

Government carbon reduction initiatives

– An opportunists view



Recent changes in government may have brought uncertainty. However, ambitions remain high as do hopes to make significant CO₂ emission reductions. Richard Berry from Climate Change Solutions discusses the opportunities in responding to 3 key government initiatives: CRC energy efficiency scheme; Feed in Tariffs and the Renewable Heat Incentive.



Whilst the change in government has been a little rocky, one area where parties are in agreement is in the need for a low carbon agenda. The Secretary of State for Energy and Climate Change, Chris Huhne MP, indicated a strong commitment to the Climate Change agenda, a green economy and increased energy security, stating that DECC would go “further and faster” to achieve this. Also, on his first visit to the DECC HQ, the Prime Minister David Cameron, pledged “to make this the greenest government ever” and announced that

Government Departments would reduce carbon emissions by 10% in 12 months.

Recently introduced initiatives and another soon to arrive, could help realise some of that aim and generate much needed momentum. However, what is still needed from business and industry is the pioneering leadership to respond to these opportunities.

Carbon Reduction Commitment Energy Efficiency Scheme

Few large organisations will have escaped the CRC Energy Efficiency Scheme (CRC EES). Around 5000 participants will have until Sept 2010 to register. They will then go on to purchase allowances every year for their planned CO₂ emissions for the year ahead and enter the world of carbon ‘cap and trade’. The greater the emissions they expect to produce, the more allowances they will need to purchase. A league table will then be published to highlight the ‘good’ and ‘bad’ performers in reducing emissions. The benefit for being at the top or bottom of the league table will increase progressively from +/-10% of your financial contribution in year 1 up to +/-50% in year 5. In addition to emissions reductions, in the first 3 years of the scheme, other Early Action Metrics (EAMs) will be used to assess performance. These include the need to demonstrate effective monitoring by installing automatic meters and then to prove good practice in carbon measurement, management and reduction through accreditation to a recognised certification scheme (e.g. the Carbon Trust Standard).



Opportunities for energy reduction should start with a strategic energy plan to reduce waste and to use energy more efficiently (also applicable to non-energy resources). This begins with behavioural change and education, then leads to operational and physical improvements. After an initial focus on energy reduction, other opportunities could be considered to utilise renewable and efficient technologies such as: biomass boilers; ground and air source heating and cooling; and combined heat and power (CHP).

Whilst the CRC EES provides fiscal and marketing incentives to cut absolute and relative CO₂ emissions, if taken seriously and with management leadership, the real incentive will be in a sustainable reduction in energy bills.

This CRC EES for energy reduction sits in contrast with another recent government initiative, the 'Feed in Tariff', that puts the focus on domestic and smaller organisations and on generating renewable electricity locally.

Feed in Tariff

Launched in Apr 2010, the aim of the Feed in Tariff (FiT) is to increase the level of energy produced by small scale renewables (up to 5MW) and aside from reducing CO2 emissions the benefits come in 3 ways:

- The government will pay for any electricity produced irrespective of whether it is used within the organisation or not.
- In addition, any electricity exported onto the national grid will be further rewarded.
- And energy bills will be lower.



It is estimated that depending on the type of renewable energy technology you use, the return on investment could be between 5 and 8% annually.

This proposal opens the door to using renewables such as: Wind turbines, in the suitable locations, Solar photovoltaics (PV), Hydro, Anaerobic digestion; and domestic scale micro CHP.

Whilst initial investment costs for renewables may not be cheap, the FiT offers real opportunities for households and organisations to make great headway in becoming more environmentally sustainable, reduce ongoing energy costs and supporting jobs in this emerging sector.

Renewable Heat Incentive



Essentially the Renewable Heat Incentive, (RHI) due April 2011, will be similar to the FiT in that it will offer financial reward for generating heat energy through renewable sources, again using a tariff system. This incentive will be administered by Ofgem with the heat generated being either for own use or as part of a heat network. The RHI will be aimed at all sizes of organisations and could involve the use of technologies such as solar hot water, biomass boilers or ground source heat pumps. The level of tariffs is aimed at providing a rate of return of the order of 12% on the additional capital costs of using renewables. Although, for solar thermal

this is expected to be nearer 6% as it is a more mature technology with less installation issues.

It is also expected that the RHI will help create a number of financing models that will support businesses investment in these opportunities.

As the need for energy reduction and renewable energies becomes more crucial, it is hoped that it is the public sector that will be central pioneers in developing future projects. This will generate the long term demand that make both the returns on investment economic and help build the capacity for a sustainable renewable energy industry.

References:

Carbon Reduction Commitment Energy Efficiency Scheme.

CRC Introductory website:

www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/crc/crc.aspx

Environmental Agency website:

www.environment-agency.gov.uk/business/topics/pollution/98263.aspx

The Feed in Tariff

Government introduction to the Feed in Tariffs

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

Domestic opportunities from Energy Saving trust

www.energysavingtrust.org.uk/Generate-your-own-energy/Sell-your-own-energy/Feed-in-Tariff-Clean-Energy-Cashback-scheme#about

Solar PV example

www.sundancerenewables.org.uk/index.html
www.energysavingtrust.org.uk/Generate-your-own-energy

Act on CO2 renewables options:

actonco2.direct.gov.uk/actonco2/home/what-you-can-do/In-the-home/Renewable-energy.html

The Renewable Heat Incentive

www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/renewable/policy/renewable_heat/incentive/incentive.aspx

For further information on Climate Change Solutions Ltd, please visit our website:

www.climate-change-solutions.co.uk

Or contact us:

024 76 21 77 46 / 9

info@climate-change-solutions.co.uk