also expose the organisation to costly fines and negative publicity.

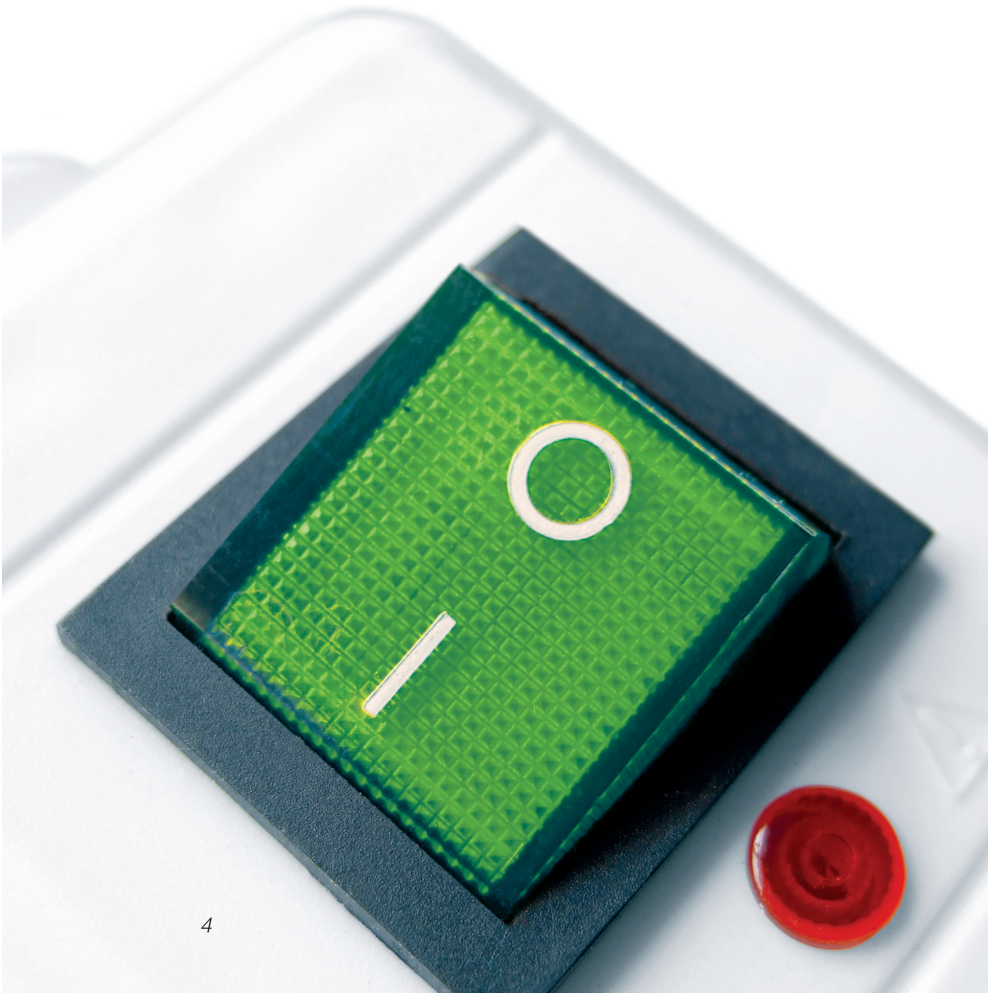
Irrespective of the CRC, energy reduction activities may drive energy cost reduction, as well as avoidance of offset purchases that the company may choose to undertake.

Reputation impacts

The reputation impact of the league table is one of the unknown factors at this stage. It is possible that the league table may be discredited by some organisations on the basis of flawed design and its attempt to rank diverse organisations in a single table.

On the other hand, it may operate as the Government intended, acting as a real incentive for emission reductions and proving significantly more important than the financial drivers. The extent of the reputation impact on individual participants will depend on a number of factors: the industry in which they operate; the nature and performance of competitors; the sensitivity of their reputation to publicity of this sort; and the magnitude of customer and other stakeholder responses to league table performance.

Making a careful assessment of the potential financial and reputational impacts of the scheme on your organisation is an essential step before crafting a strategy to underpin your participation.



Potential Benefits of a Pro-Active Response to CRC

Compliance
- Avoids penalties
- Reduces likelihood of audit and remedial action
- Reduces management effort through efficient processes
- Information supports better prioritisation of actions
- Allowance requirements are predicted and better managed
- Proactive focus leads to real reductions
- Positive knock-on financial/reputation impact

Financial
- Gain from bonus on revenue recycling
- Reduces penalties and audit costs
- Reduces costs of participation and management time
- Budget for allowance requirements and cash flow impact
- Improves mitigation of trading risk and price exposure
- Reduces energy costs and any offset purchases
- Better targeting and prioritisation of carbon investment with improved benefits realisation

CRC Organisation

Reputation
- Good league table positioning enhances market reputation and brand awareness
- Performance and compliance record versus competitors leads to competitive advantage
- Improves credentials, attracts green spend from consumers and increases loyalty
- CO_2 reduction actions can highlight opportunities for new/redesigned products and open new markets
- Energy efficiency supports broader business efficiency with knock-on benefits

Figure 2

4) Develop the strategy for CRC response and carbon reduction

An organisation faces a range of options in terms of its response to the CRC. It could view the CRC as little more than an administrative burden and leave it to the Corporate Social Responsibility (CSR) department to deal with. Alternatively, it could embrace the carbon reduction challenge, exploiting the potential for financial gain and reputation enhancement. Whilst the former will still require a plan of action to be compliant, it is the latter that may benefit most from a coherent strategy.

The Absolute and Growth metrics in the league table are based on current year emissions versus the average of the past five years (or since the start of the scheme in the first five years). Consistently good performance in the league table therefore requires a long term strategy of continuous carbon reduction.

There are a number of CRC-specific strategic options that require consideration:

- *Decide whether to apply for the Carbon Trust Standard (or equivalent) and/or to implement or extend voluntarily automated meter reading (AMR). Both of these actions gain credit under the Early Action metric which is the sole determinant of year 1 league table positioning, published in October 2011. The Early Action metric accounts for 40% of the league table computation in year 2, 20% in year 3 and is then dropped altogether when moving into the capped phase II of the scheme. In addition to CRC scheme impacts, the other reputation and financial benefits of implementing the Early Action activities should be assessed.*
- *Consider how landlord/tenant and outsourcing agreements are structured. As liability for emission inclusion rests with the counterparty to the energy supply contract, modified terms and conditions may be required to allocate CRC related costs and benefits.*
- *Trading and allowance purchase strategy is another key consideration. This is particularly relevant from phase II onwards when deciding on sealed auction bids and appetite for exposure to increased price risk in the open market.*

As the overall intent is to achieve CO_2 emission reduction, any CRC strategy should include the same elements as any well-crafted carbon reduction programme. Appropriate governance needs to be put in place, with senior management support and broad stakeholder engagement. A thorough diagnosis of emissions inventory should be undertaken to identify opportunities for carbon reduction, producing business cases to evaluate and prioritise them. A well-managed programme of activities then needs to be initiated and monitored to realise emission reductions.

Leading organisations will also look beyond the CRC. They'll view it as a catalyst to accelerate their energy conservation efforts and broaden the emission reduction focus to incorporate the extended supply chain and product innovation. Their strategy may reflect a drive towards environmental sustainability and the establishment of a leadership position, thereby gaining the loyalty of customers and reaping the rewards of competitive advantage.

Any strategy would be incomplete without recognising the importance of good quality, timely information and the need to move from ad hoc manual processes to the implementation of an integrated management information system. Hence step 5.

5) Ensure appropriate management information systems are in place

Designing and implementing a comprehensive carbon management information system is critical to the success of any carbon reduction programme. The ability to assess carbon emissions accurately on an ongoing basis allows for the tracking of progress versus targets, the identification of new opportunity areas and the ability to report to a range of stakeholders.

The CRC scheme imposes additional reporting requirements on participants. Annual submissions take the form of a self-assessment and a supporting evidence pack needs to be maintained. Good quality information will ensure accuracy and completeness of submissions, as well as providing confidence to the director who needs to sign them off. Having the appropriate information to hand will: create an audit trail reducing the cost of responding to audits (20% of organisations will be selected for audit each year); reduce the likelihood of non-compliance and costly penalties; and even reduce the likelihood of future audits.

The value of having a robust system to capture, collate and report on energy and emissions should not be underestimated. Further benefit is realised where these systems are well integrated and the related processes are embedded in the normal day-to-day operations of the organisation.

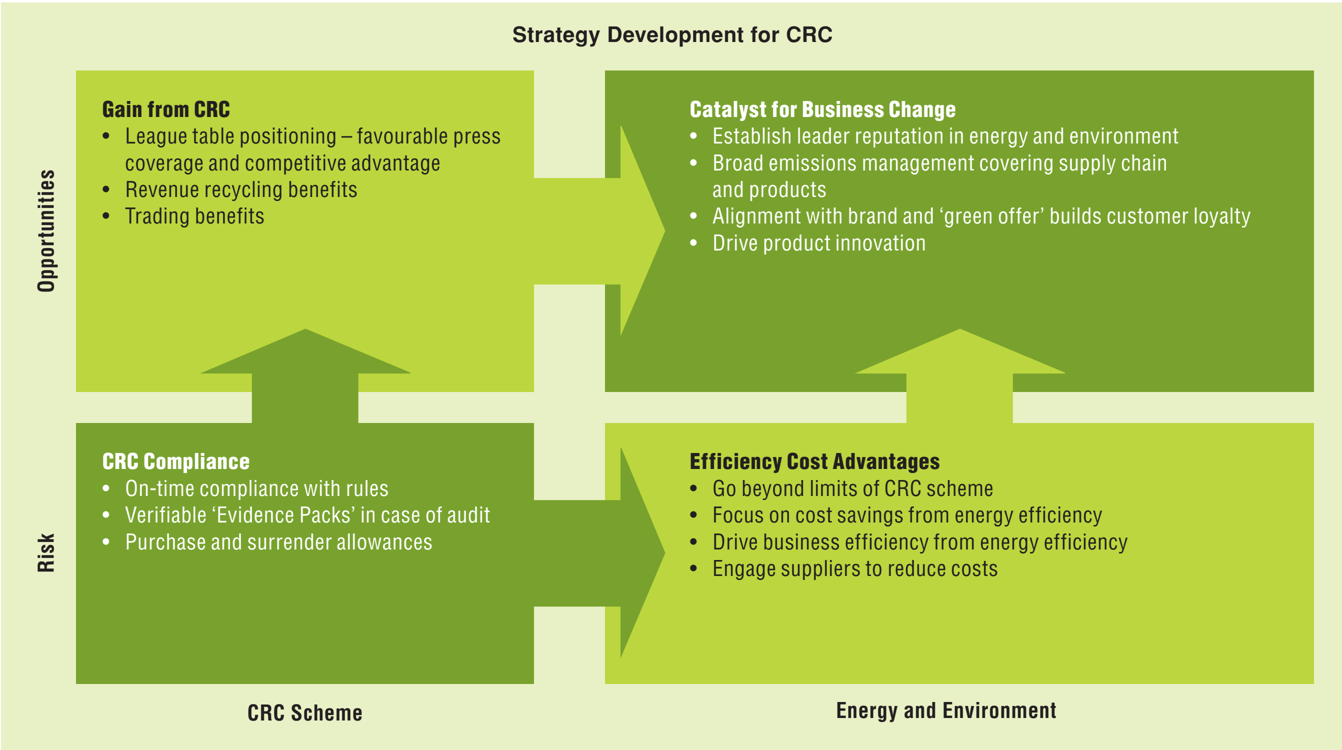


Figure 3

Conclusion

Some companies will view the CRC as a legislative burden, considering penalties a green tax and challenging any poor league table positioning on the basis of flawed scheme design.

Others will view the CRC as a catalyst to initiating and elevating their carbon reduction programmes. They will see potential for financial gain and reputation enhancement, both within the scope of the CRC and beyond. These organisations in particular will want to take the steps outlined above to be ready for 2010.

How ready are you?

IBM has a suite of services under its Energy and Environment Framework that can help you take those all important steps. Our offerings range from emission quantification and strategy development, to the enabling of carbon reduction across the breadth of the organisation, with ability to track and report. IBM has also developed a number of CRC specific offerings. These offerings include a CRC Diagnostic to help assess an organisation's readiness for the scheme, as well as a CRC Impact Assessment that models the potential financial and reputation impacts of the CRC under a range of scenarios, providing detailed recommendations on how to optimise performance.

As a future participant in the CRC itself, and with first hand experience of the EU ETS and Chicago Climate Exchange, IBM understands the challenges that organisations face. Whether your focus is CRC compliance or the ambition of leadership in energy conservation and emission reduction, IBM can help you reach those goals and find the value in Green.

Please note that the CRC scheme has not yet been passed into legislation and so is subject to change. This paper incorporates current understanding of the proposed CRC Energy Efficiency Scheme as of 20th October 2009.

For further information on the CRC scheme please refer to the DECC Web site at www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/crc/crc.aspx

The content of this paper does not constitute legal advice. Please seek independent legal advice if you require such assistance.

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GBB03024-GBEN-02