

*The Carbon Reduction Commitment (CRC) is a new emissions trading scheme for large non-energy intensive organisations. It starts in April next year and **Tom Fidell** from energyTEAM discusses the need to develop a five year strategic plan now.*

The Carbon Reduction Commitment (CRC) is a new mandatory emission trading scheme that aims to improve energy efficiency and reduce the amount of carbon dioxide (CO₂) emitted in the UK. This is required to achieve the overall target of reducing greenhouse gas emissions by 2050 by at least 80% compared to the 1990 baseline.

CRC will affect large organisations in both the public and private sector. Organisations that consumed more than 6,000 MWh of half-hour metered electricity in 2008 will be required to participate in the scheme. Participant organisations will have to monitor their emissions and purchase allowances, sold by government, for each tonne of CO₂ they emit.

The more CO₂ an organisation emits, the more allowances it has to purchase. So there is a direct incentive for these organisations to reduce their emissions. As well as reducing carbon emissions, by increasing energy efficiency, the scheme will help organisations save money by reducing their energy bills.

In addition, the better an organisation performs in terms of reducing its emissions, the higher it will appear in the annual performance league table that the Government will publish, showing the comparative performance of all participants.

This in turn provides a further benefit: all the revenue raised from selling allowances is "recycled" back to participants, and the league table position affects how much of the revenue each organisation receives.

It is estimated that between 4,000 and 5,000 organisations will be required to participate fully and each one will be required to monitor its CO₂ emissions and also purchase allowances to cover these emissions each year. Where organisations are subsidiaries or part of a group it is generally the highest parent organisation which will participate on behalf of all the organisations in the group.

In addition to the organisations that are full participants another group of around 15,000 will be required to make an information disclosure to enable them to opt out of the scheme. This will cover organisations which have half-hour meters but come below the 6,000 MWh limit.

The scheme starts in April 2010 with a three-year introductory phase where allowances will be sold at a fixed price of £12 per tonne. After the introductory phase the scheme moves into the capped phase where the government puts a cap on the number of allowances available and then sells these at auction. It is anticipated that this will entail a significant increase in the cost of allowances.

The League Table

An organisation's performance in reducing CO₂ emissions will determine its place in the league table. The emissions during the year will be compared to a five-year rolling average, with an allowance for a growth metric for organisations which are growing or declining. Until the scheme has been in operation for five years the comparison will be made with the number of years for which data is available. In the early years an early action metric has a small weighting on the league position, although in the first year with no data for comparison, this metric forms 100% of the league table position.

The amount of money an organisation gets back is determined by its position in the league table in the form of a bonus or penalty. This starts at a low level of only 10% in the first year but increases substantially in later years reaching 50% in year 5.

It can be seen that an organisation's success or failure in the league table is determined by its ability to reduce CO2 emissions year on year and not necessarily by being the most energy efficient operator in the country. An organisation can be one of the most energy efficient operators in the industry, but end up near the bottom of the league table after three or four years because the energy savings were made before the CRC came into operation.

The league table is a publically available document and therefore has reputational issues. Customers may not want to work with an organisation which is near the bottom of the league table each year.

A Five-Year Strategy

A strategy is required to ensure that an organisation stays near the top of the league table each year and to do this, energy-saving initiatives need to be identified which can be introduced each year in stages over a period of around five years or more.

The first thing to look at are behavioural changes which include such things as turning off equipment and lighting when it is not required and controlling the temperature to the optimum level. Staff training and motivation to reduce energy would also come under this heading, together with the formation of energy committees and the appointment of energy champions. This work could be done even before the CRC comes into operation as the financial savings in energy will outweigh the savings to be made in the league table.

However when it comes to savings which require capital expenditure a more strategic approach is required. It may not be the best policy to install all new energy saving plant and equipment in the first couple of years, as this could lead to a low position in the league table in years 3 onwards, when the bonus and penalty percentage has increased, and the cost for allowances may be much higher after year 3.

What is required is a strategy that identifies energy-saving opportunities which can be installed each year over a period of five years or more. For example if an organisation needs to install new lighting, a new boiler plant and a new chiller, it may pay to install the new lighting in year one, the new boiler plant in year two and the new chiller in year three. However it can become a little bit more complicated, as under the CRC it may also pay to investigate the economics of combined heat and power before a new boiler plant is installed.

The time to undertake this strategy is now and over the next year all opportunities to save energy should be identified and then the cost of implementation should be established together with the financial saving in energy and the saving in CO2.

With this information the strategy can be developed, which may for example entail all energy-saving opportunities with a one-year payback being undertaken in year one, those with a two-year pay back being undertaken in year two, and a three-year pay back in year three etc. It will not be as simple as this of course, and every organisation will have different requirements, but the key aspect is that a strategy should be developed.

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