Carbon Management a guide to the legislation, standards and carbon foot printing.

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Executive Summary

- Since 1850, global surface temperatures have increased by 0.76 °C. Gradual warming of the atmosphere is attributed to anthropogenic emissions of ‘greenhouse’ gases (GHGs), in addition to deforestation, desertification and urbanisation. Effects of global warming and climate change include; sea-level rise, increased frequency/strength of heat-waves, droughts and hurricanes and reductions in global biodiversity.
- GHGs produce a global ‘warming’ effect on the earth’s surface temperature by enhancing the earth’s natural ‘greenhouse’ effect. The concentration of carbon dioxide (CO_2) has increased significantly since 1850 and has contributed, in terms of warming, 25 % to the greenhouse effect.
- The Kyoto Protocol (1998), encourages countries to reduce their CO_2 (and other GHG) emissions, in an effort to mitigate the effects of global warming/climate change. This protocol has established mechanisms by which to achieve this objective, such as Joint Implementation (JI), the Clean Development Mechanism (CDM) and Emissions Trading.
- A major goal of JI, CDM and Emissions Trading is to motivate companies to reduce their ‘carbon footprint’. A Carbon Footprint is the total amount of carbon or other GHG emissions, generated by activities, events, or products that a company or individual is considered responsible for.
- JI and CDM have been translated into European and UK legislation governing Carbon ‘Offsetting’ and Carbon ‘Compensation’ schemes which permit companies to reduce GHG emissions of external companies/communities, instead of reducing their own internal emissions/carbon footprint.
- Emission trading schemes such as the EU-CTS and UK Carbon Reduction Commitment (CRC) use the principles of ‘cap and trade’ to reduce the carbon footprints of large industrial emitters (e.g. steel, cement, energy production) and large energy-intensive companies respectively.
- The UK-CRC comprises of 3 phases; 2008-10: Company registration and Carbon Footprint calculation; 2010-13: Companies buy CRC allowances based on their carbon footprint, at a fixed rate (£12 per tonne of CO2 emitted). Post 2013, companies will buy allowances through auction and a number of allowances available for auction will be ‘capped’ at a maximum.
- There are various ways of funding projects to install low carbon technologies, ranging from Enhanced Capital Allowances, interest-free loans and grants. Companies providing funding support include the Carbon Trust, Green Grants Machine and NWDA (North-west region businesses only).

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