



Making business sense
of climate change

Carbon Management

Assessing and managing business responses
to climate change.



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Glossary

The term 'carbon emissions' is used throughout this brochure. Carbon is a shorthand unit for CO₂ and CO₂e (1 tonne of CO₂ or CO₂e is equivalent to 12/44 tonnes of carbon).

CO₂ - the main and by far the most common greenhouse gas.

CO₂e - a unit into which greenhouse gases other than CO₂ are converted so that their impact can be compared.

The consequences of climate change and the need to reduce carbon emissions are critical business issues for today.

Most companies acknowledge that climate change will have some impact on their business. However, the extent and scope of this is often not fully understood or quantified.

So what are some of the associated risks that may affect your business?

- Increased energy prices - they are expected to increase significantly over the next few years
- Legislation from UK and Europe as governments attempt to manage the climate change agenda
- Investor and consumer pressures as stakeholders choose to invest in and buy from environmentally conscious companies
- Loss of business and increased insurance premiums due to extreme weather patterns.

These risks will continue to increase in relevance and importance over the next few years.

The Carbon Trust, a business-led, Government backed independent company, cuts through the complexity to help companies understand and manage the impact of climate change.

The Carbon Management Programme, developed by the Carbon Trust and trialed with 50 leading companies, provides a systematic approach to managing the risks and realising the opportunities that climate change presents. It goes beyond energy management, enabling organisations to consider both their operations and their revenue in the context of climate change. The results are cost savings, clarity around responses to legislation, operational improvements, corporate reputation and brand enhancement.

For business leaders looking for clarity and solutions to the challenges posed by climate change, the Carbon Trust's Carbon Management Programme holds the answer.



Tom Delay
Chief Executive

Climate change - a strategic business issue

Climate change is fast rising up the agenda, driven by growing scientific and political consensus that it is the biggest environmental threat we face. Leading businesses are putting this issue at the heart of their strategic thinking. Eighty percent of Financial Times Global 500 companies now explicitly acknowledge the importance of climate change as a business risk and roughly 35-40% of them are already taking concrete action¹.

These companies recognise that climate change will have fundamental effects on business performance and company valuation. Company response to climate change increasingly impacts both operational efficiency and the bottom line. Moreover, the growing number of Government initiatives and international agreements on climate change indicate that this topic will continue to grow in importance as an issue for governments, investors, employees and consumers alike.



¹Business for Social Responsibility.

The business opportunities and risks related to climate change have several interrelated drivers:



“The Carbon Management Programme has already delivered significant results and overall will save us millions of pounds and help us achieve our CO₂ emissions reduction target.”

Jerry Percy
Head of Utilities Conservation
BAA

The Carbon Management Programme overview



The Carbon Trust's Carbon Management Programme helps companies understand how carbon emissions and climate change affect their business. It provides the tools and capabilities to identify the value at stake, manage the risks and realise opportunities. Benefits include cost savings, clarity around legislation, operational improvements, corporate reputation and brand enhancement.

In 2003-2004, the Carbon Trust successfully piloted the Carbon Management Programme with 50 leading UK companies including sixteen of the FTSE 100. The following sectors were represented: manufacturing, retail, finance, pharmaceuticals, utilities, education, transport, property and construction and food and drink. Alcan, Tesco, Pfizer, Royal Bank of Scotland, Unilever and BAA are just a few of the companies that took part.

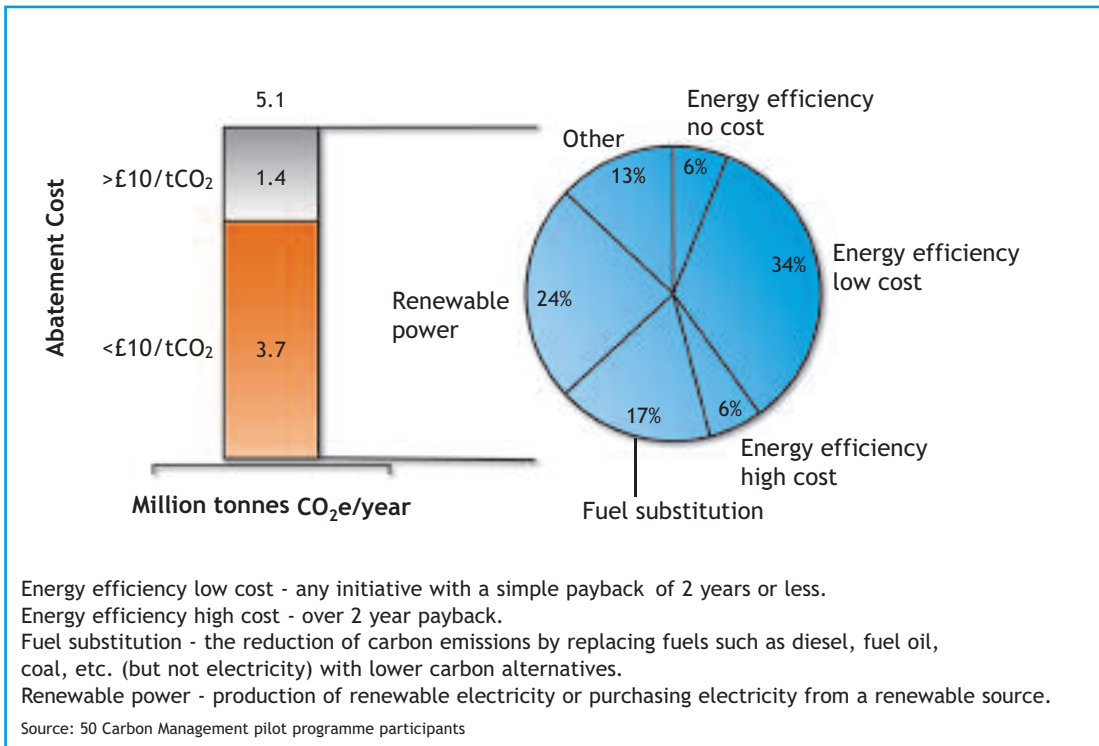
The Carbon Management Programme is now available more broadly, as part of the Carbon Trust's ongoing efforts to assist UK businesses with the transition to a low carbon economy.

The Carbon Management Programme pilot

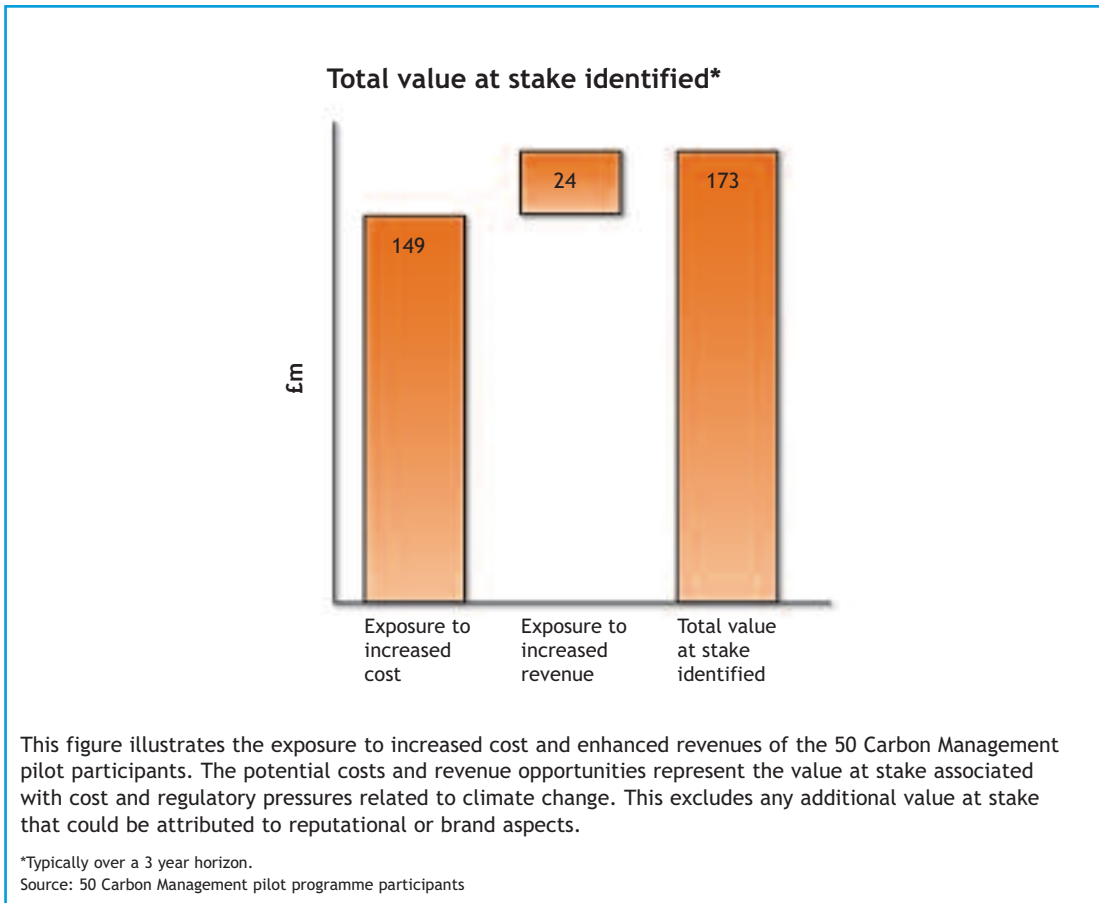
Pilot projects for the Carbon Management Programme identified over five million tonnes of CO₂ emission reduction opportunities from a range of different sources. Energy efficiency and renewables were two areas where major cost effective opportunities were found, many of which had payback periods of less than two years. Other areas where potential savings were identified included transport and waste.

The Carbon Management Programme is both a strategic and operational programme. It looks at both the revenue and cost sides of the business and involves areas outside the scope of a normal energy or operational efficiency review.

Total carbon reduction opportunities per year identified in pilot



Value at stake identified in pilot



The Carbon Management Programme benefits

At the end of the programme companies have:

- A detailed understanding of their carbon emissions footprint
- A business case quantifying the size of the climate change impact
- A strategic framework for managing carbon as part of ongoing business
- A method to prioritise the areas or projects with the greatest business and carbon impact
- A detailed implementation plan, prioritised in order of value generation
- An assessment of how to integrate Carbon Management into existing business practice.

The Carbon Management Programme will build a comprehensive picture of the value at stake by addressing a full range of areas in terms of impact on operations and on underlying assets. Primary benefits include:

1 Cost savings - Carbon Management can help to reduce energy bills as well as lead to savings on transport, waste and other operating costs. With energy prices set to rise over the next few years, these savings will become increasingly significant.

2 Mitigation of regulatory impacts - Carbon Management can help you navigate through the wide array of legislation including the EU Emissions Trading Scheme, Climate Change Levy, EU Energy Performance of Buildings Directive and the Renewables Obligation.

3 Operational efficiency - carbon emission reduction strategies often improve productivity and quality in unexpected ways. Many companies find that operational

efficiency gains are a side-benefit of improving energy and carbon efficiency.

4 Capability building - a major benefit to companies is the skills transfer that Carbon Management brings to the organisation. The programme equips companies with the tools and knowledge to continue effective Carbon Management after the programme ends.

5 Organisational engagement - Carbon Management is a powerful means of achieving senior management commitment and support as well as engaging the wider organisation.

6 New business opportunities - changing markets and innovative developments in industrial ecology present opportunities for new sources of revenue. Carbon Management helps to identify these opportunities. Waste can be converted to energy and sold back to the national grid; carbon credits can be sold; and 'green products' can become new business lines and capture increased market share for forward looking companies.

7 Corporate responsibility and reputation - as climate change generates greater concern and awareness, companies are finding that efforts to reduce carbon emissions can bring them positive public and market attention. Many investors and consumers are focusing on this area and companies who effectively measure and manage their carbon reduction activities will be increasingly rewarded.

8 Peace of mind - Carbon Management makes sense of the business implications of climate change and helps to assure companies and stakeholders that these issues are being effectively managed.

Advantages of working with the Carbon Trust

The Carbon Trust is uniquely placed to help companies with Carbon Management. As an independent Government-backed organisation with a deep understanding of the policy landscape and low carbon technologies as well as of the business issues related to climate change, we bring a number of strengths to our partnerships with business:

- **Authority** - the Carbon Trust understands the Carbon Management agenda and is able to bring credibility both internally and externally
- **Expertise** - with access to a wide range of capabilities including strategy, change management, innovation and technical skills the Carbon Trust offers unparalleled expertise to its partners
- **Impartiality** - the Carbon Trust is a trusted, impartial advisor, helping companies select and manage consultants best suited to their needs
- **Extensive experience and proven methodology** - the Carbon Trust has the greatest breadth of experience in this area, as well as a store of knowledge on best practice, having worked with hundreds of companies across a range of sectors.

“Carbon Management has helped to identify a number of management and practical, site-level measures to help Scottish Courage address energy costs and carbon emission caps.”

Billy Mason
Head of Finance
Scottish Courage

Case Study

Scottish & Newcastle

Company background

Scottish & Newcastle is an international brewing group with famous brand names such as Kronenbourg, Newcastle Brown Ale and Fosters. The group is one of the top 10 global brewing companies by volume. Scottish Courage, the UK operating unit of Scottish & Newcastle, is the leading brewer and distributor of beer and cider in the UK and Ireland.

Relevance of Carbon Management to Scottish & Newcastle

For Scottish & Newcastle operational efficiency and reductions in cost base are vital to maintain competitive advantage. Moreover, as a branded goods company, Scottish & Newcastle has taken a leading position on its commitment to CSR and climate change mitigation. Carbon Management is a key part of this and has become a leading issue for investors, consumers and regulators.

Carbon Management focus

Scottish Courage undertook the Carbon Management Programme to explore further energy-efficiency potential, to seek CSR opportunities and to pilot ideas for potential international roll-out.

Carbon Management results

The programme identified a wide range of opportunities and led to a plan to deliver annual energy cost savings of 15% as well as 13,000 tonnes of carbon emission reductions.

The Carbon Management Programme in practice

The Carbon Management Programme involves a five-step process to help companies understand and manage their carbon emissions.

The Carbon Management Programme five-step process

<p>Step 1: Mobilise the organisation</p>	<p>The first step lays the groundwork for the rest of the programme. Internal stakeholders are identified; buy-in is sought; and aims, approach, commitments and responsibilities are agreed.</p>
<p>Step 2: Evaluate the business case</p>	<p>In step two, companies develop an overall understanding of climate change and its risks and opportunities for their business. The programme develops a high-level carbon baseline for the business; evaluates risks and opportunities; identifies carbon reduction drivers; and appraises value at stake.</p>
<p>Step 3: Identify opportunities</p>	<p>The third step establishes a detailed picture of company-wide emission assets and liabilities. The focus is on generating and evaluating specific ideas for achieving cost-effective emission reductions.</p>
<p>Step 4: Develop implementation plans</p>	<p>This step prioritises ideas identified in the previous step, to reflect overall corporate objectives and aspirations. The outcome is a practical implementation plan with actionable emission reduction targets. The programme prioritises emission reduction opportunities; develops an implementation plan with budgets and targets; establishes company roles and responsibilities; and defines a system to measure success.</p>
<p>Step 5: Manage implementation</p>	<p>The final step monitors progress on the implementation plan and its effectiveness in delivering its specified objectives. As part of this step, the Carbon Trust can work with companies to guide implementation, monitor progress and update the implementation plan accordingly.</p>

“Carbon Management has had an impact on our strategy already through the portfolio risk assessment analysis - it raised the profile of the issue.”

Martin Batt
Corporate Responsibility Manager
HBOS



Case Study

HBOS

Company background

HBOS is the UK's largest mortgage and savings provider and a major player in new current accounts, credit cards and project finance in the corporate sector. The company has assets of over £400 billion, with 22 million customers, 67,000 employees and 2.5 million private shareholders.

Relevance of climate change to HBOS

Climate change has become increasingly relevant to HBOS's commercial activities because of growing customer awareness of this issue and its potential impact on the risk profile of the HBOS portfolio.

Carbon Management focus

HBOS has a sophisticated approach to energy management, so Carbon Management helped to push company efforts to new levels by focusing on new business opportunities and internal awareness.

Carbon Management results

The programme helped HBOS to understand the commercial implications of carbon issues on company activities, products, and services. It clarified the risk of climate change associated with property, lending and insurance portfolios; identified new product and service opportunities; and facilitated internal engagement and raised the profile of Carbon Management issues within the company. The programme also highlighted opportunities for reputation and brand enhancement.

Carbon Management delivery model

The Carbon Management Programme is delivered as a customised service, tailored to suit individual company needs. Different companies will find it appropriate to focus on different stages of the five-step process, and the programme is designed with the flexibility to accommodate different needs. The programme is therefore suitable for companies ranging from beginners to those more experienced in managing climate change risk and opportunity.

A dedicated account manager from the Carbon Trust works with each company to develop the scope and focus of work. The Carbon Management Programme is then provided in partnership with consulting firms who specialise in the technical, change management, strategic and other aspects of the programme. The Carbon Trust helps to select these consultants, as well as to manage and quality-check them throughout the programme.

The project takes roughly six months, with several weeks of pre-project preparation:



- Assign dedicated account manager from the Carbon Trust
- Gain senior management support
- Scope high level initial project brief
- Help select appropriate consultants

- Mobilise organisation
- Manage and quality check consultants
- Ensure strategic and change management needs are addressed
- Raise the profile of Carbon Management with senior management

- Monitor and guide implementation
- Identify opportunities for further collaboration

“Dialogue was aimed at senior management; rather than placing emphasis only on technical fixes, change management helped us engage senior levels, the result being a higher profile of the issues via CSR.”

Andrew Jones
Senior Manager
The Boots Group Plc



Case Study

The Boots Group Plc

Company background

The Boots Group is the UK's leading high street chemist with approximately 1,400 stores in the UK and Ireland and sales of £5.3 billion per year. The company has an annual energy bill of approximately £20 million.

Relevance of Carbon Management to Boots

Boots give three principal reasons for their interest in Carbon Management. Like other retailers, Boots is aware that being environmentally friendly is an essential part of modern retailing; customers and investors are interested in environmental and CSR matters. Secondly, it makes sound business sense; with wholesale energy prices increasing by over 40%, control of energy use is important. Thirdly, it keeps them ahead of legislation, such as the EU Emissions Trading Scheme and the 2005/6 Building Regulations.

Carbon Management focus

For the Boots Group Carbon Management activities were aligned with corporate objectives for CSR, energy and transport. Site surveys were used to identify a list of specific carbon abatement projects. From this a 5-10 year Carbon Management strategy has been drawn up, the initial stages of which are now being implemented.

Carbon Management results

The Boots Group report cost saving opportunities worth between £1 and £2 million and a carbon emission reduction of over 10,000 tonnes.

Company role and commitments

Participating companies work closely with the Carbon Trust and partner consultants throughout the course of the Carbon Management Programme. Senior level company support and commitment is essential to deliver projects successfully and is a requirement for programme participation.

Companies are also expected to appoint a company representative, at the level of Group Energy or Corporate Responsibility Manager, who must be available as the primary company contact. They will be responsible for facilitating company activity during the course of the Carbon Management Programme and through subsequent implementation phases.

"The Carbon Management Programme brought key players from across the business to enable us to develop a holistic approach."

Roger Peace
Sustainable Development Director
Severn Trent Plc

At the conclusion of the programme, companies work with the Carbon Trust to put implementation plans into effect and to capture best practice. This is a key phase - the culmination of the programme, when company commitment bears fruit and savings and efficiency improvements are realised.

Find out more

If you believe that Carbon Management can benefit your business and would like to learn how the Carbon Trust could help you, please contact a member of our Carbon Management team on:

Tel: 020 7170 7000

email: carbon.management@thecarbontrust.co.uk

Cutting carbon emissions.

There are those that can
and those that do.

Aggregate Industries. Ahlstrom. Airbus UK. Alcoa. Allied Distillers Limited. Andrew Millar Ltd. Arjo Wiggins. Asda. Avecia. BAA. BAE Systems. Bernard Matthews Ltd. Big Food Group. Bombardier Aerospace. Brake Brothers. Brett Martin. BT Wholesale Property. C6 Solutions. Cadbury Trebor Bassett. Calsonic Kansei. Canary Wharf Group. Cannons Health & Fitness Ltd. Celtic Manor Resort. Cementitious Slag Makers Association. Center Parcs. Christian Salvesen. Cleveland Potash Limited. Corus and Regal. Curtis Fine Papers. Dale Farm. Devro. Dixons Group plc. Dow Corning. DSM Nutritional Products (UK) Limited. Dungannon Meats Group. Flagship Training Ltd. Ford Motor Company. Foyle Food Group. Freescale Semiconductor UK Ltd. Gallaher Ltd. GlaxoSmithKline. H J Enthoven & Sons. Hilton Group. HJ Heinz. Huhtamaki. Huntsman Tioxide. Iggesund Paper Board Ltd. INCO Europe Ltd. Indesit Company. Interbrew. International Rectifier. INVISTA Textiles (UK) Ltd. ITT Industries. JCB. John Lewis Partnership. Kraft Foods. Lafarge Cement UK. Land Securities. Legal & General. Leisure Connection. Liberty International Plc. Marks & Spencer. MFI. Michelin Tyre Plc. Montupet UK Ltd.

Moy Park Ltd. MPP Holdings Ltd. M-real New Thames Ltd. National Semiconductor UK Ltd. Norbord. O₂. OI. PB Gelatins. Polypipe. Pritchitts. Procter & Gamble. Prudential Property Investment Managers Ltd. Queens Moat House. Quinn Glass. Rank Hovis McDougal. Rexam Glass Barnsley Ltd. Rockwool. Rolls-Royce plc. Royal Bank of Scotland. Sainsbury's. Salt Union. Scottish Tanning Industries Limited. Seagate Technology Media (Ireland). Shin-Etsu Handotai Europe Ltd. Smith & Nephew. Smurfit. Solutia. Somerfield. Spanboard. St Regis Paper Company Ltd. Starwood Hotels and Resorts. Superglass. Tarmac Limited. Tencel Products Ltd. Thales. Thames Water. The Boots Company. The Brick Business. The British Land Company Plc. the Co-operative Group. The Polestar Group Ltd. T-Mobile. Tower Colliery. TRW. TT Electronics. Tullis Russell Papermakers. Tyrone Brick. UBS. Unilever UK Foods. USC Europe Ltd. Vauxhall Motors Ltd. Vesuvius. Walkers. WBB Mineral Limited. Welsh Water. Yorkshire Water. Zeon Chemicals.

In 2004 these companies worked with the Carbon Trust to cut their carbon emissions.

Every company can do something about climate change, call **0800 085 2005** or visit www.carbontrust.co.uk

M A K I N G B U S I N E S S S E N S E O F C L I M A T E C H A N G E



The Carbon Trust works with business and the public sector to cut carbon emissions and capture the commercial potential of low carbon technologies.

An independent company set up by the Government to help the UK meet its climate change obligations through business-focused solutions to carbon emission reduction, the Carbon Trust is grant funded by Defra, the Scottish Executive, the Welsh Assembly Government and Invest Northern Ireland.

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