



# Driving Green Growth

Annual Report 2010/11

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## Measuring carbon emissions

In industrialised countries 80% of greenhouse gas emissions are carbon dioxide (CO<sub>2</sub>), released into the atmosphere mostly from the burning of fossil fuels. Other greenhouse gases produced by industrial and agricultural processes include: methane (CH<sub>4</sub>); nitrous oxide (N<sub>2</sub>O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs) and sulphur hexafluoride (SF<sub>6</sub>).

In order to produce a uniform measurement of greenhouse gas emissions, greenhouse gases other than CO<sub>2</sub> are converted into units of carbon dioxide equivalent (CO<sub>2</sub>e), and this is what we use in our report. 'Carbon' is a shorthand unit derived from CO<sub>2</sub> and CO<sub>2</sub>e, used by governments in international climate change negotiations. 3.66 tonnes of CO<sub>2</sub> or CO<sub>2</sub>e is equivalent to one tonne of carbon.

## The Carbon Trust

The global market for green goods and services is said to be worth over \$5 trillion. It's a growing opportunity that cannot be ignored. Wherever you are in your journey and whatever your strategy, the Carbon Trust is best placed to help maximise your share of the green economy.

With over 10 years' experience of green growth, working in every major sector, the Carbon Trust has been the partner of choice to the world's most respected companies and advisor to leading governments and institutions.

Being not for profit, our expertise and focus on results is driven solely by a low carbon mission.

This means that while we're helping you to profit from green growth, you're also helping us to continue to build a sustainable future for everyone.

[www.carbontrust.co.uk](http://www.carbontrust.co.uk)

# Chairman's statement

“We supported the entrepreneurs who are developing the next generation of low carbon businesses.”



Sir Ian McAllister Chairman

As the UK economy moves out of recession we have the opportunity to ensure that the recovery is built upon sustainable green growth. If grasped, this opportunity could see the UK become a world leader in the development of energy efficiency, low carbon energy and high value low carbon technologies, products and services. This will create jobs and wealth at the same time as addressing climate change and concerns about energy security.

With a clear public good mission to accelerate the move to a low carbon economy, helping governments, companies and public sector organisations to achieve the twin benefits of economic growth and carbon reduction lies behind everything we do. From helping small businesses to cut their costs by giving them advice to save energy and access finance to install energy efficient equipment; to working with the leading offshore wind developers to deliver cheaper wind energy; to enabling leading academics and entrepreneurs to get the next generation of low carbon technologies to market, everything we do provides both economic benefit and contributes to the global effort to cut carbon emissions.

Over the last ten years we have helped thousands of public and private sector customers cut carbon emissions, save money and exploit low carbon opportunities. To date we have helped our customers to save over £3.7 billion by taking actions that reduced their carbon emissions by 38MtCO<sub>2</sub>. We have helped many smaller companies to cut their costs and become more competitive by providing them with £190 million of financing to install new energy efficiency equipment that has in turn saved £579 million on their energy bills.

In addition we have been instrumental in helping businesses to find new ways to cut carbon emissions and create value. We have set international standards for both operational

and supply chain emissions. Over 500 organisations have now achieved the Carbon Trust Standard and our Carbon Reduction Label now appears on products around the world, with estimated combined annual sales of £3 billion.

As well as enabling our customers to grasp the immediate opportunities from cutting energy use and carbon emissions, we have also played a critical role in supporting and developing the markets, technologies and companies that will cut emissions and create economic returns in the future. Our work is central to the development of the next generation of high value low carbon technologies including offshore wind, marine energy, solar energy and biofuels.

While our role in helping achieve these outcomes remains unchanged, the way in which we deliver them is changing. We have not been immune to the Government spending cuts and this has accelerated our strategy to bring more private sector funding into the Carbon Trust Group. This move has been under way for a number of years and our paid-for work and commercial partnerships around the world are helping us to expand our reach and impact, at the same time as ensuring our public funding is deployed where it is most needed.

During the past year our delivery to customers and support for low carbon technologies has been significant.

## Cutting costs and maximising opportunities today

Last year, when minimising costs and increasing competitiveness was more important than ever to our customers, our specialist advice and finance services supported over 22,000 customers in taking actions that will cut 14MtCO<sub>2</sub> over their lifetime and will save these businesses over £1 billion. In addition to this, our interest-free Energy Efficiency loans scheme provided

# 38m

tonnes of carbon we have helped  
our customers to save to date

# £3.7bn

direct cost savings we have helped  
our customers to make to date

Over

# 500

organisations have achieved the Carbon  
Trust Standard

1,400 smaller businesses with £43 million of financing for new energy efficient equipment that will cut 1.3MtCO<sub>2</sub> and save companies £125 million on energy bills over the lifetime of the projects.

In 2010/11 our international standards setting work continued to expand, with 300 Carbon Trust Standard certifications awarded, saving 4.8MtCO<sub>2</sub> in the year. A wide range of new products from around the world were awarded the Carbon Reduction Label including Tesco's own brand pasta, soft drinks, bin liners, bath foams and shower gels, and The New Zealand Wine Company's Mobius and Sanctuary Sauvignon Blancs.

We supported a wide range of public sector bodies, helping them to make their budgets go further by cutting energy use and carbon emissions. In 2010/11 across all of our services we helped our public sector customers to implement projects that will save 3.2MtCO<sub>2</sub> over their lifetime with net cost savings of £200 million. Additionally, £37 million was committed to investment in energy saving equipment from a combination of Salix Finance, which we fund, and public sector client funds. This investment in low carbon technology projects will save around 1.2MtCO<sub>2</sub> and over £200 million over the projects' lifetimes.

#### Creating future solutions and value

In 2010/11 our ongoing work to catalyse the markets for offshore wind, onshore wind, marine energy and energy efficiency for commercial buildings leveraged over £56 million of private investment, helping to further prove the commercial credibility of these technologies. This work included our Marine Renewables Proving Fund, that seeks to transform the UK's marine energy industry by supporting the deployment of full-scale prototypes of wave and tidal stream devices and has, to date, brought over £40 million into the sector; and our Offshore Wind Accelerator, that aims to cut the cost of

wind energy by at least 10% by 2020 focused on the development of technologies that will cut the cost of the foundations and the maintenance costs of offshore wind turbines.

As well as lowering the barriers to the deployment of large scale low carbon technologies, we also believe that it is vitally important to nurture world leading low carbon academic research and entrepreneurial capabilities. This year we have launched a number of commercial ventures with leading academics to ensure that their ideas for low carbon technologies get to market. This includes Eight19, a company founded with the University of Cambridge's commercialisation office that will develop and manufacture the next generation of high performance, lower cost plastic solar cells and in which, together with Rhodia, (a leading international speciality chemicals company), a total of £4.5 million was invested.

We also supported the entrepreneurs who are developing the next generation of low carbon businesses. This year alone 900 companies applied to us for support, of which we worked with the most promising 58. Over £38 million of new investment, sales, joint development agreements and further funding was secured by companies graduating from the scheme. In addition we committed almost £4 million in grant funding to 26 innovative research and development projects.

These notable achievements, delivered during difficult times for the UK economy, are a testament to the dedication and professionalism of our staff. I would like to take this opportunity to thank them all for their perseverance and contributions over the year. I would also like to thank all of our customers, partners and funders for their work and support in helping us to achieve our goals.

Sir Ian McAllister  
Chairman

## Chief Executive's statement

“Our mission to accelerate the move to a low carbon economy is all consuming. Everything that we have done in the past has been with this aim – everything in the future will be so too.”



**Tom Delay** Chief Executive

Since we were established ten years ago, our mission to accelerate the move to a low carbon economy has been our organising principle, governing every decision and investment that we have made. That founding mission remains in place today and will remain so in the future.

But we all know the world does not stand still and five years ago we saw a shift in the low carbon sector. It started to move away from a niche where public funding was always needed to catalyse action to a position today where businesses and public sector organisations see the value of services and investments that cut carbon, save money and open up new opportunities. Since then, we have brought more private sector investment into our work and generated commercial revenues to ensure that our public funding is deployed where it is most needed and to enable us to explore global opportunities that we have been presented with. New businesses have been formed, new jobs created and new services developed.

This year we have seen Green Growth enter the mainstream – it's not hard to see why. The UK Government has predicted that the global green economy could be worth over \$5 trillion by 2015. And, as the market matures, we see encouraging signs that private sector capital is following. A recent United Nations report shows that investment in renewable technologies increased by a third in 2010 to £130 billion.

However, while progress is being made, the scale and pace of global private sector investment into a sustainable low carbon economy is way short of what is required to address the worst impacts of climate change and resource depletion. In tough times, our collective focus is narrow and short term when what we need is shared political will to establish markets that attract investment at scale and businesses looking to a sustainable future through lower carbon products and services. The opportunity for the Carbon Trust is to leverage our experience and expertise as a catalyst in the low carbon sector, advising, convening and investing in line with our mission.

Like many organisations, we are not exempt from the real world of declining public spending. We have been fortunate in the past to receive significant core grant funding from the UK Government. Going forward, we expect to bid for public funding and we see this as both a challenge and an opportunity.

Changes in the market and in our public funding mean that many areas of our work also need to change and we have already started to make this happen. We aim to deliver more paid for services and to develop more commercial partnerships across the Carbon Trust. Our recently announced partnership with Siemens Financial Services is an example of this and will inject up to £550 million of finance for energy efficiency investment into the UK low carbon economy. Our ongoing £40 million partnership with the offshore wind sector will ensure that significant costs in offshore wind are “engineered out” before deployment at scale. We aim to launch more of these strategic partnerships in the next few years and extend our range of primarily UK based services to Governments and companies overseas.

As we change and grow to meet our own challenges we will be guided and defined by the unique combination of our founding mission and our not for profit status.

Our mission to accelerate the move to a low carbon economy is all consuming. Everything that we have done in the past has been with this aim – everything in the future will be so too. We will also ensure that our not for profit status remains at the heart of our company. This means that any profit that we make from our activities is re-invested back into our mission so that we can grow and deliver at scale.

We have achieved a lot in the past ten years. With our unique experience and expertise and the commitment of our staff and Board, we will achieve even more in the decade ahead.

Tom Delay  
Chief Executive

# £550m

of energy efficiency finance available through our partnership with Siemens Financial Services

# £123m

of private investment leveraged to early stage companies

Over

# £3bn

sales value of goods carrying the Carbon Reduction Label

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**We are helping businesses and public sector bodies to take positive action on climate change and realise the benefits of moving to a low carbon economy.** We do this by providing specialist advice and finance. We also set clear standards to help organisations reduce their carbon emissions, cut costs and measure and communicate their achievements – ultimately helping them to become more sustainable, profitable businesses that are better able to compete and lead in the move to a global, low carbon economy.

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Carbon now

**We help  
you cut carbon  
now**



# Carbon now

## 14m

tonnes of lifetime carbon – the amount  
our advice will help our customers to save

**We help business and public sector customers to cut costs, gain competitive advantage, manage risks and identify opportunities by taking action on carbon reduction.**

We provide specialist advice and finance, and set clear standards to help organisations reduce their carbon emissions, cut costs and measure and communicate their achievements. Ultimately, we help organisations to become more efficient, more profitable and better able to compete and lead in the move to a global low carbon economy.

Our track record is unrivalled – since our launch in 2001, we have:

- worked with 75% of FTSE 100 companies, tens of thousands of small and medium-sized businesses and over 3,000 public sector bodies
- helped our customers to cut 38MtCO<sub>2</sub> from their carbon footprints
- helped our customers to make £3.7 billion in energy savings
- provided more than 4,000 businesses with a total of £190 million in loans for investment in energy efficiency. This will save UK businesses over 6MtCO<sub>2</sub> and £579 million on energy bills over the lifetime of the projects

In 2010/11 we have:

- worked with over 22,000 companies and organisations to deliver 14MtCO<sub>2</sub> lifetime carbon savings and combined net cost savings over £1 billion (gross financial savings less the project capital costs)

- provided almost £43 million of interest-free Energy Efficiency loans to businesses that will cut 1.3MtCO<sub>2</sub> and save companies £125 million over the lifetime of the projects
- put in place a partnership with Siemens Financial Services that was launched in 2011/12, to replace the Government funded interest-free Energy Efficiency Loans scheme with a commercial scheme, that will provide UK businesses with green equipment finance worth up to £550 million over the next three years
- awarded 300 Carbon Trust Standard certifications
- successfully piloted a new paid-for Advisory Service, providing expert advice and support for large business on carbon reduction strategies and product and supply chain carbon footprinting
- continued to increase our impact worldwide and our small teams in the US and China worked with government organisations and private companies to provide expert advice on energy efficiency and supply chain and product carbon footprinting

“UK consumers are reaching a tipping point. Increasingly driven by sustainability, they have high expectations of businesses to reduce their impact and are voting with their wallets by spending on brands that do so. Companies which innovate to deliver products and services that convert this consumer interest will benefit hugely from the UK’s low carbon leadership.”

Ian Cheshire  
CEO, Kingfisher

£260m

lifetime energy savings through our  
carbon management services

Specialist advice

Last year we helped over 200 large organisations to put carbon management at the heart of their strategies and in doing so cut their costs and seize new commercial opportunities. In addition to strategic advice on carbon we provided over 2,500 organisations across a wide range of sectors with face-to-face support.

Working with large businesses

In 2010/11 the recommendations implemented through our Carbon Management services helped our private sector customers to make carbon savings of 3.8MtCO<sub>2</sub> and make £260 million in energy savings over the lifetime of the projects.

We successfully piloted our new paid-for Advisory Services with over 20 companies. This service uses an in-house team of experts to provide strategic sustainability consultancy and specialises in assessing and valuing the impacts of climate change to businesses, brands and supply chains. It develops strategies that can deliver clear business benefits. Our clients will save money and gain competitive advantage by investing in the development of new business models, products and services; in many cases our clients are leaders in carbon reduction in their sector.

This year Advisory Services worked with customers on:

- carbon target setting: developing robust carbon reduction targets that benefit the bottom line
- investment appraisal: making the business case for energy efficiency and renewable energy investment
- product and supply chain footprinting: measuring and reducing the carbon footprint of a business’ supply chain

- future vision: using technology and regulatory insight to help businesses plan for the future
- cultural and behavioural change: engaging stakeholders, customers and staff in cutting carbon

Fresh thinking for small and medium-sized businesses

Last year we helped thousands of small and medium-sized enterprises (SMEs) benefit from taking action to reduce their energy use and carbon emissions.

In 2010/11 we provided over 1,300 SMEs with on-site carbon surveys to identify valuable energy savings for their businesses. Each survey identified an average energy saving of over 20% on the annual bill, and together, customers receiving surveys cut over 1.6MtCO<sub>2</sub> over the lifetime of the actions implemented, saving £140 million. On top of this, our customer helpline, staffed with trained energy efficiency experts, helped over 38,000 callers. Customers requested over 250,000 copies of our publications that outline how to make energy and carbon savings.

**Case study:****Kingfisher – carbon reduction drives sustainability agenda**

Kingfisher plc, the leading home improvement group, that owns brands including B&Q and Screwfix, has been working with the Carbon Trust since 2008 to put carbon management and green growth at the heart of its business strategy. It is paying dividends. In 2010/11 sales of independently verified eco products reached £1.1 billion, up 9% from the previous year and accounting for 10.5% of total retail sales across the Group.

Kingfisher has been quick to recognise the potential to boost profits through energy efficiency and by tapping into demand from consumers for eco products. Core to its business philosophy is to continually look for ways to minimise its environmental impact while helping customers to do the same.

To date the Carbon Trust has worked with Kingfisher across its operations, in eight countries, to help it become more energy efficient, and ultimately become more profitable. Through our work together Kingfisher has identified that through investment in projects delivering high Internal Rates of Return (IRR), it will be possible to reduce its relative carbon footprint, reduce its energy costs and add to its bottom line.

The Carbon Trust has also been working with Kingfisher on its longer term plans by focusing on four strategic areas:

1. Property innovation, for example, looking at leasing options; store design and layout
2. Green energy, for example, looking at more sustainable sources of energy
3. Reshaping the retail model, for example, looking at different routes to market
4. End-to-end products and services, for example, Kingfisher's One Planet Home product range

Other areas in which we have worked together include the development of biomass heating projects for B&Q's 'off the gas grid' sites, as part of the Carbon Trust's Biomass Heat Accelerator project.



“Working with the Carbon Trust has brought Oxford City Council real results. We set ourselves an ambitious target to cut carbon by 25% and with the support of the Carbon Trust we are achieving just that. Our story shows real change is possible and we’d definitely encourage other organisations to follow our lead and reap the rewards.”

**Tim Sadler**

Executive Director – City Services, Oxford City Council

### Case study:

#### Ladbrokes

Rising energy costs, growing environmental awareness and increasing legislation are causing many businesses to reassess their responses to climate change. Keen to improve its approach, Ladbrokes turned to the Carbon Trust for expert advice and support. We helped Ladbrokes to develop a carbon strategy and plan to deliver a 21% reduction in energy use by 2013 and lay the foundations for low carbon growth.

Despite commercial success Ladbrokes is operating in an increasingly competitive market, and it is important to make financial savings wherever possible. With the introduction of carbon reduction legislation, action to improve energy efficiency has

become essential, both for the cost and carbon savings it can deliver and to avoid potential CRC related costs.

Ladbrokes now has a detailed understanding of the risks and opportunities that climate change presents to the business and a strategic roadmap which will deliver cost savings in both the short and longer term.

“We are committed to improving our environmental performance,” says Richard Glynn, Chief Executive of Ladbrokes.

“Moving towards becoming a greener company is something that we recognise as being important from a global environmental and reputational perspective, as well as being a more efficient way to operate.”

#### Joining forces to tackle industry-wide challenges

We have brought together companies from industry sectors and worked with them to overcome common issues and barriers to carbon reduction.

Last year we worked with the automotive, construction and commercial refrigeration sectors, helping companies in these sectors to overcome challenges they would have struggled to tackle individually. For example, we worked with the Strategic Forum for Construction, as well as leading names in the construction industry, to launch an industry action plan for carbon reduction. The plan outlines a package of measures designed to cut the industry’s carbon emissions in England by some 750,000 tonnes a year, saving firms £180 million a year in energy costs.

#### Helping the public sector to lead by example

Across all our services including carbon surveys, bespoke technical and behavioural

support, buildings design advice and carbon management, we have to date provided advice and guidance to over 3,000 public sector bodies. This figure includes over 90% of the UK’s local authorities, 70% of the higher education sector, 60% of the NHS sector as well as over 1,000 schools, 400 colleges and 150 government bodies.

Our public sector carbon management services continue to go from strength to strength. In 2010/11 we provided strategic support to 128 large public sector bodies including 32 higher education institutions, 34 NHS trusts, 42 local authorities (including emergency services and transport executives) as well as 20 government bodies within our central government carbon management service. The services helped the participants to set themselves stretching but robust five year carbon reduction targets, which average an impressive 25% across the organisations we work with.



# £426m

cost savings to date in the public sector

## Case study:

### Guy's and St Thomas' NHS Foundation Trust

This NHS Trust was one of the first to work with the Carbon Trust to develop a carbon management plan in 2007. Since then it has become one of the UK's exemplar low carbon NHS estates, making absolute reductions in carbon emissions of 20% from the two large London hospitals managed by the Trust. Not only that, Guy's and St Thomas' is now spending £1.7 million less each year than it otherwise would on gas and electricity – real financial savings

that go towards the front line of patient care. The Trust has achieved this by, among other things, installing two 3MW combined heat and power plants, consolidating catering operations, upgrading plant rooms and cutting wasteful lighting in 15 miles of corridors. The overall payback period of the measures implemented is around six years.

Going forward, the Trust plans to continue making savings by looking at more efficient IT and through better metering and control of energy use, with cost savings projected to increase to £2.75 million per year.

In 2010/11 across all our services we helped our public sector customers to implement projects that will save 3.2MtCO<sub>2</sub> over their lifetime, with cost savings of £200 million. To date our services have helped our public sector customers to implement projects delivering 12MtCO<sub>2</sub> and cost savings of over £426 million.

In China, in the province of Jiangxi, we adapted our UK Low Carbon Cities Programme to give the city of Nanchang the first city carbon footprint assessment in the country and the confidence to set a low carbon development goal of 50% reduction in carbon intensity by 2020. Our recommendations were incorporated into Nanchang's 12th Five-Year Plan guidelines.

#### Enhanced Capital Allowances

We manage the Energy Technology List (ETL) which underpins the UK Government's Enhanced Capital Allowances (ECA) scheme for energy saving technologies. This year the UK Government accepted our recommendations to extend the ECA scheme to cover high speed, energy efficient hand dryers and to simplify the ECA qualification process for automatic

monitoring and targeting technologies. This recommendation significantly reduces the administrative burden on purchasing customers, product suppliers and the UK Government. A further recommendation was accepted by the UK Environment Agency and UK Government to more appropriately align the need for qualified Carbon Reduction Commitment meter and metering information with ETL qualification criteria. In the year we increased the number of energy saving products listed on the ETL by 19% to 18,000 products. This substantial growth – when compared to 3% average growth observed over the past four years – shows that suppliers see the value in having their products included on an independent list of low carbon technologies.

Following UK Government funding reductions for 2011/12, the subsidised specialist advice services that we now provide to private sector customers in England: are our energy efficiency helpline; the tools and information provided on our website and in our library of publications and guides. Going forward other carbon reduction advisory services are now available on a paid-for basis.

“Providing for the next generation is at the heart of what we do and protecting the future environment by tackling climate change is a key part of that. The Carbon Trust Standard is the de facto mark of a carbon reduction commitment; so we’re delighted to be amongst the 500 organisations to have achieved it.”

**Ben Gordon**

Chief Executive, Mothercare plc

## Finance

*Capitalising on low carbon business opportunities*

We help provide finance for businesses to invest in technology and equipment that is better for the environment and their bottom line.

In 2010/11 we provided 1,400 businesses with interest-free Energy Efficiency Loans totalling almost £43 million to buy energy efficient equipment. Together these businesses will save £18.5 million annually as a result of their investment and are projected to save a total of £125 million over the lifetime of the new equipment purchased. Their investments resulted in a lifetime carbon saving of over 1.3MtCO<sub>2</sub>.

Since 2003 we have provided almost 4,000 businesses with a total of £190 million for investment in energy efficiency. This has saved UK businesses over 6MtCO<sub>2</sub> and £579 million on energy bills over the lifetime of the projects.

In 2011 we launched a replacement for our UK Government funded interest-free Energy Efficiency Loans scheme. The new green finance scheme, in partnership with Siemens Financial Services, aims to offer a further £550 million on a commercial basis over the next three years, with the energy savings covering the costs of the finance.

### Cutting carbon saves the public sector money

In 2010/11 Salix Finance, an independent company set up and funded by the Carbon Trust, committed an additional £18.1 million to public sector bodies, who through a combination of both Salix Funding and their funds, in turn, committed £37.3 million to energy saving projects. Over their lifetime these projects will save around 1.2MtCO<sub>2</sub> and £200 million in energy costs.

## Setting standards

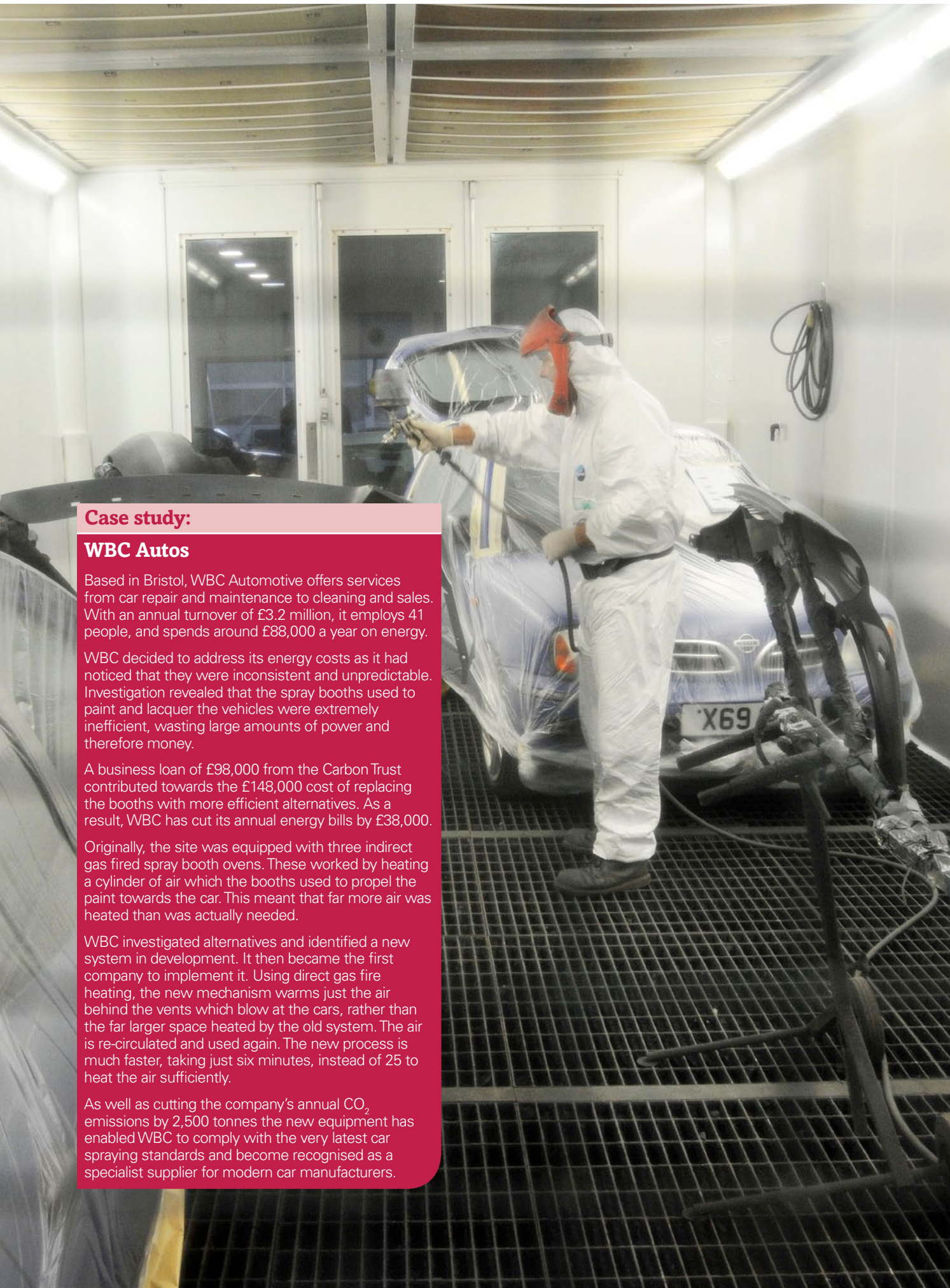
*Assuring carbon measurement and reduction performance*

Corporate carbon credentials are increasingly important to the way businesses worldwide are positioning and differentiating themselves in the marketplace, but commitments to cut emissions are coming under increased scrutiny. Customers want to have confidence in corporate claims about carbon, and to understand the life cycle impact of the products they buy, while shareholders want assurance that public commitments to cut carbon emissions are robust and therefore are not a reputational risk to the companies they have invested in.

By meeting the rigorous requirements of our Carbon Trust Standard, PAS 2050 product carbon footprinting standard and using the Carbon Reduction Label, companies around the world are communicating to customers, stakeholders and shareholders alike that they are meeting rigorous and independent commitments to reduce carbon emissions year on year.

These companies, including PepsiCo, Telefónica UK (O2), Dyson and Sky, recognise that there are commercial benefits to be gained from achieving these standards. Beyond cutting costs these businesses are building customer trust in an increasingly competitive market place.

As carbon becomes a global issue, and as companies seek to understand the carbon embedded in their supply chains, we are seeing growing demand for our services internationally. Over the past year the Carbon Trust Group has worked with companies in the USA, Brazil, Australia, New Zealand, Hong Kong and Korea.



### Case study:

#### WBC Autos

Based in Bristol, WBC Automotive offers services from car repair and maintenance to cleaning and sales. With an annual turnover of £3.2 million, it employs 41 people, and spends around £88,000 a year on energy.

WBC decided to address its energy costs as it had noticed that they were inconsistent and unpredictable. Investigation revealed that the spray booths used to paint and lacquer the vehicles were extremely inefficient, wasting large amounts of power and therefore money.

A business loan of £98,000 from the Carbon Trust contributed towards the £148,000 cost of replacing the booths with more efficient alternatives. As a result, WBC has cut its annual energy bills by £38,000.

Originally, the site was equipped with three indirect gas fired spray booth ovens. These worked by heating a cylinder of air which the booths used to propel the paint towards the car. This meant that far more air was heated than was actually needed.

WBC investigated alternatives and identified a new system in development. It then became the first company to implement it. Using direct gas fire heating, the new mechanism warms just the air behind the vents which blow at the cars, rather than the far larger space heated by the old system. The air is re-circulated and used again. The new process is much faster, taking just six minutes, instead of 25 to heat the air sufficiently.

As well as cutting the company's annual CO<sub>2</sub> emissions by 2,500 tonnes the new equipment has enabled WBC to comply with the very latest car spraying standards and become recognised as a specialist supplier for modern car manufacturers.



### The Carbon Trust Standard

Over 500 organisations ranging from SMEs to FTSE listed companies now hold the Carbon Trust Standard. Each has measured its organisational carbon footprint and is reducing its impact year on year.

In 2010/11, 300 Carbon Trust Standard certificates were issued. This included re-certifications for Telefónica UK (O2) and Trinity Mirror that, having achieved the Standard two years ago, have again proven their carbon reduction. This year we have also awarded our first global certification to GlaxoSmithKline for measuring, managing and reducing its global carbon footprint.

The organisations awarded the Carbon Trust Standard in 2010/11 have, together, saved 4.8MtCO<sub>2</sub> in the year, reducing their carbon emissions by 4% per annum. The total footprint certified by the Carbon Trust Standard is now 85MtCO<sub>2</sub>, equivalent to over 34% of the UK's total carbon footprint from businesses and transport.

This year it became easier and more cost-effective for the UK's 4.8 million SMEs to gain the Carbon Trust Standard, with the launch of a new Carbon Trust Standard online certification tool. SMEs from a range of industry sectors worked with us to pilot the tool; reducing their carbon footprint by an average of 7%, and are now benefiting

from independent certification of their carbon performance by the Carbon Trust Standard Company.

### Carbon Reduction Label

Our Carbon Reduction Label can now be found globally on goods with annual sales totalling around £3 billion, and last year in the UK alone, an estimated nine out of ten households purchased a product bearing the Label.

The Carbon Reduction Label shows shoppers at a glance that the life cycle carbon footprint of the product has been accurately calculated and certified to the PAS 2050 standard and that the brand has committed to reducing its footprint over two years.

We have certified the carbon footprints of over 5,000 products globally. In 2010/11 the range of products licensed to use the Carbon Reduction Label has extended to include such diverse products as: Tesco's own brand pasta, soft drinks, bin liners, bath foams and shower gels; Just BARE® chicken made by GNP Company™ (formerly Gold'n Plump Poultry); The New Zealand Wine Company's Mobius and Sanctuary Sauvignon Blancs; ALDI Australia everyday range of olive oils; Bong AB mailing and packaging solutions made from DuPont™ Tyvek®; and Suzano Paperperfect, Symetrique and Report paper.

## Case study:

### The New Zealand Wine Company

The Carbon Trust has been working with The New Zealand Wine Company (NZWC) since 2010 to help it better understand and communicate the carbon footprints of its wines.

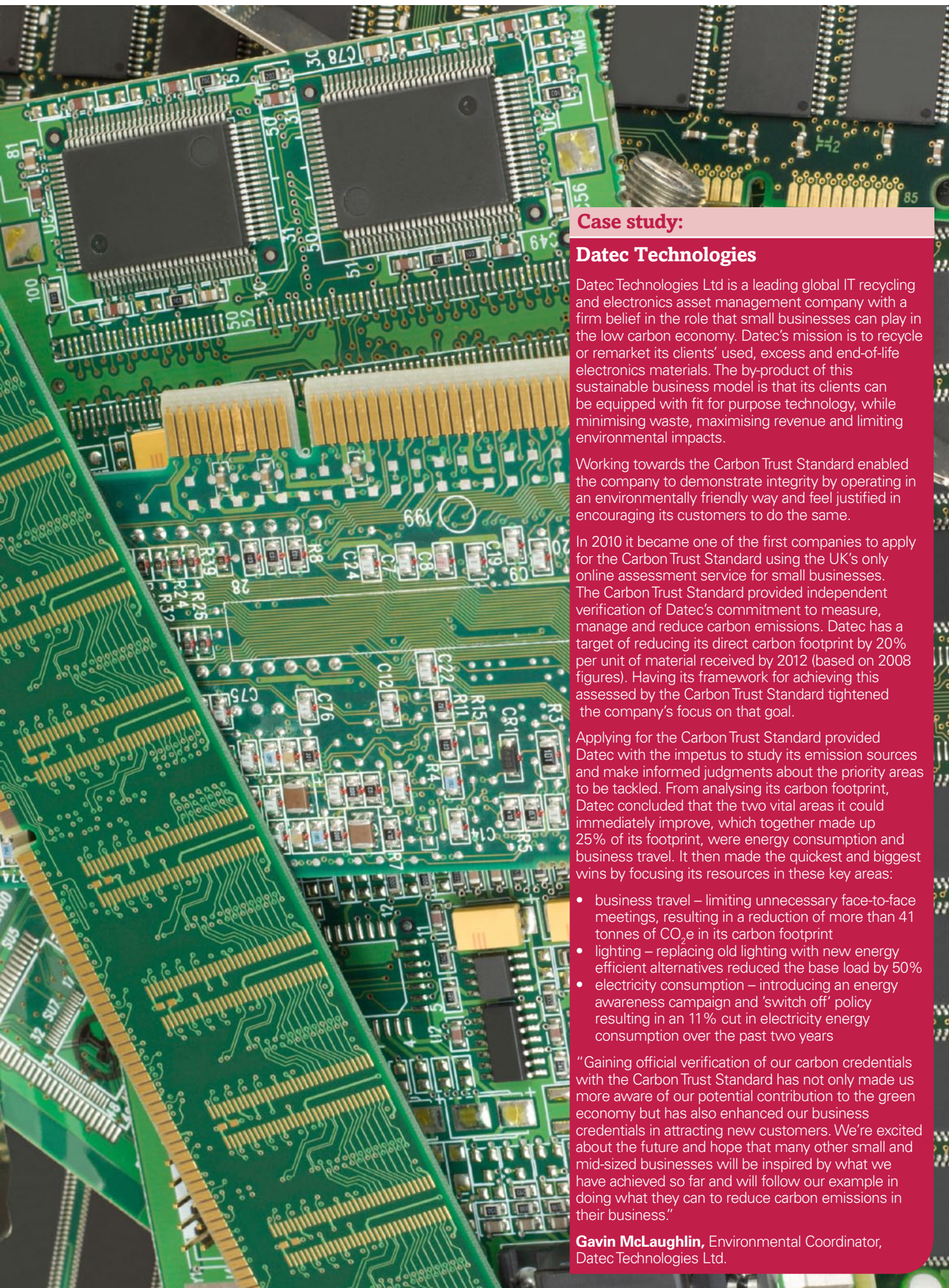
So far it has measured the carbon footprints of two of its wines, Mobius Marlborough Sauvignon Blanc and Sanctuary Marlborough Sauvignon Blanc, and through PlanetArk, our partner in Australia, it has been awarded the Carbon Reduction Label for both.

The carbon footprints of these products account for all greenhouse gas emissions produced in the making of the wines, from growing the grapes through to bottling, distribution, retail, use and disposal.

The adoption of the Carbon Reduction Label on these wines came about due to strong market drivers in the UK and Australia. Craig Fowles, Sustainability Manager at the NZWC thinks that a market approach for environmental certification is important.

"We have a number of environmental credentials available that we can offer customers – we have carbon neutral wines, organic wines, SWNZ accredited wines and all our wines are grown, made and bottled under the rigorous BRC quality standard. We have felt for a while that the Carbon Reduction Label would be important to our customers in both the UK and Australia given the strong consumer awareness there is for this logo in the marketplace."





## Case study:

### Datec Technologies

Datec Technologies Ltd is a leading global IT recycling and electronics asset management company with a firm belief in the role that small businesses can play in the low carbon economy. Datec's mission is to recycle or remarket its clients' used, excess and end-of-life electronics materials. The by-product of this sustainable business model is that its clients can be equipped with fit for purpose technology, while minimising waste, maximising revenue and limiting environmental impacts.

Working towards the Carbon Trust Standard enabled the company to demonstrate integrity by operating in an environmentally friendly way and feel justified in encouraging its customers to do the same.

In 2010 it became one of the first companies to apply for the Carbon Trust Standard using the UK's only online assessment service for small businesses. The Carbon Trust Standard provided independent verification of Datec's commitment to measure, manage and reduce carbon emissions. Datec has a target of reducing its direct carbon footprint by 20% per unit of material received by 2012 (based on 2008 figures). Having its framework for achieving this assessed by the Carbon Trust Standard tightened the company's focus on that goal.

Applying for the Carbon Trust Standard provided Datec with the impetus to study its emission sources and make informed judgments about the priority areas to be tackled. From analysing its carbon footprint, Datec concluded that the two vital areas it could immediately improve, which together made up 25% of its footprint, were energy consumption and business travel. It then made the quickest and biggest wins by focusing its resources in these key areas:

- business travel – limiting unnecessary face-to-face meetings, resulting in a reduction of more than 41 tonnes of CO<sub>2</sub>e in its carbon footprint
- lighting – replacing old lighting with new energy efficient alternatives reduced the base load by 50%
- electricity consumption – introducing an energy awareness campaign and 'switch off' policy resulting in an 11% cut in electricity energy consumption over the past two years

"Gaining official verification of our carbon credentials with the Carbon Trust Standard has not only made us more aware of our potential contribution to the green economy but has also enhanced our business credentials in attracting new customers. We're excited about the future and hope that many other small and mid-sized businesses will be inspired by what we have achieved so far and will follow our example in doing what they can to reduce carbon emissions in their business."

**Gavin McLaughlin**, Environmental Coordinator, Datec Technologies Ltd.

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**The UK is ideally placed to lead the transition to a global low carbon economy, with excellent academic teams, industrial expertise and great renewable resources.** Our vision is for the UK to become a hub of low carbon innovation and investment, developing low carbon technologies, products and services and exporting them to the rest of the world. We are working with entrepreneurs, innovators, academics and industry to reduce the cost of future low carbon technologies and accelerate their development and deployment. In doing so we are helping to create a sustainable, prosperous low carbon economy for the future.

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We will cut  
carbon in the  
**future**



# Carbon future

## £123m

of private investment leveraged to early stage companies

### What we're doing to cut future carbon emissions

The market for low carbon technologies is growing rapidly as companies and countries alike strive to meet carbon reduction and renewable energy targets.

The UK Government's figures show that the low carbon market is already worth £3 trillion a year globally and, crucially, is set to increase in size by approximately 4% per year over the next four years. The global economic and carbon prizes are potentially huge for those that can develop and commercialise low carbon technologies, companies and services.

We are playing a central role in the commercialisation of low carbon technologies that will significantly cut carbon emissions in the future. We are doing this by opening new markets; bringing together industry leaders to cut the cost of low carbon technologies and accelerating their deployment; ensuring the best innovators and entrepreneurs in the UK are supported to deliver the next generation of low carbon technologies and companies; helping to get the best science and research to market; and providing early stage investment to promising new low carbon companies.

Our track record is unrivalled – since our launch in 2001, we have:

- accelerated the development of low carbon technologies that are expected to save over 26MtCO<sub>2</sub> per annum by 2050
- supported more than 120 early stage companies with leading edge low carbon technologies, helping them to leverage over £123 million in private investment
- invested almost £33 million in 25 cleantech companies leveraging a further £164 million of private sector co-investment

In 2010/11 we have:

- leveraged over £56 million into opening low carbon markets, including marine energy, onshore wind and energy efficiency in commercial buildings
- helped to deliver four biomass heat projects with a total installed capacity of over 7MWth and leveraging £2.5 million investment through our Biomass Heat Accelerator
- supported six leading wave energy concepts through to deployment of full scale prototypes with £13.3 million of funding through our Marine Renewables Proving Fund (MRPF). This has leveraged £23 million of private investment into marine energy
- supported 58 new low carbon companies through our Entrepreneurs Fast Track scheme and leveraged over £38 million of private sector investment into those companies that graduated from the scheme
- provided £5.8 million of follow on investment to early stage low carbon companies in our portfolio, in turn leveraging over £20 million of private sector co-investment

“We strongly support Carbon Trust’s Offshore Wind Accelerator Programme. The technological advances which have already been identified in the Programme will be central to Offshore Wind fully realising its enormous environmental and economic potential. It is vital therefore that these measures are brought to market as quickly as possible.”

**Keith Anderson**

Managing Director, Scottish Power Renewables and Iberdrola Renewables Offshore Business

# 10%

potential cost reduction of offshore wind through the Offshore Wind Accelerator

## Opening markets

*Capturing the carbon and economic benefits from global low carbon markets*

We are currently working to accelerate the development of a range of technologies including offshore wind, marine energy and biomass heat. By reducing cost and accelerating deployment for key low carbon technologies we are expanding the market for these technologies, fostering new capabilities that can be exported around the world and delivering significant economic and carbon returns.

### Offshore Wind Accelerator

*Harnessing the commercial opportunity of offshore wind*

Our Offshore Wind Accelerator (OWA) is a ground breaking project of research, development and demonstration collaboration in which we are working with leading energy companies to reduce the cost of offshore wind by at least 10% by 2020. Our international industry partners are: DONG Energy, E.ON, Mainstream Renewable Power, RWE Innogy, Scottish Power Renewables, SSE Renewables, Statkraft and Statoil.

In the autumn of 2010 we launched our Offshore Wind Access competition to find more reliable ways to get maintenance engineers onto offshore wind turbines. The global market opportunity for these access solutions is estimated to be worth over £2 billion by 2020. The competition attracted 450 submissions from companies and innovators across the world. We are currently in negotiations with a shortlist of leading entries and will be working with them in 2011/12 to develop the best ideas and accelerate these entries towards demonstration and commercialisation.

Through the OWA we have built up expertise in the offshore wind sector which has global potential and we are now considering wider opportunities to use our expertise internationally.

### Marine Renewables Proving Fund (MRPF)

In 2009 we designed and launched the £22.5 million MRPF to accelerate the development of marine energy technology. The MRPF provided financial and technical support with the objective of transforming the UK’s marine energy industry by supporting the marine deployment of full-scale prototypes of wave and tidal stream devices. In 2010/11 we provided grant support of £13.3 million to leading wave and tidal energy companies to support the construction of full scale prototypes. This has leveraged £23 million of private funding. In total the MRPF has leveraged over £40 million of private sector funding into the projects.

**Case study:****Offshore Wind Accelerator**

To meet the EU's renewable energy target around 40% of the UK's electricity will need to come from renewable sources by the end of the decade. To achieve this, offshore wind needs to be a more attractive investment proposition – energy yields must be higher, and construction and maintenance costs need to be lower, to drive down life cycle energy costs and improve project economics. The OWA addresses these barriers by focusing on four areas:

1. Designing innovative, lower cost turbine foundations suitable for the deeper waters of the Round 3 zones, including novel fabrication and installation techniques
2. Developing new marine access systems to allow engineers to get safely onto turbines in higher seas than is currently possible
3. Improving our ability to model the performance of large wind farms, allowing better optimisation of wind farm layouts to improve yields
4. Developing new technologies to improve the performance of the electrical systems in large wind farms, giving higher reliability and lower losses

Offshore wind is a major growth industry. The offshore wind industry is not only vital for meeting renewable energy targets, but in the UK alone it has the potential to generate £10 billion a year of net economic value and up to 230,000 jobs by 2050.



SPT Offshore & Wood Group's Self Installing Wind Turbine, one of four foundation designs receiving financial and technical support through the OWA © SPT Offshore

“The MRPF is an essential initiative from the UK government to push the development of new renewable marine energy technologies towards commercialisation, and has been instrumental for the private funding of Hammerfest Strøm enabling accomplishment of the project. The close cooperation through project management support and technical services rendered by the Carbon Trust has added significant value to project execution with its focus on timely and cost efficient delivery.”

**Stein Andersen**

Hammerfest Strøm UK Managing Director

# £40m

**Private sector funding the Marine Renewables Proving Fund has leveraged into new wave and tidal technologies**

## Marine Energy Accelerator

The three year Marine Energy Accelerator (MEA) was set up in 2007 to support the development of the UK's growing marine energy industry and 2010/11 was its final year.

One of the principal barriers to the development of the sector is the high cost of energy relative to other generating technologies. The aim of the MEA was to work with innovative companies and technology developers, to reduce the cost of marine energy and therefore make it a more attractive proposition as part of the mix of renewable energy technologies.

A total of 22 projects were completed by the scheme. Highlights in 2010/11 include the completion of a two-year project with marine energy company Checkmate Sea Energy which developed Anaconda, a wave energy device which exploits the properties of rubber and has the potential to drive a step change reduction in energy costs. A great deal more is now known about the rubber properties that are best suited to prolonged at-sea service in this application, and a research and development roadmap is in place to develop the technology further.

We completed a project with Edinburgh University to develop an innovative linear generator. We also completed a project with Pelamis Wave Power (PWP) to reduce the maintenance requirements of PWP's marine energy technology which in turn reduces the cost of the energy generated by as much as 35%.

## Biomass Heat Accelerator

Our Biomass Heat Accelerator is catalysing the growth of the medium-scale commercial and industrial biomass heating market by reducing costs, demonstrating best practice and addressing supply chain risks. In 2010/11 we started a new phase, offering targeted development support to the delivery of up

to 20 installations. These installations will show that it is possible to design, procure, install, commission and operate biomass heating installations across the public and private sector that are:

- cost-effective
- high-performance
- supported by robust fuel supply chains

In the year we installed four new projects with a total capacity of 7.2MWth (leveraging £2.5 million) and progressed 13 other projects into the detailed project development phase, despite uncertainty in the policy environment. We also began a comprehensive knowledge dissemination programme by delivering five technical dissemination workshops, and engaging with a wide range of target user sectors ranging from horticulture to the NHS, as well as with the professional bodies whose members will be designing biomass heating systems in the future.

## Industrial Energy Efficiency Accelerator

Our Industrial Energy Efficiency Accelerator (IEEA) works with some of the UK's largest industry sectors to improve the energy efficiency of their industrial processes and cut carbon emissions. In the UK industry is responsible for 25% of the UK's carbon emissions. Our IEEA aims to deliver significant carbon reductions by identifying and deploying innovations in technology and process control and by forging industry sector partnerships between companies, trade associations and technology providers to facilitate knowledge sharing.

In 2010/11, we worked with ten sectors (14 since the project was launched in 2009) including dairy; bakery; paper; brewing and confectionery, identifying potential carbon savings averaging 29%. Working with key players in each sector, we identify process-specific energy efficiency opportunities that



Up to

**£19m**

committed to PfR by OPTrust

**£350m**

target for investment in Low Carbon Workplace Fund

can generate significant cost and carbon savings and be replicated across the whole sector.

We were delighted that this Accelerator successfully secured funding from the Regional Growth Fund which will see it continue until 2013.

#### Creating low carbon businesses

Enterprise is the key to unlocking new markets – where one business leads and profits, others inevitably follow. The low carbon market is no different; over the last few years the Carbon Trust has worked with a number of commercial partners to create low carbon enterprises that demonstrate the commercial viability of a proposition and attract more companies and investors into the market.

#### Low Carbon Workplace

The Low Carbon Workplace LP (LCW Fund) is an example of low carbon enterprise in action. We partnered with fund manager Threadneedle and property developer Stanhope Plc to set up the LCW Fund with the aim of raising £350 million to demonstrate the business case for low carbon property refurbishment and encourage the commercial property sector to follow suit. This year it has successfully completed four property acquisitions, each of which is to be refurbished to provide high quality office accommodation with a focus on reducing carbon, both embedded and in-use.

In December 2010 LCW Fund signed its first pre-let with Thames Valley Housing Association (TVHA) for Premier House, Twickenham. Premier House will be let on a new 15 year lease to TVHA. The property is being fully refurbished to a high energy efficiency specification to enable TVHA to apply for the Carbon Trust's Low Carbon Workplace Protocol, which recognises the occupier's class-leading carbon footprint. The

refurbished accommodation is expected to achieve in the region of a 50% reduction in carbon emissions when in use at high occupancy levels.

#### Partnerships for Renewables

Partnerships for Renewables (PfR) is another example of how we are working across the public and private sectors to inspire low carbon enterprise. PfR aims to deliver at least 500MW of renewable energy on public sector land over the next five to eight years. In 2010/11 a large Canadian pension fund, the OPTrust Private Markets Group, agreed to invest up to £19 million to acquire a 33% stake in the company, alongside existing shareholders Carbon Trust Enterprises Ltd and InfraRed Environmental Infrastructure Fund (previously HSBC Environmental Infrastructure Fund).

PfR is currently working with several central government agencies, local authorities and higher education establishments and already has over 900MW of onshore wind projects in development. Development work is under way with the Ministry of Justice, the Forestry Commission Scotland, the Environment Agency, British Waterways, the Coal Authority, Clackmannanshire Council, Caerphilly County Borough Council and Ipswich Borough Council.

#### Insourc Energy

Insourc Energy set up by the Carbon Trust and now jointly owned with Scottish and Southern Energy Plc, provides tailored waste and energy management solutions for the food and drink industry. Construction of the first plant has been completed and the facility is now successfully treating waste at full capacity.

“This work from the Carbon Trust provides useful insight and makes the business case for investment into energy efficiency even more compelling. At Heinz, our experience is that the right investments in energy reduction do indeed deliver significant returns to our bottom line through substantially lower energy costs. We have also taken advantage of government tax allowances for investing in energy saving equipment which has enabled us to claim back £700,000 in a single financial year.”

**Nigel Dickie**

Director of UK Corporate and Government Affairs at Heinz

# £1.6bn

potential energy saving opportunity  
identified by “Unlocking energy  
efficiency” analysis

## Identifying the opportunities and risks of a low carbon economy

We provide in-depth analysis of key issues to inform business, the investor community and policy makers on the drivers, opportunities and risks of the move to a low carbon economy. We focus on four areas: energy efficiency, low carbon energy supply, explaining market opportunities and developments and international emissions trading. In the last year we delivered four major studies:

### International Carbon Flows

The Carbon Trust has conducted a detailed analysis of how world-wide trade and consumption is driving International Carbon Flows. This analysis highlights the challenges for business in managing emissions across international supply chains, together with the opportunity for new strategies to mitigate global greenhouse gas emissions. For more on International Carbon Flows and the key findings of the study see case study opposite.

### Technology Innovation Needs Assessments

Following on from our 2009 publication, Focus for Success, which laid out the case for the UK to prioritise and customise low carbon technology innovation support, we have used this experience and expertise in working with Government and other members of the Low Carbon Innovation Group to prioritise over 50 technology areas according to their carbon saving and economic potential for the UK. The project has since focused on 11 priority technology areas, with detailed innovation needs assessments undertaken to help inform the UK's approach to funding low carbon innovation. Technology areas studied in detail included offshore wind and marine energy, carbon capture and storage, electricity distribution and storage, commercial and domestic buildings, renewable heat and heat storage and bioenergy. The resulting assessments prioritise opportunities for publicly funded and co-ordinated activities to work with industry and universities to stimulate innovations in each area.



# 34%

higher emissions of goods consumed in UK compared with emissions produced – key finding from “Carbon Flows”

## Unlocking Energy Efficiency

This study analysed the uptake of energy efficiency recommendations made by the Carbon Trust to individual businesses over the last four years across a range of sectors and identified measures to overcome barriers to implementation. Our findings were published to raise business leaders’ awareness of a missed opportunity for large businesses to save £1.6 billion on their annual energy bills and also helped inform the development of the UK Government’s non-domestic Green Deal.

## Innovative Finance Mechanisms

This study explored the investment barriers and solutions for the transition to a low carbon economy. This work focussed on offshore wind, early stage technologies and non-domestic energy efficiency. The findings were incorporated in the Green Investment Bank Commission’s report. We have subsequently worked closely with Government in the development of the proposed bank.

## Case study:

### International Carbon Flows

The Carbon Trust has conducted a detailed analysis of how world-wide trade and consumption is driving international carbon flows. Around 25% of global CO<sub>2</sub> emissions arise from the production of goods and services that, through international trade, are ultimately consumed in another country.

This “flow” of emissions embodied in trade can be significant for individual countries and for different sectors. For example, the UK is a net importer of CO<sub>2</sub> emissions embodied in trade: the emissions that arise around the world to support consumption of goods and services in the UK are around 34% higher than the emissions produced by the UK. Of course, some countries are net exporters of emissions embodied in trade: around 23% of emissions produced in China are associated with goods and services that are exported for consumption in other countries.

Flows of embodied emissions also occur in individual sectors, and we have examined the steel, aluminium, cotton, auto and clothing sectors in detail. For the auto sector, the anticipated change in emphasis of emissions from tail-pipe emissions to embodied emissions (through improved tail-pipe efficiency, including electric vehicles) highlights the role that supply chain carbon emissions assessment and mitigation can play in this sector. For other sectors such as clothing, additional consumption-based measures could deliver a 50% increase in emissions reductions on top of potential production-based initiatives.

This analysis is part of our ongoing commitment to addressing emissions arising from the consumption of goods and services, and in concert with initiatives such as product carbon footprinting it provides a compelling case for strategic supply chain carbon management.

“The Carbon Trust’s investment will enable us to accelerate development of our technology for use in cars.”

**DR S.B. Cha**  
CEO of ACAL Energy

# £38m

of new investment, sales, joint development agreements and further funding achieved by companies graduating from our services

## Technology commercialisation

*Getting the best low carbon companies to market*

The UK has some of the best engineers, academics and entrepreneurs in the world. We work with them to turn their ideas for low carbon technologies into reality and get these ideas to market. We help to create and commercialise new early-stage technologies which will deliver significant carbon savings and economic benefits.

### Entrepreneurs Fast Track, Business Incubation and Applied Research

In 2010/11 we launched Entrepreneurs Fast Track – a complete support service to help the best low carbon entrepreneurs bring their ideas to market. This builds on the success of our previous Business Incubation and Applied Research services by providing early stage companies with a customised package of expert advice, networking opportunities and grant funding. Over 700 organisations applied to our Entrepreneurs Fast Track, Business Incubation and Applied Research services in 2010/11 and we supported 58 of these.

During 2010/11, £38 million of new investment, sales, joint development agreements and further funding were achieved by companies graduating from our Business Incubator and Entrepreneurs Fast Track services. We also provided almost £4 million in grant funding to 56 innovative research and development projects.

To date, through our Business Incubation and Entrepreneurs Fast Track services we have supported over 120 companies and achieved total private sector leverage of over £123 million. The Applied Research scheme has also committed almost £28 million in grant funding to 192 projects. Two thirds of the completed projects have gone on to file new patents, receive follow-on funding, secure investment or make commercial sales (or expect to do so in the near future).

### Advanced Photovoltaic Accelerator

The aim of our Advanced Photovoltaic Accelerator is to promote UK breakthroughs in advanced, low-cost solar photovoltaic technology.

In 2010/11 we launched two companies, Eight19 and Solar Press, to commercialise the intellectual property that was created by the two separate academic teams during the initial stages of the accelerator and to accelerate this next generation technology to market.

Eight19 was set up with the University of Cambridge’s commercialisation office to develop and manufacture high performance, lower cost plastic solar cells for high-growth volume markets. In the year it was backed by a £4.5 million investment from Carbon Trust Enterprises Ltd and Rhodia, a leading international speciality chemicals company. The next phase will focus on developing commercial prototypes.

Solar Press is developing solar modules for use initially in off-grid applications using low cost organic photovoltaic technology. Significant technology progress has been achieved during the year and ahead of technology development milestones in the areas of cell development, module design and manufacturing progress. The great strides being made by the Solar Press team were recognised when the company received a Clean Equity Monaco 2011 award. In the year, it was backed by a further £1 million investment from Carbon Trust Enterprises Ltd, to support the growth of the business.

## Case study:

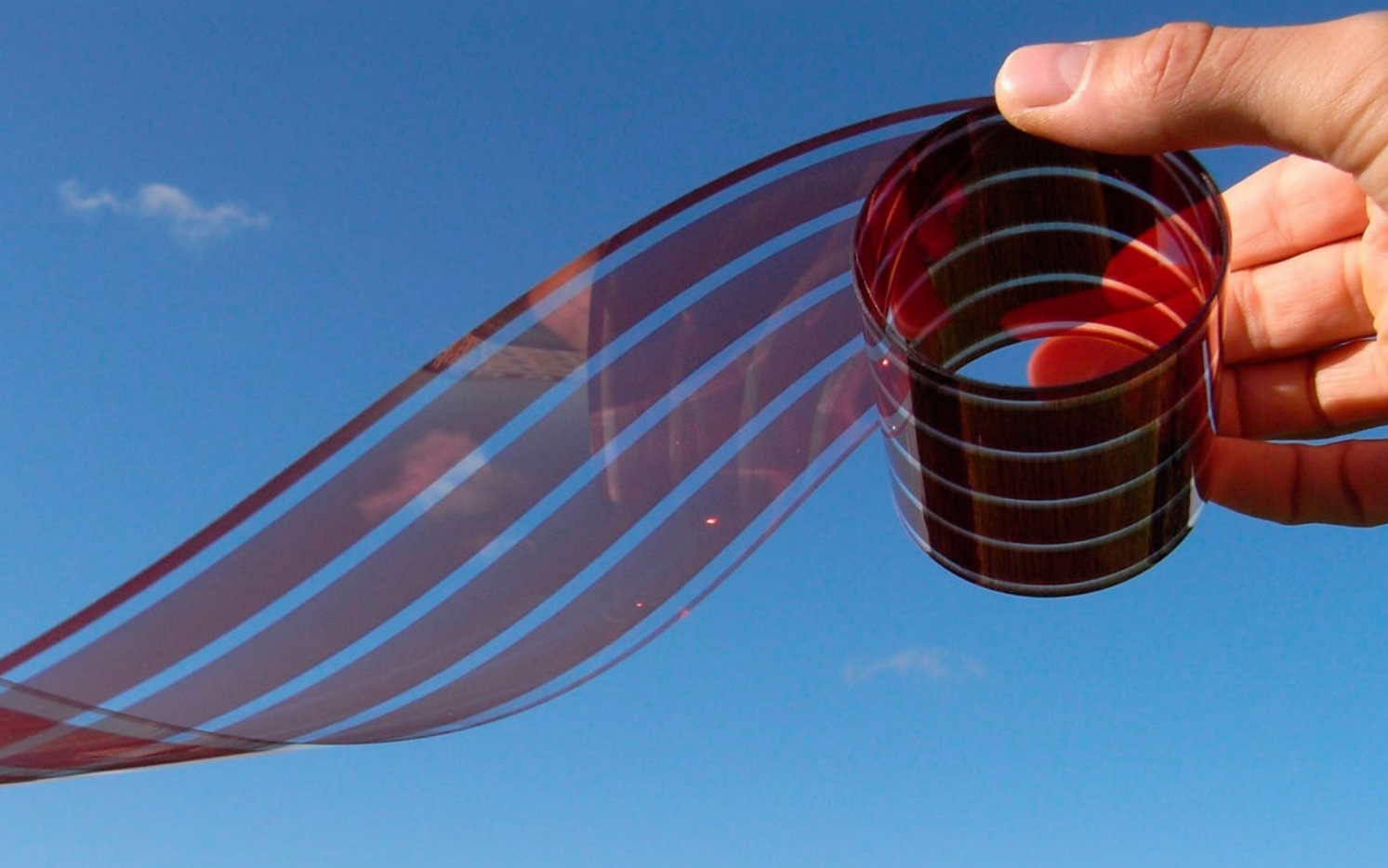
### Eight19

In September 2010 Carbon Trust Enterprises Ltd and Cambridge Enterprise, the University of Cambridge's commercialisation office, launched Eight19 Limited, a new solar energy company which will develop and manufacture high performance, lower cost plastic solar cells for high-growth volume markets.

Eight19, so called as it takes 8 minutes and 19 seconds for light to travel from the sun to the earth, has been created in partnership with Professor Sir Richard Friend, Professor Henning Sirringhaus and Professor Neil Greenham, of Cambridge's internationally renowned Cavendish Laboratory, and technology development company TTP.

This is one of the Carbon Trust's Advanced Photovoltaic Research Accelerator projects, and has been backed by a £4.5 million investment from Carbon Trust Enterprises Ltd and Rhodia, a leading international speciality chemicals company. The next phase will focus on developing commercial prototypes.

With improvements in efficiency and lifetime, breakthroughs in organic photovoltaic technology could provide solar power at a price substantially lower than that offered by 1st and 2nd generation technologies for certain applications.



# \$180bn

potential global polymer fuel cell market  
that could be unlocked by 2050

## Algae Biofuels Challenge

We estimate that by 2030 the algae biofuels industry could be worth over £15 billion and has the potential to provide 12% of global aviation jet fuel, leading to carbon savings of over 160MtCO<sub>2</sub>e, if the cost of production can be reduced by a factor of five to ten. Our Algae Biofuels Challenge was set up to catalyse this cost reduction by bringing together the best scientists and academics in the UK to accelerate the development of this technology.

Between 2008 and 2011 we invested over £3 million, to assess the opportunity, set up the initiative and ran a competition to select the best 12 research teams from over 80 applications. The output of this activity was to meet our technical objectives, secure licences to all intellectual property, and conduct the first year of research in Phase 1 (from Jan 2010 to Mar 2011). The 12 research teams involved in Phase 1 comprised 74 research scientists from 11 UK research institutions (25 full time equivalents). The 12 teams were supported by a Technology Advisory Panel comprised of four leading international experts in microalgae biofuels.

This year the accelerator was very productive, with the 12 research teams producing more than 18 Innovation Disclosure forms, of which 5 – 6 are expected to result in patents, and 2 have begun the patent application process.

Following public funding reductions the Carbon Trust is currently seeking commercial partners to continue this important work.

## Polymer Fuel Cell Challenge

Although fuel cells are already emerging in specific markets, they are currently too expensive for widespread commercial applications, such as road vehicles and co-generation of heat and power. A reduction in the whole fuel cell system cost of at least a third, at mass-manufacture volumes, could unlock a global polymer fuel cell market worth over \$180 billion by 2050.

The objective of the Polymer Fuel Cells Challenge is to develop, prove and commercialise novel polymer fuel cell technologies that have the potential to deliver a step-change in overall system cost.

This year we completed a competitive process to select the most promising breakthroughs that could meet the demanding objectives of the Polymer Fuel Cells Challenge.

The first project selected through the competition for investment of £1 million from the Carbon Trust, is led by ACAL Energy Ltd and will develop the company's proprietary catholyte technology towards potentially transformative automotive applications. ACAL's radical solution is potentially simpler and lower cost than conventional polymer fuel cell technology and has attracted interest from large corporates including Solvay and a leading Japanese automotive company.



## Case study:

### Econotherm

#### A success story that's more than just hot air

Leading businesses around the world are realising that investment in energy efficiency makes environmental and business sense. This is rapidly expanding the market for energy efficient technologies.

Wales-based Econotherm, an innovator in industrial waste heat recycling technology, is at the centre of this growing market. It has doubled its turnover and staff in 2010. With deals in the pipeline that could deliver the same revenue as 2010 by the end of the first quarter of 2011, future growth is strong.

#### Using waste heat to cut carbon

Econotherm's waste heat recuperators recover heat from industrial furnaces, boilers, ovens, thermal oxidisers and incinerators. The recovered heat is then used to warm air, water or thermal oil; public and operational spaces; or even for electricity generation. Econotherm has recently secured its largest ever contracts to supply industrial waste heat recuperators to clients in the ceramics industry, a copper mine in Chile and for the food and glass industries in Italy. Installation of this technology will help these industries achieve, on average, a 15 – 25% reduction in carbon emissions and fuel use.

#### Working with the Carbon Trust

Econotherm has received advice and support through the Carbon Trust's Entrepreneurs FastTrack scheme. As part of the scheme, Econotherm has benefited from specialist commercial advice and funding to enable it to turn its cutting edge waste heat recovery and re-use technology into a genuine business proposition that will deliver real cost and carbon savings for its customers as well as profitable returns for Econotherm. Without the Carbon Trust's support, Econotherm would not have had the time or the money to seek the advice it needed to develop the business and enjoy the exponential growth it is now experiencing. Econotherm is on target to double its annual turnover in the next year as additional new design patents and joint ventures come on stream.



# Driving Green Growth

## £164m

private co-investment leveraged into  
clean tech companies

### Bringing breakthrough science to market

Alongside accelerating the development and deployment of key renewable technologies we have run several schemes that aim to commercialise UK science more quickly and efficiently. We work with leading UK industrial and academic researchers to identify and deliver the next big breakthroughs in low carbon technology capable of overcoming key technical and commercial barriers.

### Pyrolysis Challenge

Our Pyrolysis Challenge, which was set up with the aim of developing new methods of producing upgraded pyrolysis oil which could be used as a liquid transport fuel, continued funding two projects:

The first project is the Future Blends consortium, which includes Catal International Ltd and CARE Ltd, and aims to develop a novel process to produce up-graded pyrolysis oils from waste biomass, such as municipal and wood waste, which can be blended with diesel at the point of distribution. We are investing into the consortium which contains complementary technical capabilities spanning the complete pyrolysis-to-fuel supply chain. There are concerns with existing biofuels related to competition for arable land, which can lead to adverse impacts on food prices, and overall carbon savings due to associated land use changes. A key advantage of developing a process which will use existing organic waste rather than plant crops is that it avoids many of these issues, and can lead to even greater carbon savings by avoiding methane emissions from landfill.

Our analysis shows that the carbon footprint of this new pyrolysis biofuel could potentially achieve a carbon saving of 95% when compared to fossil fuels and offer the lowest cost production route of any next second generation biofuel technology (between £0.30 and £0.48 per litre of diesel biofuel). This carbon saving is significantly higher than some existing biofuels, which also do not currently factor in the impacts of land use change when calculating the carbon saving.

The University of York was awarded the second project, a £500,000 research grant to conduct earlier-stage R&D on a proprietary low temperature microwave process to make pyrolysis oils. This offers potentially greater process efficiencies and could also produce very high quality oil which could lead to pure biofuel being used in cars.

## Investment

### *Bridging the funding gap*

We invest in innovative clean technology companies at the cutting edge of the low carbon economy.

Carbon Trust Investments Limited, advised by CT Investment Partners LLP, looks to invest in early stage clean energy companies with the potential to create significant economic value for the UK and contribute to a global low carbon economy. Through our participation and sector knowledge we seek to leverage further private sector investment and so address a significant market failure in the sector – lack of equity capital for early stage businesses.

Our strength lies in our specialist knowledge of the clean energy sector, which is underpinned by our in-house financial, technical and market expertise. As a result, we are widely recognised as a co-investor of choice in this sector, acting as a catalyst to attract much needed private sector investment. In doing so, we help to attract the funding early stage companies need in their journey to commercialisation.

We typically invest between £250,000 and £3 million. Since 2001 we have invested almost £33 million in clean tech companies, and leveraged over £164 million of private co-investment.

This year we have continued to invest in our existing portfolio of companies. In total over the last year we invested £5.8 million in eight companies and leveraged over £20 million of private sector co-investment into these companies.

2010/11 investments included:

#### **4energy**

Passive cooling technology for data centres/ base stations

#### **ACAL Energy**

Membrane-based platinum-free cathode fuel cell technology

#### **AeroThermal Group**

Autoclave technology for waste to energy plants

#### **Arieso**

Optimising mobile network efficiencies

#### **CamSemi**

Efficient power integrated circuits for power chargers

#### **Green Biologics**

Bio-butanol fermentation technology

#### **RLtec**

Dynamic demand and smart grid technology

Our experience is increasingly being sought out by other countries. The Carbon Trust is uniquely positioned in China with our joint venture with the China Energy Conservation and Environmental Protection Group (CECEP) – the China UK Low Carbon Enterprise Company. CECEP has 172 wholly owned and holding subsidiaries with over 30,000 employees, and is responsible for the investment of RMB 23 billion in national energy conservation capital construction projects. Our joint venture's objectives are to introduce UK low carbon technology companies to China; incubate good UK and Chinese technology companies; and to make venture capital investments that help UK and Chinese low carbon technology companies to become commercially successful.



## Case study:

### ACAL Energy

#### Leading the way in world class fuel cell technology

ACAL Energy has developed a new world leading fuel cell technology that could mean vehicles powered by hydrogen powered fuel cells will at last be affordable enough for the mainstream market place – enabling the emergence of a global industry estimated to be worth over £180 billion by 2050.

#### The challenge

The car industry has been working to develop hydrogen fuel cell vehicles for over a decade. But their commercial viability has been hampered by the high cost and low durability of traditional, membrane based, fuel cell technology.

The high cost comes predominantly from the use of expensive platinum catalysts which need to be regularly replaced as a result of deterioration, as well as the expensive technology required within the cell to keep the membrane humidified as the fuel cell is operated.

ACAL Energy has addressed these issues by developing a new way of reacting the oxygen with a low cost liquid catalyst system, which is not only far cheaper, it also eliminates the causes of degradation and simplifies the balance of plant needed to ensure durability. Overall, ACAL Energy's technology has the potential to cut system costs, once in mass production, by up to 40%.

#### The breakthrough

Low carbon hydrogen-powered fuel cells can power electric cars with zero local emissions, whilst offering the range currently expected from a traditional combustion engine. ACAL Energy's breakthrough could be key to making this technology available for mass market future low carbon transport – making fuel cell cars both the lowest carbon vehicle available, with no compromise on use patterns, as well as being potentially cheaper to run than plug-in hybrids or battery-only electric vehicles. At the heart of the ground-breaking new design is a proprietary liquid 'catholyte' system based on commodity chemicals. It is the brainchild of Andy Creeth, co-founder of ACAL Energy, who thought of the idea after leaving his previous role developing chemical solutions for everyday uses such as detergents or personal care products.

#### Working with the Carbon Trust

ACAL Energy started working with the Carbon Trust as part of our Business Incubator in 2006 and we first invested in the company in 2007. In 2010/11 it was selected for a £1 million investment as part of our Polymer Fuel Cell Challenge. The Polymer Fuel Cell Challenge was launched in 2009 to deliver the critical reduction in fuel cell system costs that must be achieved to make mass market deployment a reality.

"The Carbon Trust's investment will enable us to accelerate development of our technology for use in cars. While ACAL will initially offer products for use in stationary power applications, our longer term focus remains automotive. We are very grateful for the support given to us by the Carbon Trust, not only in this investment, but over the last several years. We look forward to working with the Carbon Trust to achieve our mutual goal of clean, sustainable and affordable power."

**Dr. S.B. Cha**, CEO of ACAL Energy





# Carbon Trust across the UK

## 2.1m

tonnes of carbon we have helped  
our customers to save in Scotland  
in 2010/11

### Scotland

During 2010/11 our specialist advice helped our customers in Scotland to implement measures which will deliver lifetime carbon savings of 2.1MtCO<sub>2</sub> and make direct cost savings of £175 million. This represents an eighth consecutive year of growth in the savings we have enabled in Scotland.

In terms of helping Scotland to achieve its objectives the importance of our role was endorsed in the *Energy Efficiency Action Plan for Scotland*, published by the Scottish Government in October 2010. It recognised our activity in thought leadership, advice and support for businesses and public sector bodies throughout Scotland.

By developing ongoing relationships with all types of customer organisation we are able to provide specialist advice which helps those organisations to identify and implement opportunities for energy efficiency and low carbon technologies and behaviours within their operations.

Our work with larger private sector clients includes DSM Nutritional Products in Ayrshire, where a very successful co-funded action plan of energy reduction projects implemented almost 18,000tCO<sub>2</sub> of emissions savings in 2010/11. Meanwhile, at Michelin's plant at Dundee we provided technical support that will see waste heat from an adjacent waste to energy plant being utilised in Michelin's manufacturing process.

We have continued to develop our strategic carbon management approach to support Scotland's public sector, enabling both larger and smaller public bodies to take a leadership position. In 2010/11 we worked with an

increasing number of public bodies and to date our public sector carbon management services have helped almost 130 such organisations to develop a carbon management plan, including all local authorities, most NHS health boards, universities and an increasing number of higher education colleges and specialist public bodies such as Scotland's police and fire and rescue organisations. This activity has helped public bodies in Scotland to cumulatively reduce their annual emissions by over 470,000tCO<sub>2</sub> and save £47 million on their energy bills.

Our advice and support for smaller businesses in Scotland includes awareness raising and technical training events, on-site carbon surveys, online support and our interest-free Energy Efficiency Loans scheme. During the year we offered loans to 83 customers in Scotland, with a total value of over £2.6 million, helping them invest in energy efficient equipment and realise carbon savings of 80,000tCO<sub>2</sub> and cut costs by £8 million over the lifetime of the projects. Our new 'carbon coaching' scheme for small businesses has proved very popular and we have run workshops in various locations across Scotland, often in partnership with business support organisations.

The Carbon Trust Standard helps leading organisations demonstrate and communicate their carbon reduction credentials to their customers and stakeholders. During 2010/11 a further 18 organisations based in Scotland, including Forth Ports, University of Glasgow, NHS Lothian and West Lothian Council were recognised as Carbon Trust Standard Bearers, taking Scotland's total to date to 44.

“Every £1 of Scottish public money invested by the Carbon Trust delivers nearly £30 of energy bill savings to clients over the lifetime of implemented recommendations.”

P. 45 of the Scottish Government's publication "Conserve and Save – The Energy Efficiency Action Plan for Scotland, October 2010"

We are contributing significantly to the growth in the use of low carbon renewable heat sources in Scotland. The first exemplar installation of a biomass heating system delivered through the Carbon Trust's Biomass Heat Accelerator was completed in March 2011 at Highland Council's Lochaber Leisure Centre in Fort William. We are also working in close collaboration with NHS Health Facilities Scotland on a strategy that assists NHS Scotland health boards meet their carbon and energy performance targets and contribute to targets set in the Climate Change (Scotland) Act 2009. This includes technical support for proposals to develop low and zero carbon heating schemes for hospitals.

Scotland is moving ahead with its ambitions to be a world leader in offshore renewable energy, including offshore wind, wave and tidal power. The Carbon Trust continues to back this with targeted innovation support for marine energy technology companies in Scotland such as Aquamarine Power, Pelamis Wave Power and Hammerfest Strøm UK and through our Offshore Wind Accelerator which includes both Scottish Power Renewables and SSE Renewables as key partners.

### Case study:

#### Diageo, Shieldhall Glasgow

Diageo's bottling and packaging facility at Shieldhall is the world's largest whisky bottling plant, producing over 21 million cases of spirits annually.

Decentralisation of heating enabled the company to achieve significant operating cost savings and a quick payback period (2.7 years) for the project's capital expenditure (£598,000).

The boilers were approaching the end of their operational life and the heating system was inefficient. Diageo – with the assistance of the Carbon Trust – replaced the old centralised heating system with a number of smaller gas-fired point-of-use systems, which are more efficient. Diageo also took the opportunity to install a Building Management System, enabling localised control of the heating.

Diageo has eliminated a number of sources of inefficiency and standing losses which wasted energy regardless of the demand for heating. The modern de-centralised point-of-use system achieves efficiency levels which are typically over 85%.

#### Benefits

- annual energy reduction of 10,553MWh
- total energy costs savings of £219,000/annum. Carbon dioxide emissions savings of approximately 3,337 tonnes/annum

“The project has helped the company realise a significant reduction in emissions as well as operating costs.”

**Mark Stevenson**, Facilities Team Leader, Diageo, Shieldhall

# £3m

private sector investment leveraged for  
Welsh early stage low carbon technology  
companies

## Wales

We have had another extremely successful year in Wales. During 2010/11, our specialist advice has helped business and public sector customers to implement measures which will deliver lifetime savings of over 1.2MtCO<sub>2</sub> and reduce their energy bills by more than £140 million.

Through our Entrepreneurs Fast Track technology commercialisation work we support organisations in Wales that are seeking a clear route to market for their low carbon technologies. Since the start of the Applied Research and Business Incubations schemes, now jointly the Entrepreneurs Fast Track, we have provided almost £1.5 million of support to 15 organisations that has enabled them to secure over £3 million of further private sector investment. This activity is increasing jobs and helping Wales to stimulate private sector investment in the low carbon economy.

This year, our interest-free Energy Efficiency Loans helped even more businesses reduce their costs and carbon emissions. We provided over £3 million of interest-free loans to private sector businesses in Wales, helping them to install more energy efficient equipment and cut their carbon emissions.

Public sector bodies are leading the way with ambitious targets, and we have continued our work with local authorities, the health and education sectors individually and via local service boards. The rewards from these relationships can already be seen, for example, Cardiff City Council has made great progress in reducing the energy consumption within its school estate. These measures can be shared and replicated throughout Wales.

The Welsh Government provided £2.9 million of additional funding for interest-free loans to support the installation of energy efficient measures within the public sector. These funds are delivered through by Salix Finance and will be instrumental in assisting measures which will reduce the carbon footprint and energy bills of local authorities throughout Wales.

Through our extensive events schedule in Wales we engaged with over 1,200 delegates providing them with information and training. This helped organisations in Wales to maintain their progress with energy efficiency and enabled the move towards the low carbon economy. Our annual conference focused on developments in the low carbon technology sector and attracted over 250 delegates from across Wales.

“The combination of improved control and awareness of the energy consumption, together with the specialist advice received from the Carbon Trust and installation of new efficient equipment, have all ensured that we have not only met but far exceeded our annual energy saving targets. Even better, our success has required minimal capital investment just better equipment utilisation and staff awareness.”

**Jon Jones**

Facilities Manager at Sony UK Technology Centre

We are delighted that 21 organisations within Wales have been awarded the Carbon Trust Standard in recognition of their achievements in reducing their carbon emissions and committing to further emissions reductions in the years ahead. These include, Arriva Trains Wales/Trenau Arriva Cymru Ltd and Neath Port Talbot County Borough Council.

Key to our delivery is the strong, close working relationship we have with the Welsh Government. Without its support, organisations throughout Wales would not be able to benefit from our effective and highly valued delivery programme.

Our goal is to continue to support organisations within Wales on their journey towards the low carbon economy and to continue to highlight the commercial advantages available to the business and public sector throughout Wales in the move to a low carbon economy.

### Case study:

#### **Sony UK Technology Centre – Exceeding Expectations**

The Carbon Trust Wales' work with Sony has included:

- a series of site energy surveys to identify areas for maximising cost, carbon and energy saving
- energy efficiency training of workforce to promote behavioural step change
- identification and implementation of viable 'invest to save' projects where the return on investment could be justified
- new modern variable speed air compressors to halve energy costs

- introduction of building energy management systems
- variable speed controls for the site's temperature control units
- additional controls fitted to heating and lighting systems

“The longest pay-back period on any investment was just 12 months – which is good news on their bottom line and the environment. It's this sort of practical energy efficiency programme that gets great returns and shows what can be achieved when a company gets focused on results.”

**Mike Batt**, Manager Carbon Trust Wales

# £25.7m

investment from Northern Ireland  
customers on low carbon projects

## Northern Ireland

The comprehensive and integrated nature of our services proved crucial in helping our customers in Northern Ireland improve their competitiveness and make business sense of climate change.

Our independent and impartial advice gave our customers the confidence to invest £25.7 million in low carbon projects and technologies during 2010/11. This record level of investment will deliver lifetime savings of 1.3MtCO<sub>2</sub> and £164 million of cost savings.

We were delighted to see a number of major and strategically important projects that we had supported over past years come to fruition in 2010/11 including the implementation of: a tallow-fuelled CHP system at Glenfarm Holdings; a 2.3MW wind turbine at Brett Martin; and the innovative 'free' cooling and compressed air heat recovery projects at Greiner Packaging.

Being able to access the best engineering talent from across the Carbon Trust's panel of 350 accredited consultants continued to pay dividends. Deploying these specialist consultants, we conducted a total of 215 company site surveys throughout the year which identified lifetime energy cost savings of £425 million and 4.4MtCO<sub>2</sub> of lifetime carbon savings for a total capital investment of £113 million.

Our collaborative working with key industry and business groups enabled us to promote energy and carbon management best practice through focussed, high quality networks. For example, our partnership with the Engineering Employers Federation allowed us to conduct detailed surveys in a representative sample of its member companies, validate the findings from our knowledge base and then promote the key insights, via a workshop briefing and technical guide, to its entire membership.

By exploiting the Carbon Trust's proprietary knowledge base in this way we are able to leverage significant additional value and benefit for our customers.

Through working with suppliers of energy saving equipment and by integrating the interest-free Energy Efficiency Loans scheme more closely with our specialist advice services, we awarded 93 loans worth £2.8 million to local business during the year. This investment leveraged an additional private sector investment of £3 million and collectively the projects supported will realise lifetime savings of 100,000tCO<sub>2</sub> and £11 million.

Our move to smaller, more focussed, training events proved successful in allowing us to engage more fully with our customers in Northern Ireland. We ran 23 workshops, briefings and seminars during the year that attracted over 630 delegates and achieved exceptionally high delegate satisfaction ratings. Topics included: Managing the CRC as a business opportunity; Energy effective lighting for the hospitality sector; Marine and offshore wind energy; Biomass heating systems; Making the business case for a carbon reduction project.

Our support for low carbon innovation and commercialisation saw us provide grant funding to new organisations through the Entrepreneurs Fast Track scheme including Minesto, PureMarineGen, Vykson and Queen's University Belfast. Additionally, a number of local businesses and organisations participated in our UK-wide technology acceleration projects including: Dale Farm, National Trust and Belfast City Council (Biomass Heat); Irwin's Bakery and Seagate Technology (Industrial Energy Efficiency).

“The main benefits of harnessing the Carbon Trust’s expertise have included having a second pair of expert eyes to help us to develop and drive robust energy efficiency action plans as well as providing us with a wealth of free Carbon Trust online publications that we can use to share energy efficiency best practice across our 30 sites worldwide.”

**Allan Morgans**

European Energy Manager at Knauf Insulation

We were delighted Michelin Ballymena, Translink, University of Ulster, Henderson Group and Belfast Harbour Commissioners were each awarded the Carbon Trust Standard during the year in recognition of their achievements in reducing their carbon emissions and committing to further emissions reductions in the years ahead.

All these achievements were made possible due to the funding we received from Invest NI and the European Regional Development Fund. The Northern Ireland Executive has set out in the Strategic Energy Framework and

Sustainable Development Strategy, challenging energy and carbon reduction targets. Our experience over the past 10 years demonstrates that, when provided with impartial, evidence-based best practice advice, businesses in Northern Ireland will continue to invest in the low carbon economy and make a substantial contribution to the Executive’s economic, energy and environmental targets. We look forward to continuing to play our part in helping the Executive realise its vision.

### Case study:

#### Ballyrashane Co-operative

Ballyrashane Co-operative is a dairy producer operating on the outskirts of Coleraine in Northern Ireland. The company processes raw milk into a range of products including pasteurised milk, cream, butter and cheese.

The company has been working with the Carbon Trust over a number of years and sought assistance when specifying requirements for a new centralised boiler plant. The existing 24 year old oil fired plant was inefficient and struggled to meet the current thermal demand over their 7 day 16 hour production cycle.

The Carbon Trust survey considered the energy efficiency improvements that could be realised with gas fired plant, not least those arising from the operation of improved combustion control and turndown and waste heat recovery.

The boiler improvements incorporated into the final design included:

- digital combustion control with oxygen trim
- inverted fan as opposed to damper air control

- improved turndown
- automated total dissolved solids blow down
- blow down heat recovery
- full condensing economisers

Having used the Carbon Trust report to form the basis of its tender specification, Ballyrashane applied for an interest free loan to help finance the installation. The project secured a loan of £380k and will deliver an annual saving of £76k and 738tCO<sub>2</sub>.

“The Carbon Trust technical assistance has been instrumental in ensuring that a number of our recent projects are aligned with industry best practice. Ballyrashane have utilised the Carbon Trust interest-free Energy Efficiency Loans scheme to finance several large capital improvement projects. The scheme has helped make the business case for investment and provided welcome financing in an otherwise difficult borrowing market. The application proved straight forward, the administration pragmatic and the support throughout readily available.”

**Ian Campbell**, Energy Manager,  
Ballyrashane Co-operative

# Governance and accounts

# Environmental report

We made further progress last year in our efforts to reduce our environmental impact. We set and delivered on stretching targets to reduce our buildings energy use and business travel emissions compared to the previous year. We also looked to further engage our suppliers in considering their environmental impact.

The year began with the successful re-accreditation of our ISO 14001 Environmental Management System, and once again regular external audits established that we had no non-conformities.

## Travel

A new travel policy was finalised in June, and the Environment team worked with each of the business areas to achieve further reductions in travel emissions. All travel is monitored, and data is provided to department champions to help them track progress and focus on key emission sources. Travel emissions have been reduced by:

- increased use of video conferencing between the Carbon Trust offices and with customers and stakeholders, including carrying out our internal ISO 14001 audits by video. We have also increased the use of webinars
- maintaining an emphasis on travelling by public transport where possible
- route optimisation and better scheduling of meetings, especially by the specialist advice teams
- reducing our overall flight emissions, despite increasing international activity

Overall travel emissions have been reduced by 48% compared to 2009/10 emissions.

## Building energy

We have continued to work with the landlords and other tenants at each of our offices to manage energy consumption. In our London office, improvements made to the building operation by our landlord, combined with improvements in lighting, IT equipment and small power equipment such as copiers led to a 7% reduction in carbon emissions, despite the exceptionally cold winter. In order to drive further building energy reductions, following a series of senior level meetings, we have agreed an action plan for further improvements with the landlord and other tenants.

## Procurement

As part of our procurement processes, we have increased our requirements for major suppliers to demonstrate their environmental credentials, and have added a new schedule to major contracts, requiring our lead contractors to demonstrate best practice in environmental performance – including carbon monitoring, staff awareness and training, and minimising use of resources in their activities for the Carbon Trust.

Our estimated attributable CO<sub>2</sub> emissions for 2010/11 are stated below. We endeavour to monitor and report our emissions as accurately and completely as possible.

	Estimated London office CO <sub>2</sub> emissions	Estimated London office CO <sub>2</sub> emissions per m <sup>2</sup> floor area	Estimated London office CO <sub>2</sub> emissions per desk
2009/10*	371.7tCO <sub>2</sub>	172.6KgCO <sub>2</sub> /m <sup>2</sup>	1.5tCO <sub>2</sub>
2010/11	341.8tCO <sub>2</sub>	158.7KgCO <sub>2</sub> /m <sup>2</sup>	1.4tCO <sub>2</sub>

	Estimated total UK CO <sub>2</sub> emissions	Estimated total UK CO <sub>2</sub> emissions per person
2009/10*	571.1tCO <sub>2</sub>	2.7tCO <sub>2</sub>
2010/11	473.2tCO <sub>2</sub>	2.1tCO <sub>2</sub>

Emissions in tonnes of CO<sub>2</sub> including UK business travel.

	Estimated overall total CO <sub>2</sub> emissions	Estimated overall total CO <sub>2</sub> emissions per person
2009/10*	761.3tCO <sub>2</sub>	3.6tCO <sub>2</sub> /person
2010/11	563.4tCO <sub>2</sub>	2.5tCO <sub>2</sub> /person

Includes all estimated emissions from our UK and international activities.

Emissions per person based on average number of employees during year of 224 (2009/10 – 214).

\* 2009/10 numbers have been restated (UK total was reported last year as 576.2tCO<sub>2</sub>, estimated overall total as 781.6tCO<sub>2</sub>) using 2010 Defra/DECC GHG Conversion Factors for Company Reporting.

## Challenges for the future

In the coming year we will work to maintain our ISO 14001 accreditation. We plan to focus on three areas in order to further reduce our overall carbon footprint. We will:

- further reduce the operational carbon footprint of our London office
- increase the use of video conferencing as well as ensuring we apply best practice from our travel policy to further reduce our carbon footprint from travel
- build on the foundations put in place last year to work with our supplier base to help them to measure, set targets and to reduce their carbon emissions



## Directors' report

The Directors present their annual report on the affairs of the group, together with the financial statements and auditors' report for the period 1 April 2010 to 31 March 2011.

### Directors

Sir Ian McAllister CBE continued as Chairman throughout 2010/11 and Ian Stephenson OBE continued as Deputy Chairman.

Tom Delay continued as Chief Executive, Rosemary Boot continued as Finance Director and Michael Rea continued as Chief Operating Officer through the year.

During 2010/11, one independent Non-Executive Director was appointed, the Board member representing DECC retired, and the Board members representing (respectively) Invest Northern Ireland and the Scottish Government changed as a result of a change in roles of the senior civil servants concerned. Following the year end the Board member representing the Department for Business, Innovation and Skills and the Board Member representing the Scottish Government retired. The details of all Board members and changes throughout the year are listed on pages 42 to 47.

### Recruitment of management and staff

Due to in year funding reductions and in anticipation of an expected reduction in the levels of government funding for 2011/12, staff levels were reduced, particularly during the last quarter. Staff were otherwise recruited as required across all departments during the year. Group employee numbers (including Executive Directors but excluding Non-Executive Directors) as at 31 March 2011 were 215 (2010 – 228).

There were also two staff members on secondment from other organisations over the course of much of the year.

### Principal activity

The group's principal activity is to promote the reduction of carbon emissions made by businesses and public sector organisations, and the development and deployment of low carbon technologies, including energy efficiency technologies and low carbon technologies, processes and energy supplies.

### Enhanced business review and organisational structure

See the review of 2010/11 on pages 6 to 36 for a description of our activities in the year. The Carbon Trust is an independent company limited by guarantee. It is currently primarily grant funded by DECC and the Devolved Administrations and in 2010/11 also received grant funding from the Foreign and Commonwealth Office, the Department for the Environment, Food and Rural Affairs and the Department for Transport.

The Carbon Trust has four directly held and wholly owned subsidiary companies, Carbon Trust Investments Limited (CTIL), Carbon Trust Enterprises Limited (CTEL), Carbon Trust Fund Management Holdings Limited (CTFMHL) and Carbon Trust International Limited (CTIntL).

As at 31 March 2011, the Carbon Trust held (through CTIL) the whole of the issued share capital of Carbon Trust Footprinting Company Limited, Carbon Trust Footprinting Certification Company Limited, Carbon Trust Advisory Services Limited (formerly The Low Carbon Culture Company Limited), The Carbon Trust Standard Company Limited, Carbon Trust Implementation Services Limited and Low Carbon Workplace Limited; 98.1% of the issued share capital of Future Blends Limited; 64.8% of the issued share capital of Insource Energy Limited; 37.6% of the issued share capital of Eight19 Limited; 46.15% of the issued share capital of Partnerships for Renewables Limited; 40% of the issued share capital of Connective Energy Limited; 38.3% of the issued share capital of The Solar Press UK Limited; and 33.3% of the issued share capital of Sackville LCW (GP) Limited.

As at 31 March 2011, the Carbon Trust held (through CTIL) a 100% economic interest in The Low Carbon Seed Fund LLP, and (through CTFMHL) a 40% interest in CT Investment Partners LLP.

As at 31 March 2011, the Carbon Trust also held (through CTIntL) the whole of the capital in Carbon Trust LLC, a company incorporated in Delaware, USA, and a 49% interest in China UK Low Carbon Enterprise Co. Ltd.

Further details of the Carbon Trust's subsidiaries, joint ventures and associates are set out in the financial review on pages 48 to 53. Financial and non-financial key performance indicators and principal risks and uncertainties facing the company are covered in the financial review (pages 48 to 53) and the performance assessment (pages 56 to 64).

The company has grant funding totalling up to £51 million for 2011/12 from DECC and the Devolved Administrations. This is a reduction on the grant funding received in 2010/11 due, in general terms, to the cross government funding reductions resulting from the current national economic circumstances. Future activity during 2011/12 will largely continue the programmes undertaken in 2010/11 with, however, some programmes or activities being reduced or stopped in consequence of reductions in DECC core grant funding or further focus being placed on other existing activities.

DECC has recently announced that it will not be providing core grant funding to the Carbon Trust beyond 2011/12 and its intention to in the future publicly procure a large part of the projects or services it requires and, accordingly, the Carbon Trust expects a very significant reduction in its governmental grant funding. The Carbon Trust intends, however, to tender as a contractor for DECC publicly procured projects or services.

Over the past several years the Carbon Trust has set up a number of businesses to provide low carbon services to customers on a commercial basis. These businesses are generating sales revenues. The Carbon Trust is working to secure further

## Directors' report

### Continued

government, EU, philanthropic and private sector funding and investment in order to further its mission and enable its group to increase in commercial scale and profitability. The group is also working to secure commercial contracts, including with government and the EU.

There are no other material post-balance sheet events.

Financial risk management objectives and procedures are discussed in the financial review (pages 48 to 53).

### Results and dividends

The group has prepared its 2010/11 financial statements in accordance with International Financial Reporting Standards. The audited financial statements for the period ended 31 March 2011 are set out on pages 48 to 53. The retained profit for the period was £10.830 million (2009/10 – £16.789 million).

The company is not allowed to pay a dividend. For a more detailed review of the results for the year and a more detailed explanation of the accounting profit, please see the financial review on pages 48 to 53.

### Supplier payment policy

The company's policy is to pay supplier invoices within 30 days from the date of receiving the invoice. The aggregate creditor days at 31 March 2011 was 9 days (2010 – 17 days).

### Charitable and political contributions

During the year, the company made no charitable or political contributions (2009/10 – £nil).

### Equal opportunities

The Carbon Trust is committed to equal opportunities for all present and potential employees and does not discriminate on grounds of colour, ethnic origin, gender, age, religion, political or other opinion, disability or sexual orientation. Applications for employment by all persons are always fully considered, bearing in mind the aptitudes of the applicant concerned, as are the training, career development and promotion of all employees.

The policy of the group is that in the event of members of staff becoming disabled, every effort should be made to ensure that their employment with the group continues and that appropriate training should be arranged.

### Employee consultation

The group places considerable value on the involvement of its employees, and has continued to keep them informed on matters affecting them as employees and on the various factors affecting the performance of the group. This is achieved through formal and informal meetings and an annual staff survey.

### Directors' qualifying third party indemnity provisions

The company has granted indemnity to one or more of the Directors against liability in respect of proceedings brought by third parties, subject to the conditions set out in the Companies Act 2006. Such qualifying third party indemnity provision remains in force as at the date of approving the Directors' report.

### Directors' responsibilities

UK company law requires the Directors to prepare accounts for each financial year which give a true and fair view of the state of affairs of the company and of the surplus or deficit of the company for that period.

The Carbon Trust has historically received offers of governmental funding each March for the subsequent financial year. The group has been heavily reliant on ongoing Government funding for its continued position and performance.

DECC, as the company's primary funder, has announced that it no longer expects to provide core grant funding for the Carbon Trust from 1 April 2012 and that it intends to tender for many of the low carbon services and programmes that it wishes to fund. The Directors are of the opinion that the Carbon Trust has reasonable prospects of securing work offered through public tender.

The group completed a review in order to size its business for the year 2011/12 and beyond, making appropriate alterations. It undertakes a detailed business planning process which is regularly reviewed (and amended if appropriate) throughout the year to ensure that the business is managed within available grant funding and forecast sales revenues.

After making enquiries, the Directors have a reasonable expectation that the group can continue for the foreseeable future based on the current arrangements in place with its funders and other forecast revenue streams. For this reason the Directors believe it is appropriate to continue to adopt the going concern basis in preparing the financial statements.

In preparing the accounts, the Directors are required to:

- select suitable accounting policies and then apply them consistently
- make judgements and estimates that are reasonable and prudent
- state whether applicable accounting standards have been followed

The Directors are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the company and enable them to ensure that the accounts comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the company, and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

## Auditors

So far as each person who was a Director at the date of approving this report is aware, there is no relevant audit information, being information needed by the auditor in connection with preparing its report, of which the auditor is unaware. Having made enquiries of fellow Directors and the group's auditor, each Director has taken all the steps that he/she is obliged to take as a Director in order to make himself/herself aware of any relevant audit information and to establish that the auditor is aware of that information.

Ernst & Young LLP have expressed a willingness to continue in office. A resolution to reappoint them will be proposed at the next Annual General Meeting.



By order of the Board,  
Claire Williams  
Company Secretary

14 July 2011

# Corporate governance report

## Statement of compliance with the Combined Code on Corporate Governance

The company is not a listed company and is not required to comply with the Combined Code on Corporate Governance. However, the Board has resolved that the company should adopt the Code as the company wishes to apply best corporate governance practice and to report on corporate governance issues. The company has complied to the extent relevant throughout the last financial year with the provisions of the Principles of Good Governance set out in section 1 of the Combined Code.

## Statement about applying the Principles of Good Governance

The Board meets sufficiently regularly to discharge its duties effectively. The Board decides the strategy, values and standards of the company and sets the framework for prudent and effective controls. There is a schedule of reserved matters and a clear division of responsibilities between the Chairman and the Chief Executive. The day to day management of the company has been delegated to the management team. The recognised senior independent director is Ian Stephenson.

There is a good balance amongst the Board members between the Executive Directors and the Non-Executive Directors and the skill sets on the Board. The Board completed an evaluation of itself in 2010/11 with the assistance of an external consultant.

For most of the period the Board comprised 18 directors – three Executive Directors, five (post 7 February 2011, four) Non-Executive Directors representing government departments which fund or have funded the company, and ten (post 1 September 2010, eleven) Non-Executive Directors contributing a wide range of experience from industry, trade union and non-governmental organisations.

The Board considers the eleven Non-Executive Directors who do not represent government departments to be independent of the Carbon Trust. New Directors are offered an induction to ensure that they are conversant with the company's business. Relevant corporate governance and technical training is periodically offered to Directors by the company.

The Independent Directors retire by rotation every three years and are subject to re-election (if they wish to be re-appointed) by the members in Annual General Meeting.

It is expected that the Board composition may alter during the course of 2011/12 to reflect the move from the Carbon Trust being predominantly grant funded towards an increased focus on other revenue sources. These changes will be considered and made as the 2011/12 year progresses. The Finance Director has also announced her intention to leave the Carbon Trust at the end of July 2011.

## Audit Committee

At year end this Committee comprised: four Non-Executive Directors, namely, Timothy Weller (Chairman), Edward Hyams, Matthew Quinn and James Smith. Timothy Weller, Edward Hyams and Matthew Quinn were members of the Committee through the whole year; Dr Colin Church retired on 7 February 2011 and James Smith was appointed as a member of the Committee on 7 December 2010.

In view of the Government funding received by the company, at least one of the members is a representative of a Government department. The remaining members are independent.

The Chairman of the Committee is a Chartered Accountant with recent and relevant financial experience. The Committee met four times in the financial year 2010/11. The meetings were attended by the company's external auditors.

The main responsibilities of the Audit Committee include monitoring the integrity of the financial statements of the group, reviewing the company's internal financial controls and risk management systems, monitoring and reviewing the effectiveness of the company's internal audit function and making recommendations to the Board as appropriate. The Committee's terms of reference are available on the company's website.

In discharging its responsibilities, the Audit Committee's work has included:

- considering and making recommendations to the Board on the appointment, remuneration and removal/resignation of external auditors
- receiving the results of the reports from the external auditors (including the annual statutory audit)
- receiving the results of reviews of certain company activities carried out by external consultants or internally, including internal audit reviews
- considering and approving the group accounting policies proposed by and subsequently adopted by management
- reviewing the effectiveness of internal controls, including risk management, and approving changes to the company's financial, procurement and other internal procedures

The Audit Committee continues to apply an external auditor independence policy to safeguard auditor objectivity and independence where the company's auditors provide non-audit services.

## Investment Committee

At year end this Committee comprised: Sir Ian McAllister (Chairman), Dr Richard Brook, Dr Jeanie Cruickshank, John Edmonds, James Hume, Gordon Innes, Dr Paul Jefferiss, Chris Mottershead, Ian Stephenson, James Smith, Tom Delay (Chief Executive), Rosemary Boot (Finance Director) and Michael Rea (Chief Operating Officer).



With the exception of James Hume who was appointed to the Committee on 8 June 2010 to replace Colin Imrie who retired as a Director on 8 June 2010, Gordon Innes who was appointed to the Committee on 20 May 2010 to replace Dr Hugh McNeal who retired as a Director on 20 May 2010 and James Smith who was appointed on 7 December 2010, all the above were members of the Committee throughout the year. Following the year end Gordon Innes retired on 15 June 2011, James Hume retired on 1 July 2011 and Edward Hyams retired on 14 July 2011.

The Investment Committee is responsible, subject to the overall direction of the Board, for overseeing the investment activities of the Carbon Trust group undertaken in all areas except carbon now specialist advice and finance, approving certain investments made in the course of those activities, and recommending to the main Board those investments in excess of its authorisation level. The Committee's terms of reference are available on the company's website.

#### Financial Subcommittee

At year end this Committee comprised: Sir Ian McAllister (Chairman), Edward Hyams, Matthew Quinn, Ian Stephenson, James Smith, Tim Weller, Rosemary Boot and Tom Delay.

This Committee was established in December 2010 to review financial matters relating to the Carbon Trust and provide management with advice in relation to the updating of the company's longer term strategy and preparation of the 2011/12 Business Plan and financial plans for the following several years. The committee does not have formal terms of reference.

#### Nomination Committee

At year end this Committee comprised: Sir Ian McAllister (Chairman), Ian Stephenson, John Edmonds, Dr Paul Jefferiss and Lucy Neville-Rolfe, all of whom were members throughout the year.

Its responsibilities are to:

- review regularly the structure, size and composition (including the skills, knowledge and experience required) of the Board and make recommendations to the Board with regard to any changes
- give consideration to succession planning for Directors and other senior executives
- be responsible for identifying and nominating, for the approval of the Board, candidates to fill board vacancies as and when they arise

The Committee's terms of reference are available on the company's website.

Four Non-Executive Directors were appointed to the Board during the financial year 2010/11, namely, James Hume, Gordon Innes, David Thomson and James Smith.

James Hume, Gordon Innes and David Thomson were all appointed in accordance with the company's Articles of Association (respectively) by the First Minister of the Scottish Parliament, the Secretary of State for Business, Innovation and Skills and the Northern Ireland Minister for Enterprise, Trade and Investment, and therefore no external selection process was used for those appointments.

In March 2010, after a review of the skills and experience required by the Board, an objective internal exercise was undertaken to identify an appropriate person to be invited to join the Board. As a result of this exercise the Directors resolved to appoint James Smith (until April 2011 Chairman of Shell UK) to join the Board with effect from 1 September 2010.

#### Remuneration Committee

The membership and responsibilities of this Committee are described in the Remuneration report (pages 46 to 47). Towers Watson continued to act as consultants during the financial year 2010/11 to carry out remuneration benchmarking for members of staff. Towers Watson has no other connection with the company.

Additional advice was obtained from PricewaterhouseCoopers LLP (PwC) on broader remuneration issues. PwC has no other connection with the company except for its engagement to provide an independent assurance report (pages 54 to 55).

The Committee's terms of reference are available on the company's website. The table overleaf shows the number of regular Board and standing Committee meetings of the company held in the year ended 31 March 2011, and the attendance of individual Directors.

It should be emphasised that this information does not fully reflect the contribution made to the group's business by many of the Directors who have also attended other meetings, including board meetings of the company's subsidiaries, and events relating to the group's business and activities during the year.

## Corporate governance report

### Continued

	Board	Financial Subcommittee	Audit Committee	Investment Committee	Nomination Committee	Remuneration Committee
<b>Number of meetings held</b>	8	4	4	4	1	2
Neil Bentley appointed 18 August 2008	5	n/a	n/a	n/a	n/a	1
Rosemary Boot appointed 13 July 2001	8	4	n/a	4	n/a	n/a
Richard Brook appointed 13 July 2001	8	n/a	n/a	4	n/a	n/a
Colin Church appointed 2 May 2009 <sup>1</sup>	4	n/a	3	n/a	n/a	2
Jeanie Cruickshank <sup>2</sup>	n/a	n/a	n/a	3	n/a	n/a
Tom Delay appointed 13 July 2001	8	4	n/a	4	n/a	n/a
John Edmonds appointed 13 July 2001	7	n/a	n/a	4	1	n/a
Olive Hill appointed 8 June 2007 <sup>3</sup>	1	n/a	n/a	n/a	n/a	n/a
Edward Hyams appointed 16 June 2005 <sup>4</sup>	6	4	4	n/a	n/a	n/a
James Hume appointed 8 June 2010 <sup>5</sup>	3	n/a	n/a	2	n/a	n/a
Colin Imrie appointed 12 May 2009 <sup>6</sup>	0	n/a	n/a	0	n/a	n/a
Gordon Innes appointed 20 May 2010 <sup>7</sup>	4	n/a	n/a	3	n/a	n/a
Paul Jefferiss appointed 16 May 2001	4	n/a	n/a	3	1	
Ian McAllister appointed 29 March 2001	6	3	n/a	4	1	n/a
Hugh McNeal appointed 17 August 2009 <sup>8</sup>	No	n/a	n/a	0	n/a	n/a
Chris Mottershead appointed 1 July 2001	7	n/a	n/a	4	n/a	2
Lucy Neville-Rolfe appointed 12 March 2008	1	n/a	n/a	n/a	0	n/a
Matthew Quinn appointed 10 July 2008	4	3	2	n/a	n/a	n/a
Michael Rea appointed 1 April 2007	8	n/a	n/a	4	n/a	n/a
James Smith appointed 1 September 2010 <sup>9</sup>	6	3	1	0	n/a	n/a
Ian Stephenson appointed 29 March 2001	6	3	n/a	4	1	2
David Thomson appointed 26 November 2010	1	n/a	n/a	n/a	n/a	n/a
Timothy Weller appointed 19 June 2007	6	2	3	n/a	n/a	0

1 Colin Church retired on 7 February 2011.

2 Jeanie Cruickshank is an invited member (and is no longer a Director of the Carbon Trust).

3 Olive Hill retired on 6 October 2010.

4 Edward Hyams retired on 14 July 2011.

5 James Hume was appointed to the Board and Investment Committee on 8 June 2010. He retired from both on 1 July 2011.

6 Colin Imrie retired on 8 June 2010.

7 Gordon Innes was appointed to the Board and Investment Committee on 20 May 2010. He retired from both on 15 June 2011.

8 Hugh McNeal retired on 20 May 2010.

9 James Smith was appointed to the Board on 1 September 2010 and to the Audit Committee and Investment Committee on 7 December 2010.

## Relations with stakeholders

The company regularly consults with its stakeholders and, through a series of group and one to one stakeholder meetings, their views are taken into account in its business planning process. It welcomes input from its stakeholders on an ongoing basis.

## Maintenance of a sound system of internal control

The Board is responsible for the Carbon Trust's system of internal control and for reviewing its effectiveness. Such a system is designed to manage rather than eliminate the risk of failure to achieve business objectives, and can only provide reasonable, and not absolute, assurance against material misstatement or loss.

The Carbon Trust continues to recognise the importance and benefits of adopting a sound and comprehensive approach to risk management and aims to improve it continually and to apply best practice in all areas of its activities. The Audit Committee assists the Board in discharging its review responsibilities as described in the section headed Audit Committee on page 42. The main features of the group's risk and control framework are outlined below:

- a control environment with clearly defined organisation structures operates within a framework of policies and procedures covering every aspect of the business
- the group business plan, including the annual budget, is discussed and approved by the Board: an update on progress and a forecast for the remainder of the financial year is given at each Board meeting and Audit Committee meeting
- matters needing the Board's attention are clearly defined: financial procedures, procurement procedures and authorisation levels are set by, and changes approved by, the Audit Committee. Appropriate reporting procedures have been established; Board approval is required for larger commitments
- a programme of regular departmental risk assessments operates across the business. In addition, workshops are held, attended by senior employees from across the group. The results of both the departmental risk assessments and workshops are discussed and kept under regular review by the management team and reported to the Audit Committee, with the top 20 risks receiving particular attention. The Carbon Trust operates a philosophy of continuous improvement for risk management which is assisted by its Internal Audit Department
- in the financial year 2010/11, certain activities have been reviewed by external advisors, including the statutory auditors. Other areas have been subject to an internal review. The results have been reported to the Audit Committee
- the Carbon Trust has an environmental policy and an environmental management system and has achieved ISO 14001 compliance since 2008/09. Part of ISO 14001 requires active implementation of policies and procedures to minimise its impact on the environment

- the Carbon Trust operates a rigorous and clearly defined process for assessing the impact of its work in terms of reductions in carbon emissions and the cost-effectiveness and cost-benefit of achieving those reductions. The measurement of the carbon impact has various controls and independent checks and reviews in place to ensure accurate reporting, and the process is subject to independent limited assurance. The checking and review process and its outcome is overseen by the Audit Committee
- the Chairman of the Audit Committee reports the outcome of Audit Committee meetings to the Board and Audit Committee minutes are copied to the Board
- the Internal Audit function has reviewed a number of areas of internal controls and risk management procedures
- an annual health and safety review is carried out in-house. This confirmed that the Carbon Trust was compliant with its legal obligations. The Carbon Trust was awarded OHSAS 18001 in 2009/10 for the London office and in 2010/11 extended this to its offices in Belfast, Cardiff and East Kirkbride. The Carbon Trust has also updated its health and safety policy and has developed its health and safety procedures and supports a culture of continuous improvement
- information technology and its development is overseen and approved by an Information Technology Steering Group. The Carbon Trust's information technology procedures, policies and control systems have been improved during the year to minimise the risk of a loss of service or loss of data to acceptable levels. Access to the Carbon Trust's data is controlled.
- a whistleblowing policy exists whereby staff may, in confidence, raise concerns about possible improprieties in matters of financial reporting or other matters
- processes and procedures are in place to ensure that the Carbon Trust complies with legal and regulatory requirements for its current activities and before any new activities are begun

The Board has reviewed the effectiveness of the Carbon Trust's systems of internal control for the financial year 2010/11 and up to the date of approval of the Annual Report and Accounts. The company is committed to the development and enhancement of existing systems of internal control and risk management as appropriate for the growth of the Carbon Trust group and its activities.

# Remuneration report

## Procedures for developing policy and determining remuneration

The Remuneration Committee deals with the compensation arrangements of the Board. Throughout most of 2010/11 the Committee comprised three independent Non-Executive Directors and one Non-Executive Director representing a government department. The chairman of the Committee and its members are appointed by the Board and the overall terms of reference of the Committee are agreed by the Board.

The members of the Remuneration Committee during the year were Ian Stephenson (Chairman), Chris Mottershead, Tim Weller, Dr Colin Church, and Dr Neil Bentley. Dr Church retired from the committee when he resigned from the Board on 7 February 2011.

The Remuneration Committee has access to all the information it may reasonably require to assess the general policy on executive remuneration.

## Statement of remuneration policy

The remuneration policy is to:

- provide a compensation package to attract, motivate, and retain high quality employees
- assess remuneration relative to other similar sized businesses in the private sector taking account of relative performance of equivalent positions

A range of methods is used to ensure the levels of compensation are appropriately benchmarked against external organisations. General benchmarking is undertaken by Towers Watson using the general industry companies from the Towers Watson UK CDB General Industry Survey 2010.

A further review of overall compensation and benefit levels was undertaken by PwC concentrating on market changes and the positioning of the company and its subsidiaries. The review looked at salary, pension, bonus and long term incentive options and the changes that may be required as the business develops over the next two to five years. Additionally the review provided data for the annual pay review. The review looked at all staff including Executive Directors. It did not include Non-Executive Director fees.

## Pay review

Following a market review in 2010 the Remuneration Committee, with guidance from the Executive Directors and PwC adopted a pay freeze. Following a further review in December 2010 the Remuneration Committee recommended a cost of living increase of 2% for 2011. This was implemented for all eligible staff. The Executive Directors declined to take their increases and their salaries remained at the 2010 level.

## Executive Directors

The remuneration of the Executive Directors comprises a base salary, an incentive bonus and certain other benefits. A full review of Executive Director remuneration was undertaken in 2007/08 using external consultants, and a further review was undertaken in 2010/11 by PwC as part of its overall study of compensation levels. The report concluded that no changes should be made at this time. In line with the Carbon Trust's staff remuneration policy the Committee's recommendation of the bonuses to be paid to the three Executive Directors for 2010/11 was based on an assessment of individual and company performance against key objectives.

Payments were ratified by the Chairman in accordance with his powers of authority.

Name	2011 Salary £	2011 Bonus £	2011 Other Benefits £	2011 Total £	2010 Total £
Tom Delay	164,600	82,300	9,598	256,498	248,492
Rosemary Boot	121,334	49,100	6,248	176,682	176,903
Michael Rea	121,750	48,700	5,540	175,990	169,902

During the year the company made pension contributions of £41,150 (2009/10 – £41,150), £30,687 (2009/10 – £30,687) and £30,438 (2009/10 – £30,438) into the personal pension plans of Tom Delay, Rosemary Boot and Michael Rea respectively.



## Non-Executive Director Fees

The fees for Non-Executive Directors, including the Chairman and Deputy Chairman were reviewed in 2008. A further review will be undertaken in 2011/12 using external consultants as appropriate.

Fees are payable to all Non-Executive Directors, other than representatives of government departments (identified in the table with an \*) who do not receive a fee as they are public servants carrying out duties as part of their normal responsibilities. James Smith waived this entitlement.

Edward Hyams, Chairman of the Energy Saving Trust did not receive a fee from the company due to a reciprocal directorship arrangement between the Carbon Trust and the Energy Saving Trust. This arrangement has now been terminated.

Name	2010/11 Fees £	2009/10 Fees £	Principal positions held elsewhere at 31 March 2011
Ian McAllister	40,000	40,000	Formerly Chairman, Network Rail
Ian Stephenson	30,000	30,000	Director, IT, HR and EHS, Johnson Matthey plc
Neil Bentley	18,000	18,000	Deputy Director-General, CBI
Richard Brook	18,000	18,000	Director, The Leverhulme Trust
Colin Church*	Nil	Nil	Formerly Director, National Climate Change, DECC
John Edmonds	18,000	18,000	Chair of the Inland Waterways Advisory Council
Olive Hill*	Nil	Nil	
James Hume*	Nil	Nil	Agency Development Director – Education Scotland, Scottish Government
Edward Hyams	Nil	Nil	Chairman, Energy Saving Trust
Colin Imrie*	Nil	Nil	
Gordon Innes*	Nil	Nil	Head of Low Carbon Economy Team, Department for Business Innovation and Skills
Paul Jefferiss	18,000	18,000	Group Head of Policy, BP plc
Hugh McNeal*	Nil	Nil	
Chris Mottershead	18,000	18,000	Vice-Principal (Research and Innovation), King's College, London University
Lucy Neville-Rolfe	18,000	18,000	Executive Director, Corporate and Legal Affairs, Tesco PLC
Matthew Quinn*	Nil	Nil	Director, Department for Environment and Sustainability, Welsh Government
James Smith	Nil	Nil	Chairman, Shell UK Ltd
David Thomson*	Nil	Nil	Deputy Secretary, Department for Enterprise, Trade and Investment, Northern Ireland Executive
Tim Weller	21,000	21,000	Chief Financial Officer, Cable and Wireless Worldwide plc
<b>Totals</b>	<b>199,000</b>	<b>199,000</b>	

## Financial review

Activity during 2010/11 remained at enhanced levels as the Carbon Trust concluded the activities it had commenced the previous year to effectively use economic stimulus funding provided by Government in the areas of:

- interest-free Energy Efficiency Loans for businesses
- venture capital investment
- the Marine Renewables Proving Fund
- expansion of the Offshore Wind Accelerator

As a result of UK Government funding reductions, the company also had to manage an in-year £14.9 million cut in core grant funding from DECC and constraints imposed on future commitments. Despite this, the business performed exceptionally well, making material short term carbon savings and potential future carbon savings and attracting significant leverage.

In anticipation of further Government funding reductions in future years, increased efforts were put into the provision of paid-for services. The Advisory Services activity was piloted during the year and launched as a separate company in April 2011. A commercial partner was sought to replace the Government funded interest-free Energy Efficiency Loans scheme with a commercial scheme and at the year end a partnership was announced with Siemens Financial Services under which up to £550 million of commercial finance will be provided over the next three years to energy saving projects assessed by Carbon Trust Implementation Services.

### Sources of funds

For 2010/11 the Group received grant funding from DECC, the Devolved Administrations, Defra, Department for Transport (DfT) and the Foreign and Commonwealth Office (FCO) of £142.8 million (2009/10 – £244.4 million). In 2010/11 the Group generated revenues from sales and licencing agreements of £7.8 million (2009/10 – £5.3 million).

In order to maximise the impact of its public funding, in addition to seeking payment for certain services, the Carbon Trust seeks to directly leverage third party private sector funding: applied research grants required at least 40% match funding (either in case of funding or in kind contribution); technology accelerators can leverage contributions from industry participants and these were £0.8 million in 2010/11 (2009/10 – £1.0 million); enterprise businesses have co-investors providing equity and development finance; research accelerators seek third party co-investors to finance the development of the businesses after the initial phase; and venture capital investments are made alongside third party co-investors.

### Activity summary

The table below shows expenditure charged to the statutory income statement by each business area, and total activity, which includes expenditure not charged to the income statement.

	2011 £'000	2010 £'000
<b>Carbon now</b>		
Specialist advice	35,604	34,869
Finance	64,192	147,650
Setting standards	5,163	6,772
<b>Total carbon now</b>	<b>104,959</b>	189,291
<b>Carbon future</b>		
Opening markets	36,928	35,158
Technology commercialisation	14,509	12,989
Investments	7,529	17,250
<b>Total carbon future</b>	<b>58,966</b>	65,397
<b>Total programme expenditure</b>	<b>163,925</b>	254,688
Other management and administration expenditure	4,339	3,600
Finance costs	6,149	11,232
<b>Total activity for the financial year</b>	<b>174,413</b>	269,521
<b>Less activity not included in statutory expenditure</b>		
Net effect of investments made less fair value adjustments	(5,728)	(21,024)
Remaining effect of interest-free loans	(40,032)	(105,470)
<b>Total expenditure</b>	<b>128,653</b>	143,027

### Carbon now

Specialist advice activity was at similar levels to the previous year with £35.6 million funding provided (2009/10 – £34.9 million). Specialist advice had a particularly strong first half of the year for co-funded advice assignments from our larger customers. Revenue contributions increased to £2.6 million (2009/10 – £1.8 million). In light of the demand, and DECC's grant reduction, the Carbon Trust restructured its services for larger companies to be 100% paid-for in order to trial the market appetite to pay for the services. In April 2011 the activity was launched as a commercial subsidiary, Carbon Trust Advisory Services Limited.

Finance activity continued to be strong with £41.1 million new loan commitments made to private sector clients during 2010/11 (2009/10 – £71.8 million). Demand was managed by increasing the required carbon savings per £1,000 of loan offered. With the growth of the loans portfolio and the full disbursement of loans committed in 2009/10, despite rigorous credit management, the increase in the provision for arrears was £3.6 million

(2009/10 – £1.4 million). The total provision represents 3.7% of the total value of loans offered (2009/10 – 3.2%). The Carbon Trust launched a search for commercial funding to replace the grant funded scheme for 2011/12. On 27 March 2011 the Energy Efficiency Loans scheme was closed to new applicants in England, and on 14 April 2011 a new commercial finance scheme was announced with Siemens Financial Services.

The Carbon Trust continued to fund Salix Finance's co-funded invest to save scheme and its interest-free loan scheme to public sector bodies for the purchase of energy efficient equipment. During 2010/11 Carbon Trust committed grant funding to Salix Finance of £18.1 million (2009/10 – £57.4 million) to fund these schemes.

The Carbon Trust continues to invest in its wholly owned businesses providing voluntary standards, including the Carbon Trust Standard Company Limited, Carbon Trust Footprinting Certification Company Limited and Carbon Trust Footprinting Company Limited. As part of Carbon Trust's review of its commercial offer on the introduction of paid-for Advisory Services, these businesses were also reorganised, bringing the management of the certification businesses of the Carbon Trust Standard Company and Carbon Trust Footprinting Certification Company Limited together and focusing the Carbon Trust Footprinting Company's activity on the development and sale of the Footprint Expert™ tool. Sales by these companies were £3.8 million (2009/10 – £2.9 million). As a consequence of the performance of the businesses, less investment was needed and total expenditure was £5.1 million (2009/10 – £6.7 million).

## Carbon future

In opening markets, the Carbon Trust focuses on catalysing demand at scale for low carbon products and services by stimulating private sector investment. Activity increased in the year with funding, including expenditure not charged to the income statement, at £36.9 million (2009/10 – £35.1 million). Key areas of funding were the Marine Renewables Proving Fund which was launched in September 2009 with stimulus funding, together with increased activity in the Offshore Wind Accelerator, and investment in low carbon enterprises companies, namely Low Carbon Workplace LP and Partnerships for Renewables.

Technology commercialisation activity, including expenditure not charged to the income statement, increased to £14.5 million (2009/10 – £12.9 million) primarily reflecting increased investment in the development of two research accelerators in organic photovoltaics and Advanced Biofuels, (recorded in Investments in the previous year), as well as increased activity in the recently launched Entrepreneurs Fast Track service (which builds on the previous applied research grant and business incubator schemes). DECC funding constraints limited activity under the Industrial Energy Efficiency Accelerator. The grant funding from DECC for 2011/12 does not include funding for the continuation of the Algae

Biofuels Challenge or the Industrial Energy Efficiency Accelerator. In March 2011 we were notified that the Industrial Energy Efficiency Accelerator had secured funding under the Regional Growth Fund, ensuring the continuation of this valuable activity.

In 2010/11 venture capital investment was effectively restricted to follow on investment in Carbon Trust Investments Limited (CTIL) portfolio. Eight follow on investments were made in the existing venture capital portfolio (2009/10 – 16 new and follow on investments). During the year CMR Limited paid a special dividend upon voluntary liquidation. Overall funding for the area, including investment activity which is not charged to the income statement, was £7.5 million (2009/10 – £17.3 million, including investments made into research accelerators).

Each business area incurs its own management and administration costs and is also allocated a proportion of central costs. The Carbon Trust revised its allocation of central cost to a fully allocated basis. For 2010/11 a total of 100% (2009/10 – 91%) of central costs were allocated on an activity basis to the business areas.

Centrally controlled management and administration costs were reduced by 7.5%. The main reason for the reduction in costs year on year is reduced IT, accommodation and staff costs, with 215 employees at 31 March 2011 (2010 – 228). As a consequence of the reorganisation of the business at the year end in preparation for the reduced level of DECC funded activity in 2011/12, an exceptional cost is booked reflecting redundancies and the break costs of onerous contracts.

Other management and administration expenditure includes the costs of running offices in Scotland, Wales and Northern Ireland.

Grant funding from DECC, the Scottish Government, the Welsh Government, Defra and the DfT is approved annually prior to the start of the year and drawn down monthly in advance. Grant funding from Invest Northern Ireland and the FCO is received in arrears.

There was £0.1 million (2009/10 – £0.3 million) of capital expenditure in the year, which was primarily on replacement IT equipment.

At 31 March 2011 cash held was £56.5 million (2009/10 – £50.9 million).

These balances arise from net grant funding received in advance of costs being paid of £19.1 million (2009/10 – £15.1 million), from cash balances from loan repayments held under the interest-free Energy Efficiency Loans scheme of £20.1 million (2009/10 – £22.0 million), Carbon Trust own cash balances held for venture capital investment of £2.3 million (2009/10 – £nil) and Carbon Trust group own cash balances of £15.0 million (2009/10 – £13.9 million).

## Financial review

### Continued

#### Cash balances

	2011 £'000	2010 £'000
Cash received in advance of costs being paid	19,097	15,086
Cash balances ring fenced for the interest-free loans scheme	20,111	21,957
Carbon Trust group cash balances held for reinvestment	2,289	–
Carbon Trust group own cash balances	14,969	13,883
	56,466	50,925

Following the closure of the interest-free Energy Efficiency Loans scheme in England and Scotland, Carbon Trust is obliged to repay the uncommitted cash balances to DECC and to repay the repayments as received monthly. The stimulus funded interest-free loans to businesses and also to the public sector bodies through Salix Finance are also repayable on receipt of repayment.

The Carbon Trust group has some of its own funds generated from investment sales, loan repayments and investment income. At year end these funds were £15.0 million which are committed to meet investment obligations or will be reinvested.

#### Carbon Trust own cash balances

The movement in the Carbon Trust's own cash balances is shown in the table below:

	2011 £'000	2010 £'000
Opening Carbon Trust own funds	13,883	11,580
Interest-free loan repayments received	450	1,554
Expenditure	(308)	(119)
Investment income and licence fees	1,121	988
Investment in US activity	(229)	(209)
Interest received on cash balances net of tax	52	88
Closing Carbon Trust own funds	14,969	13,883

At 31 March 2011 the company directly held four wholly owned subsidiaries:

- Carbon Trust Enterprises Limited (CTEL)
- Carbon Trust Investments Limited (CTIL)
- Carbon Trust Fund Management Holdings Limited (CTFMHL)
- Carbon Trust International Limited (CTIntL)

#### CTEL and wholly owned subsidiaries

CTEL exists to undertake commercial activities primarily through its subsidiaries and joint ventures.

[Carbon Trust Footprinting Company Limited](#), which focuses on the development and sale of its Footprint Expert™ footprinting tools.

[Carbon Trust Footprinting Certification Company Limited](#), which focuses on providing independent certification of calculations of the carbon footprints of products and services, in line with industry specifications.

[Carbon Trust Advisory Services Limited \(formerly The Low Carbon Culture Company Limited\)](#), which from 1 April 2011 provides strategic carbon consultancy services.

[The Carbon Trust Standard Company Limited](#), which focuses on providing organisations with certification of their performance in taking action to reduce their carbon emissions, with the endorsement of the Carbon Trust Standard.

[Carbon Trust Implementation Services Limited](#), which from April 2011 provides carbon advisory services to the new energy efficiency finance scheme funded by Siemens Financial Services and also provides low carbon procurement support and advisory services.

[Low Carbon Workplace Limited](#), a carbon advisory firm set up to advise the Low Carbon Workplace LP (LCW Fund) on the low carbon aspects of building refurbishment.

CTEL also holds a 98.1% interest in [Future Blends Limited](#), set up under the Advanced Biofuels Research Accelerator to develop and commercialise the production of low carbon diesel blendates from waste biomass.

#### Joint ventures of CTCL

[Insource Energy Limited](#), a renewable energy developer developing an integrated energy supply and waste management business providing tailored, on-site solutions for food and drink manufacturers in the UK. During the year ended 31 March 2011, CTCL made no investment (2009/10 – £1 million) in Insource Energy Limited.

[Connective Energy Limited](#), a renewable energy business set up to develop a low carbon heat supply business which is no longer trading. CTCL has a 40% interest in Connective Energy Limited.

[Partnerships for Renewables Limited \(PFR\)](#), a renewable energy developer working with public sector bodies to develop, construct and operate on-site renewable energy projects in the UK. During the year two further investments totalling £1.2 million were made by CTCL alongside investments of £1.1 million in total from the co-investor, InfraRed Environmental Infrastructure Fund (formerly HSBC Environmental Infrastructure Fund). In November 2010, PFR completed a successful refinancing for its expanded business plan introducing OPTrust Infrastructure Europe II Inc (OPT) as a shareholder. Under the terms of the agreement OPT will invest in PFR's expanded development plan until it has invested the same



amount as InfraRed and will invest pro-rata thereafter. OPT's shareholding will increase in proportion to its funding for PfR up to 33%. CTCL's investment is 46.1%, anticipated to reduce to 34% over the period of OPT's investment.

**The Solar Press UK Limited**, set up under the Advanced Photovoltaic Research Accelerator to develop and commercialise organic photovoltaic technology. CTCL has a 38.3% holding. An investment of £1 million was made in a convertible loan in 2010/11 (2009/10 – £nil).

**Sackville LCW (GP) Limited**, the general partner of the LCW Fund which is seeking to raise funds to invest in the low carbon refurbishment of buildings. CTCL has a 33.3% holding.

**Eight19 Limited**, set up under the Advanced Photovoltaic Research Accelerator to develop and commercialise organic photovoltaic technology is a joint venture with Rhodia SA, the University of Cambridge and founder members. CTCL has a 37.6% holding. An investment of £2.25 million was made in 2010/11.

## CTIL

CTIL acquires and holds venture capital investments. Eight follow-on investments were made during the year. CTIL holds a 100% economic interest in the Low Carbon Seed Fund LLP (LCSF), which holds three investments, no new investments were made through LCSF during the year.

The Directors are aware of the high risk nature of investing in early stage technologies where there will be losses in a portfolio of investments in addition to any overall gains. The Directors remain of the view that investing in early stage technology development is an important part of the company's remit and that acceptable investment returns should be generated from the portfolio over time.

## CTFMHL

The company held through CTFMHL a 40% interest in **CT Investment Partners LLP (CTIP)**. CTIP is authorised and regulated by the Financial Services Authority to undertake designated investment business. CTIP is a partnership between CTFMHL and the investment management team as executive partners. CTIP provides investment advisory services to CTIL and the Carbon Trust. The terms of the partnership agreement state that until the partnership achieves certain milestones in securing funds under management from third parties, CTFMHL is entitled to 100% of the profits generated by the partnership; on 15 December CTIP fulfilled this condition and CTFMHL's share of profits reduced to 40%.

## CTIntL

The group held the following through Carbon Trust International Limited:

- all of the paid in capital of **Carbon Trust LLC**, a limited liability company established in Delaware; and
- a 49% interest in **China-UK Low Carbon Enterprise Co. Limited**, a joint venture entity established in China with the China Energy Conservation and Environmental Protection Group (CECEP)

The company is one of four members of **Salix Finance Limited** (Salix Finance), a company limited by guarantee. As such, Salix Finance is treated as an associated entity. John Edmonds, a Non-Executive Director of the Carbon Trust, is nominated by the company to be a Director of Salix Finance. Salix Finance runs a co-funded invest-to-save scheme and an interest-free loan scheme for public sector organisations to invest in energy efficient equipment. New grant funding to Salix Finance in 2010/11 was £18.1 million (2009/10 – £77.1 million).

The company is one of three members of the **European Marine Energy Centre** (EMEC) which operates a testing centre for marine devices in the Orkney Islands. EMEC is controlled by its directors and the company does not have a director. As such it is excluded from the financial statements. EMEC's net assets at 30 June 2010 were £0.6 million (2009 – £0.2 million).

As the Carbon Trust has subsidiaries, consolidated group accounts have been prepared.

The company actively manages its activities during the year towards its carbon saving and other objectives as set out in the Performance Assessment section on pages 56 to 64.

The company has an agreement with Her Majesty's Revenue and Customs that grant income is not subject to tax. Similarly no tax deduction is available for expenses funded out of grant income. The commercial activities of the group have generated tax losses in the year, which are available to offset taxable profits elsewhere in the group. In preparing its financial statements in accordance with International Financial Reporting Standards (IFRS), provision is made for deferred tax on the difference between the fair value of venture capital investments and their base cost. Changes to the deferred tax provision are reflected in the income statement.

The principal risks that the company is managing are either operational or government policy related. DECC, as the company's primary funder, has announced that it no longer expects to provide core grant funding for the Carbon Trust from 1 April 2012 and that it intends to procure many of the low carbon services and programmes that it wishes to fund. The Directors are of the opinion that the Carbon Trust (or the group) has reasonable prospects of securing work offered through public tender.

Key operational risks relate to delivering the ongoing corporate cost reduction plan, successfully generating revenues in the commercial subsidiary businesses and successfully bidding for Government funded delivery in 2012/13 to facilitate the transition

## Financial review

### Continued

to a fully commercial business. In 2011/12 the company also needs to successfully manage the transition to a commercially funded energy efficiency finance scheme.

At the present time the group's exposure to foreign currency risk is minimal due to limited overseas operations. As the group expands its international activities, necessary procedures will be implemented to limit the group's exposure to adverse foreign currency movements.

The company is primarily grant funded in advance and has no external borrowings, so its interest rate risk is limited to interest earned on cash balances. The group earns interest income at variable rates on its cash balances.

The group's principal financial assets are cash balances, interest-free loan receivables, trade and other receivables and venture capital investments. The main credit risk the group faces has been in relation to its interest-free Energy Efficiency Loans scheme (now closed apart from in Northern Ireland and Wales). This risk is actively managed with formal credit checking procedures, and allowances for impairment are made where appropriate. The group's bad debt provisioning policy includes taking into account debtors in arrears as well as debtors in administration. In 2010/11 £5.0 million was provided against loans in administration (2009/10 – £3.5 million) and £3.2 million against loans in arrears (2009/10 – £1.0 million). With the increasing sales revenues the group has credit risk relating to commercial revenues.

As the company is primarily grant funded in advance it has limited liquidity and cash flow risk. Cash levels are monitored to ensure sufficient resources are available to meet the group's requirements. Cash surpluses are placed on term deposits with the group's bank to manage liquidity whilst optimising the rate of return on cash resources, giving due consideration to risk.

### Explanation of the components of our profit

Income in 2010/11 is made up of: grant claimed from DECC, each of the Devolved Administrations, DfT, Defra and FCO; separate funding for the interest-free Energy Efficiency Loans scheme in Northern Ireland; interest income on the Carbon Trust's own funds; sales in commercial subsidiaries; sales to expert advice customers; licence fee income and investment transaction fees and investment returns. Under the group's accounting policies, grant income is recognised in the income statement to match against expenditure. Three areas of activity, capital expenditure, investments and making loans are not chargeable as expenditure for statutory profit and loss purposes.

As a result, when grant funding is used to purchase tangible or intangible fixed assets, the grant income is categorised as deferred income and it is released to the income statement to match the depreciation or amortisation of those assets over their expected useful lives.

When equity investments are made, as there is no expected useful life, the grant income is recognised with no corresponding expenditure. This leads to a profit (which is actually an excess of income over expenditure for accounting purposes) equal to the

initial cost of the investments held in the balance sheet.

Any fluctuations in the fair value of these investments are also recognised in the income statement. The fluctuations in fair value of the investments recognised in the year were £2.9 million (2009/10 – £0.2 million).

When grant funding is received to make interest-free Energy Efficiency Loans that may at a future point be repayable to the funder, this grant income is categorised as deferred income in the balance sheet. Most funding used for loans falls into this category. However, when interest-free Energy Efficiency Loans are made out of non-repayable grant income, the balances due become receivables in the balance sheet and the grant income used to fund them is recognised in the income statement. Such profits recognised in the year due to loan commitments existing at 31 March 2011, were £1.0 million (2009/10 – £1.7 million).

The value of loan receivables shown in the balance sheet is reduced by a discounting charge representing notional interest. The discounting charge for loans funded out of non-repayable grant income reduces the profit for the year and is shown separately in the income statement. The discount is re-credited to the income statement annually over the term of each loan as notional interest income, which increases the retained profit to the full value of the loans over the full period (net of any bad debts). Finance income arising from unwinding of discounted loan balances in relation to non-repayable loans was £0.2 million (2009/10 – £nil). The movement in provision for bad debtors in relation to non-repayable interest-free Energy Efficiency Loans was (£0.2 million) release in provision (2009/10 – £0.1 million charge).

When cash proceeds from loan repayments and investment sales are used to fund further investments or new loans there is not a corresponding increase in profit, as the activity is not grant funded. When these cash proceeds are used to meet expenditure, it is recorded as an expense in the income statement.

Group businesses make commercial profits from sales and receive investment income and interest income is earned on the Carbon Trust's own funds.

The group, through its subsidiaries CTCL and CTIntL has entered into seven joint venture agreements in relation to: Insource Energy Limited, Partnerships for Renewables Limited, China-UK Low Carbon Enterprise Company Limited, Connective Energy Limited, The Solar Press UK Limited, Eight19 Ltd and Sackville LCW (GP) Limited. The group includes its share of the joint ventures' and associates' profits or losses in the consolidated income statement.

In November 2010, a new shareholder was introduced to Partnerships for Renewables Limited, and as a consequence the group reduced its shareholding and recorded a profit upon the deemed disposal. The net gain on this deemed disposal has been recorded in the consolidated income statement.

The group provides for deferred tax balances between the fair value of investments and the base cost. No provision is made for deferred tax assets arising on tax losses carried forward as future profits are considered uncertain. Movements in this provision were £0.4 million (2009/10 – £3.8 million).

The group incurs tax charges overseas which may not be relieved against losses incurred in the commercial subsidiaries. In 2010/11 these were £0.1 million (2009/10 – £nil), and are treated as an expense offset against grant.

The profit shown in the consolidated income statement may be broken down as follows:

#### Items contributing to profit for the financial year

	2011 £'000	2010 £'000
Purchase of equity and convertible loan stock instruments using grant funding	12,295	21,199
Change in fair value of investment portfolio	(2,916)	(216)
Non-repayable grant income released as cash held for reinvestment in venture capital	2,289	–
Non-repayable grant income received in relation to interest-free loan scheme	1,075	1,790
Net impact of discounting of interest-free loans	(159)	(2)
Specific provision for bad debts for loans funded from non-repayable grant funding	205	(55)
Loss arising in group businesses	(820)	(309)
Investment Income	382	364
Interest receivable on Carbon Trust own funds	51	88
Share of joint ventures' and associates' results	(3,560)	(2,571)
Financial income related to joint ventures	2,721	263
Taxation	(751)	(3,766)
Non-controlling interest	14	6
Exchange gain/(losses)	4	(2)
	10,830	16,789

The make up of consolidated group reserves is analysed below:

#### Group Reserves

	2011 £'000	2010 £'000
Investments	27,001	22,072
Deferred tax liability	(6,541)	(5,789)
Impact of joint ventures	13,425	10,324
Non-repayable loan receivables	2,638	1,975
Cumulative non-grant funded losses	(705)	(221)
Cash balances held for reinvestment in venture capital	2,289	–
Carbon Trust own funds	14,969	13,883
Exchange gain/losses	(4)	(1)
	53,072	42,243

Included in group reserves are restricted assets whose funding includes covenants about future use; £12.9 million (2010 – £7.7 million) relating to cash balances and investments where sales proceeds must be reinvested in low carbon technology venture capital investments and £2.7 million (2010 – £1.7 million) relating to loans where repayment must be utilised in Wales. All other reserves are without restriction and may be used at the Carbon Trust's discretion.

#### Explanation of the significant components of the balance sheet

Once again the Carbon Trust received significant additional stimulus funding during the year for interest-free loans for businesses and, through Salix Finance, the public sector. While Finance activity has limited impact in the income statement of £4.8 million (2009/10 – £10.6 million), it significantly increases the total assets recognised on the balance sheet. Balances related to loans receivable of £90.1 million (2010 – £91.2 million), the obligation to pay down loan funding of £21.0 million (2010 – £73.8 million), accrued income due from funders related to these loans of £5.6 million (2010 – £66.6 million) and deferred income due to funders on the loan repayment of £82.8 million (2010 – £89.9 million), led to the substantial levels of total assets disclosed in the group and company balance sheets of £95.7 million (2010 – £157.8 million). The stimulus funded loans are repayable to DECC monthly on receipt of loan repayments by the company. Since the announcement of the closure of the interest-free Energy Efficiency Loans scheme in England and Scotland in March 2011, £33.1 million recycling loans have become repayable to DECC upon receipt by the Carbon Trust.

# Independent assurance report to the Directors of the Carbon Trust on the application of 2010/11 Performance Assessment Methodology

We have been engaged by the Carbon Trust to perform an independent limited assurance engagement in relation to the application of its 2010/11 Performance Assessment Methodology (the Methodology) in calculating selected performance data reported in the Performance Assessment section on pages 56 to 64 of the Annual Report.

## Scope of work

We examined the application of the Methodology in preparing the performance data marked with the symbol ▲, on pages 58, 59 and 62 of the Annual Report (the 'performance data'), for the year ended 31 March 2011.

We also read the text and disclosures in the Performance Assessment section on pages 56 to 64 of the Annual Report and consider whether it is consistent with the performance data. We consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with the performance data.

## Respective responsibilities of the Carbon Trust Directors and PricewaterhouseCoopers LLP

The Directors of the Carbon Trust are responsible for the preparation of the Methodology, the 2010/11 Annual Report and the information and statements contained therein. It is the Carbon Trust Directors' responsibility to develop, operate, and maintain systems and processes, to ensure the performance data are derived in accordance with the Methodology.

Our responsibility is to form an independent conclusion, based on our limited assurance procedures, on whether anything has come to our attention to indicate that the 2010/11 performance data have not been prepared in accordance with the Methodology.

We are in compliance with the applicable independence and competency requirements of the Institute of Chartered Accountants in England and Wales (ICAEW) Code of Ethics. Our team comprised assurance practitioners and relevant subject matter experts.

This report, including the conclusion, has been prepared for the directors of Carbon Trust as a body, to assist the directors in reporting on the application of 2010/11 Performance Assessment Methodology to the selected performance data. We permit the disclosure of this report within the 2010/11 Annual Report to enable the directors to demonstrate they have discharged their governance responsibilities by commissioning an independent assurance report in connection with the application of 2010/11 Performance Assessment Methodology to the selected performance data. To the fullest extent permitted by law, we do not accept or assume any responsibility to anyone other than the directors as a body and the Carbon Trust for our work or this report.

## Assurance work performed

We conducted our work in accordance with International Standard on Assurance Engagements 3000: Assurance Engagements other than Audits or Reviews of Historical Information (ISAE 3000), issued by the International Auditing and Assurance Standards Board.

Our work was limited to examining the relevant activities undertaken by the Carbon Trust and its contractors. We did not undertake verification of the underlying energy and cost data provided by the Carbon Trust customers.

Our limited assurance procedures primarily comprised:

- examining the Methodology and understanding the key assumptions and limitations
- conducting interviews with management and other personnel at the Carbon Trust and its contractors, to understand the processes in place during the performance year
- examining and testing of the systems and processes in place to generate, aggregate and report the selected performance data, and assessing compliance with the Methodology
- assessing the operation of key controls, including consultant accreditation, the technical review of consultant reports and quality checks conducted on the reported data

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement under ISAE 3000. Consequently, the nature, timing and extent of procedures for gathering sufficient appropriate evidence are deliberately limited relative to a reasonable assurance engagement.

## Key assumptions and inherent limitations

The Carbon Trust has been developing and improving the Methodology over a number of years. For its carbon now expert advice and finance activities, the underlying energy and cost data are outside of the Carbon Trust's control and the calculations of savings and costs include assumptions and expert judgement.

Therefore, the performance data are subject to uncertainty in the following areas:

- the uncertainty in estimated savings can vary according to the type of action. For example, savings from technology-based actions will have less uncertainty than those from improved general energy management and monitoring activities
- implemented savings are those reported by customers and are not verified by the Carbon Trust
- actual costs and savings may differ from the original estimates that gave rise to the performance data



- performance data relating to interest-free Energy Efficiency Loans is estimated by customers and checked for technical feasibility by independent consultants, and so may differ from the savings that were achieved by customers. We draw your attention to the independent review described on page 59 of this report, which reviewed a sample of customers who received such a loan, to compare the savings that were achieved by customers with the savings estimates provided by customers and reviewed by consultants
- lifetime savings are estimated using persistence factors based on best available information and expert views
- for some activities implementation costs and energy cost savings are difficult to estimate or customers will not provide this information. The Carbon Trust has used the data it does have to extrapolate cost savings and implementation costs to the instances where no data is available, in order to calculate average cost/benefit. Its approach is described on page 57.

The carbon now opening markets and carbon future methodology is subject to additional uncertainty, as it is based on long-term predictions. This uncertainty is reflected in the wide range of savings estimated. The carbon future methodology includes the use of a predictive model that is reviewed by independent consultants. This model was updated during 2010/11. The inputs and assumptions used in the model are not within the scope of the limited assurance engagement, however the application of this model as per the performance assessment methodology has been reviewed.

In addition, the Carbon Trust costs used to derive the cost effectiveness and cost benefit Performance Data exclude irrecoverable VAT and corporate costs (refer to page 57 of this report for further details).

## Conclusion

Based on the results of our procedures, nothing has come to our attention to suggest that the 2010/11 performance data have not been prepared, in all material respects, in accordance with the Methodology.

The logo for PricewaterhouseCoopers, featuring the company name in a stylized, handwritten-style script.

PricewaterhouseCoopers LLP  
Chartered Accountants  
United Kingdom

14 July 2011

# Performance assessment

Our activities are designed to have a material impact in terms of CO<sub>2</sub> emission reductions. With our Government funding, we have sought to balance the CO<sub>2</sub> emission reductions that are achievable now, often at lower current cost per tonne of carbon saving, with the projects needed to drive the carbon reductions in the future. We aim to improve the cost efficiency of our activities, and by measuring our impact, we learn how to improve our services.

The group carries out a wide range of activities, and during the year we assessed the performance of each material area in which we operate by tracking internal key performance indicators. In this section, we have set out the principal metrics which we have reported every year and which we consider to have been critical to our success to date.

## Carbon now specialist advice and finance

Our carbon now activities help our customers to deliver real savings in the short term. We support customers where knowledge and lack of resources are the key barriers to the implementation of cost-effective low carbon technologies and best practices that are market ready. We reduce these barriers by helping customers of all sizes to understand how they can act, by demonstrating the benefits of taking action and by providing them with the tools and access to finance to help them act.

In these areas we define success as maximising CO<sub>2</sub> emission reductions through the cost efficient deployment of our resources. Our objective is to increase the emission reductions and energy cost savings that result from our activities and over time to deliver our services cost effectively. The CO<sub>2</sub> emissions reductions that are achieved by our larger customers are often at a lower current cost per tonne of carbon saved than the reductions achieved by our small to medium sized organisations that are usually less cost effective. Our detailed annual impact assessment provides measurement of our overall impact and efficiency, and gives us insights into how to improve the mix of services that we offer.

Key highlights:

- we have achieved a record year in terms of carbon savings in 2010/11 whilst also improving the long term cost-effectiveness of these savings. The lifetime CO<sub>2</sub> savings implemented in 2010/11 increased by 1.3MtCO<sub>2</sub> – 1.5MtCO<sub>2</sub> compared to projects implemented in 2009/10, resulting in savings of 14.2MtCO<sub>2</sub> – 14.7MtCO<sub>2</sub> over the lifetime of the projects. The cost-effectiveness of these carbon savings has improved from £3.4–3.6/tCO<sub>2</sub> in 2009/10 to £2.95–3.05/tCO<sub>2</sub> in 2010/11
- our activities continue to deliver strong net financial benefits to our customers. An estimated capital expenditure by customers of £453 to £471 million in 2010/11 helped them to achieve energy cost savings of £1.5 to £1.6 billion over the lifetime of the projects

## Methodology overview

We are reporting savings from the following areas of activity:

### Specialist advice

- directly delivered advice (including carbon management for large companies, public sector bodies; carbon management energy efficiency services for large energy users; on-site carbon surveys);
- work with trade and professional bodies; and
- general advice (including the Carbon Trust website, helpline and publications)

### Finance

- interest-free Energy Efficiency Loans; and
- Salix Finance's co-funded public sector invest-to-save schemes and interest-free loans for public sector organisations

For both our specialist advice and finance activities we follow-up with our customers and conduct detailed analysis of customer data to quantify the CO<sub>2</sub> saving measures our customers have implemented as a result of our recommendations.

We report:

- an estimate of our overall impact in terms of implemented CO<sub>2</sub> emission reductions on an annualised basis;
- our programme cost-effectiveness on an annualised and lifetime basis; and
- the lifetime cost benefit of our activities taking into account our programme costs and an estimate of the costs and benefits to our customers

Details of our full methodology are set out in the Carbon Trust 2010/11 Performance Assessment Methodology, which is available from our website ([www.carbontrust.co.uk](http://www.carbontrust.co.uk)).

### Cost-effectiveness

We calculate our cost-effectiveness in delivering CO<sub>2</sub> emission reductions over two time periods:

- annualised cost-effectiveness = programme costs divided by annualised CO<sub>2</sub> emission reductions of all implemented recommendations<sup>1</sup>; and
- lifetime cost-effectiveness = programme costs divided by lifetime CO<sub>2</sub> emission reductions of all implemented recommendations<sup>2</sup>

1 Annualised emission reductions are the reductions in CO<sub>2</sub> emissions that we estimate will occur in the first year of each implemented recommendation.

2 Lifetime emission reductions are the reductions in CO<sub>2</sub> emissions that we estimate will occur over the lifetime of each implemented recommendation.

In these calculations we use our programme cost for the 2010/11 financial year and the CO<sub>2</sub> savings reported to us during the year as having been implemented. These may relate to opportunities identified in previous financial years, as well as 2010/11.

In both cases, programme costs are the costs associated with delivering our services and include an appropriate allocation of Carbon Trust central costs. The following costs have been excluded from our cost-effectiveness calculations:

- irrecoverable VAT (representing 7% of total costs). We exclude VAT from our cost-effectiveness calculations in order to ensure comparability with other organisations operating in this area; public sector organisations are exempt from VAT, and other private sector organisations are able to recover VAT. In addition, excluding VAT gives a true representation of the cost-effectiveness to Government (who receive the VAT we pay);
- costs associated with running the offices in the Devolved Administrations (representing 5% of total costs); and
- the exceptional cost reflecting redundancies and the break costs of onerous contracts no longer required as a consequence of the reorganisation of the business at the year end in preparation for the reduced level of DECC funded activity in 2011/12

Lifetime CO<sub>2</sub> emissions are estimated using the Carbon Trust's model of the expected persistence of measures implemented by our customers, based on a categorisation of technology. The expected persistence can vary from a few years, for behavioural changes, to over 25 years for activities including implementation of renewable technologies. The model, originally developed in 2005/06, was updated by industry experts using best available research in 2009/10. The Technical Advisory Group (made up of representatives from DECC, WRAP, EST, the Carbon Trust, Salix Finance, The University of Surrey, Imperial College, Atkins, AEA Technology and the Carbon Trust's Limited Assurance providers) is responsible for testing the robustness of the new model, assessing stakeholder comments, recommending changes and additions to the Carbon Trust Board and updating the model as necessary.

#### Cost benefit

We recognise that CO<sub>2</sub> emission reductions are most beneficially achieved when the cost to business is less than the financial savings that result from reduced energy use. To capture this, we also calculate the cost benefit of these activities taking into account the financial costs and benefits to our customers in addition to the costs we incur:

- cost benefit = net present value of Carbon Trust programme costs, customers' implementation costs and customers' energy cost savings divided by lifetime CO<sub>2</sub> emission reductions of all implemented recommendations

This calculation creates a negative number where the overall effect is a savings benefit. Implementation costs include capital and other up-front costs invested by our customers in implementing carbon reduction measures, but generally exclude other (non-energy) operational benefits or costs, as these can be difficult to quantify.

In some cases it is difficult for us to collect data on implementation costs or cost savings. Where there are gaps, we continue to apply an estimate of these costs and cost savings based on a detailed analysis of the type of technology or fuel used by customers, derived from our database of thousands of such measures. We have estimated 7% of implementation costs and 2% of cost savings using this approach.

We have used a 3.5% discount rate consistent with the Treasury Green Book rate to calculate the net present value of future energy savings.

### Specialist advice

#### Directly delivered advice

Our assessment is based on the customer action plans and survey reports delivered to customers of our on-site carbon surveys, carbon management and carbon management energy efficiency services. Our accredited consultants make detailed recommendations to our customers and quantify the impact of implementing these recommendations in terms of carbon, energy and cost savings and any implementation costs required. The CO<sub>2</sub> and cost savings are estimated using our customers' current emissions and costs as a baseline.

During the year we attempt to follow up with all customers through telephone interviews and/or face to face visits to establish which recommendations have been implemented. For some customers, particularly of carbon management or carbon management energy efficiency services, initial follow up may be supplemented through the involvement of and analysis by accredited consultants.

Our methodology for directly delivered advice is subject to some key assumptions and uncertainties. The figures we show here are the CO<sub>2</sub> savings from activities that our customers have reported to us as implemented, some of which may have been implemented in previous financial years (but have not been previously reported to us). Given that we make a large number of recommendations, the majority of which are individually small in scale, and our role in catalysing CO<sub>2</sub> savings realised by our customers, it is not cost-effective for us to independently verify the actual savings achieved by our customers. Actual savings may therefore differ from the original estimates, and we do not require customers to formally measure or report actual savings achieved. To ensure the robustness of our results, we request supporting evidence of implementation from our customers for all individual recommendations saving over 5,000tCO<sub>2</sub> per annum or 20,000tCO<sub>2</sub> lifetime. In 2010/11 these checks covered 50% of the reported lifetime carbon savings from these services.

## Performance assessment

### Continued

There are some differences between reported savings for carbon management and carbon management energy efficiency services, compared to on-site carbon surveys:

- some customers have attributed savings to the Carbon Trust over and above the specific recommendations made by consultants, where further actions have been undertaken as a result of the implementation of carbon management action plans, and with the involvement of the Carbon Trust's account managers. The Carbon Trust has included these savings in its reported figures
- savings from carbon management and carbon management energy efficiency projects are sometimes estimated based on absolute savings achieved by the overall project (e.g. reduced energy consumption), rather than individual recommendations

	Annualised CO <sub>2</sub> savings (MtCO <sub>2</sub> )	Annualised cost- effectiveness (£/tCO <sub>2</sub> )	Lifetime cost- effectiveness (£/tCO <sub>2</sub> )	Average cost/ (benefit) (£/tCO <sub>2</sub> ) <sup>1</sup>
<b>Directly Delivered Advice: On-Site Carbon Surveys</b>				
2010/11	0.4▲	20▲	3▲	(71)▲
2009/10	0.4◆	27◆	4◆	(75)◆

#### Directly Delivered Advice: Carbon Management and Carbon Management Energy Efficiency

	Annualised CO <sub>2</sub> savings (MtCO <sub>2</sub> )	Annualised cost- effectiveness (£/tCO <sub>2</sub> )	Lifetime cost- effectiveness (£/tCO <sub>2</sub> )	Average cost/ (benefit) (£/tCO <sub>2</sub> ) <sup>1</sup>
2010/11	1.1▲	14▲	2▲	(64)▲
2009/10	0.9◆	14◆	2◆	(66)◆

PwC has reviewed the application of the performance assessment methodology to the selected performance data indicated by the following symbol: ▲ (see PwC Assurance Report on pages 54–55). The 2009/10 data indicated by the symbol ◆ received assurance in our previous Annual Report (for information see Carbon Trust Annual Report 2009/10 page 50).

In 2010/11, 22% of the lifetime CO<sub>2</sub> savings reported from our directly delivered advice services are the result of our customers implementing savings through people, behavioural and management based change (versus 36% in 2009/10). Estimating the savings that result from these actions necessarily requires a greater degree of judgement than that required to estimate savings from, for example, installing new technology, and these savings may therefore be subject to greater uncertainty.

#### Trade and professional bodies

Each year we deliver projects in partnership with sector representative bodies and groups of individual bodies brought together by the Carbon Trust to reduce CO<sub>2</sub> emissions across direct participants and the wider sector.

Due to the variety of projects funded, reported savings are estimated by trade and professional bodies in a variety of ways, including the use of direct reporting from participating member organisations (reporting that closely resembles that of our directly delivered advice service) and benchmark estimates based on extrapolated data from representative samples of the bodies' memberships.

We review these projects on an annual basis, dividing them into projects where we have detailed site specific project information and other transformational projects. Due to the impact of the reduction in core funding on these services we are only reporting the impact of one site specific project in 2010/11.

	Annualised CO <sub>2</sub> savings (MtCO <sub>2</sub> )	Annualised cost- effectiveness (£/tCO <sub>2</sub> )	Lifetime cost- effectiveness (£/tCO <sub>2</sub> )	Average cost/ (benefit) (£/tCO <sub>2</sub> ) <sup>1</sup>
<b>Trade and professional bodies</b>				
2010/11				
Site specific	0.06▲	12▲	7▲	(0.2)▲
2010/11 Other	n/a	n/a	n/a	n/a
<b>2010/11 Total*</b>	<b>0.06▲</b>	<b>12▲</b>	<b>7▲</b>	<b>(0.2)▲</b>
2009/10				
Site specific	0.02◆	34◆	6◆	(43)▲
2009/10 Other	0.02	34	13	(21)
<b>2009/10 Total</b>	<b>0.04</b>	<b>34</b>	<b>8</b>	<b>(35)</b>

PwC has reviewed the application of the performance assessment methodology to the selected performance data indicated by the following symbol: ▲ (see PwC Assurance Report on page 54–55). The 2009/10 data indicated by the symbol ◆ received assurance in our previous Annual Report (for information see Carbon Trust Annual Report 2009/10 page 51).

#### General Service

We have a two-step approach to estimating the impact of our general service (website, publications and helpline). First, we use detailed information from our website, publications and helpline databases to calculate the number of organisations using the service to take energy saving action in 2010/11. This analysis recognises that multiple people within an organisation may contact the Carbon Trust, and that not all users of the service are doing so to take energy saving action, and provides the most prudent estimate of the number of unique users of the service.

We then apply estimates of the carbon savings that are likely to have occurred as a result of actions taken based on the industry type and location of users. These estimates are based on a revised survey conducted in 2009/10 that estimated the carbon savings that are likely to occur as a result of actions taken by the unique users of these services.

We present the results in our impact assessment as a range. The higher end of the range represents all the savings achieved by the respondents where the respondents had received some advice from the Carbon Trust related to each measure implemented. The lower attribution level is based on claiming a proportion of the savings, related to the level of influence that the Carbon Trust has had over the savings.

We have not included any CO<sub>2</sub> savings potentially achieved by customers using our seminars and training events.

	Annualised CO <sub>2</sub> savings (MtCO <sub>2</sub> )	Annualised cost- effectiveness (£/tCO <sub>2</sub> )	Lifetime cost- effectiveness (£/tCO <sub>2</sub> )	Average cost/ (benefit) (£/tCO <sub>2</sub> )
<b>General service</b>				
2010/11	0.2–0.3	9–16	2–4	(142)
2009/10	0.2–0.4	5–9	2–4	(143)

## Finance

### Interest-free Energy Efficiency Loans

We estimate the CO<sub>2</sub> emission reductions achieved by the new energy efficient equipment installed by businesses with financing from our loans scheme. Loan recipients that have provided proof of equipment installation and commissioning during the year, and for which we have paid out the full loan amount, we report as 'completed'. Loan recipients that have received a conditional offer during the year and have not been completed we report as 'committed'. Where a loan has been committed at the year end but the offer has subsequently not been taken up and has therefore lapsed, the loan and its carbon savings are not included.

When calculating savings the baseline against which savings are assessed may be based on an assessment of the future situation (e.g. increased energy consumption due to increased production) rather than the present day situation. This is different from directly delivered advice, which is based on the present day situation as the baseline.

Our cost-effectiveness calculations for loans include the opportunity cost of capital, as well as the administration costs of running the scheme (including defaults), but not the full value of the loan as this is repaid. In-year default costs are estimated based on the cumulative default rate from historic activity and represent 6% of the value of loans committed in 2010/11.

In mid 2009/10 we introduced a rolling independent evaluation process for loans that have resulted in energy efficient equipment installed and have been in operation for more than a 12 month period. This replaced the 'one-off' review previously conducted. The aim of the review process is to verify the CO<sub>2</sub> savings that had been estimated at the time of the loan offer. Due to the large number of customers we would need to include in order to perform a statistically powerful analysis, and the high cost to our customers and the Carbon Trust of doing so, we deliberately designed the rolling evaluation process to identify problems with the process of estimating carbon savings which could then be improved, rather than to be a statistically representative verification of our reported results.

We continued this rolling evaluation process in 2010/11. At the point of 2010/11 reporting, 38 new loans had been evaluated under this process and the main findings of the review were:

- the carbon savings for the whole group of projects overall was less than predicted at the loan assessment stage, however, there was significant variability with both overstatement and understatement within the sample group
- where shortfalls and over performance in savings did occur, this was primarily due to changed working conditions post the loans assessment stage (change in production output, weather conditions) and generally due to the initial loan assessor not having access to as much data or site knowledge as the post loan consultant

At the end of March 2011, we stopped providing interest-free loans in England. We have a new partnership with Siemens to set up a new finance scheme worth up to £550 million over the next three years that will enable UK businesses to continue to invest in cost-effective energy efficiency equipment and other low carbon technologies. Carbon Trust Implementation Services will provide carbon saving assessments for this service and we will therefore report carbon savings from this new scheme in 2011/12.

	Annualised CO <sub>2</sub> savings (MtCO <sub>2</sub> )	Annualised cost- effectiveness (£/tCO <sub>2</sub> )	Lifetime cost- effectiveness (£/tCO <sub>2</sub> )	Average cost/ (benefit) (£/tCO <sub>2</sub> )
<b>Interest-free Energy Efficiency Loans</b>				
2010/11 (completed basis)	0.16▲	77▲	7▲	(63)▲
2010/11 (committed basis)	0.12▲	89▲	8▲	(46)▲
2009/10 (completed basis)	0.09◆	131◆	13◆	(78)◆
2009/10 (committed basis)	0.15◆	91◆	8◆	(72)◆

PwC has reviewed the application of the performance assessment methodology to the selected performance data indicated by the following symbol: ▲ (see PwC Assurance Report on page 54–55). The 2009/10 data indicated by the symbol ◆ received assurance in our previous Annual Report (for information see Carbon Trust Annual Report 2009/10 page 53).

### Salix Finance

Salix Finance is an independent company, set up and funded by the Carbon Trust, which provided co-funded public sector invest-to-save scheme and interest-free loans for public sector organisations. As with our own interest-free Energy Efficiency Loans scheme, we include administration costs and the cost of capital on the loans when calculating cost-effectiveness.

In 2010/11 Salix Finance continued to receive independent assurance from KPMG over its reported carbon savings. Details of the Assessment Methodology used by Salix Finance to compile carbon savings are available on their website at [www.salixfinance.co.uk](http://www.salixfinance.co.uk). The key difference in the savings reported by Salix Finance



## Performance assessment

### Continued

is that the CO<sub>2</sub> savings below show the estimated annual CO<sub>2</sub> savings, cost-effectiveness and cost benefit from the projects committed by clients in 2010/11, rather than those completed (this is similar to the committed CO<sub>2</sub> savings from our interest-free Energy Efficiency Loans).

	Annualised CO <sub>2</sub> savings (MtCO <sub>2</sub> )	Annualised cost- effectiveness (£/tCO <sub>2</sub> )	Lifetime cost- effectiveness (£/tCO <sub>2</sub> )	Average cost/ (benefit) (£/tCO <sub>2</sub> )
<b>Salix Finance invest to save scheme</b>				
2010/11	0.06	48	4	(138)
2009/10	0.03	65	5	(133)
<b>Salix Finance Energy Efficiency Loans scheme ISBs</b>				
2010/11	0.02	46	3	(128)
2009/10	0.09	52	4	(121)

Some of the projects that were initially identified in the Carbon Trust's public sector carbon management service have received loans from Salix Finance to help them implement the carbon savings. The impact of this duplication in 2010/11 is 2,500tCO<sub>2</sub> annual carbon savings (2009/10 – 31,000tCO<sub>2</sub>). The savings for both areas are shown in full in the detail of this report but the impact of duplication in 2010/11 has been excluded from the total reported savings shown at the front of the report and in the overall summary section below.

#### Overall results for carbon now specialist advice and finance

	Annualised CO <sub>2</sub> savings (MtCO <sub>2</sub> )	Annualised cost- effectiveness (£/tCO <sub>2</sub> )	Lifetime cost- effectiveness (£/tCO <sub>2</sub> )	Average cost/ (benefit) (£/tCO <sub>2</sub> )
<b>Total Carbon Trust specialist advice and finance</b>				
2010/11	2.0–2.1	20–22	3.0–3.1	(75)
2009/10	1.8–2.0	23–26	3.4–3.6	(82)

The results presented here include the results for the interest-free Energy Efficiency Loans scheme on a completed basis. A negative number represents a net benefit. Any duplication between Salix Finance and public sector carbon management and between our interest-free Energy Efficiency Loans and our direct advice services have been removed.

We have achieved a record year in terms of carbon savings in 2010/11 whilst also improving the long term cost-effectiveness of these savings. The lifetime CO<sub>2</sub> savings implemented in 2010/11 increased by 1.3MtCO<sub>2</sub> – 1.5MtCO<sub>2</sub> compared to projects implemented in 2009/10, resulting in savings of 14.2MtCO<sub>2</sub> – 14.7MtCO<sub>2</sub> over the lifetime of the projects. The cost-effectiveness of these carbon savings has improved from £3.4–3.6/tCO<sub>2</sub> in 2009/10 to £3.0–3.1/tCO<sub>2</sub> in 2010/11.

Our activities continue to deliver strong net financial benefits to our customers. After an estimated capital expenditure by organisations of £453 – £471 million on implementing projects in 2010/11, the resultant lifetime energy cost savings are estimated to be £1.5 to £1.6 billion over the lifetime of the projects.

Delivery of our implemented carbon this year was achieved through strong performances across our specialist advice and finance business areas:

- our account managers have used their strong relationships with our customers, helping them to implement carbon and cost saving measures. As a result, the estimated annual CO<sub>2</sub> savings from our carbon management and carbon management energy efficiency services are 1.1MtCO<sub>2</sub> on an annual basis and 7.2MtCO<sub>2</sub> over the lifetime of these measures (an increase of 0.2MtCO<sub>2</sub> and 0.9MtCO<sub>2</sub> respectively versus 2009/10)
- customers of our on-site carbon surveys implemented savings estimated to be 0.4MtCO<sub>2</sub> on an annual basis, in line with savings in 2009/10. These measures will save nearly 3.3MtCO<sub>2</sub> over the lifetime of the measures, 0.3MtCO<sub>2</sub> higher than 2009/10 due to the longer persistence of measures implemented in the year
- our carbon management and carbon management energy efficiency services, and on-site carbon surveys, resulted in customers investing nearly £311 million in energy and carbon efficient equipment and in implementing low carbon business practices. These investments will yield lifetime cost savings of over £1 billion
- overall our lifetime CO<sub>2</sub> savings from completed interest-free Energy Efficiency Loans was 1.7MtCO<sub>2</sub> and 1.3MtCO<sub>2</sub> in committed loans. We offered £43 million to help businesses invest in energy-efficient equipment, serving over 1,800 customers
- our publications, website and telephone advice service continued to attract a large number of customers in 2010/11, with over 38,000 telephone calls and over 250,000 publications sent to customers or downloaded from our website

#### Accreditation and Certification services

The Carbon Trust has two businesses offering voluntary standards: The Carbon Trust Standard Company and the Carbon Trust Footprinting Certification Company.

The Carbon Trust considers the development and leverage of robust carbon standards to be a key component in measuring carbon emissions, incentivising action and demonstrating reductions over time. We do not currently attribute savings made by customers of these services to the Carbon Trust group. However beginning in 2010/11 we are reporting the savings companies have made after they have secured re-certification to the Carbon Trust Standard in order to demonstrate the benefits of this process.

	Number of organisations	Cumulative CO <sub>2</sub> savings (MtCO <sub>2</sub> )
<b>Carbon Trust Standard – Re-certification</b>		
2010/11	9	0.11
2009/10	0	0

Since its launch in 2008, over 500 companies have achieved the Standard, and in 2010/11 alone, The Carbon Trust Standard Company issued 300 certificates to organisations that together have saved 4.8MtCO<sub>2</sub>, cutting over £200 million from their annual energy bills. Collectively, organisations achieving the Carbon Trust Standard have cut their annual carbon emissions by 6.3MtCO<sub>2</sub>, making an average carbon reduction of 3.5% per annum.

Carbon Trust Footprinting Certification Company certifies the carbon footprint of products and services to the PAS 2050 standard. Companies that measure the lifecycle emissions of their products and services and commit to reducing them can use the Carbon Reduction Label to communicate their achievements. Moreover, by looking at the opportunities to reduce carbon emissions and costs across the supply chain and working with suppliers, a company can realise financial benefits that would be out of reach on their own. In 2010/11 the number of product footprints certified has increased by one-third from around 4,000 to 5,500. The annual sales value of products awarded the Carbon Reduction Label now stands at around £3 billion.

## Carbon future

### Providing insights to shape the low carbon economy

Our activities in carbon future aim to help drive a step change in the pace and scale of low carbon technology development and deployment that is needed to meet the UK's 2020 and 2050 targets. We conduct an annual survey on business attitudes to climate change mitigation issues, and the Carbon Trust in this context, to help ensure our relevance and to inform our work. We also carry out pre- and post-communication campaign surveys to measure the success of our work and help plan further relevant and successful campaigns.

In 2010/11 our annual survey indicated:

- managing the impact of climate change remains an important issue for large corporates, even in these times of financial uncertainty. This is seen in the consistently high response on 'propensity to take action on mitigating climate change' in our survey. For smaller businesses, reducing energy costs still remains a key driver with 82% of energy intensive SME businesses considering this a major issue
- the Carbon Trust is clearly seen as the organisation to help business reduce carbon emissions and mitigate climate change with high awareness
- 71% of all audiences believed that 'the Carbon Trust provides vital support to UK businesses on reducing carbon'

### Opening markets, technology commercialisation, investment

We aim to accelerate the move to a UK low carbon economy through identification, investment and support for the development of new markets, innovative technologies and companies that have the long-term potential to make significant contributions to energy efficiency and the low carbon technology market in the UK and beyond.

Across our carbon future activities we work to:

- catalyse the wide scale deployment of near market technologies;
- develop and deploy new and emerging low carbon technologies and businesses; and
- help low carbon 'start-up' businesses develop commercial propositions and become 'investor ready'

We continue to evaluate our project portfolio using a model-based approach to estimate the potential savings that may occur from the Carbon Trust's intervention and we measure our impacts as below:

- potential CO<sub>2</sub> emissions reductions in the UK in 2020 and 2050. These represent the additional savings that we estimate could occur due to the Carbon Trust's interventions through specific projects, over and above the savings that might be expected to occur through ongoing development of the market. The methodology does not take into account the upstream/lifecycle carbon impacts or the potential positive impacts of market transformation/demonstration
- annual cost-effectiveness of these savings in 2020 and 2050. Note that this measure is not directly comparable to the annual cost-effectiveness measure used for our specialist advice and finance activities. In this case we are comparing funding provided to date and known ongoing commitments with the total potential annual carbon savings in the future from our activities. The costs include an assumed level of future annual Carbon Trust programme costs
- leverage of funds in the year. This measure allows us to track how effectively we leverage additional private investment into projects that are supported by the Carbon Trust

The methodology used to measure the impact of these activities is necessarily different from that used to assess the impact of our specialist advice and finance activities, and a direct comparison of the results is not appropriate given their differing timescales and objectives. Our specialist advice and finance activities are focused on shorter-term CO<sub>2</sub> emission reductions, and we report implementation of CO<sub>2</sub> and energy saving measures made by our customers in the year. In contrast, our carbon future activities focus primarily on catalysing behaviour and delivering longer term CO<sub>2</sub> emission reductions.

As a result, the CO<sub>2</sub> emission reduction figures that we present are necessarily forecasts, and are more uncertain than the figures we show for our other activities. We therefore present results as a range, reflecting a high and low case estimate of the likely market penetration potential of each project.

## Performance assessment

### Continued

The model considers the potential impact of each project and is based on three underlying drivers:

- the technical potential for CO<sub>2</sub> savings in the UK of the specific low carbon technology related to the project at 2020 and 2050. In previous years the model used our Low Carbon Technology Assessment (LCTA) analysis of the maximum carbon saving potential of various technologies (i.e. a scenario run independent of other technologies) that was conducted in 2006/07. This approach was changed and updated in 2010/11 based on up to date market information and technology readiness levels. We now rely upon a scenario based UK carbon saving potential for each technology, which represents a more conservative approach than the previous maximum UK carbon saving potential for each technology. The potentials take into account the cost implications of technology uptake and also that technologies are additive (e.g. there has to be trade-offs in success). As a result of this new approach, the number of technology categories has increased from 57 to 61, with four new technologies and others merged or disaggregated where more information has become available. The impact of measuring against pre- and post-updated technology potentials is shown in the table
- the market penetration potential of each project compared to the total technical potential

The Carbon Trust's impact in realising these savings. This data represents likely success rates with and without the Carbon Trust's intervention, and is based on benchmark data from other high technology industries, in particular the pharmaceutical industry, for which significant data is available.

In 2010/11, we invited two independent experts to participate in a cross-company review of a sample of eight projects, representing a sample of over 24% of 2050 UK CO<sub>2</sub> savings (versus 16% in 2009/10), to ensure the assumptions used in making our estimates were appropriate and the estimates were not unreasonable. There were no material objections resulting from this review.

Potential CO<sub>2</sub> savings are presented on a cumulative basis. The figures for 2010/11 are therefore inclusive of all historical project investments committed to 31 March 2011.

Carbon future savings	2010/11*	2010/11**	2009/10
<b>2020</b>			
Potential annual CO <sub>2</sub> emission reductions (MtCO <sub>2</sub> )	5.3–8.5▲	5.6–8.5	6.2–9.0◆
Annual cost-effectiveness (£/tCO <sub>2</sub> )	22–35	22–33	18–26
<b>2050</b>			
Potential annual CO <sub>2</sub> emission reductions (MtCO <sub>2</sub> )	19.4–31.9▲	21.8–37.1	19.5–28.5◆
Annual cost-effectiveness (£/tCO <sub>2</sub> )	6–9	5–8	6–8

PwC has reviewed the application of the performance assessment methodology to the selected performance data indicated by the following symbol: ▲ (see PwC Assurance Report on pages 54 to 55). The 2009/10 data indicated by the symbol ◆ received assurance in our previous Annual Report (for information see Carbon Trust Annual Report 2009/10 pages 52 to 60).

\*These data are based on the revised technology carbon savings potential model.

\*\*These data are based on the LCTA.

Leverage of funds measures the direct private investment into projects that are supported by the Carbon Trust. We have excluded technology accelerators from this calculation as these projects were designed to be mainly funded by the Carbon Trust.

Leverage of funds	2010/11	2009/10
	<b>3.4:1</b>	2.8:1

Although these activities are focused and designed to deliver carbon savings in 2020 and 2050, some projects are starting to deliver savings as early as 2010. We have taken the opportunity in 2010/11 to survey a sample of these clients directly to confirm the assumptions we have made regarding the role the Carbon Trust has played in the relevant project's success and to also check if the estimated market penetration levels of particular technologies are accurate.

We surveyed nine projects that are forecasting to deliver savings in 2010 (responsible for delivering 39% of our forecasted 2010 savings figure). The results of the survey will be used in 2011/12 to augment the existing methodology by improving the carbon saving estimates of projects in 2020 and 2050.

Results this year show that our work in Carbon future continued to progress technologies that will deliver substantial CO<sub>2</sub> savings in the future. We estimate that the new activities we committed to in 2010/11 will result in an additional 0.3 – 0.59MtCO<sub>2</sub> savings in 2020 and 3.5 – 6.94MtCO<sub>2</sub> tonnes CO<sub>2</sub> savings in 2050 in addition to the savings that will result from activities to which we are already committed. Key factors driving changes in our estimates include:

- reporting of 40 new projects across these areas, comparable to the 53 new projects in 2009/10
- we performed desktop research on 71% of 2020 and 82% of 2050 CO<sub>2</sub> (using high end estimates) to confirm that projects are still in operation
- we have reduced to zero estimates of the impact of two failed Incubator projects

#### Assurance

We commissioned PricewaterhouseCoopers LLP (PwC) in 2010/11 to provide a limited assurance report on the application of our performance assessment methodology to selected performance data. Our full methodology is set out in the Carbon Trust 2010/11 Performance Assessment Methodology, which is available from our website ([www.carbontrust.co.uk](http://www.carbontrust.co.uk)).

For carbon now specialist advice and finance, PwC's limited assurance report review covered our directly delivered advice, our interest-free Energy Efficiency Loans scheme, and site specific projects with trade and professional bodies. Together these deliver 1.7 million tonnes (or 82%) of our reported annualised CO<sub>2</sub> savings. The results reported from our general service and non-assured work with trade and professional bodies rely on data reported to us by third parties, or on significant assumptions, they are therefore excluded from the scope of PwC's limited assurance report, as it would not currently be cost-effective to assure these savings. Nonetheless, we have performed our own internal review to allow the results we report to be appropriately justified and conservative.

For our carbon future activities, our estimates of additional CO<sub>2</sub> savings occurring in 2020 and 2050 were also within the scope of PwC's limited assurance report. Our estimates of the cost-effectiveness of these savings in 2020 and 2050 are based on our current forecast commitments, and as these are subject to change they are therefore excluded from the scope of PwC's limited assurance report. Our measurement of the leverage of direct private investment into projects that are supported by the Carbon Trust is also outside the scope of PwC's limited assurance report.

In 2010/11 we continued to make improvements to our carbon measurement methodology aimed at increasing the robustness, transparency and reliability of the figures we report. Specific improvements made during the year include:

#### Carbon now reporting

- improved the rolling interest-free Energy Efficiency Loans evaluation process. This process is used (1) to verify the CO<sub>2</sub> savings estimated at the time of loans being offered; and (2) to identify process improvement opportunities;
- ensured that account managers clearly understand the methodology for assessing carbon savings potential; and
- reviewed large and potentially risky recommendations as early as possible after implementation

#### Carbon future reporting

- conducted a review and update of the technical potential for CO<sub>2</sub> savings in the UK from specific low carbon technologies used as part of the assessment process of our carbon future savings;
- followed up (via a telephone survey) projects that are forecast to deliver carbon savings in 2010/11 to confirm their current status and to agree the role played by the Carbon Trust in realising any future carbon savings;
- reviewed the underlying assumptions in the assessment model to ensure they are fit for purpose for new activities (e.g. Directed Research projects, Entrepreneurs Fast Track projects); and
- secured the attendance of two independent reviewers at our annual carbon future impact workshop to challenge our approach and help to ensure a consistent application of our methodology across projects

PwC's limited assurance report can be found on pages 54 to 55 of this Annual Report.

#### Possible changes to impact assessment methodology in 2011/12 and beyond

For 2011/12 we have made substantial changes to the Carbon Trust's operating model and services. In England we are no longer offering publicly-funded on-site surveys to SMEs, publicly-funded support to large corporate customers or interest-free Energy Efficiency Loans. On-site surveys to SMEs have been replaced by telephone and web-based remote advice services; services for large corporate customers are available on a fully-commercial basis through Carbon Trust Advisory Services; and the interest-free Energy Efficiency Loan scheme has been replaced by a new commercial finance scheme in partnership with Siemens Financial Services. These changes in England will have a significant impact on our carbon savings and cost-effectiveness in 2011/12 and beyond even though many of these services continue to be available on a publicly-funded basis in Northern Ireland, Scotland and Wales. In addition, 2011/12 will be the final year of guaranteed core grant funding from DECC, our main funder, and so we will be transitioning to a self-sustaining, commercial business model during the year.

## Performance assessment

### Continued

Given these changes, we plan to review potential alternative approaches to measuring our impact and our impact assessment methodology in 2011/12. As a mission-driven company, measuring and reporting our impact robustly and objectively is and will remain essential, but our current approach will require modification in the new operating environment.

#### Comparison to other greenhouse gas reporting methodologies

As a company, the Carbon Trust is focused on a range of objectives over short, medium and long-term timescales. We do not attribute the savings reported here between our advice and other regulations, policies or other factors that may have driven them to be realised, and the figures that we report here do not indicate the impact of particular policy measures, or the progress made towards specific Government targets. There are therefore some differences between the way that we report our CO<sub>2</sub> savings (as explained in the above sections) and Her Majesty's Treasury and DECC's *Valuation of energy use and greenhouse gas emissions for appraisal and evaluation*, which are outlined in our detailed methodology document which is available from our website ([www.carbontrust.co.uk](http://www.carbontrust.co.uk)).



# Independent auditors' report to the members of the Carbon Trust

We have audited the group financial statements of the Carbon Trust for the year ended 31 March 2011 which comprise the consolidated income statement, the consolidated balance sheet, the consolidated statement of changes in total funds, the consolidated cash flow statement and the related notes 1 to 26. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union.

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

## Respective responsibilities of directors and auditors

As explained more fully in the Directors' Responsibilities Statement set out on page 40, the Directors are responsible for the preparation of the group financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit the group financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

## Scope of the audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the group's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the directors; and the overall presentation of the financial statements. In addition, we read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

## Opinion on financial statements

In our opinion the group financial statements:

- give a true and fair view of the state of the group's affairs as at 31 March 2011 and of its profit for the year then ended;
- have been properly prepared in accordance with IFRSs as adopted by the European Union; and
- have been prepared in accordance with the requirements of the Companies Act 2006

## Opinion on other matter prescribed by the Companies Act 2006

In our opinion the information given in the Directors' Report for the financial year for which the group financial statements are prepared is consistent with the group financial statements.

## Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit

## Other matters

We have reported separately on the parent company financial statements of the Carbon Trust for the year ended 31 March 2011.



## Richard Wilson

(Senior statutory auditor)

for and on behalf of Ernst & Young LLP, Statutory Auditor  
London

14 July 2011

# Consolidated income statement

For the year ended 31 March 2011

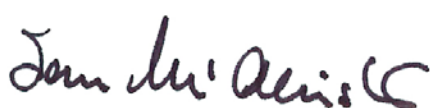
	Notes	31 March 2011 £'000	31 March 2010 £'000
<b>Income</b>			
Grant income	2	127,806	156,476
Other income	2	9,820	6,727
Finance income	4	6,247	2,974
<b>Total income</b>		<b>143,873</b>	166,177
<b>Expenditure</b>	3		
Programme expenditure		(118,165)	(128,195)
Other management and administration expenditure	6	(4,339)	(3,600)
Finance costs	5	(6,149)	(11,232)
<b>Total expenditure</b>		<b>(128,653)</b>	(143,027)
<b>Excess of income over expenditure</b>		<b>15,220</b>	23,150
Share of joint ventures' and associates' operating results	11	(3,560)	(2,571)
<b>Profit before income tax</b>		<b>11,660</b>	20,579
Tax on profit	8	(844)	(3,796)
<b>Profit for the year</b>		<b>10,816</b>	16,783
<b>Total comprehensive income for the year</b>		<b>10,816</b>	16,783
<b>Attributable to:</b>			
Members of the company		10,830	16,789
Non-controlling interest		(14)	(6)
		<b>10,816</b>	16,783

# Consolidated balance sheet

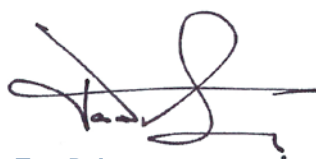
As at 31 March 2011

	Notes	31 March 2011 £'000	31 March 2010 £'000
<b>Non-current assets</b>			
Property, plant and equipment	9	825	1,020
Financial assets – investment portfolio	10	27,045	22,111
Interests accounted for using the equity method	11	12,492	9,056
Interest-free loans receivable – funded from fiscal stimulus grants	13	63,692	74,867
Interest-free loans receivable – other grant funding	13	26,801	18,814
<b>Total non-current assets</b>		<b>130,855</b>	125,868
<b>Current assets</b>			
Trade and other receivables	14	3,567	2,440
Interest-free loans receivable – funded from fiscal stimulus grants	13	24,692	16,379
Interest-free loans receivable – other grant funding	13	14,825	14,268
Accrued income	15	30,969	84,655
Cash and cash equivalents		56,466	50,925
<b>Total current assets</b>		<b>130,519</b>	168,667
<b>Total assets</b>		<b>261,374</b>	294,535
<b>Current liabilities</b>			
Trade and other payables	16	(55,757)	(105,825)
Deferred income relating to interest-free loans funded from fiscal stimulus grants	17	(27,306)	(18,924)
Deferred income relating to other interest-free loans	17	(27,742)	(20,091)
Deferred income	18	(1,517)	(930)
<b>Total current liabilities</b>		<b>(112,322)</b>	(145,770)
<b>Non-current liabilities</b>			
Deferred income relating to interest-free loans funded from fiscal stimulus grants	19	(63,692)	(82,202)
Deferred income relating to other interest-free loans	19	(25,100)	(17,542)
Deferred income	20	(629)	(956)
Deferred tax liability	21	(6,540)	(5,789)
<b>Total non-current liabilities</b>		<b>(95,961)</b>	(106,489)
<b>Total liabilities</b>		<b>(208,283)</b>	(252,259)
<b>Net assets</b>		<b>53,091</b>	42,276
<b>Funds</b>			
Members' fund	23		–
Retained earnings		53,078	42,248
Translation reserve		(6)	(5)
<b>Funds attributable to members of the company</b>		<b>53,072</b>	42,243
Non-controlling interest		19	33
<b>Total funds</b>		<b>53,091</b>	42,276

Signed on behalf of the Board



**Ian McAllister**  
Chairman



**Tom Delay**  
Chief Executive

# Consolidated statement of changes in total funds

For the year ended 31 March 2011

	Members' fund £'000	Retained earnings £'000	Translation reserve £'000	Total members' funds £'000	Non-controlling interest £'000	Total funds £'000
<b>At 1 April 2009</b>	–	25,459	–	<b>25,459</b>	–	<b>25,459</b>
Retained profit for the year	–	16,789	–	<b>16,789</b>	(6)	<b>16,783</b>
Currency translation differences arising in year	–	–	(5)	<b>(5)</b>	–	<b>(5)</b>
Share premium in subsidiary entity	–	–	–	–	39	<b>39</b>
<b>At 31 March 2010</b>	–	42,248	(5)	<b>42,243</b>	33	<b>42,276</b>
Retained profit for the year	–	10,830	–	<b>10,830</b>	(14)	<b>10,816</b>
Currency translation differences arising in year	–	–	(1)	<b>(1)</b>	–	<b>(1)</b>
<b>At 31 March 2011</b>	–	53,078	(6)	<b>53,072</b>	19	<b>53,091</b>

# Consolidated cash flow statement

For the year ended 31 March 2011

	31 March 2011 £'000	31 March 2010 £'000
<b>Cash flow from operations</b>		
<b>Profit before income tax</b>	<b>11,660</b>	20,579
<b>Adjustments:</b>		
– Share of post tax results under the equity method	<b>3,560</b>	2,571
– Change in fair value of investment portfolio	<b>2,916</b>	216
– Non-cash adjustments in relation to deemed acquisition and disposals of group undertakings	<b>(2,394)</b>	78
– Net discounting adjustment for interest-free loans	<b>(620)</b>	8,139
– Depreciation	<b>329</b>	536
– Movement in interest-free loans and other working capital balances	<b>(56,491)</b>	(16,575)
– Loss on sale of property, plant and equipment	<b>–</b>	72
– Movement on accrued and deferred income	<b>58,657</b>	18,427
<b>Cash inflow from operations</b>	<b>17,617</b>	34,043
<b>Tax paid</b>	<b>(93)</b>	–
<b>Net cash inflow from operations</b>	<b>17,524</b>	34,043
<b>Cash flow from investing activities:</b>		
– Bank interest received	<b>190</b>	83
– Purchase of property, plant and equipment	<b>(134)</b>	(271)
– Net investments made in joint ventures	<b>(4,418)</b>	(5,578)
– Receipts from disposal of investments	<b>44</b>	–
– Payments to acquire investments	<b>(7,877)</b>	(14,603)
– Dividends received	<b>212</b>	293
<b>Cash outflow from investing activities</b>	<b>(11,983)</b>	(20,076)
<b>Increase in cash and cash equivalents</b>	<b>5,541</b>	13,967
Cash and cash equivalents at the start of the year	<b>50,925</b>	36,958
Increase in cash and cash equivalents	<b>5,541</b>	13,967
<b>Cash and cash equivalents at the end of the year</b>	<b>56,466</b>	50,925



# Notes to the financial statements

## Corporate information

The Carbon Trust is a company registered in England and Wales (number 4190230) limited by guarantee incorporated in the United Kingdom under the Companies Act 1985. Its registered office is 6th floor, 5 New Street Square, London, EC4A 3BF. The nature of the group's operations and its principal activities are set out in the Directors' report on pages 39 to 41. The consolidated financial statements for the year to 31 March 2011 comprise the financial statements for the company and its subsidiaries (together referred to as the 'group'). Separate financial statements for the company are also presented.

## Statement of compliance

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards, International Accounting Standards and their interpretations issued or adopted by the International Accounting Standards Board as adopted for use in the European Union ('IFRS'). The company has elected to prepare its parent company financial statements in accordance with UK Generally Accepted Accounting Practice ('UK GAAP'). These are presented on pages 48 to 53.

These consolidated financial statements have been prepared in accordance with and in compliance with the Companies Act 2006.

## 1 Accounting policies

### Basis of preparation

The consolidated financial statements have been prepared under the historical cost convention, except for financial assets designated as 'fair value through profit and loss' as required by IAS 39 'Financial Instruments: Recognition and Measurement', and interest-free loans receivable, which are held at amortised cost. The group's accounting policies applied in preparing the consolidated financial statements for the year ended 31 March 2011 are set out below. The consolidated financial statements have been prepared on a going concern basis, for further information refer to the Directors' report on pages 39 to 41.

The financial statements are presented in pounds sterling and all values are rounded to the nearest one thousand pounds except where otherwise indicated.

### New accounting standards and interpretations

In preparing the consolidated financial statements the group has adopted the following revisions to IFRS which have had an immaterial impact on the consolidated financial statements:

- IFRIC 17 Distribution of Non-cash Assets to Owners
- IFRIC 18 Transfer of Assets from Customers
- Amendment to IFRS2 Group – Cash-settled share-based payment arrangements
- IFRS3 (revised) Business Combinations
- IAS27 (amended) Consolidated and Separate Financial Statements
- Amendment to IAS39 Financial Instruments: Recognition and Measurement – Eligible hedged items
- IFRIC12 Service Concession Arrangements
- IFRIC15 Agreements for the Construction of Real Estate
- IAS17 Leases
- IAS36 Impairment of Assets
- IAS38 Intangible Assets

The group does not consider that any other standards or interpretations issued by the International Accounting Standards Board not yet applicable will have a significant impact on the consolidated financial statements.

### Basis of consolidation

#### (i) Subsidiaries

Subsidiaries are entities controlled by the group. Control exists when the company has the power directly or indirectly to control the financial and operating policies of the entity, so as to obtain benefit from its activities. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences to the date that control ceases. A list of the significant investments in subsidiaries is given in note 12. Non-controlling interest in the net assets and results of consolidated subsidiaries are identified separately from the group's total funds.

## 1 Accounting policies continued

### (ii) Joint ventures

Joint ventures are those entities over whose activities the group has joint control established by contractual agreement. Interests in joint ventures are accounted for using the equity method.

### (iii) Associates

Associates are those entities in which the group has the ability to exert significant influence, but not control, over the financial and operating policies. Interests in associates are accounted for using the equity method. Investments that are held as part of the group's investment portfolio are not accounted for as associates even if the group has significant influence over these companies. This treatment is permitted by IAS 28 'Investments in Associates' for venture capital organisations.

### Key judgements and uncertainties

In preparing these financial statements to conform to generally accepted accounting principles and by applying the group's accounting policies, management are required to use judgements in applying estimates and assumptions which affect the reported amounts of assets and liabilities, and income and expenses during the period. The key areas of judgement and uncertainty affecting the consolidated financial statements are as follows:

#### (i) Financial assets – investment portfolio

Grant income utilised for the purchase of investments held within the group's investment portfolio is recorded as income in the period in which the investment is made as there is no expected useful life of the investments. This treatment results in a profit equal to the initial cost of the investment held on the balance sheet. Unlisted investments held within the investment portfolio are not traded on an active market and therefore judgement is used in determining the fair value of these investments.

#### (ii) Interest-free loans receivables

Interest-free loans receivable are held at amortised cost, which requires the selection of an appropriate discount rate. In addition, a provision for impairment of these receivables is established when management estimate that the group will not be able to recover all amounts owed.

The group's accounting policies, all of which have been applied consistently throughout the period and the previous period, are as follows:

### (a) Grant income

Grant income represents funding from the Department of Energy and Climate Change (DECC), the Scottish Government, the Welsh Government, Invest Northern Ireland, the Department for Environment, Food and Rural Affairs ('Defra'), the Foreign and Commonwealth Office (FCO) and the Department for Transport.

Grant income is recognised in the income statement to match with the expenditure which it is funding. Accordingly, grants utilised for the purchase of tangible fixed assets are treated as deferred income and released to the income statement over the expected useful lives of the assets concerned. Where grant income is received in advance of the related expenditure being incurred, it is treated as deferred income and held in the balance sheet. The deferred income is released to the income statement when the related expenditure is incurred. Where grant income is pledged, but has not yet been received in cash when the related expenditure is incurred, the grant is recognised on the balance sheet as accrued income.

Grant income utilised for the purchase of investments held within the group's investment portfolio is recorded as income in the period in which the investment is made as there is no expected useful life of the investment. This treatment results in a profit equal to the initial cost of the investment held on the balance sheet.

Non-repayable grant income used for making interest-free loans is recorded as income in the period in which the loan offer becomes irrevocable, and where there is a potential future obligation to repay grant funds used for making interest-free loans, that grant funding is classified as deferred income relating to interest-free loans and held on the balance sheet.

### (b) Other income

Other income is accounted for in the period in which it is receivable, and is measured at the fair value of the consideration received or receivable when services are rendered and represents amounts receivable for services provided in the normal course of business net of discounts and VAT.

## Notes to the financial statements

### Continued

#### 1 Accounting policies continued

##### (c) Property, plant and equipment

Property, plant and equipment are shown at cost less depreciation and any provision for impairment.

Depreciation is provided as follows:

Fixtures and fittings – straight-line basis over five years or life of the related property lease term if less.

Office equipment and computers – straight-line basis over three years.

##### (d) Financial assets – investment portfolio

###### (i) Recognition and measurement

Investments held within the group's investment portfolio are recognised or derecognised on the date when the purchase or sale of the investment becomes unconditional. The group manages its investment portfolio with a view to realising the future value of the investments and the receipt of dividends. All quoted and unquoted equity investments are classified as 'fair value through profit and loss' in accordance with IAS 39 'Financial Instruments – Recognition and Measurement', and are carried in the balance sheet at fair value. All unlisted investments are held at fair value by applying the International Private Equity and Venture Capital ('IPEVC') valuation guidelines. Quoted equity investments are measured at each balance sheet date by reference to a quoted market price. Any acquisition costs arising from the purchase of equity investments are expensed immediately in the income statement.

###### (ii) Income and losses

Investment income arises from the sale of investments within the investment portfolio, being the difference between the net sale proceeds and the carrying value at the start of the accounting period, and unrealised profits or losses on the revaluation of investments, being the movement in the fair value of investments between the start and end of the accounting period. These are included within finance costs or income as appropriate in the income statement.

##### (e) Cash and cash equivalents

Cash and cash equivalents comprise cash in hand, cash held at bank with immediate access and bank deposits with maturities of three months or less from the date of inception.

##### (f) Foreign currency

###### (i) Foreign currency transactions

Transactions in foreign currencies are translated into sterling at exchange rates prevailing on the date of the transactions. At each balance sheet date, monetary assets and liabilities that are denominated in foreign currencies are retranslated at the rates prevailing at the balance sheet date. Exchange differences are recognised in the income statement. Non-monetary items carried at fair value that are denominated in foreign currencies are translated at the rates prevailing at the date when the fair value is determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

###### (ii) Financial statements of foreign operations

Assets and liabilities of foreign operations are translated at the exchange rate prevailing at the balance sheet date. Income and expenses of foreign operations are translated at average exchange rates. Exchange differences arising on retranslation are recognised directly in equity and are shown as a separate component of equity.

##### (g) Income tax

The company has an agreement with Her Majesty's Revenue and Customs that grant income is not subject to tax. Similarly no tax deduction is available for expenses funded out of grant income. Certain of the group's sources of income will, however, be taxed under normal principles including: bank interest; profits from investments; and activities which are treated as a trade. For these activities, income tax is provided at amounts expected to be paid (or recovered) using the tax rates and laws that have been enacted or substantially enacted by the balance sheet date.

##### (h) Deferred tax

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are only recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from the initial recognition of goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the tax profit nor the accounting profit.

## 1 Accounting policies continued

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries and associates, and interests in joint ventures, except where the group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. The carrying amount of deferred tax assets is reviewed at each balance sheet date and is reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised. Deferred tax is charged or credited in the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also dealt with in equity.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the group intends to settle its current tax assets and liabilities on a net basis.

### (i) Pension costs

The group makes contributions directly to the providers of employees' personal pension plans, which are money purchase schemes. Contributions are charged to the income statement when payable. Differences between contributions payable in the period and contributions actually paid are shown either as accruals or prepayments in the consolidated balance sheet.

### (j) Operating leases

Amounts payable in respect of operating leases are charged to the income statement on a straight-line basis over the lease term.

### (k) Interest-free loans

Loans made under the interest-free Energy Efficiency Loans scheme are shown in the balance sheet at the present value of the amounts receivable. The present value represents the value of each loan discounted over the repayment period using the effective interest rate method using a discount rate which reflects the premium for the risk associated with unsecured loans. The charge and credit arising from the discounting of the receivables and the unwinding of the discount are disclosed within finance income and finance cost in the income statement. An equivalent liability is established as deferred income relating to the grant used to fund interest-free loans which may potentially become repayable (see note 1a).

Appropriate allowances for estimated irrecoverable amounts are recognised in the income statement when there is objective evidence that the asset is impaired. The allowance recognised is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the effective interest rate computed at initial recognition.

## Notes to the financial statements

### Continued

## 2 Income

Grant income is received from the following funders:

	31 March 2011 £'000	31 March 2010 £'000
DECC	88,765	117,810
Invest Northern Ireland	2,574	2,947
The Scottish Government	5,459	5,500
Welsh Government	7,700	9,496
Defra	1,557	2,000
FCO	386	240
Department for Transport	3,730	1,460
DFID	–	119
Grant funding provided for interest-free loans:		
– DECC	26,800	102,364
– Invest Northern Ireland	500	1,500
– Welsh Government		1,000
<b>Total grant receipts and grant receivable</b>	<b>137,471</b>	<b>244,436</b>
Movement in deferred grant income	(9,665)	(87,960)
<b>Total grant income</b>	<b>127,806</b>	<b>156,476</b>

Other income is analysed as follows:

	31 March 2011 £'000	31 March 2010 £'000
Commercial sales	7,796	5,080
Partner contribution	1,040	1,000
Licence fees	413	210
Other	571	437
<b>Total other income</b>	<b>9,820</b>	<b>6,727</b>



### 3 Analysis of expenditure

Management has identified reportable segments based on financial information used by the Board of Directors in allocating resources and making strategic decisions. Information currently reported to the Board for the purposes of managing performance is analysed into two main segments, carbon now and carbon future. For more information on the activities that constitute carbon now and carbon future please refer to pages 6 to 30. The table below shows expenditure charged to each segment, as reconciled to total expenditure per the statutory consolidated income statement. The 'net effect of investments made less fair value fluctuations' relates to expenditure on investments which has been capitalised on the consolidated balance sheet. The 'remaining effect of interest-free loans' represents expenditure which has been matched to the related grant income then subsequently deferred on the consolidated balance sheet.

	31 March 2011 £'000	31 March 2010 £'000
<b>Carbon now</b>		
– Specialist Advice	35,604	34,869
– Finance	64,192	147,650
– Setting Standards	5,163	6,772
<b>Total carbon now</b>	<b>104,959</b>	189,291
<b>Carbon future</b>		
– Opening markets	36,928	35,158
– Technology commercialisation	14,509	12,989
– Investments	7,529	17,250
<b>Total carbon future</b>	<b>58,966</b>	65,397
<b>Total programme activity</b>	<b>163,925</b>	254,686
Other management and administrative expenditure	4,339	3,600
Finance costs (see note 5)	6,149	11,232
<b>Total activity for the financial year</b>	<b>174,413</b>	269,520
Less activity not included in statutory expenditure:		
– Net effect of investments made less fair value fluctuations	(5,728)	(21,024)
– Remaining effect of interest-free loans	(40,032)	(105,469)
<b>Total expenditure per statutory income statement</b>	<b>128,653</b>	143,027

Included in programme expenditure are research and development costs written off to the consolidated income statement of £631,000 (2010 – £304,000). Included in other management and administrative expenditure is an exceptional item related to the cancellation of onerous contracts and staff changes associated with the transition to ensure a sustainable commercial business.

## Notes to the financial statements

## Continued

## 4 Finance income

	31 March 2011 £'000	31 March 2010 £'000
Bank interest receivable	207	315
Unwinding of discount on interest-free loans	3,584	2,465
Net gain on deemed acquisition and disposals of group undertakings	2,394	94
Dividend income received (see note 10)	62	57
Other finance income	–	43
	<b>6,247</b>	<b>2,974</b>

During the year ended 31 March 2011, Partnerships for Renewables Limited, a joint venture of the group, issued shares to a new joint venture investor, which decreased the group's shareholding from 51.0% to 46.1%. As a result of these share issues a gain on deemed disposal of £2,394,000 was recorded.

From April 2009, the Low Carbon Seed Fund LLP (previously a joint venture of the group) has been accounted for as a wholly owned subsidiary of the group due to its holding company, Carbon Trust Investments Limited, acquiring the remaining 50% economic interest. As a result of this transaction the group recognised a gain on acquisition of £112,048 for the year ended 31 March 2010. During the year ended 31 March 2010, the group made a series of investments totalling £1,000,000 in Insource Energy Limited, a joint venture of the group. These were matched with a series of investments totalling £500,000 by the group's co-investor, which increased the group's shareholding from 64.2% to 64.8%. As a result of these transactions a loss on deemed acquisition of £29,400 was recorded. On 1 April 2009 a total of £4,970,081 of convertible unsecured loans notes in Partnerships for Renewables Limited (a joint venture of the group) held by Carbon Trust Enterprises Limited were converted into ordinary shares, resulting in a gain on conversion of £4,000 for the year ended 31 March 2010. This has been included in the net gain on deemed acquisition and disposals of group undertakings. In October 2009 a further 70 ordinary shares in The Solar Press UK Limited, a joint venture of the group, were issued to a co-investor, reducing the group's share of equity interest from 41.2% to 38.3%; as a result of this transaction the group recognised a gain on deemed disposal of £7,228.

## 5 Finance cost

	31 March 2011 £'000	31 March 2010 £'000
Change in fair value of investment portfolio (see note 10)	2,916	216
Discount on interest-free loans	3,233	11,016
	<b>6,149</b>	<b>11,232</b>

## 6 Other management and administration expenditure

Other management and administration expenditure consists of those central costs that have not been allocated to the programme activities and the direct running costs of the offices in the Devolved Administrations. An exceptional expense was incurred related to breaking onerous contracts and staff restructuring associated with preparing the business for a sustainable commercial future. The total management and administration expenditure (both recharged to programmes and not allocated to programme activities) includes:

	31 March 2011 £'000	31 March 2010 £'000
Depreciation on property, plant and equipment	329	536
Operating lease rentals	2,303	1,678
Net foreign exchange losses	5	1
During the year the group obtained the following services from the company's auditor:		
Fees payable to the company auditor for the audit of parent company and consolidated accounts	79	84
Fees payable to the company auditor for other services:		
– The audit of the company's subsidiaries	35	25
– Other assurance services	42	32
– Accounting advice	15	15
– Tax services	40	–

During the year ended 31 March 2011 the group incurred costs of £nil (2009/10 – £153,000) payable to the previous auditors of the company for tax services.

## 7 Staff costs and Directors' remuneration

	31 March 2011 £'000	31 March 2010 £'000
Wages and salaries	13,097	12,238
Social security costs	1,545	1,485
Pension costs	983	875
	15,625	14,598

The average number of Carbon Trust group employees over the year (including Executive Directors) was 224 (2009/10 – 214). The number of group employees as at 31 March 2011 was 215 (2010 – 228).

The staff costs include the following in respect of the highest paid Director:

	31 March 2011 £'000	31 March 2010 £'000
Emoluments	256	248
Company contributions to money purchase pension schemes	41	41
	297	289

## Notes to the financial statements

### Continued

#### 7 Staff costs and Directors' remuneration continued

The remuneration of the Executive Directors, who are the key management personnel of the group, was as follows:

	31 March 2011 £'000	31 March 2010 £'000
Emoluments	609	595
Company contributions to money purchase pension schemes	102	102
	711	697

The remuneration of the Non-Executive Directors was as follows:

	31 March 2011 £'000	31 March 2010 £'000
Emoluments	199	199
<b>Total Directors' remuneration</b>	<b>910</b>	<b>896</b>
	2011 No.	2010 No.
Number of Directors in money purchase pension scheme	3	3

#### 8 Tax

(a) Analysis of tax charge for the year:

	31 March 2011 £'000	31 March 2010 £'000
<b>Current tax:</b>		
UK corporation tax	–	–
Foreign tax	(93)	(30)
	(93)	(30)
<b>Deferred tax:</b>		
Current year	(751)	(3,941)
Adjustments in respect of prior years	–	175
	(751)	(3,766)
<b>Total income tax charge</b>	<b>(844)</b>	<b>(3,796)</b>

## 8 Tax continued

### (b) Factors affecting tax charge for the year:

The difference between the total tax shown above and the amount calculated by applying the standard rate of UK corporation tax to the profit before tax is as follows:

	31 March 2011 £'000	31 March 2010 £'000
Profit on ordinary activities before taxation	11,660	20,579
Profit on ordinary activities multiplied by the 2011 UK corporation tax company rate of 28% (2010 – 28%)	3,264	5,762
Effects of:		
Expenses not deductible for tax purposes	32,629	42,297
Non-taxable income	(37,390)	(46,686)
Tax losses due to minority interests and joint venture partners	1,528	794
Tax losses carried forward not recognised	812	1,629
<b>Total income tax</b>	<b>844</b>	<b>3,796</b>

### (c) Deferred tax:

	31 March 2011 £'000	31 March 2010 £'000
Adjustments to tax charge in relation to prior years	–	175
Deferred tax on financial assets held at fair value (note 21)	(751)	(3,941)
<b>Total deferred tax charge</b>	<b>(751)</b>	<b>(3,766)</b>

### Factors affecting future tax charges

The Chancellor announced in the Emergency Budget on 22 June 2010 that the standard rate of UK Corporation Tax will be reduced from 28% to 27% from 1 April 2011, and there will be progressive annual reductions of a further 1% until a rate of 24% is reached with effect from 1 April 2014. The Finance Act (No 2) 2010 received Royal Assent on 27 July 2010, with the first of the rate reductions being substantively enacted from 21 July 2010.

The Chancellor also announced in the Budget of 23 March 2011 that the standard rate of Corporation Tax will be reduced by a further 1% from 1 April 2011 and this was substantively enacted on 29 March 2011. As the legislation was substantively enacted by the balance sheet date, the unrecognised deferred tax asset carried forward has been calculated at 26%.



## Notes to the financial statements

### Continued

## 9 Property, plant and equipment

	Fixtures and fittings £'000	Office equipment and computers £'000	2011 Total £'000
<b>Cost</b>			
Beginning of year	1,038	1,105	<b>2,143</b>
Additions	130	4	<b>134</b>
<b>End of year</b>	<b>1,168</b>	<b>1,109</b>	<b>2,277</b>
<b>Depreciation</b>			
Beginning of year	(306)	(817)	<b>(1,123)</b>
Charge for the year	(182)	(147)	<b>(329)</b>
<b>End of year</b>	<b>(488)</b>	<b>(964)</b>	<b>(1,452)</b>
<b>Net book value at 31 March 2011</b>	<b>680</b>	<b>145</b>	<b>825</b>
	Fixtures and fittings £'000	Office equipment and computers £'000	2010 Total £'000
<b>Cost</b>			
Beginning of year	960	1,149	<b>2,109</b>
Additions	78	193	<b>271</b>
Disposals	–	(237)	<b>(237)</b>
<b>End of year</b>	<b>1,038</b>	<b>1,105</b>	<b>2,143</b>
<b>Depreciation</b>			
Beginning of year	(120)	(632)	<b>(752)</b>
Charge for the year	(186)	(350)	<b>(536)</b>
Disposals	–	165	<b>165</b>
<b>End of year</b>	<b>(306)</b>	<b>(817)</b>	<b>(1,123)</b>
<b>Net book value at 31 March 2010</b>	<b>732</b>	<b>288</b>	<b>1,020</b>

At 31 March 2011 the gross carrying value of fully depreciated property, plant and equipment still in use by the group was £711,000 (2010 – £553,000).

## 10 Financial assets – Investment portfolio

Financial assets relate to equity investments, convertible loan stock and non-convertible loans receivable held as part of the group's venture capital portfolio, which are classified as 'fair value through profit and loss' in accordance with IAS 39 'Financial Instruments: Recognition and Measurement'. The split between equity investments and non-convertible loan receivables is as follows:

	31 March 2011 £'000	31 March 2010 £'000
Unlisted equity investments and convertible loan stock	26,093	21,502
Non-convertible loans receivable	952	609
	27,045	22,111

(a) Equity investments and convertible loan stock are held in the following companies:

	31 March 2011 Holdings %	31 March 2010 Holdings %
Natural Buildings Technologies Limited	–	4.4
CMR Fuel Cells plc	–	23.6
Pelamis Wave Power Limited	4.7	4.7
Whitfield Solar Limited	31.0	31.0
HeliSwirl Holdings Limited	15.1	15.1
HeliSwirl Petrochemicals Limited	13.3	13.3
ACAL Energy Limited	25.7	24.9
Green Biologics Limited	14.1	16.0
Cambridge Semiconductors Limited	17.1	16.6
4Energy Limited	18.7	15.9
ResponsiveLoad Limited (t/a RLtec)	7.4	4.5
New Earth Solutions Group Limited	4.6	4.7
Marine Current Turbines Limited	8.0	8.0
AeroThermal Group Limited	26.5	20.2
Helveta Limited	8.2	–
Arieso Limited	6.7	4.9
Oxsensis Limited	11.7	11.7
Intamac Systems Limited	6.5	7.2
AM Technology Limited	4.1	7.5
Evince Technology Limited	13.9	13.9
St. Andrews Fuel Cells Limited	6.9	6.9
Plaxica Limited	9.4	13.0
Concurrent Thinking Limited	26.5	26.5
Low Carbon Workplace LP	7.3	–

## Notes to the financial statements

## Continued

**10 Financial assets – Investment portfolio** continued

The holding percentages include the total interest in the entity. The investment in Helveta Limited at 31 March 2010 is convertible loan stock. The unlisted investments are held at a fair value using IPEVC valuation guidelines.

The movement in the fair value of the equity investments during the year is as follows:

	2011 £'000	2010 £'000
At 1 April	21,502	7,410
Additions at cost	7,551	14,333
Disposals	(44)	–
Reclassification in the year to non-convertible loan receivables	–	(300)
Recognition of investments held in the Low Carbon Seed Fund LLP	–	275
Change in fair value recognised in the income statement	(2,916)	(216)
At 31 March	26,093	21,502

Additions in the year relate to eight follow on investments in equity shareholdings in the year in Whitfield Solar Limited, ACAL Energy Limited, Cambridge Semiconductors Limited, Green Biologics Limited, 4Energy Ltd, Arieso Limited, AeroThermal Group Limited, and ResponsiveLoad Limited (t/a RLtec). In addition, during the year ended 31 March 2011, the group, via its wholly owned subsidiary company Carbon Trust Enterprises Limited, invested £2,100,000 in the Low Carbon Workplace LP to which Low Carbon Workplace Limited, a subsidiary of the group, is an advisor.

The group received dividend income of £61,526 from its investment portfolio during the year ended 31 March 2011 (2009/10 – £57,000).

Of the above net change in fair value recognised in the income statement during the year, £2,916,000 (2009/10 – £216,000) relates to the amount estimated using the IPEVC valuation guidelines using assumptions which are not supported by prices from an observable current market.

**(b) Non-convertible loans receivable**

The group holds interest bearing non-convertible loans with both 4Energy Limited and AeroThermal Group Limited. Additions in the year relate to a further £337,500 loan to AeroThermal Group Limited which is due for repayment in February 2015 and bears interest at 10% per annum. The £300,000 loan to 4Energy Limited is due for repayment from 2011 over a two year period and bears interest at 8% per annum. The £270,000 loan to AeroThermal Group Limited was entered into in February 2010, bears interest at 10% per annum and is due to be repaid in February 2015.

	2011 £'000	2010 £'000
At 1 April	609	–
Additions at cost	338	270
Reclassification in the year from equity investments	–	300
Settlement of interest	(39)	–
Accrued interest on loans	44	39
At 31 March	952	609

## 11 Interests accounted for using the equity method

At 31 March 2011 the group's principal interests in associates and joint ventures, which were directly and indirectly held and included in the consolidated financial statements, are as follows:

	31 March 2011 £'000	31 March 2010 £'000
Interests in associates	4,532	3,793
Interests in joint ventures	7,960	5,263
Total interests accounted for using the equity method	12,492	9,056

The group's share of post tax results from its associates and joint ventures accounted for using the equity method is as follows:

	31 March 2011 £'000	31 March 2010 £'000
Share of associates' profits	891	402
Share of joint ventures' losses	(4,451)	(2,973)
Total share of results from associates and joint ventures	(3,560)	(2,571)

### (a) Interest in associates

The group's interests in associates are as follows:

	Holding %	Country of incorporation and registration
Salix Finance Limited	25.0	UK
CT Investment Partners LLP	40.0	UK

#### Salix Finance Limited (Salix)

The group has a 25% interest in Salix, a UK company limited by guarantee, which runs co-funded 'invest to save' schemes and an interest-free loan scheme for energy efficient equipment for public sector organisations. The group's interest is limited to a 25% voting share, with a nil book cost. The Carbon Trust cannot receive dividends from Salix as it is a company limited by guarantee and the company has no rights to any funds in the event of Salix being wound up.

#### CT Investment Partners LLP (CTIP)

The group, through its subsidiary Carbon Trust Fund Management Holdings Limited (CTFMH), has a 40% interest in CTIP, which is authorised and regulated by the Financial Services Authority to undertake designated investment business and provides investment advisory services to group companies. The terms of the member's agreement between CTFMH and the other partners in CTIP state that CTFMH receives 100% of the profits of CTIP until CTIP reaches certain investment benchmarks, which CTIP reached on 15 December 2010. As a result of this agreement the group recorded an additional interest of £66,000 in CTIP to reflect the additional distribution CTFMH received during the year ended 31 March 2011 (2009/10 – £43,000).

## Notes to the financial statements

### Continued

#### 11 Interests accounted for using the equity method continued

The financial information of the associates is summarised below:

	Salix £'000	CTIP £'000	Total 2011 £'000	Total 2010 £'000
Share of associates' operating profit	701	190	891	402
Share of associates' balance sheets:				
– Non-current assets	7	1	8	14
– Current assets	16,810	258	17,068	18,634
<b>Share of gross assets</b>	16,817	259	17,076	18,648
– Non-current liabilities	(8,504)	–	(8,504)	(913)
– Current liabilities	(4,000)	(106)	(4,106)	(13,985)
<b>Share of gross liabilities</b>	(12,504)	(106)	(12,610)	(14,898)
Additional interest recognised	–	66	66	43
<b>Share of net assets</b>	4,313	219	4,532	3,793

Neither of the associates had any material revenue generated from outside of the Carbon Trust group, or any material interest or tax during the period (2009/10 – £nil).

#### (b) Interests in joint ventures

The group's interests in joint ventures are as follows:

	Holding %	Country of incorporation
Connective Energy Limited	40.0	UK
Insourc Energy Limited	64.8	UK
Partnerships for Renewables Limited	46.1	UK
The Solar Press UK Limited	38.3	UK
Sackville LCW (GP) Limited	33.3	UK
China-UK Low Carbon Enterprises Co. Limited	49.0	China
Eight19 Limited	37.6	UK

#### Connective Energy Limited (Connective)

The group, through its subsidiary Carbon Trust Enterprises Limited (CTEL) holds an investment of £411,500 in Connective Energy Limited, representing 40% of its share capital, which is fully impaired.

#### Insourc Energy Limited (Insourc Energy)

The group, through its subsidiary CTCL, holds an investment of £2,759,622 in the equity of Insourc Energy, which represents 64.8% of the share capital of Insourc Energy. Insourc Energy is managed through a joint venture agreement which provides for equal voting rights on all material matters. Due to the contractual arrangements within the joint venture agreement, the group accounts for its 64.8% interest in the net assets of Insourc Energy under the equity method as a joint venture.

During the year ended 31 March 2010, CTCL increased its investment in Insourc Energy by subscribing for a further 522,085 ordinary A shares at a cost of £1,000,000. Insourc Energy's co-investor, SSE Venture Capital Limited invested an additional £500,000 in 261,040 ordinary A shares. As a result of these transactions the shareholding in Insourc Energy held by CTCL increased from 64.2% to 64.8% and the group recorded a loss on deemed acquisition of £29,400 (see note 4).



## 11 Interests accounted for using the equity method continued

### Partnerships for Renewables Limited (PfR)

The group, through its subsidiary CTCL, holds an investment of £8,844,733 in the equity of PfR, representing 46.1% of the issued share capital. PfR is managed through a joint venture agreement with InfraRed Environmental Infrastructure (formerly HSBC Environmental Infrastructure) and OPTrust Infrastructure Europe II Inc (OPT), following a successful refinancing for its expanded business plan which introduced OPT as a shareholder. The agreement provides for equal voting rights on all material matters and under the terms of the agreement OPT will invest in PfR's expanded development plan until it has invested the same amount as InfraRed OPT's shareholding will increase in proportion to its funding for PfR to 33%. CTCL's investment is anticipated to reduce to 34% over the same period.

During the year ended 31 March 2011 PfR issued a total of 1,823,127 ordinary shares to a third party investor, OPT, which resulted in the relative shareholding held by CTCL reducing from 51.0% to 46.1%. As a result of this deemed disposal a gain was recorded of £2,394,000. During the year ended 31 March 2010, £2,655,550 of loan notes were issued to CTCL and immediately converted into ordinary shares. The group's shareholding of the issued share capital in PfR at 31 March 2010 remained at 51.0% as a result of this conversion. The group has further invested in PfR through an unsecured convertible loan note of £1,530,000 issued by PfR on 28 March 2008 relating to a turbine deposit facility. Due to the contractual arrangements within the joint venture agreement, the group accounts for its 46.15% interest in the net assets of PfR under the equity method as a joint venture.

### The Solar Press UK Limited (Solar Press)

At 31 March 2011 the group, through its subsidiary CTCL, held an investment of £2,500,374 in the equity of Solar Press, a joint venture established with C-Change UK Limited to develop and commercialise organic photovoltaic technology, under the group's photovoltaic research accelerator. Solar Press was incorporated on 1 April 2009. The group's investment represents a 38.3% interest in Solar Press. In October 2009 a further 70 ordinary shares were issued to a co-investor, reducing CTCL's investment from 41.2% to 38.3%; as a result of this transaction the group recognised a gain on deemed disposal of £7,228 (see note 4).

### China UK Low Carbon Enterprises Co., Ltd (CULCEC)

At 31 March 2011, the group, through its wholly owned subsidiary, Carbon Trust International Limited, held an investment of £735,000 in CULCEC, representing 49% of its shareholding. CULCEC is an entity registered in China, and was established on 3 March 2010 following the signing of a joint venture agreement with the China Energy Conservation and Environmental Protection Group (CECEP) (formerly China Energy Conservation Investment Corporation (CECIC)) the group's joint venture partner, on 8 September 2009. CULCEC has been established to undertake venture capital investment, low-carbon technology related consulting and business incubation activities in China.

### Eight19 Limited (Eight19)

At 31 March 2011 the group, through its wholly owned subsidiary, Carbon Trust Enterprises Limited, held an investment of £2,250,009 in the ordinary share capital of Eight19, representing 37.6% of its shareholding. Eight19 is a joint venture between Rhodia SA, the University of Cambridge, and founder members. Eight19 carries out research and development in organic photovoltaic materials.

## Notes to the financial statements

## Continued

## 11 Interests accounted for using the equity method continued

## Sackville LCW (GP) Limited (Sackville)

At 31 March 2011 the group, through its subsidiary CTCL, held an investment of £50 in the equity of Sackville, a joint venture established with Stanhope plc and Threadneedle Property Investments Limited which is the general partner of Low Carbon Workplace LP, a fund set up to raise £350 million for low carbon property refurbishments. The group's investment represents a 33.3% interest. Sackville was incorporated on 1 March 2010. As at 31 March 2011, the group's interest in Sackville is limited to a £0.4 million loan, which has been included in other receivables.

The financial information of these joint ventures for the year is summarised below:

	Connective £'000	Insource Energy £'000	PfR £'000	Solar Press £'000	Sackville £'000	CULCEC £'000	Eight19 £'000	Total 2011 £'000	Total 2010 £'000
Share of joint ventures' operating results	(1)	(570)	(3,363)	(251)	–	(11)	(255)	<b>(4,451)</b>	(2,973)
Share of joint ventures' balance sheets:									
– Non-current assets	–	2,494	18	650	–	38	465	<b>3,665</b>	693
– Current assets	13	850	2,732	433	–	718	1,267	<b>6,013</b>	5,354
<b>Share of gross assets</b>	13	3,344	2,750	1,083	–	756	1,732	<b>9,678</b>	6,047
– Non-current liabilities	(44)	(2,893)	(161)	(32)	–	–	–	<b>(3,130)</b>	(577)
– Current liabilities	(1)	(268)	(1,102)	(21)	–	(32)	(288)	<b>(1,712)</b>	(1,446)
<b>Share of gross liabilities</b>	(45)	(3,161)	(1,263)	(53)	–	(32)	(288)	<b>(4,842)</b>	(2,023)
<b>Share of net (liabilities)/ assets</b>	(32)	183	1,487	1,030	–	724	1,444	<b>4,836</b>	4,024
Group balances with joint ventures	44	–	1,530	1,000	–	–	550	<b>3,124</b>	1,239
<b>Total interests in joint ventures</b>	12	183	3,017	2,030	–	724	1,994	<b>7,960</b>	5,263

None of the joint ventures had any material revenue, interest or tax during the period (2009/10 – £nil).

## 12 Subsidiaries

The following represent the significant subsidiaries of the group at 31 March 2011. Please refer to note 6 in the company's separate financial statements for more details.

	% holding	Country of incorporation and registration
<b>Directly held</b>		
Carbon Trust Enterprises Limited	100	UK
Carbon Trust Investments Limited	100	UK
Carbon Trust Fund Management Holdings Limited	100	UK
Carbon Trust International Limited	100	UK
<b>Indirectly held</b>		
Carbon Trust Footprinting Company Limited	100	UK
Carbon Trust Footprinting Certification Company Limited	100	UK
Carbon Trust Advisory Services Limited (previously The Low Carbon Culture Company Limited)	100	UK
Carbon Trust Standard Company Limited	100	UK
Low Carbon Workplace Limited	100	UK
Carbon Trust Implementation Services Limited	100	UK
Low Carbon Seed Fund LLP	100	UK
Future Blends Limited	98.1	UK
Carbon Trust LLC	100	USA

All subsidiaries of the group have a period end of 31 March.

## 13 Interest-free loans receivable

	31 March 2011 £'000	31 March 2010 £'000
Non-current repayable grant to Salix Finance	28,139	37,296
Non-current loans funded from fiscal stimulus grants	35,553	37,571
Non-current other loans	26,801	18,814
Current repayable grant to Salix Finance	8,777	4,812
Current loans funded from fiscal stimulus grants	15,915	11,567
Current other loans	14,825	14,268
	<b>130,010</b>	124,328

Loans receivable comprise balances due under the group's interest-free Energy Efficiency Loans scheme, which are held at amortised cost, as described in note 1k. At 31 March 2011 the gross undiscounted value of the interest-free loans receivable is £150.8 million (2010 – £137.0 million). The fair value of the interest-free Energy Efficiency Loans is consistent with their carrying value. £22.6 million of offers made to applicants under the interest-free Energy Efficiency Loans scheme and of grant payable to Salix Finance in relation to interest-free loan commitments to public sector organisations had not been drawn down by recipients at 31 March 2011 (2010 – £72.7 million).

## Notes to the financial statements

## Continued

**13 Interest-free loans receivable** continued

The following discount rates have been applied to the interest-free loans receivable as follows:

	%
<b>For loans drawdown</b>	
Between 1 April 2006 and 31 March 2007	8.90
Between 1 April 2007 and 31 March 2008	10.29
Between 1 April 2008 and 31 March 2009	9.52
Between 1 April 2009 and 31 March 2010	5.16–6.84
Between 1 April 2010 and 31 March 2011	5.16

**14 Trade and other receivables**

	31 March 2011 £'000	31 March 2010 £'000
Trade and other receivables	2,930	1,512
Prepayments	637	709
Other taxes	–	219
	<b>3,567</b>	2,440

**15 Accrued income**

Accrued income consists of grant income due from funding providers:

	31 March 2011 £'000	31 March 2010 £'000
DECC	28,798	83,125
Invest Northern Ireland	813	924
Department for Transport	504	–
FCO	97	32
Welsh Government	40	482
DFID	–	92
Defra	717	–
	<b>30,969</b>	84,655

## 16 Trade and other payables

	31 March 2011 £'000	31 March 2010 £'000
Trade and other payables	3,113	5,977
Other taxes and social security	17	435
Accruals	52,627	99,413
	<b>55,757</b>	105,825

Included in accruals are £22.6 million (2010 – £72.7 million) relating to constructive obligations to make interest-free loans to Salix Finance and to private sector customers under the company's interest-free Energy Efficiency Loans scheme.

## 17 Deferred income relating to interest-free loans

Deferred income relating to interest-free loans relates to potentially repayable grant income received by the company used to make interest-free loans. It is made up as follows:

	31 March 2011 £'000	31 March 2010 £'000
DECC		
– Repayable grant to Salix Finance	13,285	5,886
– Interest-free loans funded from fiscal stimulus grants – private sector	14,021	13,039
– Other interest-free loans	23,942	18,107
Invest Northern Ireland	3,800	1,983
	<b>55,048</b>	39,015

## 18 Current deferred income

Deferred income relates to grant receipts in advance of the related costs being incurred. It is made up as follows:

	31 March 2011 £'000	31 March 2010 £'000
DECC	1,229	478
The Scottish Government	287	45
Defra	–	30
Department for Transport	–	377
DFID	1	–
	<b>1,517</b>	930



## Notes to the financial statements

## Continued

**19 Deferred income relating to interest-free loans**

Deferred income relating to interest-free loans relates to potentially repayable grant income received by the company used to make interest-free loans. It is made up as follows:

	31 March 2011 £'000	31 March 2010 £'000
DECC		
– Repayable grant to Salix Finance	28,139	41,011
– Interest-free loans funded from fiscal stimulus grants – private sector	35,553	41,191
– Other interest-free loans	21,476	13,194
Invest Northern Ireland	3,624	4,348
	<b>88,792</b>	99,744

**20 Non-current deferred income**

Deferred income of £0.6 million (2010 – £1.0 million) relating to property, plant and equipment funded by grant income will be released to grant income over the expected useful lives of the assets concerned.

**21 Deferred tax liability**

	2011 £'000	2010 £'000
At 1 April	5,789	2,023
Charged to the income statement	751	3,766
At 31 March	6,540	5,789

There are no deferred tax assets offset against the liabilities recognised above. The deferred tax liability relates to the equity investments held in the group's venture capital portfolio.

There is an unrecognised deferred tax asset of £4.6 million at 31 March 2011 (2010 – £4.0 million) in respect of losses carried forward. This deferred tax asset has not been recognised on the basis that there is insufficient evidence of taxable profits arising in the future against which it could be offset.

## 22 Financial risk management and financial instruments

### Financial risk factors

#### (i) Foreign currency risk

At the present time the group's exposure to foreign currency risk is minimal due to limited overseas operations.

#### (ii) Interest rate risk

The company is primarily grant funded in advance and has no external borrowings, so its interest rate risk is limited to interest earned on cash balances. The group earns interest income at variable rates on its cash balances. The interest income is sensitive to changes in interest rates receivable on cash balances. For example, based on the year end cash balance of £56.4 million (2010 – £50.9 million), a 1% increase in the interest rate would have resulted in an additional £0.4 million of interest income (2009/10 – £0.4 million) on an annualised basis.

#### (iii) Credit risk

The group's principal financial assets are cash balances, interest-free loan receivables, trade and other receivables and venture capital investments. All the cash balances held by the group are invested in large UK based financial organisations. The main credit risk the group faces has been in relation to its interest-free Energy Efficiency Loans scheme. This risk is actively managed with formal credit checking procedures and allowances for impairment are made where appropriate. The group's bad debt provisioning policy includes taking into account debtors in arrears as well as debtors in administration. The maximum risk that the group is exposed to is limited to the carrying value of the interest-free loan receivable balances at 31 March 2011.

The movement in the provision for impairment for interest-free loans receivables is as follows:

	2011 £'000	2010 £'000
At beginning of the year	4,598	3,191
Charge for the year	3,607	1,407
At end of the year	8,205	4,598

All loans greater than 60 days overdue are considered impaired. Consequently, as at 31 March 2011 the analysis of loans receivable which were past due but not impaired is as follows:

	31 March 2011 £'000	31 March 2010 £'000
Neither past due or impaired	126,233	124,104
Less than 60 days old	3,777	224
Total	130,010	124,328

#### (iv) Liquidity and cash management

As the company is primarily grant funded in advance it has limited liquidity and cash flow risk. The Carbon Trust group has some of its own funds generated from investment sales, loan repayments, and commercial profits which are held for future reinvestment. Cash levels are monitored to ensure sufficient resources are available to meet the group's requirements. Cash surpluses are placed on term deposits to manage liquidity whilst optimising the rate of return on cash resources, giving due consideration to risk.

#### (v) Equity price risk

The group currently holds no listed investments in its investment portfolio. As such, the group is exposed to fluctuations in the fair value of this portfolio through its income statement as a result of changes in the outcome of the valuation guidelines applied per note 1(d). A 10% decrease or increase to this valuation as at 31 March 2011 would result in a decrease of £2.7 million and an increase of £2.7 million respectively to the fair value (2010 – £1.1 million and £3.2 million respectively).

#### (vi) Capital risk management

As a company limited by guarantee, the company is unable to distribute funds to its members and any profits will be reinvested in the business. Due to the activities of the group there is no current general business need for any borrowings. As such, the capital risk management policy of the group is limited to liquidity management and compliance with any restrictions included under the terms of the grant offers.

## Notes to the financial statements

### Continued

## 22 Financial risk management and financial instruments continued

### (vii) Categories of financial instruments

Details of the significant accounting policies and methods adopted, including the criteria for recognition, the basis of measurement and the basis on which income and expenses are recognised in respect of each class of financial asset and liability are disclosed in note 2 to the financial statements.

	Book value £'000	31 March 2011 Fair value £'000	Book value £'000	31 March 2010 Fair value £'000
<b>Financial assets</b>				
Trade receivables	2,930	2,930	1,512	1,512
Interest-free loans receivables	130,010	130,010	124,328	124,328
Cash and cash equivalents	56,466	56,466	50,925	50,925
Investment portfolio	27,045	27,045	22,111	22,111
<b>Total financial assets</b>	<b>216,451</b>	<b>216,451</b>	<b>198,876</b>	<b>198,876</b>
<b>Financial liabilities</b>				
Trade payables	3,113	3,113	5,977	5,977
Deferred income	145,985	145,985	140,645	140,645
<b>Total financial liabilities</b>	<b>149,098</b>	<b>149,098</b>	<b>146,622</b>	<b>146,622</b>

### (viii) Fair value of financial instruments

The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, grouped into Levels 1 to 3 based on the degree to which the fair value is observable.

- Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets.
- Level 2 fair value measurements are those derived from inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data.

At 31 March 2011	Level 1 £'000	Level 2 £'000	Level 3 £'000	Total £'000
<b>Financial assets</b>				
Investment portfolio	–	–	27,045	27,045

Please see note 10 to the consolidated financial statements for a reconciliation of the in-year movement of the investment portfolio.

## 23 Members' fund

On 31 March 2011 the 16 (2010 – 15) members of the company were the Secretary of State for Energy and Climate Change; the Secretary of State for Business, Innovation and Skills; the First Minister of the Scottish Parliament; the Welsh Ministers; the Minister for Enterprise, Trade and Investment for the Northern Ireland Executive; and the 11 (2010 – 10) Non-Executive Directors who are not representatives of Government departments or bodies.

The members' fund at 31 March 2011 was £nil (2010 – £nil). Each member is required to pay an amount not exceeding £1, only if the Carbon Trust is wound up whilst he or she is a member, or within one year after ceasing to be a member, for the payment of the Carbon Trust's debts and liabilities contracted before he or she ceased to be a member, and of the costs, charges and expenses of winding up, and for the adjustment of the rights of the contributors among themselves.

## 24 Financial commitments

At 31 March the group's total commitments for future minimum lease payments under non-cancellable operating leases relating to property leases and office equipment were as follows:

	31 March 2011 £'000	31 March 2010 £'000
Due within a year	1,505	1,512
Due between one and five years	1,867	3,367
	<b>3,372</b>	4,879

The above includes property leases relating to 5 New Street Square, London, Albion House in Nantgarw, Cardiff, the Technology Centre, Scottish Enterprise Technology Park, East Kilbride, Unit 9 Innovation Centre, Belfast and New Poly Plaza, Beijing. Each such lease provides for the lessee to pay all insurance, maintenance and repair costs.

At 31 March 2011 the group had commitments to pay £2.9 million in relation to 22 Applied Research grant projects and one research accelerator (2010 – £10.4 million in relation to 36 projects and two research accelerators).

## 25 Capital commitments

At 31 March 2011 the group had £4.2 million of capital commitments relating to its interest in the UK-China Low Carbon Enterprises Co., Ltd joint venture (2010 – £4.2 million), and £6.9 million (2010 – £7.4 million) of capital commitments relating to its ongoing commitment to early stage venture capital investment advised by CT Investment Partners LLP.

## 26 Related party transactions

During the year the group provided £18.1 million (2009/10 – £77.1 million) to grant fund Salix Finance Limited, an associate of the group.

CT Investment Partners LLP (CTIP) charged fees of £1.3 million to group companies in the normal course of business (2009/10 – £1.2 million), and was charged service fees of £131,192 by group companies (2009/10 – £94,000). At 31 March 2011 CTIP held no balances with other group companies (2010 – £nil).

The group charged service fees of £12,000, £182,700, £24,000 and £16,900 to Insource Energy, Partnerships for Renewables Limited (PfR), Solar Press and Eight19 respectively (2009/10 – £48,000 for Insource Energy and £175,000 for PfR). The group also charged PfR £31,200 (2009/10 – £29,880) for Director services during the year. At 31 March 2011 Insource Energy and Solar Press held no balances with other group companies (2010 – £nil), PfR held a payable balance with Carbon Trust Enterprises Limited of £54,429 (2010 – £17,135) and Eight19 held a payable balance with Carbon Trust Enterprises Limited of £5,924 (2010 – £nil).

# Independent auditors' report to the members of the Carbon Trust

We have audited the parent company financial statements of the Carbon Trust for the year ended 31 March 2011 which comprise the company balance sheet and the related notes 1 to 13. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

## Respective responsibilities of directors and auditors

As explained more fully in the Directors' Responsibilities Statement set out on page 40 the Directors are responsible for the preparation of the parent company financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit the parent company financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

## Scope of the audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the parent company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the directors; and the overall presentation of the financial statements. In addition, we read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

## Opinion on financial statements

In our opinion the parent company financial statements:

- give a true and fair view of the state of the company's affairs as at 31 March 2011;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006

## Opinion on other matters prescribed by the Companies Act 2006

In our opinion the information given in the Directors' Report for the financial year for which the financial statements are prepared is consistent with the parent company financial statements.

## Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit

## Other matter

We have reported separately on the group financial statements of the Carbon Trust for the year ended 31 March 2011.



**Richard Wilson**

(Senior statutory auditor)

for and on behalf of Ernst & Young LLP, Statutory Auditor London

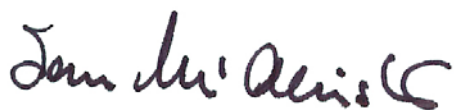
14 July 2011



# Company balance sheet

	Notes	31 March 2011 £'000	31 March 2010 £'000
<b>Fixed assets</b>			
Tangible fixed assets	5	633	956
Investments in subsidiaries	6	28,339	21,265
		<b>28,972</b>	22,221
<b>Current assets</b>			
Debtors – due within one year funded by fiscal stimulus loans	7	24,692	16,379
Debtors – due within one year	7	48,317	102,027
Debtors – due after one year funded by fiscal stimulus loans	7	63,692	74,867
Debtors – due after one year	7	26,801	18,814
Cash at bank and in hand		52,932	43,760
		<b>216,434</b>	(143,027)
<b>Creditors: amounts falling due within one year</b>	8	<b>(111,666)</b>	(145,508)
<b>Net current assets</b>		<b>104,768</b>	110,339
<b>Total assets less current liabilities</b>		<b>133,740</b>	132,560
<b>Creditors: amounts falling due after more than one year</b>	9	<b>(88,792)</b>	(99,744)
Deferred income	10	(633)	(956)
<b>Net assets</b>		<b>44,315</b>	31,860
Members' fund	11	–	–
Profit and loss account	11	44,315	31,860
<b>Total members' fund</b>		<b>44,315</b>	31,860

Signed on behalf of the Board



**Ian McAllister CBE**  
Chairman  
4 July 2011



**Tom Delay**  
Chief Executive

The accompanying notes are an integral part of this balance sheet.

# Notes to the company financial statements

## 1 Corporate information

The Carbon Trust is a company registered in England and Wales (number 4190230) limited by guarantee incorporated in the United Kingdom under the Companies Act 1985. Its registered office is 6th floor, 5 New Street Square, London, EC4A 3BF.

## 2 Basis of preparation

The Carbon Trust's company balance sheet has been prepared under the historical cost convention and has been prepared in accordance with the Companies Act 2006 and applicable UK GAAP accounting standards. The following accounting policies have been applied consistently throughout the period.

As permitted by section 408 of the Companies Act 2006, no separate profit and loss account has been presented in respect of the company. Under FRS 1 'Cash Flow Statements' the company is exempt from the requirement to prepare a cash flow statement due to the fact that the group includes the company in its own published consolidated financial statements.

## 3 Accounting policies

### (a) Grant income

Grant income represents funding from the Department of Energy and Climate Change ('DECC'), the Scottish Government, the Welsh Government, Invest Northern Ireland, the Department for Environment, Food and Rural Affairs ('Defra'), the Foreign and Commonwealth Office ('FCO') and the Department for Transport.

Grant income is recognised in the income statement to match with the expenditure which it is funding. Accordingly, grants utilised for the purchase of tangible fixed assets are treated as deferred income and released to the income statement over the expected useful lives of the assets concerned. Where grant income is received in advance of the related expenditure being incurred, it is treated as deferred income and held in the balance sheet. The deferred income is released to the income statement when the related expenditure is incurred. Where grant income is pledged, but has not yet been received in cash when the related expenditure is incurred, the grant is recognised on the balance sheet as accrued income.

Grant income utilised for the purchase of investments held within the group's investment portfolio is recorded as income in the period in which the investment is made as there is no expected useful life of the investment. This treatment results in a profit equal to the initial cost of the investment held on the balance sheet. Grant income received for the purpose of making interest-free loans is recorded as income in the period in which the loan offer becomes irrevocable, and where there is a potential future obligation to repay the grant funds used for making interest-free loans, that grant funding is classified as deferred income relating to interest-free loans and held on the balance sheet.

### (b) Licence income

License income is accounted for in the period in which it is receivable.

### (c) Tangible fixed assets

Tangible fixed assets are shown at cost less depreciation and any provision for impairment. Depreciation is provided as follows:

- fixtures and fittings – straight-line basis over five years or life of the related property lease term if less
- office equipment and computers – straight-line basis over three years or reducing balance by 50% per annum with respect to composite computer assets

### (d) Investments in group undertakings

Investments in group undertakings are held at cost less any provision for impairment.

### (e) Corporation tax

The company has an agreement with Her Majesty's Revenue and Customs that grant income is not subject to tax. Similarly no tax deduction is available for expenses generated out of grant income. Certain of the company's sources of income will, however, be taxed under normal principles including: bank interest; profits from investments; and activities which are treated as a trade. For these activities UK corporation tax is provided at amounts expected to be paid (or recovered) using the tax rates and laws that have been enacted or substantially enacted by the balance sheet date.

### 3 Accounting policies continued

#### (f) Pension costs

The company makes contributions directly to the providers of employees' personal pension plans, which are money purchase schemes. Contributions are charged to the income statement when payable. Differences between contributions payable in the period and contributions actually paid are shown either as accruals or prepayments in the balance sheet.

#### (g) Operating leases

Amounts payable in respect of operating leases are charged to the profit and loss account on a straight-line basis over the lease term.

#### (h) Interest-free loans

Loans made under the interest-free Energy Efficiency Loans scheme are shown in the balance sheet at the present value of the amounts receivable. The present value represents the value of each loan discounted over the repayment period using the effective interest rate method using a discount rate which reflects the premium for the risk associated with unsecured loans. The charge and credit arising from the discounting of the receivables and the unwinding of the discount are included in the profit and loss account for the period. An equivalent liability is established as deferred income relating to the grant used to fund interest-free loans which may potentially become repayable (see note 3a).

Appropriate allowances for estimated irrecoverable amounts are recognised in the profit and loss account when there is objective evidence that the asset is impaired. The allowance recognised is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the effective interest rate computed at initial recognition.

### 4 Profit attributable to the company

The profit for the financial year was £12,455,000 (2009/10: £7,929,000). As permitted by section 408 of the Companies Act 2006, no separate profit and loss account is presented in respect of the company.

### 5 Tangible fixed assets

	Fixtures and fittings £'000	Office equipment and computers £'000	Total £'000
<b>Cost</b>			
At 1 April 2010	973	1,107	2,080
Additions	—	4	4
<b>At 31 March 2011</b>	<b>973</b>	<b>1,111</b>	<b>2,084</b>
<b>Depreciation</b>			
At 1 April 2010	(306)	(818)	(1,124)
Charge for the year	(181)	(146)	(327)
<b>At 31 March 2011</b>	<b>(487)</b>	<b>(964)</b>	<b>(1,451)</b>
<b>Net book value</b>			
<b>At 31 March 2011</b>	<b>486</b>	<b>147</b>	<b>633</b>
At 31 March 2010	667	289	956

## Notes to the company financial statements

## Continued

**6 Investments in subsidiaries**

At 31 March 2011 the company's principal subsidiary undertakings were:

	% holding	Country of incorporation and registration
<b>Directly held</b>		
Carbon Trust Enterprises Limited	100	UK
Carbon Trust Investments Limited	100	UK
Carbon Trust Fund Management Holdings Limited	100	UK
Carbon Trust International Limited	100	
<b>Indirectly held</b>		
Carbon Trust Footprinting Company Limited	100	UK
Carbon Trust Advisory Services Limited (The Low Carbon Culture Company Limited)	100	UK
The Carbon Trust Standard Company Limited	100	UK
Carbon Trust Footprinting Certification Company Limited	100	UK
Low Carbon Workplace Limited	100	UK
The Low Carbon Seed Fund LLP	100	UK
Future Blends Limited	98.1	UK
Carbon Trust LLC	100	UK
		Total £'000
<b>Cost</b>		
At 1 April 2010		34,250
Additions		8,733
<b>At 31 March 2011</b>		<b>42,983</b>
<b>Provision for impairment</b>		
At 1 April 2010		(12,985)
Written off during year		(1,659)
<b>At 31 March 2010</b>		<b>(14,644)</b>
<b>Net book value</b>		
<b>At 31 March 2011</b>		<b>28,339</b>
At 31 March 2010		21,265

## 6 Investments in subsidiaries continued

The company holds an investment of £1 in its subsidiary companies Carbon Trust Investments Limited (CTIL) and Carbon Trust Fund Management Holdings Limited (CTFMHL), an investment of £41.9 million in Carbon Trust Enterprises Limited (CTEL) which has a carrying value of £27.2 million at 31 March 2011, and an investment of £1,078,000 in Carbon Trust International Limited. This represents 100% of the ordinary issued share capital of these companies.

CTIL acquires and holds venture capital investments. CTIL owns 100% of the economic interest in the Low Carbon Seed Fund LLP.

CTFMHL is a holding company which holds a 40% interest in CT Investment Partners LLP (CTIP), which is authorised and regulated by the Financial Services Authority to undertake designated investment business and provides investment advisory services to group companies.

CTEL undertakes the Carbon Trust group's commercial activities.

CTEL also owns equity investments of £5,289,992, £400,001, £1, £1,000, £1, £1 and £1,908,744 respectively in the following companies, which, with the exception of Future Blends Limited, represents 100% of their ordinary issued share capital:

**Carbon Trust Footprinting Company Limited:** which focuses on the development and sale of its Footprint Expert™ footprinting tools.

**Carbon Trust Footprinting Certification Company Limited:** which focuses on providing independent certification of calculations of the carbon footprints of products and services, in line with industry specifications.

**Carbon Trust Advisory Services Limited (formerly The Low Carbon Culture Company Limited):** which from 1 April 2011 provides strategic carbon consultancy services.

**The Carbon Trust Standard Company Limited:** which focuses on providing organisations with certification of their performance in taking action to reduce their carbon emissions, with the endorsement of the Carbon Trust Standard, through assessment against the Carbon Trust Standard methodology.

**Low Carbon Workplace Limited:** a carbon advisory company.

**Carbon Trust Implementation Services Limited:** which from April 2011 provides carbon advisory services to the new energy efficiency finance scheme.

**Future Blends Limited:** a joint venture established with a consortium of partners to develop and commercialise the production of low carbon diesel blendates from waste biomass. The investment CTEL owns in Future Blends Limited represents an interest of 98.1%.

**Carbon Trust International Limited:** is the holding company for the group's international activities. At 31 March 2011 Carbon Trust International Limited held an equity investment of £328,000 in Carbon Trust LLC, a Delaware registered limited liability company, which represents 100% of the paid in capital of this entity. Carbon Trust International Limited also holds an investment of £735,000 in China-UK Low Carbon Enterprises Co. Limited, a limited liability company registered in China. This investment represents 49% of the interest in this entity.

## Notes to the company financial statements

### Continued

## 7 Debtors

	31 March 2011 £'000	31 March 2010 £'000
Amounts falling due within one year:		
Trade debtors	1,851	1,039
Amounts owed by group undertakings	177	2,427
Repayable grant to Salix Finance	8,777	4,812
Interest-free loans receivable funded from stimulus grants	15,915	11,567
Other interest-free loans	14,825	14,268
Accrued income	30,842	83,584
Prepayments	622	709
	<b>73,009</b>	118,406

	31 March 2011 £'000	31 March 2010 £'000
Amounts falling due after more than one year:		
Repayable grant to Salix Finance	28,139	37,296
Interest-free loans receivable funded from fiscal stimulus grants	35,553	37,571
Other interest-free loans receivable	26,801	18,814
	<b>90,493</b>	93,681

Interest-free loans receivable comprise balances due under the interest-free Energy Efficiency Loans scheme, which have been discounted to their present value at the balance sheet date, as explained in note 3h. At 31 March 2011 £22.6 million of offers made to applicants under the interest-free Energy Efficiency Loans scheme and of grant payable to Salix Finance in relation to interest-free loan commitments to public sector organisations had not been drawn down by recipients (2010 – £72.7 million).

Accrued income consists of grant income due from funding providers. It is made up as follows:

	31 March 2011 £'000	31 March 2010 £'000
DECC	28,621	82,116
Invest Northern Ireland	862	921
FCO	96	32
DFID	–	92
Welsh Government	53	423
Defra	717	–
Department for Transport	493	–
	<b>30,842</b>	83,584



## 8 Creditors: Amounts falling due within one year

	31 March 2011 £'000	31 March 2010 £'000
Trade creditors	1,998	5,042
Amounts owed to group undertakings	1,801	2,900
Other taxes and social security	5	267
Deferred income relating to repayable grant to Salix Finance	13,285	5,885
Deferred income relating to interest-free loans funded from fiscal stimulus grants	14,022	13,039
Deferred income relating to other interest-free loans	27,683	20,030
Deferred income	1,527	805
Accruals	51,345	97,540
	<b>111,666</b>	<b>145,508</b>

Deferred income relating to interest-free loans relates to potentially repayable grant income received by the company for the purpose of making interest-free loans. It is made up as follows:

	31 March 2011 £'000	31 March 2010 £'000
DECC	51,188	36,971
Invest Northern Ireland	3,801	1,983
	<b>54,989</b>	<b>38,954</b>

Following the closure of the interest-free Energy Efficiency Loans scheme in England and Scotland, the loans repayments are repayable to DECC. Deferred income relates to grant receipts in advance of the related costs being incurred. It is made up as follows:

	31 March 2011 £'000	31 March 2010 £'000
DECC	1,215	454
The Scottish Government	311	67
DEFRA	–	30
Department for Transport	–	254
DFID	1	–
	<b>1,527</b>	<b>805</b>

## Notes to the company financial statements

## Continued

**9 Creditors: Amounts falling due after more than one year**

	<b>31 March 2011 £'000</b>	31 March 2010 £'000
Deferred income relating to repayable grant to Salix Finance	<b>28,139</b>	41,191
Deferred income relating to interest-free loans funded from fiscal stimulus grants	<b>35,553</b>	41,011
Deferred income relating to interest-free loans	<b>25,100</b>	17,542
	<b>88,792</b>	99,744

Deferred income relating to interest-free loans relates to potentially repayable grant income received by the company for the purpose of making interest-free loans. It is made up as follows:

	<b>31 March 2011 £'000</b>	31 March 2010 £'000
DECC		
– Repayable grant to Salix Finance	<b>28,139</b>	41,191
– Interest-free loans funded from fiscal stimulus grants – private sector	<b>35,553</b>	41,011
– Other interest-free loans	<b>21,476</b>	13,194
Invest Northern Ireland	<b>3,624</b>	4,348
	<b>88,792</b>	99,744

Following the closure of the interest-free Energy Efficiency Loans scheme in England and Scotland, the loans repayments received are repayable to DECC.

**10 Deferred income relating to fixed assets**

Deferred income of £633,000 at 31 March 2011 (2010 – £956,000) represents deferred income relating to tangible fixed assets, which will be released to grant income over the expected useful lives of the related assets.

**11 Total funds**

	Members' fund £'000	Profit and loss account £'000	<b>Total members' fund 2011 £'000</b>	Total members' fund 2010 £'000
At 1 April 2010	–	31,860	<b>31,860</b>	23,931
Retained profit for the year	–	12,455	<b>12,455</b>	7,929
At 31 March 2011	–	44,315	<b>44,315</b>	31,860

## 12 Financial commitments

Annual commitments under non-cancellable operating leases relating to property leases and office equipment are as follows:

Expiry	31 March 2011 £'000	31 March 2010 £'000
Within one year	30	9
Between two and five years	1,476	1,508
	<b>1,506</b>	<b>1,517</b>

The property leases relate to New Street Square, London, Albion House in Nantgarw, Cardiff, the Technology Centre, Scottish Enterprise Technology Park, East Kilbride, Unit 9 Innovation Centre, Belfast and New Poly Plaza, Beijing. Each such lease provides for the lessee to pay all insurance, maintenance and repair costs.

At 31 March 2011 the company had commitments to pay £2.9 million in relation to 22 applied research grant projects and one research accelerator (2010 – £10.4 million in relation to 36 projects and two research accelerators).

## 13 Related party transactions

During the year the company provided £18.1 million (2009/10 – £77.1 million) to grant fund Salix Finance Limited, as associate company of the Carbon Trust.

During the year the company was charged fees of £100,000 (2009/10 – £100,000) by CT Investment Partners LLP (CTIP) in the normal course of business.

The company charged service fees of £131,192 to CTIP during the year (2009/10 – £94,000). At 31 March 2011 CTIP held no balance with the company (2010 – £nil).

# Glossary

- BIS**  
Department for Business, Innovation and Skills.
- Carbon footprint**  
Net emissions of CO<sub>2</sub> and other greenhouse gases from a person's or a business' activities.
- Carbon Management**  
A systematic approach to identify the risks and opportunities in relation to climate change mitigation, using a five-step process developed by the Carbon Trust.
- CRC Energy Efficiency Scheme**  
The UK's mandatory climate change and energy saving scheme (formerly known as the Carbon Reduction Commitment).
- CTEL**  
Carbon Trust Enterprises Limited, a wholly-owned subsidiary company of the Carbon Trust.
- CTFMHL**  
Carbon Trust Fund Management Holdings Limited, a wholly-owned subsidiary of the Carbon Trust.
- CTIL**  
Carbon Trust Investments Limited, a wholly-owned subsidiary company of the Carbon Trust.
- CTIntL**  
Carbon Trust International Limited, a wholly-owned subsidiary company of the Carbon Trust.
- CTIP**  
CT Investment Partners LLP, a limited liability partnership in which the group holds a 40% interest.
- CULCEC**  
China UK Low Carbon Enterprise Co., Ltd.
- DECC**  
Department of Energy and Climate Change.
- Defra**  
Department for Environment, Food and Rural Affairs.
- Devolved Administrations**  
The Scottish Government, the Welsh Government and Invest Northern Ireland.
- DFID**  
Department for International Development.
- ECA or ECA scheme**  
The Government's Enhanced Capital Allowances for energy saving investment scheme.
- EMEC**  
European Marine Energy Centre. Orkney-based centre for testing marine energy devices.
- EST**  
The Energy Saving Trust.
- EU ETS**  
The European Union Greenhouse Gas Emission Trading Scheme, which commenced operation in January 2005.
- FCO**  
The Foreign and Commonwealth Office.
- Fuel cells**  
Devices that convert energy stored in a fuel (usually hydrogen) into electricity and heat.
- IFRS**  
International Financial Reporting Standards.
- Incubator**  
An economic tool to provide business support to accelerate the growth of entrepreneurial companies at an early stage of development.
- OWA**  
The Offshore Wind Accelerator, one of the Carbon Trust's technology accelerators.
- PV**  
Photovoltaic, a technology whereby energy from the sun's rays is converted into an electrical current.
- Research accelerators**  
Research accelerators are joint research and development initiatives, directed by the Carbon Trust, to accelerate commercialisation of emerging science in low carbon applications by overcoming major technical and scientific barriers.
- Salix or Salix Finance**  
Salix Finance Limited, an independent company funded by the Carbon Trust to work with the public sector to reduce carbon emissions through investment in energy efficiency.
- SMEs**  
Small and medium-sized companies, as defined in EU state aid legislation i.e. organisations having no more than 250 employees, an annual turnover of no more than €50 million, or an annual balance sheet not exceeding €43 million.
- Technology accelerators**  
A portfolio of directed projects set up and wholly or partly funded by the Carbon Trust to support sectors that have significant long term potential to reduce carbon emissions, but whose potential is constrained by barriers to commercialisation.
- WRAP**  
The Waste and Resources Action Programme.



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