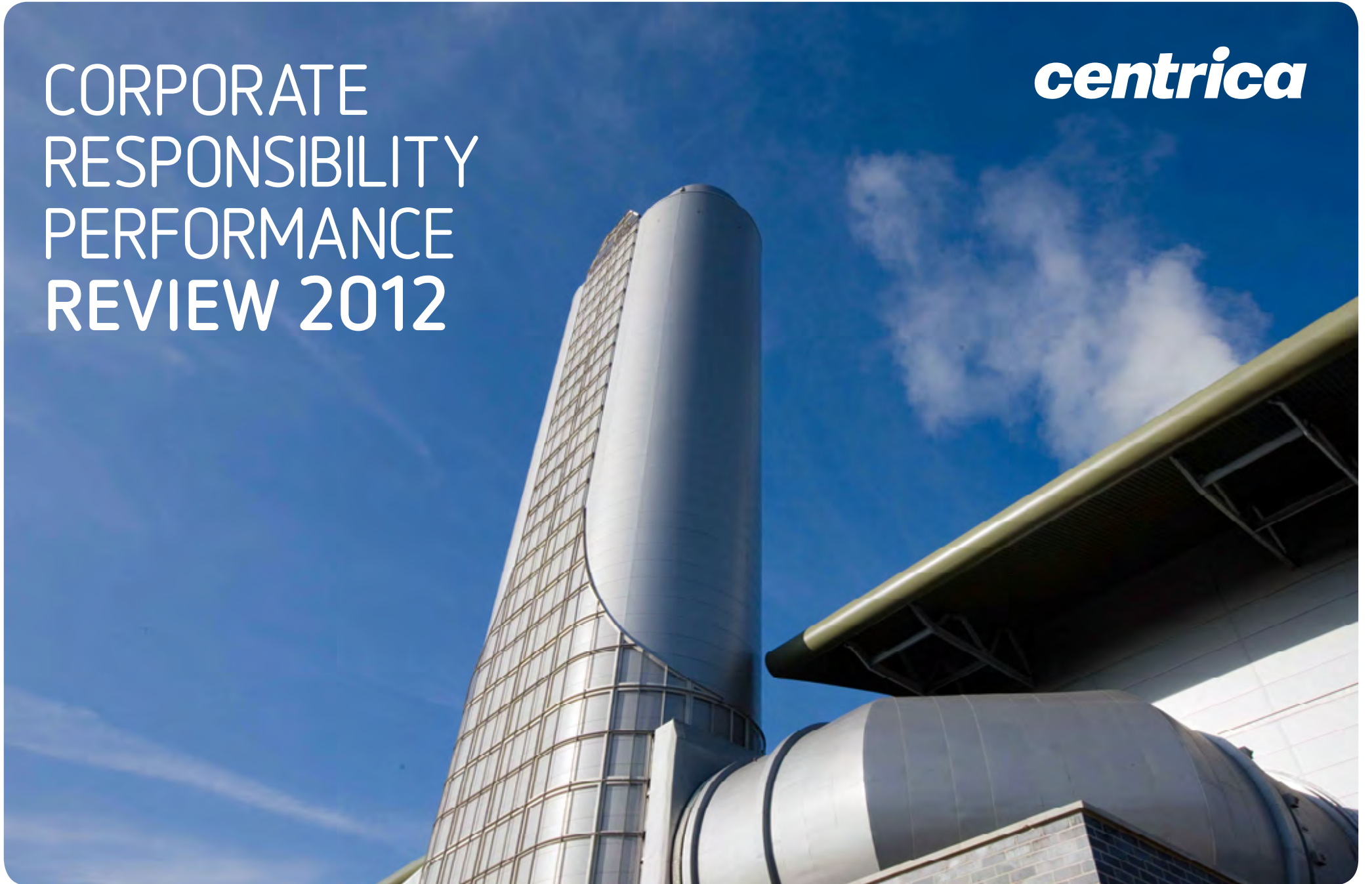


CORPORATE RESPONSIBILITY PERFORMANCE REVIEW 2012

centrica



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We must evolve with the changing energy landscape

York Gas Storage Terminal,
East Yorkshire, UK



CHIEF EXECUTIVE'S INTRODUCTION

Thanks to the hard work and dedication of our people we again delivered a solid performance in 2012, making considerable progress towards our strategic goals despite operating in what has continued to be a challenging economic environment.

Review of 2012

In the UK, higher commodity and non-commodity costs alongside much colder weather compared to the very mild 2011, contributed to higher bills for our customers. We recognise the real challenges that this presents in an environment where disposable income is flat for many of our customers. Responding to this, although we were obliged to increase bills as a result of higher input prices, our increase was lower than all the

other major suppliers. By contrast, gas prices have fallen and bills have reduced in North America, helping customer satisfaction rise for Direct Energy. Our efforts there have focused on expanding into new markets and integrating newly acquired businesses into our operations.

We invested more than £2bn in 2012 to secure new sources of energy for the UK, across both gas and power. Sustained investment in energy projects makes a large contribution to the communities in which we operate: a study by the economic forecasting consultancy, Oxford Economics, calculated that Centrica's UK activities in 2012 supported 174,000 UK jobs and made a £14.1bn contribution to the UK, equivalent to the size of the economy of Manchester.

We undertook all our activity with a clear focus on safety. There were no significant process safety events* in our oil, gas and power generation operations, and our overall lost time injury frequency rate declined for the sixth consecutive year, falling to 0.20* per 100,000 hours worked, beating our target of 0.225 for 2012.

In 2012, we continued to support our most vulnerable customers and spent more than £223m providing assistance such as free debt and payment assistance, discounted tariffs and energy and household grants to more than 2.1m* households. In North America, we continued to support bill payment assistance programmes for our customers in Texas and contributed more than \$534,000 (£336,000) to the programme, assisting more than 2,600 customers.

Customer trust remains a top priority. The changes we have made in 2012 to improve our customers' experience have helped us achieve

increases in customer satisfaction – as measured by our Net Promoter Scores – in both the UK and North America. British Gas took the lead in simplifying energy tariffs and we were awarded five stars by the consumer campaign group Which? for the clarity of our new energy bills that allow customers to ensure they are on the right tariff. We also improved our complaints processes by making it easier for customers to let us know if they have any concerns. Despite these improvements, the tough economic climate and concerns over rising fuel bills have damaged public trust in the energy industry in the UK, and in British Gas in particular, as the nation's largest energy supplier. We are highly aware of the work that remains to be done in this area.

With energy costs increasing in the UK, keeping energy affordable is paramount as we seek to deliver value for our customers. Rising wholesale energy costs and levies to fund investment in low carbon programmes led to price increases in 2012, but a focus on cost management across our businesses meant British Gas was still able to offer the lowest tariff increase of the six major UK energy providers. In the US, where the proliferation of natural gas from shale has reduced wholesale energy prices, we focused on helping customers manage their energy costs through a number of initiatives, including time-of-use tariffs.

We recognise that this is a tough time for stretched household budgets. Our focus on helping customers cut their energy consumption has helped many to limit the impact of rising prices through measures such as loft and cavity wall insulation. British Gas was the first UK energy company to offer free insulation to all customers, and in 2012 insulated approximately 670,000 homes,

£14.1bn contribution

Centrica's UK activities in 2012 supported 174,000 UK jobs and made a £14.1bn contribution to the UK, equivalent to the size of the economy of Manchester.

* Assured by Deloitte LLP for 2012 reporting, see [website](#) for more information.

which we estimate has had the same impact on CO₂ emissions as replacing a coal-fired power station with low carbon generation.

Throughout 2012, we introduced innovations that helped customers to better manage their energy use. In the UK, British Gas launched Remote Heating Control™, which enables customers to control their central heating from a smartphone via a broadband connection. Smart meters offer further opportunities for innovation, and British Gas continues to lead their deployment in the UK, having installed more than 800,000* in customers' homes and businesses by the end of 2012. In North America, smart meters, which have been fully rolled out in some of our markets, are enabling Direct Energy to provide customers with more flexible electricity plans. These are also helping our customers to cut energy costs and reduce carbon by lowering demand on the grid at peak times.

Energy challenge

Consumers must have the energy they need to power and heat their homes and businesses. This energy must be affordable and those who struggle to pay may need support. On top of this, society must move towards a low carbon future.

Being a responsible energy company is about balancing these three, often conflicting, demands: what we call the energy trilemma. Centrica has a vital role to play in this.

Increasing supplies of gas will help us offer affordable energy. Through our exploration, production and trading capabilities, we are securing the gas our customers need, helping to achieve energy security. And we are contributing towards a low carbon future by

applying our expertise in energy efficiency and smart energy management to help our customers reduce their energy consumption, as well as working to minimise the impact from our upstream generation activities.

The future landscape

The energy challenge changes as the energy landscape shifts. The UK now imports the majority of its gas, and while residential gas consumption is declining year-on-year due to energy efficiency programmes, the dependence on this form of energy will continue for many years ahead. Gas heats more than 80% of UK homes at half the cost of electricity, and contributes more overall energy than other fuels combined when industrial processes are included. In North America, an increasingly abundant and reliable supply of natural gas from shale creates potential for the region to export gas to the rest of the world including the UK.

Renewable energy such as offshore wind offers good alternatives for meeting low carbon targets. However, costs have not decreased to the levels many hoped they would and projects continue to get larger and more complex. Combined with regulatory uncertainty and financial constraints, the reality with renewable generation is a much different one than we were looking at three years ago. While renewable power will fill some of the gaps left by the closure of coal-fired power stations in the UK over the next decade, gas-fired power generation will become an increasingly important part of the fuel mix.

We must evolve with the changing energy landscape if we are to be a sustainable

company able to address the challenges of the energy trilemma. Therefore, in February 2013 we refreshed our corporate strategy, setting out three key aims:

- ▶ Innovating to drive growth and service excellence
- ▶ Integrating our natural gas business, linked to our core markets
- ▶ Increasing our returns through efficiency and capital discipline.

You can find out more about the strategy in our [2012 Annual Report and Accounts](#).

We are now reviewing and adapting our corporate responsibility approach to further strengthen our new strategic framework's ability to balance the demands of the energy trilemma.

We will update you on our new corporate responsibility strategy in the coming months via our website and social media. I welcome your thoughts. Please get in touch at responsibility@centrica.com.



Sam Laidlaw
Chief Executive
1 May 2013

Consumers must have the energy they need to power and heat their homes and businesses. This energy must be affordable and those who struggle to pay may need support. On top of this, society must move towards a low carbon future.

* Assured by Deloitte LLP for 2012 reporting with limitation of scope, see [website](#) for more information.

CUSTOMER FAIRNESS

5 star rating

Which? awarded British Gas five stars for the clarity of the new bills

Employee at British Gas Energy
Contact Centre, Cardiff, UK

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CUSTOMER FAIRNESS AT A GLANCE



2012 SNAPSHOT

- ▶ Increased customer satisfaction for Direct Energy and British Gas.
- ▶ Awarded five star ratings from consumer group Which? for the clarity of British Gas' new bills and accessibility of complaints handling.
- ▶ British Gas named Best utility at the Top 50 Companies for Customer Service Awards; Leicester and Cardiff call centres recognised as two of the best in Europe.
- ▶ Introduced Tariff Check, a personalised comparison to show customers whether they could save money on a different British Gas tariff.
- ▶ Enabled customers to cut energy use by up to 18% with Direct Energy's Power-to-GoSM prepaid product.
- ▶ Spent more than £500m over three years on supporting vulnerable customers in the UK – more than any organisation except the Government.
- ▶ Provided £336,000 in bill assistance to help more than 2,600 customers in North America.

MEASURING OUR PERFORMANCE

Metric	Unit	2012	2011
Net Promoter Score (NPS) – British Gas ⁽ⁱ⁾	See Basis of Reporting	+30 (high performance range) ⁽ⁱⁱ⁾	+26 (high performance range) ⁽ⁱⁱⁱ⁾
Net Promoter Score (NPS) – Direct Energy ⁽ⁱ⁾	See Basis of Reporting	+39 (high performance range) ⁽ⁱⁱ⁾	+28 (high performance range) ⁽ⁱⁱⁱ⁾
Total number of British Gas Residential complaints received ^(iv)	Number	1.47m ^(v)	n/a
British Gas Residential complaints resolved on same day or next working day ^(iv)	Percentage	79 ^(vi)	n/a
Direct Energy complaints ^(vii)	Number	3,047	4,179
Vulnerable households helped by British Gas initiatives	Number	2.1m ⁽ⁱⁱ⁾	1.7m ⁽ⁱⁱⁱ⁾

OUR GOALS

- ▶ Work to keep Net Promoter Scores within a high performance range.
- ▶ Continue to support vulnerable customers through the British Gas Energy Trust, the Warm Home Discount and Direct Energy's Neighbor-to-Neighbor programme.
- ▶ Help 1 million UK households improve the standard of their homes through our five-year agreement with housing charity Shelter.

“

We are now finding that using EnergySmart we are saving quite a bit more money on our electric bill and also on our gas bill...in the region of about £110 perhaps a year.

British Gas EnergySmart customer

”

- (i) The Direct Energy and British Gas scores are not comparable as they are measured differently.
- (ii) Assured by Deloitte LLP for 2012 reporting, see [website](#) for more information.
- (iii) Assured by Deloitte LLP for 2011 reporting, see [website](#) for more information.
- (iv) Data forms part of our quarterly complaints reporting introduced in 2012.
- (v) British Gas is the UK's largest energy supplier. The comparable figure of 'total complaints received per 100,000 customers' is 9,431.
- (vi) Of those we were unable to resolve within this period, 96% were resolved within 8 weeks.
- (vii) Complaints received through external channels like local regulators and Better Business Bureaus.

Treating our customers fairly and providing high quality service is essential to earn and maintain their trust, and build our business. We do this by offering competitive prices, being open and honest in our activities and giving clear, simple information that helps customers make informed decisions. We closely monitor customer feedback and aim to respond promptly to any concerns.

We realise that the continued economic downturn has left many households with less money and uncertainty about their finances. Rising energy costs remained a major concern for our customers in 2012, particularly in the UK, and we introduced [Tariff Check](#), a personalised comparison for customers that shows whether they could save money on a different British Gas tariff. We are also working hard to lower costs in order to keep customer bills as low as possible (see page 38 in People and Safety) and we have increased transparency around the drivers of energy prices.

We offer a range of smart technology products, energy efficiency measures and services to help customers better manage energy costs, including EnergySmart™ and Remote Heating Control™. We support those in fuel poverty through UK Government programmes such as the Warm Home Discount, as well as providing additional support to vulnerable customers by helping them manage debts and claim Government benefits they may be eligible for.

CLEAR COMMUNICATIONS

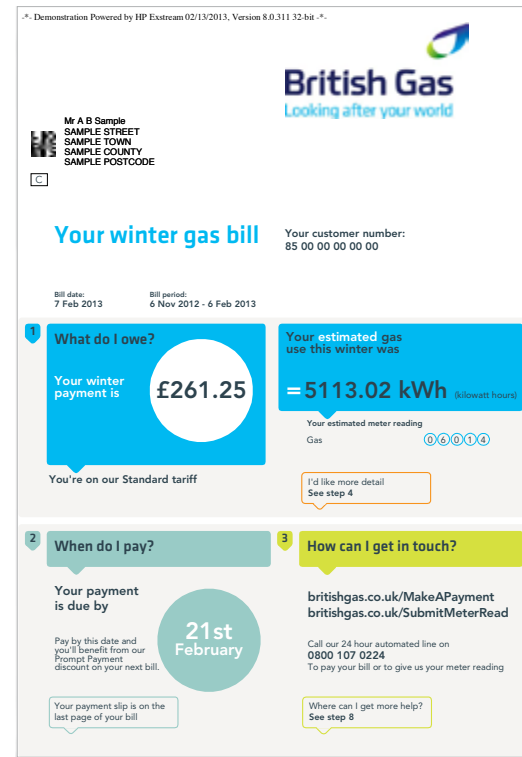
We communicate regularly with customers through websites, marketing activity, contact centres and bills. Our aim is to provide clear, simple and consistent messages to help them make informed decisions and improve the customer experience.

In North America, we focus on ensuring our marketing communications reflect Direct Energy's 'Simple, Friendly, Direct' culture although different market arrangements mean we do not always have direct or continued contact with customers after they have signed up for our energy supply. In the UK, where we have an ongoing direct relationship with customers, British Gas continued in 2012 to simplify the information they receive.

Clear billing

We have changed the layout of British Gas energy bills to make them clearer, taking input from customers and the British Gas Customer Board. We now provide customers with a bespoke price comparison metric table on both their annual statements and bills every six months, helping them choose the most suitable products by analysing their individual consumption over the previous 12 months. We are the only UK energy company to provide this kind of personalised information on bills and consumer campaign group Which? awarded British Gas five stars for the clarity of the new bills. See our [CR update](#) for more details on our new pricing structure.

In March 2011, UK regulator Ofgem announced new proposals under the Retail Market Review to make the supply of energy simpler, clearer and fairer for consumers. We support changes



to improve customer trust, engagement and understanding of our industry, although we believe it is essential that the proposals on product range do not restrict customer choice or impede market innovation. We have been proactive in adopting Ofgem's proposals by simplifying our tariffs and applying many of the proposed changes ahead of schedule. For example, we have already replaced our two-tier pricing structure with a daily standing charge and a single rate per unit of energy used for all new customers.

We aim to provide clear, simple and consistent messages to help our customers make informed decisions.

The British Gas Fair Billing Charter aims to put struggling small business customers in control of their energy use and provides protection in the event of back-dating of bills because of errors beyond their control. British Gas was the first major energy supplier to commit to collecting no more than one year's arrears from small business customers following inaccurate billing, and we will have fully implemented this by the end of 2014. Our Fair Billing commitment explains more about the support we offer to help reduce the impact of back billing. Find out more at www.britishgas.co.uk/fair-billing.

Energy pricing

The factors that contribute to energy prices remain complex but we continue our commitment to be transparent about what the main drivers are.

In the UK, a residential energy customer's bill is made up of six main components as outlined in the light bulb image. The largest components are the wholesale cost of energy, transportation charges for delivery to the home and the costs associated with the Government's environment and social policies.

Our operating costs account for 9% of the bill, and our profit after tax in 2012 was less than 5% of the average customer's bill.

Keeping energy affordable is paramount as our success as a business depends on our ability to deliver value for our customers. Since 2008, on average, the actual bills paid by our customers have risen by around 4% a year, with the average annual British Gas dual fuel bill increasing £181 since 2008 to £1,188. Of the increase in actual bills between 2011 and 2012, 60% was due to higher wholesale energy costs, 22% due to rising charges for delivery to customer homes and 12% due to the impact of the Government's environmental and social policies. The remaining increase was due to tax, which accounts for 4% of the increase, and our operating costs and profits, which account for 1% each of the overall increase in bills.

Even though our operating costs only contribute a small percentage to the increase, we have successfully managed our own costs to minimise the impact on bills. We are on track with a two year £500m cost reduction programme, £300m of which relates to British Gas and is helping to

reduce the effect of external factors on our customer's bills. Our efforts to secure affordable gas supplies and the measures we have taken to encourage customers to save energy have also helped our customers to limit the increase in their actual payments.

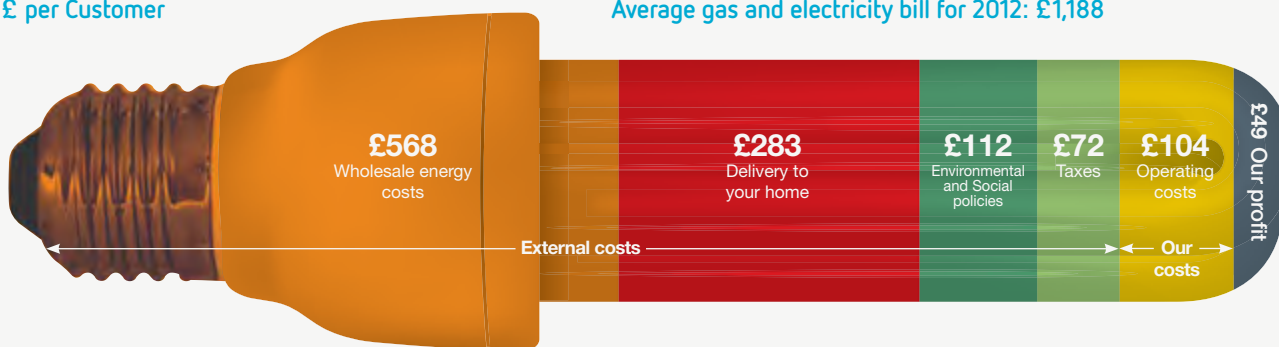
In 2012, we had to increase residential energy prices by 6% as a result of rising wholesale energy prices and government levies to fund investment in low carbon. However, our continued focus on cost management in our own operations enabled us to offer the lowest tariff increase of the six major UK energy providers. We have built an [interactive tool](#) on our website that shows how the components of the bill have changed since 2008 and why energy prices have been increased.

By contrast in North America, wholesale energy prices have fallen with the proliferation of natural gas from shale. We have also introduced smart meter based product innovations in some of our North American markets to enable consumers to manage their energy costs (see Helping customers manage energy costs, page 14).

Our continued focus on cost management in our own operations enabled us to offer the lowest tariff increase of the six major UK energy providers.

£ per Customer

Average gas and electricity bill for 2012: £1,188



Based on actual 2012 results, is an average of all payment types, tariffs and regions and is based on consumption levels of 494th for gas and 3,794 kWg for electricity

LISTENING TO CUSTOMERS

Engaging with customers helps us to gain insight into their needs so we can improve our products and services. During 2012, we continued to build on the feedback we received from our 2011 campaign, [The Honest Conversation](#), in which customers were invited to contact British Gas Managing Director Phil Bentley directly. Using this feedback, we introduced the [Tariff Check](#) to make sure customers have the right information when choosing a product. Through the Tariff Check, customers receive a personalised comparison of their tariff to show if they could save money by switching to another British Gas product.

We sought feedback from our small business customers in the UK through the British Gas Business (BGB) Engagement Panel. Live online sessions provided small business customers with the opportunity to give unprompted comments and feedback, with topics covering cost control, communications when they join British Gas, and the challenges faced when implementing new technology and innovations. A ‘meet the BGB Enterprise team’ session was also held, which enabled customers to speak with the senior management team to discuss customer service, loyalty and renewals.

In addition, the British Gas Customer Board continued to meet throughout 2012 and has provided its own feedback in this report (see feature on the next page) outlining the role it played in driving changes within British Gas. The Board will continue in 2013 to ensure the Customer Panel’s original recommendations are met.

Feedback from customers, as well as the British Gas Customer Board, contributed to our decision in 2011 to end unsolicited doorstep selling in the UK.

We also engage at a local level in the UK through our Regional Ambassadors who undertake a range of activities with local organisations. This helps us build relationships with communities and ensures we are dealing with the most important local issues in a co-ordinated way.

CUSTOMER SERVICE

Providing excellent customer service is a key part of treating customers fairly and is essential to the success of our business as well as helping to differentiate us from our competitors.

Our people are key to delivering excellent customer service. We want to equip them with the tools and knowledge they need, and empower them to identify and promote changes that will help us serve our customers better. The ‘What Drives Your Crazy World’ intranet site enables employees to provide recommendations directly to management on changes and new processes that could improve customer service. In 2012, employees submitted more than 6,700 comments and we introduced a range of modifications as a result that have, for example, enabled us to improve clarity of bills, smooth the process of registering for online accounts and helped customers keep track of their Nectar loyalty points.

These changes contributed to British Gas winning Best Utility Company at the Top 50 Companies for Customer Service Awards and several other awards for service excellence at

the Welsh Contact Centre Awards as well as the customer nominated WOW Awards. Our customer service centres in Leicester and Cardiff also gained recognition as two of the top customer service centres in Europe by being highly commended in 2012 at the European Customer Service Awards in the Large Contact Centre category.

CUSTOMER SATISFACTION

We want to know how satisfied our customers are so we can improve and serve them better. We monitor customers’ satisfaction levels in both the UK and North America through a measurement based on customers’ willingness to recommend us – this is called the Net Promoter Score (NPS). The NPS scores collected from British Gas and Direct Energy are one of Centrica’s key non-financial performance indicators, are reported in our [Annual Report and Accounts](#), and are a measure of performance for the Long Term Incentive Scheme for executives.

To ensure our standards remain high, we engage with customers and other stakeholders, making every effort to address their concerns and implement their recommendations. The changes we have made in 2012 to improve our customers’ experience have helped us achieve increases in our NPS in both the UK and North America. In 2012, Direct Energy’s overall NPS was +39* (up from +28 in 2011) and British Gas’ NPS increased to +30* (from +26 in 2011). Both businesses surpassed their targets of +27.

“

Being part of the British Gas Business Engagement Panel makes you feel valued and you also feel you are contributing to a vital service instead of complaining.

Comment from a customer on the British Gas Business Engagement Panel

”

* Assured by Deloitte LLP for 2012 reporting, see [website](#) for more information.

AN UPDATE FROM THE BRITISH GAS CUSTOMER BOARD

In 2010, a Customer Panel, comprising 40 customers passionate about change, highlighted five key areas on which British Gas could improve. The group was formalised as a voluntary, representative body called the Customer Board, with nine members, chaired by Ann Robinson (Head of Consumer Policy at uswitch.com) and sponsored by Ian Peters (Managing Director of Residential Energy). The Board meets quarterly.

“ We are delighted to have been invited to provide a formal update on our activities in the last year. Our role is to hold British Gas accountable to the five point plan outlined in the table below. We also work with the business to guide them on these issues.

During 2012, we covered a range of topics, working with British Gas to simplify tariffs and improve customer bills. We also proposed the recently launched, online build your own tariff tool. In addition, the improvements made to the bill have resulted in a customer query reduction of 10%.

We helped to get British Gas back into the community with one example being a renewable energy partnership with Marwell Zoo, in Hampshire. Since the beginning of the partnership, 50kWp of

solar panelling has been installed, which has saved over 16 tonnes of CO₂ to date. We strongly believe that British Gas’ presence in the community allows people to see ‘the real British Gas’ whilst also leading ‘Britain to a low carbon future’.

In 2013, we will be revisiting a range of topics as well as focusing on smart metering, fuel poverty, Green Deal and helping the young into work. As part of their focus on ‘Revolutionising Customer Service’, the Customer Board will be visiting the Energy Contact Centre in Cardiff to see the customer experience when calling British Gas, and the Services Contact Centre in Stockport to see the nearby Community Energy Saving Programme projects.

Overall, British Gas has made good progress against the five point plan, and they are continuing

to address further opportunities for reducing Britain’s carbon footprint. Given the dedication we’ve seen within the company to improve the wellbeing of its customers, we’re confident the result will be in the best interest of the customers whom we represent.

We look forward to continuing our work with British Gas to make improvements against the five point plan and to reporting on the progress again in the future.”

Sincerely,



The Customer Board & Chair, Ann Robinson

Recommendation	Changes made
1. Revolutionise customer service	Increasing the one touch service, fewer call transfers, lower waiting times, improved complaint handling.
2. Simplify the bill	Launch of a clearer and simpler bill and the roll out of one bill for gas and electricity. Bills for British Gas Services contracts will be added in the second half of 2013.
3. Make pricing easier to follow	The tariff portfolio has been reduced to just two types – fixed and variable. ‘Clear and Simple’ tariff and ‘Tariff Check’ launched.
4. Be open and proud – let customers see the real British Gas	Regional communications programme and ‘Serving Britain’ campaigns launched. Generation Green scheme re-launched, which educates children on energy efficiency.
5. Lead Britain to a low carbon future	Launch of partnerships in local communities including installation of solar panels, adapted smart meter roll out and in-home displays and all customer bills hold the Programme for the Endorsement of Forest Certification (PEFC) sustainability mark.

“

The frank and honest feedback we’ve received has been hugely valuable, and made a real impact on the way we serve our customers. The Customer Board has played a key role in redesigning our bill and our tariffs. Listening to customers is essential.

Ian Peters,
Managing Director,
Residential Energy

”

Areas covered in 2012 include:

- ▶ Ofgem Retail Market Review
- ▶ Smart Metering Rollout
- ▶ Marketing Partnerships e.g. Thames Water
- ▶ Sainsbury’s Energy
- ▶ British Gas Home Insurance
- ▶ Pay As You Go Energy
- ▶ Edinburgh Contact Centre Visit
- ▶ Honest Conversation and Trust Agenda
- ▶ Shale Gas
- ▶ Green Deal
- ▶ PR Strategy
- ▶ Tenants Strategy
- ▶ Community Engagement Strategy
- ▶ Reputational Advertising Strategy
- ▶ Three Customer Board representatives attended the Corporate Responsibility Committee

More details on the roles and achievements of the Customer Board can be found [here](#).

COMPLAINTS

We work hard to deliver the best possible service to our customers. We know that we don't always get it right, but feedback helps us to learn and find ways of improving the overall experience for all our customers.

British Gas is focused on improving the information we give our customers about how we are performing as a business. One of the ways we are supporting this commitment has been to improve our complaints signposting, making it much easier for customers to let us know if they have a concern. In 2012, Which? commended British Gas by giving us a five star rating for the accessibility of our complaints handling process, but we are always looking for more ways to improve. Customers can find information at www.britishgas.co.uk/complaints.

We have also increased the transparency around our complaints data. In October 2012, we committed to publishing data four times a year to show customers how we are performing on complaints. This covers the number and type of complaints we are receiving from our residential energy customers, how they are handled and our plans to improve.

In 2012, we received just under 1.47m complaints from our residential energy customers, equating to less than 9,500 complaints per 100,000 customer accounts. Of these, 79% were resolved on the same or next working day, and 96% within eight weeks. The 878 complaints accepted by the 'Ombudsman Services: Energy' in 2012 represented just 0.06% of our total residential energy complaints received, making up just 12.5% of the residential industry total, compared

with our energy market share of 33%. Our 2012 annualised complaints performance is available in our [data centre](#).

Direct Energy is also committed to responding to, and resolving all, customer complaints in a timely fashion. While there is no Ombudsman in North America, Direct Energy captures customer complaints from those made to local regulators, Better Business Bureaus and other external channels. In 2012, 3,047 complaints were received, down from 4,179 the previous year.

SUPPORTING VULNERABLE CUSTOMERS

Vulnerable customers are often hardest hit by rising energy costs because energy accounts for a higher proportion of their income. We offer support, advice and specialised products to help vulnerable customers heat and power their homes.

North America

While gas prices in North America have been relatively low since 2008, household electricity bills in the US have increased more than the rate of inflation over the past six years. In summer periods, the price of electricity can peak as demand increases when air conditioners are turned on. As our customers continue to face a challenging economic environment, we offer them options to pay bills over time or to change the type of product we provide.

We continue to support bill payment assistance programmes for our customers in Texas. We offer payment plans to meet customers' individual needs as well as providing grants of up to \$600 (£380) to vulnerable customers in Texas through our Neighbor-to-Neighbor bill assistance programme. In 2012, we contributed more than

\$534,000 (£336,000) to the programme, assisting more than 2,600 customers. We also help facilitate payment assistance from state and federal funding sources in partnership with community organisations, which assisted 61,479 customers in 2012 with more than \$9,500,000 (£5,980,000) in funding. Grants are distributed through over 30 community organisations that assess the level of need against the Texas Center for Public Policy Priorities' definition of poverty. Direct Energy customers are also encouraged to help neighbours in need by donating to the Neighbor-to-Neighbor assistance programme through their monthly bill. See our [CR update](#) for more information.

In Alberta, we work with government and non-governmental organisations to improve support for vulnerable customers as well as arranging flexible payment schemes where appropriate.

UK

With rising energy costs, affordability of energy is a key issue, and some customers struggle to cover the costs of heating their homes. The number of households in fuel poverty is estimated to have increased to 6.3m, based on the current UK Government definition of households that spend more than 10% of household income on fuel to maintain an adequate level of warmth.

In 2012, following a review by Professor John Hills, the Government proposed a new definition of fuel poverty for England to understand which types of households are in the most severe fuel poverty. We look forward to working with the Government to help develop a new fuel poverty strategy so we can align our programmes to identify these new

Of our total complaints from UK residential energy customers, 79% were resolved on the same or next working day, and

96%
within eight weeks.

households and support them accordingly.

British Gas defines vulnerable customers as those who are unable to safeguard their personal welfare or that of other members of the household, because of age, health, disability or severe financial insecurity.

Working with the Government and charitable partners, we offer a range of support to the customers who need it most. Over the past three years, we have spent more than half a billion pounds supporting our vulnerable customers – more than any organisation in Britain except the Government. We have a team of more than 100 specialist customer service agents to help the most vulnerable with a tailored service, including registering them for priority services, carrying out benefits assessments and providing debt and energy efficiency advice.

We directly assist fuel poor customers in Scotland through the Scottish Government's Energy Assistance Programme and in Wales through the Welsh Government's Nest scheme. We installed over 15,000 measures, mainly heating and insulation, to eligible customers through those schemes including the elderly, disabled and those on selected benefits in some of the most poorly insulated and heated homes. On average this helped to reduce customers' energy bills by more than £500 each year.

In 2012, we contributed more than £223m, helping 2.1m* vulnerable households in the UK through free debt and payment assistance; free energy efficiency advice, products and services; discounted tariffs and energy and household grants.

WARM HOME DISCOUNT

The UK Government's Warm Home Discount Scheme requires UK energy suppliers to spend a combined £275m in 2012/13 (increasing to £310m by 2014/15) to provide vulnerable customers in England, Scotland and Wales a one-off rebate on their electricity bill.



Under the scheme, eligible households are separated into two groups – the 'Core' group and the 'Broader' group. The 'Core' group focuses on the most vulnerable households, which automatically receive the discount. The Government guidelines allow energy suppliers to set their own qualifying conditions for the 'Broader' group. British Gas has gone beyond the minimum regulatory requirements to set the widest criteria in the industry and has set no cap for the number of applicants thereby enabling us to help considerably more households than any other energy supplier (see criteria to the right).

British Gas provided over 500,000 customers with the £130 rebate under the Warm Home Discount Scheme during the 2012/13 winter period. As part of the introduction of the Warm Home Discount Scheme in April 2011, we were required by Department for Work and Pensions (DWP) to close our Essentials social tariff for vulnerable customers. We have invited everyone who was benefiting from this service to apply for the Warm Home Discount, should they meet the qualifying criteria.

One of the main challenges in implementing this scheme is identifying customers who are eligible to apply for the rebate. Through working with DWP, we are able to verify a number of customers' eligibility for the programme without putting the onus on them to confirm their qualifications. This reduces the burden on the customer, helps us to keep costs down by avoiding expensive mail outs and ensures that more eligible customers receive their benefits.

WARM HOME DISCOUNT ELIGIBILITY CRITERIA

Core group

- ▶ Aged under 80 and receiving only the Guarantee Credit element of Pension Credit (no Savings Credit), or
- ▶ Aged 80 or over and receiving the Guarantee Credit element of Pension Credit (with or without Savings Credit)

Broader Households

- ▶ In receipt of means tested benefits or annual household income less than £16,190 plus:
 - In receipt of Child Tax Credit that includes disability, or
 - a household with a child under the age of 5, or
 - a member of the household living with a physical or mental illness, or
 - households on very low income where the household spends greater than 10% of the total income on energy.

* Assured by Deloitte LLP for 2012 reporting, see [website](#) for more information.

Delivering mandatory programmes

In the UK, a range of Government programmes aim to get vulnerable people the support they need, such as the Warm Home Discount scheme (see case study on previous page) as well as the Carbon Emissions Reduction Target (CERT) and Community Energy Saving Programme (CESP). Energy companies play an important part in delivering this support as we have the relationships with, and access to, customers, as well as the expertise in energy systems. CERT and CESP, which offer free energy efficiency measures to vulnerable customers, ended in 2012 and have been replaced by the UK Government's Energy Company Obligation (ECO), which focuses on vulnerable customers. See Low carbon, page 18, for more information on our CERT, CESP and ECO obligations.

Working with charity partners in the UK

In addition to the support we provide through Government schemes, we continue to work with charity partners such as National Energy Action, Citizens Advice, Macmillan Cancer Support, Money Advice Trust and many other independent advice agencies to address issues such as fuel poverty, debt restructuring and energy efficiency, and to help us identify vulnerable customers. We also joined forces with Shelter, the housing charity, in a [five-year strategic partnership](#) to help improve the standards of one million homes in the UK. British Gas will help landlords meet the statutory minimum standard for private rented homes and provide policy recommendations to raise standards in the private rented sector.

In addition to our national charity partnerships, our Localism Agenda encourages our employees to get involved with organisations

near to our largest sites. Our employees have adopted more than 20 local charities, enabling them to support local causes.

We contributed £12.7m into the British Gas Energy Trust for 2012, an independent charity that provides advice and grants to people struggling to pay their bills. This brings our total contributions to the Trust to over £45.7m since its introduction in 2004. Anyone in need can apply for assistance, particularly those having difficulty meeting their domestic gas or electricity bills.

The Trust provides organisational grants to 14 Energy Debt Advice Centres around the UK, which are managed by Citizens Advice or other independent advisory organisations. Agents at our own customer contact centres are also trained to identify vulnerable individuals and offer advice to both British Gas customers and the wider public about how to receive the appropriate support. People struggling to pay their bills, who are in need of advice on how to save energy, or who receive grants to make their homes more energy efficient, can also contact industry-funded initiatives such as the Home Heat Helpline. British Gas sponsored 40 fuel debt training courses in 2011/12, and since 2009 we have enabled National Energy Action to offer the course free of charge to more than 800 community advisors. For more information on how British Gas tackles fuel poverty, see our [CR Update](#).

British Gas maintained support for the Citizens Advice Energy Best Deal, which offers consumers and frontline staff who work with people at risk of fuel poverty, free sessions on fuel debt, benefits entitlement and energy efficiency. The 2012/13 campaign aimed to hold at least 640 sessions and train a minimum

of 3,375 low income people and the same number of frontline workers who support them.

In addition to our support for vulnerable households in 2012, we reduced the debt of 4,133 struggling small businesses by a total of £8m through British Gas' Small Business Advice and Expertise Service. We continue to work with Ofgem and Consumer Focus to provide further support for businesses in the UK through the Time to Pay programme. It provides information on the benefits of regular meter readings, smart metering and energy efficiency.

In North America, our Texas residential business works with a network of community action agencies under the state umbrella organisation of the Texas Department of Housing & Community Affairs and in coordination with the Texas Association of Community Action Agencies (TACCA). Through this network, we help facilitate bill payment assistance, weatherization and energy efficiency measures to our eligible customers through the federally funded Comprehensive Energy Assistance Program and Weatherization Assistance Program.



Campaigning for Warm Homes



£12.7m investment

We invested £12.7m into the British Gas Energy Trust for 2012, an independent charity that provides advice and grants to people struggling to pay their bills.

HELPING CUSTOMERS MANAGE ENERGY COSTS

Energy costs are important to all our customers, not just the vulnerable. We promote a range of ways to manage energy costs and one of the most effective is by helping people better understand their energy use.

In North America, the market for demand-side management products – those that help customers use less energy during peak times – continues to grow in popularity as an effective way to manage energy costs.

The introduction of smart meters in Texas and Pennsylvania has enabled Direct Energy to provide cost-conscious customers with prepayment and 'time of use' plans.

While common in the UK, prepayment options are relatively new in Texas and customers have shown a strong interest in them as an opportunity to manage their budgets. The introduction of a prepaid product called [Power-to-Go™](#) in Texas has also helped many customers avoid having to pay a deposit for their energy, which can then be used for other purchases. So far, customers on prepayment

plans in Texas have reduced their energy consumption by up to 18%.

Through smart meters, Direct Energy has also been able to provide customers in Texas and Pennsylvania with electricity plans that vary according to the time energy is used, such as 'Free Saturday' or 'Pick Your Free Day'. These plans enable customers to do energy intensive household tasks, such as using the washing machine, on free energy days to help them cut their energy costs. Time of use plans also have wider benefits for energy security and low carbon by cutting the overall demand on the grid at peak times and therefore reducing the need to turn on additional power plants (often gas-fired) to meet peak demand.

In the UK, a range of options are available to help customers reduce their energy costs through smart energy, energy efficiency and microgeneration.

We are helping British Gas customers monitor their energy use through products such as [EnergySmart™](#), where customers submit monthly meter readings and can receive accurate monthly bills. New products such as our [Remote Heating Control™](#) enable customers to monitor and control their energy use via the internet or a smart phone while away from home (see [CR update](#) on this). By the end of 2012, we had installed 881,794* smart meters for homes and businesses since we started our smart meter programme, making us the leading provider of smart meters in the UK.

By helping customers reduce their energy use, we are helping them cut not only their energy costs but also their carbon footprint.



Free Saturday Or Pick Your Free Day

These tariffs enable Direct Energy Customers in Texas and Pennsylvania to do energy intensive household tasks on free energy days, helping them cut their energy costs.

* Assured by Deloitte LLP for 2012 reporting with limitation of scope, see [website](#) for more information.

LOW CARBON

3m

Over the past five years British Gas has helped insulate more than 3m customer homes

Installing solar panels
at Harrow School, UK

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LOW CARBON AT A GLANCE



2012 SNAPSHOT

- ▶ British Gas insulated around 670,000 UK homes, saving 13.2m tonnes of carbon.
- ▶ Installed 881,794 ^(iv) smart meters in the UK by the end of 2012, leading the industry.
- ▶ The carbon intensity of the power we generated was 197gCO₂/kWh, well within our 2012 target of 270gCO₂/kWh.
- ▶ Increased the proportion of power we produce from low carbon sources to 51% from 43% in 2011.
- ▶ Generated 15% of our power from renewable sources.
- ▶ Reduced carbon emissions from our offices, fleet and travel by 2% from 2011 and 21% from the 2007 baseline.

MEASURING OUR PERFORMANCE

Metric	Unit	2012	2011
Lifetime carbon savings driven by the Carbon Emissions Reduction Target (CERT)	Tonnes of CO ₂ saved	15.0m	14.6m ⁽ⁱ⁾
Tonnage of carbon delivered under Community Energy Saving Programme (CESP) (cumulative) ⁽ⁱⁱ⁾	Tonnes of CO ₂ saved	2.91	1.63 ⁽ⁱⁱⁱ⁾
Smart meters installed	No. of meters installed (cumulative since 2009)	881,794 ^(iv)	459,422 ^(v)
Total carbon emissions	Tonnes CO ₂ e	7.4m ^(vi)	8.4m ⁽ⁱⁱⁱ⁾
Internal carbon footprint (property, fleet and travel)	Tonnes CO ₂ e	91,988 a 2% reduction on 2011	94,092 ⁽ⁱⁱⁱ⁾ a 5% reduction on 2010
Carbon intensity of power generation ^(vii)	gCO ₂ /kWh	UK: 159 Group wide: 197	UK: 199 ⁽ⁱ⁾ Group wide: 220

OUR GOALS

- ▶ Continue to lead the industry in installing smart meters in the UK.
- ▶ Reduce the carbon footprint of our core offices, company vehicles and travel by 20% by 2015 (from 2007 baseline).
- ▶ Reduce carbon emissions from our UK property portfolio in 2013 by 7.5% from the previous year.
- ▶ Reduce Group power generation carbon intensity to 260gCO₂/kWh by end of 2020.

“

Thanks to the Customer Led Network Revolution support, the heat pumps will pay for themselves in just a few short years. Plus, of course, by switching to efficient renewable heating, you'll cut your carbon footprint.

Michael Butterfield,
Spokesperson for the
Llangattock Green Valleys
community interest company

”

- ⁽ⁱ⁾ Assured by Deloitte LLP for 2011 reporting, see [website](#) for more information.
- ⁽ⁱⁱ⁾ Figures represent carbon savings submitted to Ofgem for approval. This differs from the total CESP figures which represent those already approved by Ofgem.
- ⁽ⁱⁱⁱ⁾ Restated following subsequent review of historical data.
- ^(iv) Assured by Deloitte LLP for 2012 reporting with limitation of scope, see [website](#) for more information.
- ^(v) Figure updated following subsequent validation carried out on data.
- ^(vi) Assured by Deloitte LLP for 2012 reporting, see [website](#) for more information.
- ^(vii) 2012 data subject to final EU Emissions Trading System (ETS) verification.

Reducing greenhouse gas emissions is the most significant contribution we can make to minimising our environmental impact. We strive to do this by cutting energy consumption and promoting renewable and low carbon generation.

While we seek to address the challenges of climate change, we must balance these efforts with our other responsibilities: to provide affordable and secure energy for our customers. Although these demands often conflict – particularly as fossil fuels remain more affordable than renewable forms of energy – we engage with stakeholders, including governments and customers, to find a balance.

There is still no global agreement on how to reduce greenhouse gas emissions. In North America, the introduction of mandated programmes to reduce emissions is not currently high on the agenda for governments or the public. Even in the UK, where national carbon reduction targets are in place, the economic downturn has made the government cautious about pursuing capital-intensive alternatives to fossil fuel power generation.

The lack of clear direction and stable regulations in this area makes it difficult for the energy industry to make long-term investment decisions to build the large-scale infrastructure needed to reduce the carbon intensity of power generation. In addition, the cost of developing renewable technologies has not been falling as fast as many stakeholders had expected. As a result, businesses that are committed to pursuing alternatives to fossil fuels are finding it

difficult to bring forward commercially viable renewable energy projects at the rate required. With this in mind, we will continue to appraise our investment options on renewable generation, deploying capital where the financial profile and returns are appropriate.

The combination of our expertise in sourcing energy supplies and our direct relationship with customers enables us to play a leading role in helping to deliver lower carbon energy, as well as meeting the wider challenge of maintaining affordability for customers and helping to deliver energy security for the country. We are helping our customers use energy in a smarter way to

reduce their energy costs and carbon emissions, while sourcing the gas supplies needed to heat their homes affordably and reducing the carbon intensity of power generation.

We remain committed to addressing the challenge of climate change and to contributing to government greenhouse gas emission reduction targets that have been set at UK and European level. In addition to helping customers cut emissions from energy use and investing in renewable generation where we see value, we also seek to reduce emissions from our own operations.



.....
We remain committed to addressing the challenge of climate change and to contributing to government greenhouse gas emission reduction targets that have been set at European and UK level.



See full interactive Carbon Map online

CUSTOMER CARBON

The largest proportion of carbon emissions associated with our business is from our customers' use of gas and electricity. Our [carbon map](#) illustrates this above and is available online. We are enabling carbon reductions in this area by helping our residential and business customers become more energy efficient, generate their own energy through onsite renewables, and use energy in a smarter way.

In the UK, a study of British Gas customers by the environmental consultancy, ERM, showed that over the three years from 2010 to 2012, the products we installed in customer homes (such as boilers and new insulation) saved around 7.4m tonnes of CO₂ equivalent emissions. At an annual average of 2.5m tonnes of CO₂ equivalent, this is comparable to taking around 450,000 cars off UK roads each year.

In North America, some of the packages we offer also help customers lower their energy use as well as saving them money, and therefore cut carbon emissions (see Helping customers manage energy costs, page 14).

Energy efficiency

Energy efficiency is the most effective way for customers to reduce their energy use and cut carbon emissions. This can be achieved through better insulation and other measures such as more efficient boilers.

Over the past five years British Gas has helped

to insulate more than 3m customer homes, resulting in total lifetime carbon savings of 45m tonnes. British Gas was the first UK energy company to offer free insulation to all customers, and in 2012 insulated approximately 670,000 homes, achieving total lifetime carbon savings of at least 13.2m tonnes.

Until the end of 2012, the UK's Carbon Emissions Reduction Target (CERT) required suppliers such as British Gas to provide energy efficiency measures to households to deliver carbon savings. In 2012, we focused our efforts on providing professionally installed insulation.

Like most energy suppliers, British Gas found it difficult to meet the challenging CERT targets set by the Government. Strong efforts by our teams cut our shortfall to 1% of the target by the end of 2012, delivering energy efficiency products with equivalent lifetime carbon savings of 95.2m tonnes over the five-year period of CERT. In early 2013, we completed installation of measures that delivered the remaining 1.2m tonnes of CO₂ savings, meeting the target in full. We over delivered on our targets for vulnerable customers in the Priority and Super Priority groups.

The Community Energy Saving Programme (CESP) also concluded in 2012. This was an obligation on UK power generators and energy suppliers to install energy efficiency measures in areas of severe social deprivation. CESP takes a

British Gas insulation fittings	2012		2011	
	Installations	CO ₂ savings (tonnes CO ₂)	Installations	CO ₂ savings (tonnes CO ₂)
Insulation	670,000	13.2m	412,000	8.4m ^(viii)

45m tonnes of CO₂

Over the past five years British Gas has helped insulate more than 3m customer homes, resulting in total lifetime carbon savings of 45m tonnes.

(viii) Restated to align to a different methodology for 2012 data

‘community-by-community’ and ‘whole house’ approach, which meant British Gas worked with local authorities and social housing providers to make an entire building or street more energy efficient, rather than just a single property or apartment. This approach optimises energy efficiency gains, is more cost effective and is often less disruptive to householders.

In 2012, we launched 19 CESP schemes across 17 low income areas, delivering 2.9m tonnes of equivalent carbon savings. This compared with 45 schemes in 40 areas in 2011. Due to challenging weather conditions through the winter months, we are still delivering projects that will contribute towards the total CESP target. We will complete the delivery of projects in 2013.

HELPING COMMUNITIES BECOME MORE ENERGY EFFICIENT

British Gas contributed £7m in Community Energy Saving Programme (CESP) funding to provide energy efficiency measures to Villages Housing Association tenants and private homeowners in Stockbridge Village, Knowsley. The project will benefit more than 1,000 properties and save over 350,000 tonnes of CO₂ emissions across the next 25 years.

Despite the challenges involved in delivering the Government’s CERT and CESP targets, British Gas installed measures through both schemes with lifetime carbon savings of around 100m tonnes. Data from each year of the schemes

can be found in our online [data centre](#). Capacity in the insulation industry was also improved – British Gas created an insulation business employing almost 1,000 people.

The UK Government is now introducing two new energy efficiency schemes, the Energy Company Obligation (ECO) and the Green Deal to replace CERT and CESP.

Energy Company Obligation

In January 2013, the UK Government introduced the Energy Company Obligation (ECO), which requires energy suppliers to improve the insulation of harder to treat properties in the domestic sector and to invest resources in reducing heating costs for vulnerable households.

We are supportive of the aims of Government regulations such as ECO, as greater energy efficiency is essential to reducing carbon emissions and helping customers manage energy costs. However, by explicitly targeting the most expensive insulation measures, we believe ECO will achieve just one quarter of the carbon savings of previous schemes at twice the cost. In its current form, project costs of ECO are therefore likely to increase consumer bills.

We believe ECO could be better targeted and cost less if there is an increased focus on low cost, high impact energy efficiency measures



such as loft and cavity wall insulation. We also recommend greater data sharing from Government to allow vulnerable customers to be more easily identified, and we believe there should be an early, formal review of the programme once costs can be better measured.

Despite these issues, we are making good progress on developing new propositions and systems to deliver ECO, and we are already entering into contracts with third parties such as social housing providers to help us do so. For example, British Gas is working in partnership with Walsall Housing Group, Southwark Council and Cornwall County Council providing ECO funds to install energy efficiency measures. Many of the ECO activities will focus on fitting solid wall

CESP and CERT total progress	Total
Tonnage of carbon savings delivered under CESP (million tonnes)	3.5
Lifetime carbon savings from UK household energy efficiency products delivered under CERT (million tonnes)	95.2

100m

lifetime carbon savings

British Gas installed measures through CERT and CESP with lifetime carbon savings of around 100m tonnes. This is equivalent to the annual CO₂ emissions of around 21 million UK homes.

insulation and hard to treat cavity wall insulation, and in 2013 we will considerably increase our specialist training for British Gas engineers to provide them with these skills.

Through these significant investments in our business we are looking to maximise the number of households helped under the scheme while doing so in the most cost effective way.

The Green Deal

From 2013, the Green Deal will enable domestic and commercial customers to invest in energy efficiency improvements, which qualify under the initiative, for no upfront outlay by spreading the cost through instalments on their energy bills.

British Gas has been an early supporter of the Green Deal. Our trial Green Deal programme, the Home Energy Plan, was launched in July 2011 and enabled British Gas customers who paid by direct debit to take out low cost loans to invest in energy saving measures. We have gained valuable insights from the pilot about how the Green Deal might operate once fully rolled out, including the types of energy efficiency measures that customers prefer and how to simplify the scheme to encourage participation.

Our initial Green Deal activities were launched in January 2013 and have included a strong focus on helping customers to fit new, more efficient boilers, whilst undertaking a broader Green Deal assessment process. This has been supported by the UK Government’s Green Deal Cashback scheme, which provides customers with a one-off incentive payment after completion of a Green Deal Plan boiler or insulation installation.

We were one of the earliest Green Deal providers to be accredited by the Government. By the end

of December 2012, we had 32 Energy Experts qualified to conduct Green Deal surveys or installations, and this figure had increased to 148 by April 2013.

Onsite renewables

Our onsite renewable offerings range from microgeneration of low carbon energy for domestic customers to larger projects for commercial and industrial use. Proven methods include solar panels and renewable heating such as heat pumps or biomass boilers. Over recent years we have significantly expanded our ability to offer these solutions, which support the move towards low carbon power generation and provide greater energy security.

British Gas is increasing the rollout of commercial renewable heat using the UK Government’s Renewable Heat Incentive (RHI) as well as renewable community or district heating supported by ECO. We plan to accelerate the introduction of renewable heating once the domestic RHI is launched in early 2014.

British Gas fitted solar panels in 682 homes, schools and other buildings in 2012, collectively providing 6.2MW of power at peak capacity. This total is lower than the 2,549^(ix) installations in 2011 when demand for solar panels was being driven by the deadline to

qualify for the higher feed-in-tariff. However, this was still an increase compared with 2010 levels of 445^(ix) fittings (providing 1.8MW). Customers can achieve attractive returns on their investment, as the cost of solar panels and installation has started to decline. The UK Government has also provided more certainty on future subsidy levels.

Heat pumps, which extract heat from the ground or the air, are expected to play an increasing part in the UK’s low carbon heat sector. In 2012, we installed 1,033 heat pumps, up from 473^(ix) in 2011, mainly as a result of British Gas being the energy delivery partner for the Customer-Led Network Revolution (CLNR) (see next page).

Small and medium scale biomass boilers provide heat using renewable biomass fuels – such as wood pellets from sustainable sources – rather than fossil fuels such as gas, oil or coal. We saw increasing demand for biomass boilers in 2012, installing 114 systems that have the capacity to generate a total of 14.6MWth. Biomass boilers offer good opportunities for community heating schemes because a single boiler installation can provide heating for many homes. In 2012, British Gas retrofitted around 1,400 homes to connect them to renewable community heating

	2012		2011	
	Installations (No.)	Generation capacity	Installations (No.)	Generation capacity
Solar PV panels ^(x)	682	6.2 MWp	2,549 ^(xi)	12.8 MWp
Biomass boilers ^(xii)	144	14.6 MWth	129	11.2 MWth

1,033
heat pumps

In 2012, we installed 1,033 heat pumps, up from 473 in 2011.

(ix) Figure updated following subsequent validation carried out on data.

(x) MWp stands for megawatt peak and is the photovoltaic power under peak sunshine.

(xi) This figure has been restated following a historical review of data.

(xii) MWth stands for megawatts peak of renewable heat thermal capacity.

COMMUNITY HEATING PROJECT IN STOCKPORT



In the UK, British Gas has worked with Stockport Homes to install solid wall insulation and community heating systems to supply 1,050 homes and a school in the Greater Manchester area.

The projects, which were funded under the Community Energy Saving Programme (CESP), began in 2012 and were largely completed within a 12-month period. The solid wall insulation has created substantial reductions in heat demand while also transforming the visual appeal of the neighbourhoods. Biomass community heating, subsidised by the Renewable Heating Incentive, has in parallel been added to provide heating and hot water for all the houses. In some areas we have upgraded very old heat networks and switched from gas; in other areas we have added new networks replacing electric storage heating.

Residents, who will benefit from lower bills, have also been provided with smart heating controls that will enable them to better manage their heating demands in the future.

schemes. Most of these were biomass boilers, but we have started to include heat pumps and solar thermal within our community heating schemes.

British Gas is one of the four lead partners in the Customer-Led Network Revolution (CLNR), a three-year, £54m project set up in 2011. The project assesses how low carbon and microgeneration technologies such as solar PV panels, electric vehicles and heat pumps affect the electricity grid, and how any challenges can be overcome. CLNR is also creating smart-enabled homes to give customers more control over how they use and generate electricity.

We have recruited more than 12,000 domestic participants and over 2,000 small businesses to CLNR. Their patterns of electricity consumption are being analysed to ensure the grid can continue to provide a reliable supply while minimising additional investment in the distribution network. In 2012, we also secured funding from the UK Government to subsidise the installation of up to 500 heat pumps to support the project, most of them were installed in social housing. Additionally, 250 customers who have solar panels have been provided with equipment that helps them make the best use of the electricity their panels generate. This is achieved either by automatically using excess electricity to heat their water or by notifying them when their

panels are producing more electricity than they are currently using, so that they can put the surplus to use within their homes.

As part of CLNR, 650 of our smart meter customers are testing a time-of-use tariff, which has higher electricity costs during peak periods but lower costs at other times. This project will suggest ways of encouraging a change in consumption to reduce peak demand – a move that would also reduce the need for power from fossil fuels used to meet peak demand. Data collection will continue until the end of 2013. In North America, we have already introduced time-of-use tariffs and are seeing a growing level of interest in these from our cost-conscious customers (see Helping customers manage energy costs, page 14).

Smart energy

One of our main priorities is to make people more energy-aware through new technology. Raising awareness allows for better energy management, which in turn leads to reductions in energy use, customer bills and carbon emissions.

The key to this is the use of smart meters, which wirelessly send and receive data to and from the customer, allowing for accurate billing. They also come with a smart energy monitor that shows how and when energy is being used, enabling the customer to have greater control of their energy use for the first time.

UK smart meter installations	Unit	2012	2011
Smart meters installed	Number of meters installed (cumulative since 2009)	881,794*	459,422 ^(xiii)

881,794

smart meters

British Gas has been leading the industry when it comes to installing smart meters, and has fitted 881,794* of the UK's total up to the end of 2012.

(xiii) Figure updated following subsequent validation carried out on data.

* Assured by Deloitte LLP for 2012 reporting with limitation of scope, see [website](#) for more information.

In September 2012, the economic forecasting consultancy Oxford Economics identified that smart meters could save the UK almost £14bn by 2030, reducing gas and electricity consumption by around 5%. This equates to a £65 annual saving on consumers' bills.

The UK Government has set a target for smart meters to be installed in every home and business by 2019. We are supporting the delivery of this target and British Gas has led the industry in the installation of smart meters, having fitted 881,794* in UK homes and businesses by the end of 2012. Although we had planned to roll out 1.1m smart meters by the end of 2012, we deliberately waited to install more to take into account the rapid development of new smart meter models and technology, and the current costs of smart meters. We will continue to review our plans to take into account latest Government specifications for smart meters.

We see the installation of smart meters as a prime opportunity to engage businesses and residential customers in energy efficiency advice. That's why we have brought our metering operations in-house and trained 100 account managers and more than 1,200 engineers on energy efficiency.

We are committed to protecting customer privacy by ensuring our smart meter infrastructure conforms to stringent security conditions set out by the UK's Department of Energy and Climate Change. Customers receiving smart meters also get a copy of our Customer Charter which outlines our policy on sharing the information that is collected.

Remote meter readings and the data that



smart meters provide also enable us to communicate with customers about their energy consumption in more innovative ways. Personalised 'smart energy reports' will soon be available to all customers with smart meters and will provide insights, for the first time, into their patterns of consumption by time period and appliance type. British Gas customers with smart meters have already reduced their energy bills by an average of 1.6%, and we expect this figure to rise when we launch our personalised smart energy reports.

British Gas has also developed a web-based energy analytics dashboard (called Business

Energy Insight) that allows small and medium-sized business customers to access half-hourly data from the meter and view it in an easy-to-read format. We expect active use of data from smart meters to save customers up to 10% on their energy bills which, for an average medium-sized business, should equate to around £15,000 a year. For larger corporate customers we provide a more sophisticated automated monitoring and targeting service that allows businesses to compare performance of their buildings and interrogate the data.

In the future, half-hourly data from smart meters will also allow customers to take

7%
peak demand
reduction

Trials of time-of-use tariffs have already shown that customers can reduce peak demand by around 7% and overall consumption by 2.5%.

* Assured by Deloitte LLP for 2012 reporting with limitation of scope, see [website](#) for more information.

advantage of cheaper prices at low demand times through time-of-use tariffs. Trials of time-of-use tariffs have already shown that customers can reduce peak demand by around 7% and overall consumption by 2.5%.

Connected homes

Technologies such as smart meters and products such as [EnergySmart™](#) can help to raise customers’ awareness of their energy use and improve energy management. This is a growing market and we have created a new business, Connected Homes, to develop products and services that enable customers to use technology to connect to their homes and better manage their energy. Our personalised smart energy reports (see previous page) will be a new feature of our Connected Homes service in 2013.

The EnergySmart™ package provides British Gas customers with traditional meters a free electricity monitor showing consumption and costs. Customers submit their meter reading



each month and can receive accurate monthly bills. In 2012, our EnergySmart™ customers have cut gas use by 4% and electricity use by 5%, reducing carbon emissions by approximately 255kg CO₂.

In 2012, British Gas launched [Remote Heating Control™](#), which allows customers to control their central heating, anywhere and anytime from a smartphone or broadband connection. This can enable more efficient energy management and contribute to reductions in consumption, leading to lower bills and fewer emissions. Since its launch, Remote Heating Control™ has been installed in more than 15,000 homes in the UK. See our [CR update](#) for more information.

LOWER CARBON POWER

Reducing emissions from power generation is a necessary step to reduce the impact of energy use on climate change. We continue to develop our offshore wind farms and maintain our stake in low carbon nuclear power.

In the UK, we operate wind farms and gas-fired power stations, and receive 20% of the output from the nuclear power stations operated by our joint venture partner, EDF Energy Nuclear Generation.

We have expertise in developing and operating wind farms and are making good progress on our Lincs offshore wind farm with attractive options to develop Race Bank as well as Round 3 in the Irish Sea. However, as renewable power projects become larger and more complex, we must bring in equity partners to share the investment and risk.

Our 20% equity stake in existing UK nuclear

power stations continues to provide our customers with low carbon electricity. However, we took the decision not to exercise our option to take part in construction of up to four new nuclear power stations in the UK. We conducted a detailed appraisal of the project and while there has been progress in a number of areas such as design and planning, there was uncertainty about overall project costs and the construction schedule.

We also secure off-take deals through power purchasing agreements, providing renewable energy projects a route to supplying electricity to the end customer. In the US, we have three gas-fired power stations in Texas and have a long-term power purchasing agreement for wind farms in North Western Texas.

Carbon intensity

Our power generation fleet has one of the lowest carbon intensities of major UK energy suppliers. We monitor our carbon intensity, which is measured in grammes of carbon dioxide emitted per kilowatt hour (gCO₂/kWh). This includes carbon emissions from all our own generation facilities and from site-specific power purchase agreements we make with third parties.

At the end of 2012, our Group carbon intensity was 197gCO₂/kWh, well below the 2012 target of 270gCO₂/kWh. This was mainly due to strong performance from the nuclear power stations, as well as a decision not to operate all of our gas-fired power stations in the UK due to poor market conditions. Our carbon intensity in North America rose by 6% as a result of increased use of our gas-fired power stations and reduced output from our wind power purchase agreement.

.....

We continue to develop our offshore wind farms and maintain our 20% equity stake in EDF’s UK nuclear power stations.

.....

Following a review of our Group carbon intensity target for 2020, we believe the current figure of 260gCO₂/kWh remains valid, because we expect to see a recovery in demand for power from UK gas-fired power stations. However, the figure by which we measure intensity will now be based only on our equity share in generation capacity – which is more comparable with the market – rather than our previous methodology, which also included site-specific power we had agreed to purchase. The 2012 carbon intensity of our global power generation (by equity) is 199gCO₂/kWh.

While we know how much carbon is emitted by our own generation, to allow us to calculate the carbon emissions associated with our entire power supply we need to know what type of generation was used to deliver the power we purchase for resale as well. This information is provided annually to the UK Government as our ‘fuel mix disclosure’.

Our total fuel mix disclosure intensity for all the power we sell was 330gCO₂/kWh for the financial year 2011/12 (down slightly from 338 in 2010/11). This places us second among the ‘big six’ energy suppliers and is well below the UK average of 430gCO₂/kWh.

Energy mix

Of the power we generated in 2012 (including output from our own generation and from site-specific off-take contracts), 15.3% was from renewable sources, up from 14.6% in 2011 – this was despite a decrease in the actual renewable power generated and was driven by the reduction in the use of gas powered stations. Our renewable energy mix compares favourably with the average in the UK, where renewable sources accounted for 9.2% of all electricity generating capacity in 2011/2012 according to the Department of Energy and Climate Change’s Annual Energy Indicators. In addition, 36% of the power we generated was from nuclear (up from 29% in 2011), resulting in a total of 51% produced

from low carbon sources. This overall figure was up substantially from 43% in 2011.

We are continuing to expand our offshore wind portfolio in the UK, and our Lincs wind farm generated its first power in 2012. We have also explored the possibility of developing dedicated biomass power stations in the UK, which produce renewable energy using wood chips and pellets from sustainably managed forests. However, clarification on the regulatory framework indicated the UK Government’s preference for coal conversion, so we announced in October 2012 that we would not proceed with these plans. For more information on our renewable power activities, see page 30 in Energy Supply.

In the US, gas plays an important role in reducing the carbon intensity of power production as coal remains the most commonly used fuel. Projections by the International Energy Agency in their World Energy Outlook in 2011 predicted that the substitution of gas for coal could reduce global CO₂ emissions by 740m tonnes of carbon by 2035. By expanding our gas operations in North America we would

CO ₂ emissions avoided through our renewable and low carbon generation ^(xiv)	Amount generated (GWh)		Tonnes CO _{2e} avoided	
	2012	2011	2012	2011 ^(xvi)
Renewables	5,071	5,629	2,638,062	2,929,338
Nuclear	11,915 ^(xv)	11,074	6,200,299	5,762,475
Total	16,985	16,703	8,838,361	8,691,812

^(xiv) These figures include power generation from all wholly owned assets and all other assets from which Centrica is entitled to output under site specific contracts. Excluded are any Purchasing Power Agreements that are not site-specific, i.e. contracts that could be settled from the open market.

^(xv) Represents the power available for sale, which excludes power lost during transmission. As such it differs from generation output on page 30.

^(xvi) These are updated figures from those reported last year due to a change in calculation methodology from using Fuel Mix Disclosure to Grid Rolling Average figures.



Breakdown of Group power generation ^(xvii)



- Gas as % of total Group generation **49%**
- Renewables as % of total Group generation **15%**
- Nuclear as % of total Group generation **36%**

^(xvii) Based on our generation and site specific offtake.

be creating a supply chain to enable the switch from coal to cleaner gas-fired power.

MANAGING OUR OWN EMISSIONS

Although helping customers reduce their carbon emissions and decarbonising electricity generation are the most significant contributions we can make to reducing greenhouse gases, we also aim to cut the carbon footprint of our own operations. Key areas where we can make progress are in the management of our property, in our car and van fleet, and in our business travel.

We measure emissions relating to our own operations by calculating our internal carbon footprint. This encompasses emissions from office energy use, company vehicles, and business travel, and is different from our total carbon emissions, which include emissions from our power stations as well as our gas and oil operations (see next page).

In 2012, emissions across the Group associated with our core offices, fleet and travel totalled 91,988 tonnes of CO₂ equivalent, 2% less than in 2011. This has resulted in an overall reduction of 21% compared with the 2007 baseline, meeting our 20% reduction target for 2015 early. However, this is partly as a result of a reduction in operational activity due to the economic downturn, especially in North America. As the North American economies recover, we are now seeing emissions rise: for example, there was an increase of just over 7% in the emissions of our van fleet in the US and Canada in 2012 compared to 2011. Therefore we believe our 2015 target remains valid and we continue to work to reduce emissions through greater efficiency as our activity increases.

Property

Globally, we have reduced carbon emissions from the property portfolio of our core business by more than 40% since 2007. In 2012, we again cut emissions from our main offices by more than 6% year-on-year. We achieved this

through further rationalisation of our portfolio in North America – where we are consolidating sites where possible – along with low carbon initiatives in the UK portfolio.

In the UK, we reduced emissions from our main offices by 4.5% compared to 2011, missing our 10% target. The main reasons for failing to reach this target were the inclement weather during 2012, which led to higher than average heating demand, and unanticipated delays in bringing some key projects on-line, most notably voltage optimisers and LED lighting. However, we have now completed this work and expect these initiatives to deliver the planned carbon savings in 2013. We also intend to install nine additional solar arrays at sites around the UK, which will help us towards our 2013 target of reducing UK carbon emissions by 7.5% from the previous year.

Fleet

In the UK, we continued to upgrade our fleet with more fuel-efficient vans, achieving a 4% reduction in carbon emissions from our core van fleet in 2012. In total, almost 900 commercial vans were replaced with more efficient ones.

We also introduced electric vehicles to the company car scheme and have been conducting trials of electric vans within our British Gas van fleet. Although we have tested five vehicles from different manufacturers, most of these are considered prototypes and our ambition to have more than 500 electric vans in our fleet by 2015 is heavily dependent on the availability of suitable market-ready models.

British Gas is well-placed to play a central role in the shift to more widespread use of electric



In 2012, emissions across the Group associated with our core offices, fleet and travel totalled 91,988 tonnes of CO₂ equivalent, representing a 2% reduction compared with 2011. This has resulted in an overall reduction of 21% compared with the 2007 baseline.

vehicles, as it now provides battery charging for more than 70% of the UK’s domestic electric vehicle market through partnerships with Nissan, Renault and Mitsubishi Motors UK. For more information, see our [CR update](#).

In North America, we continued to implement measures to improve our efficiency in order to counter any growth in activity. We installed GPS tracking in new vans in our Canadian and US markets, which allows us to limit speed, monitor mileage and idle times, and better manage routing. We have now installed GPS in 283 vans.

Despite a 7% increase in emissions from our North American van fleet, our success in reducing fleet emissions in the UK means that overall our core global fleet emissions remained flat in 2012 compared to 2011. We have achieved a 16% reduction since 2007. Outside of our core van fleet, the growth of our business has increased our global gross fleet emissions by 27% since 2007.

Progress on our Group internal carbon footprint

Property, fleet and travel (Tonnes CO ₂ e)	2012	2011
Property	23,765	25,425
Van Fleet	51,812	51,747
Car Fleet	6,167	7,032
Air	9,867	9,523
Rail	376	366
Global Total	91,988	94,092 ^(xviii)

Business travel

For the third year running we cut emissions from our company car travel - by 12% in 2012. This means we emitted less than we did in our baseline year (2007) for the first time since establishing our 2015 target. Despite air and rail travel increasing by about 4% due to growth in business activity, our overall emissions from core business travel shrunk by almost 3% compared to 2011.

Since 2007, average tailpipe emissions across our UK company car fleet have fallen from 166g CO₂/km to a 2012 average of 125g CO₂/km. This has resulted in a reduction of almost 1,000 tonnes of CO₂ in total over the period and a financial saving of more than £500,000 in fuel costs. In 2012, we also implemented a new company car policy within British Gas that limits the choice of vehicles to a small number of fuel-efficient models, which are targeted to be below the 100g CO₂/km emissions rate. This will help improve the efficiency of our company car fleet even further. We also continue to encourage staff to choose electric vehicles as a company car and have added the Vauxhall Ampera to our range alongside the Nissan Leaf. Six members of staff have chosen these types of vehicles so far, and we are enabling the switch by installing more charge points at selected offices.

Total carbon emissions

We also monitor our total carbon emissions, which covers our scope 1 and 2 emissions including those from our power generation, gas and oil operations, as well as our property and fleet. In 2012, our total carbon emissions fell to 7.4m* tonnes of CO₂ equivalent from 8.4m ^(xviii) tonnes in 2011. This decrease was largely due

to our UK power business producing less electricity through gas-fired generation because of poor ‘spark spreads’ – the price we receive to provide power relative to the cost of gas we use to generate the power. The reduction in UK power emissions has been partly offset by an increase in North American power emissions. As a result, our North American business now accounts for almost half our group carbon footprint.

New legislation will require publicly listed companies based in the UK to report their greenhouse gas emissions annually, likely from February 2014. We have been reporting our total carbon emissions since 2006 and are well prepared for the new requirements. We have been a public supporter of mandatory carbon reporting as a device to raise awareness of the challenge of climate change within companies, and we therefore welcome this development.

Visit our [data centre](#) for more information on our carbon emissions.

7.4m
tonnes of CO₂e

In 2012, our total carbon emissions fell to 7.4m* tonnes of CO₂ equivalent from 8.4m ^(xviii) tonnes in 2011.

* Assured by Deloitte LLP for 2012 reporting, see [website](#) for more information.

(xviii) Restated following subsequent review of historical data.

ENERGY SUPPLY

£50bn

Our commitment to secure gas and power for the UK now totals more than £50bn

Kittiwake oil platform,
North Sea, UK

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ENERGY SUPPLY AT A GLANCE



2012 SNAPSHOT

- ▶ Our commitment to secure gas and power for the UK now totals more than £50bn.
- ▶ Invested a 48.75% share in the £1.4bn Cygnus project which will power 1.5m UK homes.
- ▶ Increased total oil production by 15% and grew our reserves by 22%.
- ▶ Generated first power at our 270MW Lincs wind farm.
- ▶ Gained consent for proposed wind project at Race Bank.
- ▶ Sourced 12,004 GWh of nuclear power through our 20% stake in EDF Energy Nuclear Generation.
- ▶ Listened to communities near proposed offshore wind farms through 12 formal consultation events.
- ▶ Achieved certification to environmental management standard ISO 14001 for more than 90% of our operations, measured by carbon emissions.

MEASURING OUR PERFORMANCE

Metric	Unit	2012	2011
Gas production volumes	mmth	2,990	2,727
Gas storage volumes ⁽ⁱ⁾	BCF	198.6	215.3
Exported power Upstream UK – Gas fired ⁽ⁱⁱ⁾	GWh	8,952	14,973
Exported power Upstream UK – Renewables ⁽ⁱⁱ⁾	GWh	533	596
Exported power Upstream UK – Nuclear ^{(ii) (iii)}	GWh	12,004	11,157
Legal action	Number	0	4 ^(iv)
Environmental non-compliance ^(v)	Number	45	47

OUR GOALS

- ▶ Achieve full operational status for our Lincs offshore wind farm to power 200,000 homes by the end of 2013.
- ▶ Increase annual international production to 75m-100m barrels of oil equivalent over the next three to five years.
- ▶ Undertake a global biodiversity status review of our operations in 2013.

“

The Centrica Energy wind farm operations and maintenance base promises to be 'the beginning of a better future for Grimsby and the Humber' and that Centrica 'is showing the way we need to go'.

Austin Mitchell,
Member of Parliament
for Great Grimsby

”

(i) Data is based on Centrica equity and shows planned storage capacity as Caythorpe and Baird projects are still in development.

(ii) Exported power differs from power generated due to some energy being consumed in the process and different sources being included in the total. This data includes total power produced and power purchased from non-Centrica facilities through power purchase agreements.

(iii) Figures are representative of our 20% equity share of the output from the EDF Energy Nuclear Generation fleet.

(iv) 2011 data has been updated to reflect pending legal actions which were only concluded in 2012.

(v) These are a breach of environmental authorisation (permit, licence, consent, etc) or wider applicable environmental legislation, where we are required to notify the regulator, or where an authority/regulator is involved. Many of these relate to minor offshore asset incidents.

Our business involves sourcing, generating, storing and supplying energy for millions of homes and businesses across the UK and North America. We need to have a reliable supply of energy available as and when our customers require it, and we are committed to obtaining this energy in a responsible way.

Alternatives to fossil fuels must be explored to realise a low carbon future. However, gas will continue to have a significant role to play in the years ahead, especially due to the fact that gas heats more than 80% of UK homes at half the cost of electricity.

Gas also remains the largest energy source in the UK, providing more than 1.3 times as much energy in the UK as coal, nuclear and renewables combined. The UK Government's Electricity Market Reform and Gas Strategy both indicate a long-term role for gas. With our expertise in exploration and production, we aim to remain the UK's leading supplier of this important fuel.

We source energy through a diverse portfolio, so that we do not become over-reliant on any single source of energy. With North Sea gas reserves declining and the UK needing to compete for gas on a global scale, we are therefore looking to expand our oil and gas exploration and production, and continue to procure gas from a range of sources, including liquefied natural gas (LNG). Our new corporate strategy sets out our ambitions to expand our gas exploration and production with North America as a particular focus.

We also generate electricity from a range of technologies, including gas-fired power stations and wind farms, and we have off-take rights to low carbon nuclear power.

Whatever source we derive energy from, we do so in a responsible manner by assessing and minimising any associated social and environmental impacts through consultation with communities, carrying out environmental impact assessments and managing our operations responsibly.

ENERGY SECURITY

National concern about the security of energy supply is more pronounced in the UK, which is now a net importer of energy. In the US and Canada, the focus is to capitalise on domestic energy reserves, including the development of natural gas from shale.

Electricity

We are a relatively small power generator in the UK and North America, generating electricity

through the gas-fired power stations and wind farms we operate. We also procure electricity through power purchase agreements as well as having an equity share in eight nuclear power stations in the UK.

Gas-fired power stations

As a reliable source of power that can be turned on and off as needed, gas-fired power stations are an important component of the future energy mix, providing a flexible source of generation. This will be increasingly important as intermittent renewable energy provides a larger part of the UK's energy supply. In 2012, power from gas-fired power stations made up 49% of our total power generation.

Centrica Energy owns and operates six gas-fired power stations in England and Wales, with a combined capacity of 3.7GW. In addition, we have long-term contracts with two other gas-fired power stations, Spalding in Lincolnshire and Rijnmond 2 in the Netherlands, to take up to 100% of their power output.



80%
of UK homes

Gas heats more than
80% of UK homes at half
the cost of electricity.

In 2012, we closed our gas-fired power station at King's Lynn near Norfolk and withdrew from service our station at Roosecote in Barrow-in-Furness. We are considering our options for Roosecote, which include permanent closure, sale of the asset or redevelopment.

In North America, we have three gas-fired power stations in Texas totalling 1,305 MW: Bastrop Energy Center (560 MW), Frontera Energy Center (495 MW) and Paris Energy Center (250 MW).

Wind power

We continue to operate and develop wind farms, with two onshore sites in Scotland and three sites off the coasts of Lincolnshire and Cumbria (see map to the right). In September 2012, we opened a new £3m operations and maintenance base at Grimsby docks, which serves the Glens of Foudland, Lincs, Lynn and Inner Dowsing wind farms. We also have 731MW of wind capacity under contract in North America. In 2012, 15.3% of the power we generated was from renewable sources, up from 14.6% in 2011^(vi).

In 2012, we continued to explore and develop opportunities for further offshore wind farms in the UK. Offshore construction at our 270MW Lincs wind farm, five miles off the Lincolnshire coastline, began in March 2011 with all 75 turbines now installed, 40 of which were in



place by the end of 2012. The project is expected to be fully operational by the end of 2013, and will be capable of producing enough energy for 200,000 homes.

In July 2012, our proposed Race Bank offshore wind farm project off the coast of Norfolk received consent from the Department of Energy and Climate Change (DECC). Planning has been approved for the construction of a wind farm of up to 580MW capacity, which could meet the equivalent annual electricity demand of more than 450,000 homes. We expect to make a final investment decision subject to discussions with financial partners and the UK Government concerning the economic framework.

We also have the rights to develop offshore wind farms in the Irish Sea Zone, which offers potential capacity of up to 4.2GW - enough to power around 3m homes. In 2012, we announced a 50/50 joint venture with DONG Energy to develop wind farms in the Irish Sea Zone, the first of which is the up to 2.2GW Rhiannon wind farm, 19km north east of Anglesey and 34km south east of the Isle of Man. This could provide around 1.7m homes with electricity, and the formal consent process is underway. See more on page 33 and our [website](#).

Another proposed wind farm off the coast of Norfolk, at Docking Shoal, was refused consent by DECC over concerns about the potential impact on breeding Sandwich tern bird population (see case study, page 35).

Nuclear

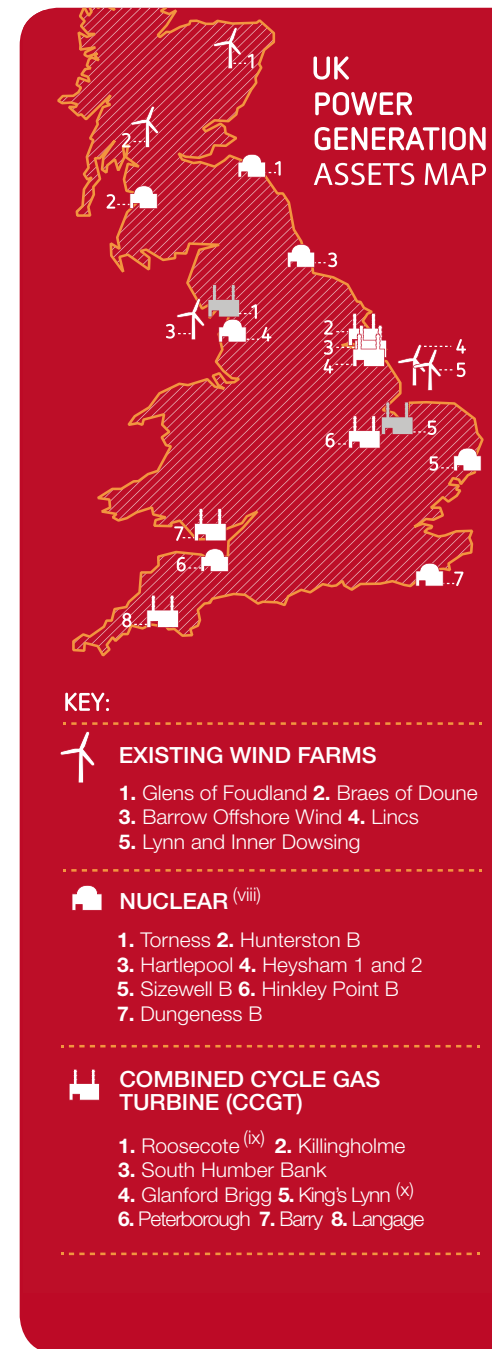
We see nuclear as an important part of the energy mix, as it provides a secure, low carbon source of baseload power.

In 2012, we sourced 12,004 GWh^(vii) of nuclear power through our 20% stake in EDF Energy Nuclear Generation's UK nuclear power stations. Nuclear power represented 36% of our total Group generation on an off-take and power purchase basis, compared with 29% in 2011. This was due to the increased performance of existing nuclear power stations as well as a reduction in the use of gas-fired powered stations.

Nuclear reactors at Hinkley Point B in Somerset and Hunterston B in North Ayrshire received seven-year life extensions in 2012. The stations will now be able to continue to generate enough low carbon electricity for around two million homes until 2023.

We believe new nuclear has a role to play in the UK's energy mix. However, following a detailed appraisal of the projects, we have decided not to invest due to increased project costs and a lengthening of the construction schedule by a number of years. As a result, we have launched a £500m share repurchase programme to return surplus capital to shareholders. Our 20% interest in the eight existing nuclear power stations in the UK is unaffected by this decision.

(vi) Based on our own generation and from site-specific off-take contracts.
 (vii) Represents generation output and is different from power available for sale (page 24) as that figure excludes power lost during transmission.
 (viii) Through our 20% stake in EDF Energy Nuclear Generation.
 (ix) Withdrawn from service in 2012.
 (x) Closed in 2012.



Biomass

Centrica has been exploring the potential for using biomass as a renewable source of power to reduce carbon emissions. We had been seeking consent to build and operate an 80MW biomass power station on the site of our Roosecote power station in Cumbria, and a 137MW biomass plant at our power station site in Brigg, North Lincolnshire. However, during 2012 the UK Government confirmed that it would direct subsidies towards power stations fired by a combination of biomass and coal or those that have been converted from existing coal power stations, rather than those dedicated to biomass only. As a result, we announced in October 2012 that we would not continue with our plans for dedicated biomass plants.

Gas and oil

We had a successful year in 2012, expanding our total reserves and increasing production to secure energy supplies for our customers. Overall, our total net proven and probable reserves, including those held by Centrica Energy and Direct Energy, grew to 633 million barrels of oil equivalent – up 22% from 2011 – and our total production volumes increased by 15% compared with 2011.

In 2012, we signed a memorandum of understanding with Statoil for an extension of our collaboration on joint gas exploration activities in Norway and the UK until June 2013. The deal was noted by the UK Prime Minister David Cameron as a significant contribution to improving the country's energy security. This builds on a £13bn 10-year gas supply agreement signed with Statoil in 2011 that secures sufficient gas to meet around 5% of total UK annual demand – around 3.5m homes.

CYGNUS OPENS UP NEW GAS OPPORTUNITIES

The Cygnus project in the Southern Gas Basin, of which Centrica has a 48.75% share, will develop the largest discovery of gas for 25 years in the UK-owned North Sea. The field makes up an area of 25km by 15km in shallow water (less than 25 metres). At peak production, it will produce enough gas to meet the demands of 1.5m homes or 5% of total UK demand – improving energy security.

Cygnus will also boost the UK economy, as 80% of the total £1.4bn investment in the project will be spent with UK-based companies. Cygnus is expected to create 4,000 jobs across the supply chain in the UK with production planned to begin in 2015.



4,000

jobs created

Cygnus is expected to create 4,000 jobs across the supply chain in the UK, and production is expected to begin in 2015.

In January 2012, we invested £142m to buy a further 15.7% non-operating interest in the gas and oil producing Statfjord field in the North Sea, taking our overall stake to 34.3%. We also acquired a portfolio of non-operated producing oil and gas assets and associated infrastructure from Total in the Central North Sea for £246m. Together, these two deals add reserves of around 58 million barrels of oil equivalent, an increase of around 14% in Centrica's portfolio.

We also secure gas supplies for the UK by agreeing long-term deals to import gas from various overseas sources including through contracts for LNG shipments. In 2012, we

received 15 shipments of LNG into the UK through the Isle of Grain. The total volume delivered to Centrica in 2012 was enough to heat 1.42m homes every day for the whole year.

We made progress in our exploration work in Trinidad and Tobago and are preparing to drill two appraisal wells to prove the resources there. We continue to explore development and partnership options for gas export. In September 2012, we also signed a supply contract with Gazprom to deliver 2.4bn cubic metres of natural gas over a three-year period starting from 2014. In total, Centrica's commitment to secure gas and power for the

UK is now more than £50bn. For more information on our production and exploration please see our [Annual Report and Accounts](#).

Our investment in gas storage in the UK is also an important element of energy security, allowing reserves to be stored during the summer, when demand is lower, and then to be drawn upon when the use of gas rises in the winter. Our gas storage facility at Rough, off the east coast of England, provides more than 70% of UK capacity.

In North America, further gas assets came on-stream in Alberta, Canada, during 2012. However, taking account of production, reserves remained broadly the same at 108 million barrels of oil equivalent compared with 109 in 2011.

Our new corporate strategy sets out plans for our gas exploration and production business. We have brought together our upstream businesses into a single international organisation that will make use of the combined expertise we have in Aberdeen, Scotland and Calgary, Canada.

We are seeking to deliver annual production in the range of 75 to 100 million barrels of oil equivalent, with the North Sea remaining an important area of focus. In North America, we will consider both conventional and unconventional assets. The development of natural gas from shale has become an important source of energy in the US and will provide opportunities for exporting LNG to the global market. For instance, in March 2013, we announced an agreement with Cheniere Energy Partners to purchase 89 billion cubic feet of LNG for export from the Sabine Pass liquefaction plant in Louisiana.



15 shipments

In 2012, we received 15 shipments of liquefied natural gas (LNG) into the UK, which was enough to heat 1.42m homes every day for the whole year.

We believe this gas can be extracted safely with the right precautions, and if we decide to invest in extracting natural gas from shale we will apply the same rigour to managing and minimising any adverse impacts as we do with all other areas of our operations.

MANAGING OUR SOCIAL AND ENVIRONMENTAL IMPACTS

Being a responsible operator is a strategic business imperative. Wherever we source or generate energy through our upstream activities, we work to minimise related social and environmental impacts. By doing so we protect our reputation, retain our licence to operate, make it easier to develop new projects, and earn the trust of communities living near our sites. We have robust management systems in place to do this, and community consultation plays a central role.

Social impacts

We work hard to ensure that our gas and oil production and power generation activities do not adversely affect local communities connected to our operations and our supply chain. Community engagement is essential to demonstrate that we are listening and responding to local concerns, and it allows us to address any negative impacts our operations may have - and to make the most of the benefits.

The Irish Sea Zone in which we are exploring the development of Round 3 wind farm projects, covers a large area (more than 2,000 square kilometres), and will require extensive engagement with stakeholders and local communities. We started speaking to various groups in 2010 about our proposed Rhiannon

wind farm in this Zone to help us understand more about the potential impacts on communities before starting the statutory consultation process. This contributed to our publication of an extensive, non-statutory zonal appraisal report, which set out the challenges and opportunities we face in developing the Zone. We published these proposals and listened to the views of local communities at 12 formal consultation events on Anglesey, across North Wales and on the Isle of Man. Learning from, and acting upon, feedback is vital if we are to receive the support of communities and secure consent to build.

Talking to people living in coastal communities near our proposed Race Bank offshore wind farm, off the coast of Norfolk, has played an important part in gaining consent for the scheme. To further enhance our engagement, we have created a new role of Fisheries Liaison Manager as a point of contact for the fishing industry to talk to Centrica about issues relating to this and other offshore wind projects.

Consultation helps us communicate the potentially beneficial social impacts our projects can have, and our aim is to work with local communities to deliver tangible benefits. For instance, the opening of our wind farm operations and maintenance base at Grimsby docks in 2012 was well received by the surrounding community. The £3m project has created 100 jobs and is seen locally as an important step to attracting more investment including offshore renewables development, as well as contributing to the economic renewal of the area. Austin Mitchell, Member of Parliament for Great Grimsby, has said the base promises to be “the beginning of a better future for

Grimsby and the Humber” and that Centrica “is showing the way we need to go”.

In Canada, Direct Energy continued in 2012 to focus on the development and maintenance of a strong working relationship with First Nations. The creation of a trusting and transparent relationship is as important to Direct Energy as it is to the First Nations communities. We seek to develop our relationship through the support of community programmes, education, training and employment opportunities. We will endeavour to build on these support networks during 2013.

USERS OF THE SEA IN THE IRISH SEA ZONE

A concern was expressed in 2012 about the effect that a proposed wind farm in the north east area of the Irish Sea Zone could have on other users of the sea – particularly commercial ferry operators.

Following these concerns, we chose to further examine the potential impacts of our plans on ferry operators, deferring for a year any decision to bring forward formal proposals for development of projects in this area.

Direct Energy is developing relationships with First Nations through the support of community programmes, education, training and employment opportunities.

Environmental impacts

We aim to minimise the potential environmental impacts of all our projects - existing or proposed - and work with governments and stakeholders to address any concerns that may arise.

In 2012, we continued to deliver on our Group policy to implement environmental management systems (EMS) in all our operations and made progress in achieving independent certification to ISO 14001 for further areas of the business. As well as maintaining all our existing ISO 14001 certifications, we extended our scope to Centrica Energy Upstream and four new areas within British Gas. In North America, we met all of our key milestones in preparing new parts of the business to achieve certification, remaining on track to certify the Wildcat Hills gas plant in 2014, our US home services in 2015, and fleet services in 2016. These recent achievements have resulted in certification at more than 90% of our organisation measured by carbon emissions.

Biodiversity is an increasingly important issue for us, especially as we consider the development of more offshore wind farms. The failure to gain consent for our proposed Docking Shoal wind farm showed that concerns about the effects of energy sourcing and power generation on wildlife and habitats can determine the future of such projects (see case study on next page). We were disappointed by the decision at Docking Shoal, but the scientific work we commissioned to support our case has helped us to improve our understanding of the impacts of offshore wind farms on bird species. It also demonstrated our commitment to properly assessing the environmental impacts of our operations.



We have also learned valuable lessons at our Lincs wind farm. Analysis of our successful efforts to lay cable beneath environmentally sensitive salt marshes in 2011, allowed us to carry out more cable-laying in 2012 in the same intertidal area at a much quicker rate, thereby reducing disruption. The area near the Lincs wind farm should be fully recovered within five to seven years, due to natural re-growth. We continue to engage with local and national environmental stakeholders in relation to this project. For more information on protecting

biodiversity at our Lincs wind farm, see our [CR Update](#).

Similarly, great care was taken during drilling at our Cooper oil well in Norway when the cold water coral, *Lophelia pertusa*, was discovered during a pre-drilling site survey. We mapped coral distribution to ensure the anchors and mooring lines were clear of coral, and installed a system to transport drill cuttings away from the reef. Pre and post drilling surveys by

ISO 14001

More than 90% of our organisation, measured by carbon emissions, is certified to ISO 14001

an independent consultancy showed that our operations had no impact on the coral reef. Further details see the [CR Update](#) for more information.

During 2013, we are undertaking a global biodiversity status review to help establish the sensitivity of all our operations and the environments within which we operate. This will enhance our understanding of any environmental impacts and allow us to focus on any additional mitigation or protection efforts that may be required.

Although our water impacts are not considered to be significant, we carry out water management projects at local site level to help reduce consumption and enhance biodiversity and habitat protection.

In 2012, Centrica was involved in 45 incidents of non-compliance with environmental regulations, down from 47 in 2011. The majority of these (43) were in the UK, and all were relatively minor events. We were subject to one environmental prosecution by the Westminster City Council, in London, relating to two small bags of waste that were left on a roadway for collection during November 2011. At that time, we re-briefed all relevant engineers in the London area on waste collection procedures. We also accepted a Caution from Natural England concerning damage to cockle beds in the Wash area of the UK related to cabling works undertaken in May 2011 for the Lincs offshore wind farm. Subsequently, we worked closely with Natural England to successfully install a second cable across the area in 2012. We take action wherever incidents are identified to prevent similar occurrences in future.

MONITORING BIRD LIFE AT DOCKING SHOAL



Through the Environmental Impact Assessment of our proposed wind farm at Docking Shoal (off the coast of Norfolk), concerns were raised about the potential impact on Sandwich tern, a species of bird protected under conservation legislation. In response we undertook a number of special research projects to understand how the installation of offshore wind farms might impact this species.

These included a study undertaken to understand where the birds feed and any flight paths to those feeding areas. We also commissioned specialist ecological consultants to analyse available Sandwich

tern data to find out more about the survival rates of young and adult birds and how offshore wind farms may affect them.

In partnership with HiDef Aerial Survey Limited, a camera system was developed to record the behaviour of Sandwich tern and other sea bird species at another offshore wind farm in the Greater Wash. During the nine-month period the camera was in operation, behaviour was identified showing birds avoid the turbine and no collisions were observed.

We were disappointed that the project was refused consent by the Department of Energy and Climate Change. We will continue to work with the offshore renewables industry to ensure sufficient high quality information can be collected to allow future projects to proceed successfully.

During 2013 we are undertaking a global biodiversity status review to help establish the sensitivity of all our operations and the environments within which we operate.

PEOPLE AND SAFETY



0.20

In 2012, we improved our lost time injury frequency rate (LTIFR) per 100,000 hours worked to 0.20

Employee at York Gas Storage Terminal, East Yorkshire, UK

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PEOPLE AND SAFETY AT A GLANCE

2012 SNAPSHOT

- ▶ Achieved an employee engagement score of 4.72 ⁽ⁱⁱⁱ⁾ out of 6, scoring above median when benchmarked against peer companies in the UK and the US.
- ▶ Invested £17.5m to deliver around 100,000 training days to 12,000 British Gas engineers.
- ▶ Held leadership training for over 350 Direct Energy employees.
- ▶ Ranked Best Graduate Employer in The Times Top 100 for the third consecutive year.
- ▶ Provided more than 1,000 apprenticeships across Centrica.
- ▶ Reduced our lost time injury frequency rate for the sixth consecutive year to 0.20 ⁽ⁱⁱⁱ⁾ per 100,000 hours worked.
- ▶ Had no significant process safety events ⁽ⁱⁱⁱ⁾ and no fatal injuries involving Centrica employees or associated third parties.



MEASURING OUR PERFORMANCE

Metric	Unit	2012	2011
Retention	Percentage	89.7	89.5 ⁽ⁱ⁾
Absence	Days per full time employee	8.2	7.3 ⁽ⁱⁱ⁾
Employee engagement	Mean score out of 6	4.72 ⁽ⁱⁱⁱ⁾	n/a ^(iv)
Lost time injury frequency rate (LTIFR)	Per 100,000 hours worked	0.20 ⁽ⁱⁱⁱ⁾	0.25 ⁽ⁱ⁾
Total recordable injury rate (TRIR)	Per 100,000 hours worked	1.42	1.66 ⁽ⁱ⁾
Road safety incident rate – low severity	Per 1 million km driven	5.0	7.5 ⁽ⁱ⁾
Significant process safety event	Number	0 ⁽ⁱⁱⁱ⁾	2

OUR GOALS

- ▶ Implement action plans based on employee feedback in the 2012 engagement survey.
- ▶ Direct Energy to increase employee participation in leadership development programmes in 2013.
- ▶ Continue focusing on management of our major accident hazards with the ultimate aim of zero significant process safety events.
- ▶ Maintain, and if possible further improve, our LTIFR of 0.20.
- ▶ Continue the reduction in road safety incidents through proactive driver safety programmes.

“

In the restructure of Customer Services and Commercial we all worked well together as a team for the benefit of our members. The company listened as we put across our members' points of view and concerns. At times we held healthy debates, and we agreed to disagree on some points. However, the process was productive and demonstrated the value of the trade union relationship. Although the constant restructuring is concerning and damaging, we have worked with British Gas to manage the change process to ensure we limit compulsory redundancies and give members real choices going forward.

Angela Greenhalgh,
UNISON representative

”

⁽ⁱ⁾ Assured by Deloitte LLP for 2011 reporting, see [website](#) for more information.

⁽ⁱⁱ⁾ Restated due to change in methodology for recording absence.

⁽ⁱⁱⁱ⁾ Assured by Deloitte LLP for 2012 reporting, see [website](#) for more information.

^(iv) An engagement survey was not completed in 2011.

The way we treat our people is critical to our ability to attract and retain the talent and skills we need to make our business a success. We want them to feel valued and have the opportunity to develop within a workplace culture based on mutual respect. Their safety, and that of our customers and communities, is our number one priority.

PEOPLE

Our employees are our ambassadors – they must have confidence in Centrica to build trust with customers and other stakeholders. We need to make sure they have the skills, knowledge and tools to do their jobs well, whether it's providing excellent customer service or operating an offshore gas platform. Our commitment to open communication and engagement remains strong as we support employees through the changes we are making to the business.

Managing change

We operate in a highly competitive environment. In the UK, our after tax profit margin is around 5% in British Gas Residential and we directly control only around 10% of the cost that makes up our customers' bills (see a more detailed breakdown of energy bills on page 8 and [online](#)). We continually strive to make our business more efficient so we can remain competitive in order to keep customer bills as low as possible. At the same time, we are making changes to our customer services operations to provide customers with the best possible experience.

In 2012, we continued to drive cost savings through efficiencies across the business as part of a two-year initiative to reduce operating costs by £500m. This included a range of initiatives that unfortunately resulted in 2,459 roles being made redundant. We understand the emotional impact of losing a job and the anxiety around finding a new one, particularly in the current economic downturn. We worked hard to support our people through these changes and, where possible, we offered different roles within Centrica to those affected. Others received outplacement support to help them find jobs elsewhere or training grants to retrain in a new profession. Communicating clearly and regularly with employees was a priority throughout the restructuring process. We consulted employees both informally and through formal consultations with representatives of relevant trade unions across the Group.

In the UK, restructuring to improve the efficiency and quality of British Gas' customer services in 2012 led to the closure of our Southampton call centre and offshoring roles from our back office functions in Leicester. We



also consolidated our Customer Services and Commercial central functions and downsized our Information Services department. Employees affected by the changes stated that the company was supportive and treated them fairly despite the challenging circumstances. We worked closely with UNISON and GMB (the two main unions our employees are affiliated with) and issued joint communications to provide clear and consistent messaging for employees affected by the changes.

SUPPORTING EMPLOYEES THROUGH THE CLOSURE OF OUR SOUTHAMPTON CALL CENTRE IN THE UK

The closure of our Southampton call centre affected 550 employees, resulting in 407 redundancies. Dialogue and open communication with those affected played a critical role during the restructuring.

In addition to consulting with union representatives, we engaged with the four local Members of Parliament throughout the changes and worked closely with the local authority and local companies, providing job fairs to help people find new employment. We were also able to redeploy 60 people to other parts of our business.

By the end of 2012, 90% of the affected employees had found a new job, retired or retrained to enter a new profession.

“

Throughout the process, I was kept fully informed and all my questions were dealt with promptly. No question was too small or trivial. At each step of the process, I was provided with useful contacts and both my HR contact and my line manager were supportive and understanding throughout.

Senior resource analyst, **David Hobson**, was one of the employees made redundant as part of the restructuring changes in British Gas Customer Services and Commercial central functions.

”

We also communicated and consulted with employees throughout the restructuring of our Centrica Energy operations at the Barry, King's Lynn, Peterborough and Roosecote gas-fired power stations and back office information services team. We sought to redeploy employees wherever possible and provided remaining employees with financial counselling, outplacement support, re-training and flexibility to take time off to pursue alternative opportunities. We adopted a partnership approach with trade unions and offered employees access to counsellors through the Centrica Employee Assistance Programme.

Following a strategic review, we decided to make a number of changes to our Direct Energy business in North America, including relocating its corporate headquarters from Toronto, Ontario, to Houston, Texas, where the market offers more opportunities for business growth. We also closed our call centre in Ennis, Texas, as part of our efforts to simplify the business and improve customer service. We offered training and outplacement support to our affected employees to help them find new roles. We had a smooth transition of operations from Toronto to Houston, reflecting the professionalism of our employees in the Toronto office, despite a number of them knowing that they would be losing their jobs.

To remain competitive in the challenging Ontario market, Direct Energy Services underwent negotiations with the Communications, Energy and Paperworkers (CEP) Union to make changes to employees' employment provisions. Unfortunately, this resulted in a 10 day labour disruption before an agreement was reached on new terms and conditions and employees returned to work. We continue to focus on



reengaging unionised employees and implementing the new terms effectively.

The changes we made across the business resulted in a 2% decrease to 38,642 in the average number of our employees in 2012, compared with 2011. The Group employee retention rate during 2012 remained steady at 89.7% (compared with 89.5% in 2011).

Engagement

We are at our best when our employees are motivated and engaged in the business. Committed employees help create a more

efficient business through fewer absences, lower attrition rates and improved productivity. In 2012, employee engagement, one of Centrica's key non-financial performance indicators in our [Annual Report and Accounts](#), was included for the first time as one of the performance measures for the Long Term Incentive Scheme.

Our Group-wide engagement survey helps us gauge employee satisfaction levels and gain feedback on how we are doing as an employer. In 2012, more than 30,000 employees and contractors participated in the

.....
 In 2012, employee engagement, one of Centrica's key non-financial performance indicators, was included for the first time as one of the performance measures for the Long Term Incentive Scheme.

EXTRAORDINARY YOU!



.....
 In 2012, British Gas made a significant investment in over 10,000 engineers and their line managers through the ‘Extraordinary You!’ programme.

It was launched through a series of events across the UK and continues to embed the Service Excellence messages and principals today. Members of our senior management were able to meet the Services teams personally and share our vision for British Gas and what it means to be ‘Leading a Smarter Future’, while helping engineers develop their customer service skills.

At over 100 sessions held across the UK, engineers were encouraged to think about how they can emotionally connect to make customer service experiences easy and memorable for every customer. Feedback from engineers that participated was excellent with satisfaction rates above 90%.

At each event, engineers swapped their old uniforms for new ones, and before leaving, each engineer symbolically signed the “Extraordinary You” van, to demonstrate their commitment to delivering service excellence.

survey - a 71% response rate. Our overall average engagement score for direct employees was 4.72* out of 6. This showed that overall engagement levels across the Group saw a slight decline compared with the previous survey in 2010. Given the significant restructuring activities undertaken across the business, a decline in the engagement score was to be expected. However, the score was still above median, benchmarked against peer companies in the UK and the US. For more information on survey questions, see the [Basis of Reporting](#).

Feedback from the survey highlighted significant improvements in brand pride, motivation and clear and specific feedback from line managers. However, there was a decline in positive responses about learning and development opportunities, fair reward and understanding of each business’ vision.

The survey results are informing our response to employee feedback within each part of the business. For example, British Gas introduced new programmes to engage employees on our vision during 2012, including the ‘Extraordinary You!’ programme for engineers (see case study). The CE Way of Management was launched by Centrica Energy in 2012 to improve development opportunities and to build managers’ skills in areas critical to a successful organisation. Direct Energy expanded its talent development and management team, which focused its efforts on career guidance and learning opportunities.

4.72
 engagement score

.....
 Our overall average employee engagement score for direct employees was 4.72* out of 6.

* Assured by Deloitte LLP for 2012 reporting, see [website](#) for more information.



Training and development

The success of our business depends on our ability to adapt to a rapidly changing market. To remain competitive, we need to ensure that our employees are continually developing their skills and knowledge. We do this by investing in the learning and development of our people through a range of training programmes.

In the UK, service excellence remained a key focus for British Gas training programmes in 2012. For example, our customer service centre in Cardiff continued to roll out training to encourage customer service representatives to ‘Look who’s calling/writing’ to help them treat customers as individuals, understand their needs and act accordingly.

We invested £17.5m in 2012 to deliver around 100,000 training days to 12,000 engineers, 2,160 of whom were trained in smart technology. In addition, our Green Skills Centre in Tredgar, Wales, provided 2,000 training days for more than 500 people.

We also renewed our commitment to developing leaders across the business. The Emerging Leaders’ Programme in Centrica

Energy provided an opportunity for those who show potential to develop their leadership skills, widen their perspective and develop cross business relationships.

In North America, Direct Energy piloted a leadership development programme enabling existing and aspiring managers to learn about key aspects of running the business and to undertake a team project to address a current business issue. Also in 2012, 364 employees participated in Leader’s Journey, Direct Energy’s established cultural leadership training programme. During 2013, we plan to increase employee participation in the two programmes.

Supporting early careers

We remain committed to providing opportunities for young people by raising awareness of future career paths and offering employment through our graduate programme, apprenticeships and summer placements.

In 2012, we supported the launch of Plotr, which is a campaign to help young people in the UK understand how the qualifications and the subjects they choose to study can lead them into a job that inspires them. See our [CR update](#) for more on how we support Science, Technology, Engineering and Mathematics (STEM) careers.

We offered 53 graduate placements in 2012 and Centrica was ranked the Best Graduate Employer in The Times Top 100 for the third consecutive year. During 2012, more than 1,000 people were completing apprenticeships across Centrica, including 252 new apprentices working to become smart energy experts and 11 in our Centrica Energy power generation business.

In February 2013, we also announced the creation of 1,000 12-18 month work placements for young people through our Transform partnership with Global Action Plan and JobCentre Plus. See the [guest blog](#) by the CEO of Global Action Plan for more information.

Additional detail on our approach to employee engagement, training and development, and diversity, is available in the People section of our website. Data is also available on our [data centre](#).

SAFETY

We have a responsibility to protect the health and safety of our employees, contractors, customers and the wider public. We recognise that energy is an inherently hazardous industry, so we ensure safety is a top priority. Our management team and Board have direct oversight of our health and safety performance.

We continue to raise our standards of performance through strong leadership, training and awareness raising programmes that reinforce a proactive safety culture. We empower our people to take responsibility for their safety and the safety of those around them. In our oil, gas and power generation operations, we put particular emphasis on process safety to prevent the potential for major incidents. In our customer-facing businesses, the main risks include slips, trips and falls, and road safety incidents.

In 2012, we reduced our lost time injury frequency rate (LTIFR) for employees and directly managed contractors by 20% to 0.20* per 100,000 hours worked. This continued the downward trend of our LTIFR and exceeded our target of 0.225 for 2012. The total

1,000
apprenticeships

In 2012, 1,000 people were completing apprenticeships across Centrica, including 252 new apprentices.

* Assured by Deloitte LLP for 2012 reporting, see [website](#) for more information.

recordable injury rate fell by 14% to 1.42 per 100,000 hours worked. There were no fatal injuries involving Centrica employees or associated third parties, and no significant process safety events* in 2012.

The LTIFR and significant process safety events are reported as non-financial KPIs in our [Annual Report and Accounts](#) and they contribute to senior management’s non-financial performance for the Long Term Incentive Scheme. Our safety data and trends are available in our [data centre](#).

Safety in our customer-facing business

In British Gas and Direct Energy, the main safety risks are from working in customers’ homes and from road accidents as our service engineers spend a large amount of time driving to customer callouts.

There were two serious incidents in British Gas and Direct Energy related to risks associated with working in customer’s properties where the integrity of previously installed boilers or other appliances is unknown. Both were

investigated and we have shared what we have learned across our businesses. The ability of our employees and third party contractors to assess the safety of installations is critical and we continue to invest in training and equipment such as meters and volt sticks, which assist engineers in detecting faulty installations to prevent personal injury.

We assess drivers’ performance regularly, prioritising employees who drive higher mileages, new drivers and those changing vehicles. In 2012, 1,977 drivers received practical driver development training. We also implemented a global ban on using a phone while driving and ran an awareness campaign on winter driving. We use road safety metrics to measure the number of driving-related incidents. The rate of low severity incidents fell by over 30% to 5.0 per million km driven. The number of high severity incidents fell 40% to six in 2012 during which more than 340m kilometres were driven.

British Gas achieved a 65% reduction in lost time injuries from road traffic accidents in the UK, and in North America, the introduction of

Direct Energy’s more stringent Road Risk Policy has helped to reduce low severity rates by 21%.

Safety in our upstream operations

We face a different set of risks upstream in our power generation and oil and gas operations, where process safety is particularly important. Our ongoing campaigns to raise awareness of safety risks have driven our continued improvement in safety performance.

Centrica Energy introduced two programmes, called Generation Safe and Live Safe, in 2012 to strengthen its safety culture. Generation Safe involved our business partners throughout the programme, recognising that to achieve a zero-harm environment, all parties involved in our operations must play their part. Live Safe focused on giving employees the confidence to speak up about safety if they witness unsafe behaviour.

As part of our strategy to manage process safety, we undertake targeted programmes to address specific hazards. Bespoke training is designed to equip people working in our oil, gas and power generation businesses with the knowledge and skills to manage major hazards. In 2012, we held training sessions in Canada, Norway and the UK for frontline operators, technicians, engineers, managers and directors, focusing on process safety fundamentals. See our [CR update](#) for more information.

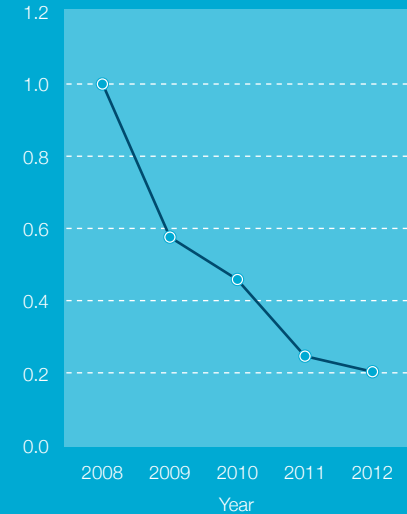
We continually look to strengthen and improve our safety operations, and work with industry to develop best practices. For example, although Centrica does not engage in deep water drilling, we were an active participant in the industry Oil Spill Prevention and Response Advisory Group



In 2012, we reduced our lost time injury frequency rate (LTIFR) for employees and directly managed contractors by 20% to 0.20* per 100,000 hours worked.

LOST TIME INJURIES

Total (per 100,000 hours worked)



* Assured by Deloitte LLP for 2012 reporting, see [website](#) for more information.



(OSPRAG) that was formed in response to the Deepwater Horizon incident in 2010. In 2012, we joined the Well Life Cycle Practices Forum that aims to help implement OSPRAG's recommendations across the industry.

Strengthening safety management

In 2012, we developed a Health, Safety and Environment (HSE) Assurance Map that helps to demonstrate to the Executive Committee that we have a robust set of controls and mitigation measures for inherent risks. We have made our audit programme more risk-focused and are applying a common reporting framework for HSE risks across Centrica. As we continue to grow the company through acquisitions, we reviewed our processes and approach to managing safety in our new businesses, mergers and large projects. This has resulted in the development of HSE guidance for capital approval and requirements for integration.

In North America, Direct Energy strengthened its approach to safety by forming a Safety Risk Management Committee, which meets quarterly to review strategies to manage health,

safety and environmental risks across the business. This has helped to improve the quality and granularity of business risk registers and awareness of safety risks.

Health and wellbeing

We take an active role in promoting the long-term health and wellbeing of our employees. Creating and supporting a healthy workforce helps to increase productivity and reduce absenteeism, and contributes to making Centrica a great place to work.

Wellbeing combined with employee charitable activities in 2012 when British Gas employees undertook a 760 mile bike ride, raising £750,000 on behalf of Great Ormond Street Hospital. A core team of 50 employees took on this challenge, with over 200 more employees taking part in individual day and half-day legs.

Our Group health and wellbeing strategy continues to focus on promoting healthy lifestyle choices. In 2012, individual business units took over the management and implementation of health and wellbeing programmes, enabling us to offer more



tailored support for employees in different roles and locations. For example:

- ▶ Centrica Energy introduced a health surveillance programme and 'fitness to work' assessments for high risk roles, and is continuing to implement an occupational health management system
- ▶ British Gas launched initiatives covering a range of issues such as increasing energy levels, weight loss, smoking and mental health issues
- ▶ Direct Energy promoted healthier choices through wellness consultants, awareness campaigns and walking challenges.

Our employee absence rate increased in 2012 to 8.2 days per full time equivalent employee from 7.3^(v) in 2011. Reducing absence is a priority, and we aim to do this by targeting three key health risks: muscular skeletal disorders, mental health and occupational health. Visit our website for more on our approach to [safety, health and wellbeing](#).

.....
 We take an active role in promoting the long-term health and wellbeing of our employees.

(v) Restated due to change in methodology for recording absence.

APPROACH

Understanding our social and environmental impacts is critical to our success

Employee at Frontera Power Plant, Texas, USA

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Understanding our social and environmental impacts over the long term is critical to Centrica's success. We do this through being alert to the environment in which we operate, engaging with stakeholders in order to listen to their views and concerns, and assessing the risks and opportunities which arise from our environmental and social impacts. We have governance processes in place to provide oversight for our activities and a selection of our metrics are reviewed by an independent third-party.

Governance

Our CR strategy and progress against that strategy, is overseen by the Corporate Responsibility Committee (CRC), which is a sub-committee of the Board. The CRC met three times during 2012, and is chaired by the Senior Independent Director, Mary Francis CBE. For information on the activity and topics covered by the CRC in 2012, visit our [Governance performance summary](#).

Stakeholder engagement

Through regular engagement, we can understand and better manage the issues which are most important to our stakeholders. We interact with our stakeholders in a variety of ways – from one-to-one meetings and customer service calls to formal committees and workshops. For example, our Corporate Responsibility Advisor Group, which is made up of senior external stakeholders, provides feedback and challenge on our strategy and operations. Discussions in the Group are shared with the CRC to ensure stakeholders can inform senior executives.

See page 46 for a summary of our stakeholders' key interests and how we responded to them.

Assurance

External assurance helps us improve the quality of our data and builds confidence among stakeholders in what we report. We rotate the metrics that are assured so more of them are reviewed. Deloitte LLP used the International Standard on Assurance Engagements (ISAE) 3000 to provide limited assurance on eight non-financial key performance indicators. Assured metrics are footnoted on page 48 and throughout this report, and Deloitte's assurance statement is available at www.centrica.com/CRassurance.

Materiality

We use our materiality criteria to prioritise key areas of focus. We do this by measuring the level of stakeholder concern on an issue combined with the potential that issue has to impact us as a business and our ability to influence this impact. Based on this, 14 issues were noted,

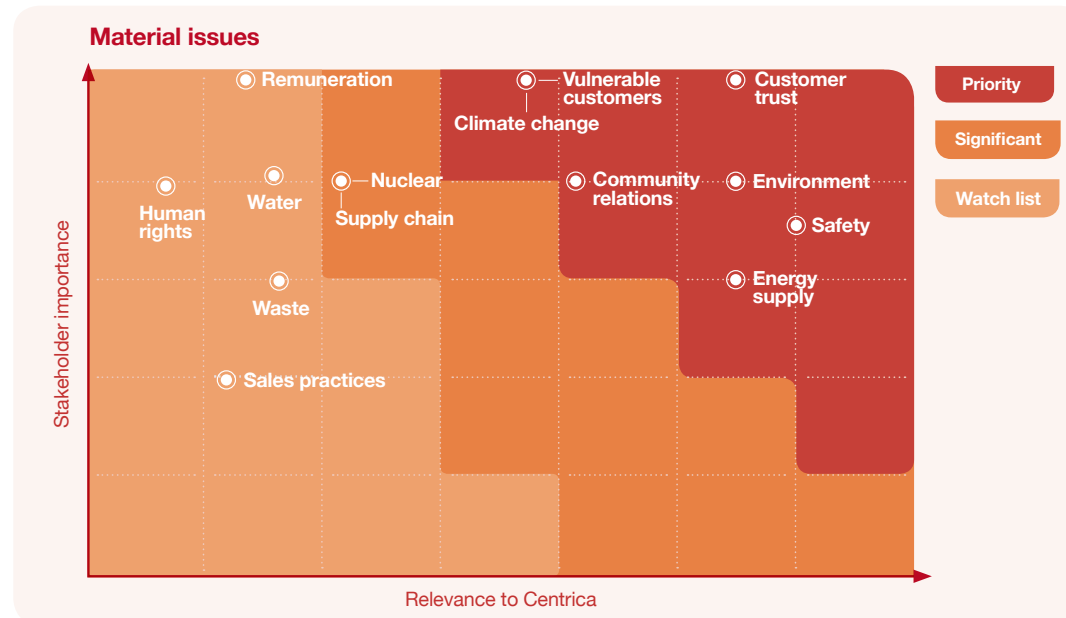
seven of which were identified as priority. The graph below outlines these issues across three categories: watch list, significant and priority.

This document covers our activities on the priority issues in 2012, and refers back to our website where additional information is available. Progress on our significant and watch list issues is provided on our website through performance updates.

Risk management

It is vital that we identify and monitor our most significant risks and put processes in place to mitigate them. Many of our risks are of a social and environmental nature and these are included in our business risk management procedures to ensure they are controlled.

The social and environmental risks that are most significant to our business are included in the [Risks and Uncertainties summary](#) in our 2012 Annual Report and Accounts.



Navigating our reporting

We report information in four ways:

- ▶ **2012 progress**
This CR Review covers 2012 progress on our strategic and material issues
- ▶ **Metrics**
Our data centre contains all our financial and non-financial performance metrics
- ▶ **Performance updates**
We will share updates about projects and initiatives on our website www.centrica.com/cr
- ▶ **Background and approach**
Our CR web pages outline how we approach our key issues such as climate change or supply chain

Join the energy debate

Visit our [News and Views](#) social media platform.

HOW WE ENGAGE WITH KEY STAKEHOLDERS

Stakeholder Group	How we engage	Stakeholder feedback and the actions we took
Customers	<p>Surveys and online forums</p> <p>Focus groups, workshops and interviews</p> <p>Direct feedback through websites, social media and customer service advisors</p> <p>Customer Panels, for both business and domestic customers</p>	<p>Prioritise affordability Minimised price increases to customers by providing lowest tariff increase of the six major UK energy providers, introduced Tariff Check to let customers know if British Gas has a better tariff for them, and by providing energy efficiency solutions to reduce energy consumption.</p> <p>Improve customer service Consolidated our Energy and Services customer service teams in British Gas to simplify the customer journey and empowered employees to share learning. Customer satisfaction increased in 2012 in British Gas by 15% and in Direct Energy by 40% based on Net Promoter Score.</p> <p>Clarity on tariffs and pricing Redesigned bills and annual statements to make them easier for customers to understand. Consumer campaign group Which? awarded British Gas a five-star rating for the clarity of the new bills.</p>
Government	<p>Consultation responses</p> <p>Direct engagements with government and regulator representatives</p> <p>Engagement with politicians</p>	<p>Security of supply Continued to work closely with UK Government and Parliamentarians to bring forward policies to help reform the electricity market, and helped inform regulators in Texas about policy considerations under review to address resource adequacy concerns.</p> <p>Energy efficiency and fuel poverty Responded to consultations in the UK on Green Deal and ECO to contribute to the development of those programmes. Shared our learning and customer insights from smart meter enabled products in the US with regulators and legislators to show the impacts of load-shifting to off-peak periods and increased awareness of energy efficiency.</p> <p>Trust Improving the understanding of what makes up the average consumer bill and how people can best control their energy costs. Showing regulators and legislators in the US the tangible innovation that competitive markets bring and providing the data to support the resulting benefits from giving consumers choice and control.</p>
Investors including SRIs	<p>Performance and strategy updates</p> <p>Focus groups and workshops</p> <p>Direct engagements</p>	<p>Risk of increased regulatory scrutiny Briefing our investors about our engagement with government and regulators on key issues for the business including the reform the electricity market through the Electricity Market Reform, Gas Generation strategy and Capacity Mechanisms.</p> <p>Managing environmental risks and community relations Continued implementation of environmental management systems in all our operations. Discussions with coastal communities helped gain consent for our proposed Race Bank offshore wind farm project.</p> <p>Governance and remuneration Changed the way we report on remuneration to make performance targets and outcomes more transparent and total remuneration easier to understand.</p>
Employees	<p>One on one discussions</p> <p>Training, workshops and master classes</p> <p>2012 employee engagement survey</p>	<p>Understanding of business vision British Gas introduced new programmes to engage employees on our vision during 2012, including the ‘Extraordinary You!’ programme for engineers.</p> <p>Learning and development opportunities Continued training and development opportunities including The CE Way of Management in Centrica Energy and Direct Energy’s Leaders Journey.</p> <p>Fair reward Implemented a new performance management system to ensure managers make informed pay decisions and developed a new benefits programme to allow UK employees to tailor their mix of salary and benefits to suit their needs.</p>

Stakeholder Group	How we engage	Stakeholder feedback and the actions we took
NGOs	<p>Focus groups</p> <p>Direct engagements including during planning consultations</p> <p>Strategic partnerships</p> <p>External panel, CR Advisory Group, set up in 2011</p>	<p>Increase investment in renewables and reduce carbon emissions First power at our Lincs offshore wind farm, capable of providing enough electricity for 200,000 homes upon completion. The annual carbon savings we have enabled through our customer energy efficiency measures have saved the equivalent of the emissions from a 1.8GW wind farm.</p> <p>Support vulnerable customers We have the widest criteria in the UK's Warm Home Discount Scheme, providing 500,000 customers with the £130 rebate on their electricity bill in the 2012/13 winter. In North America, our work with federal and state agencies helped support more than 61,000 customers in Texas with almost £6m in grants.</p> <p>Managing our environmental impacts Minimised the environmental impact from laying a cable through salt marshes at our Lincs wind farm, with a Natural England study concluding the area would be fully recovered within five to seven years.</p>
Suppliers	<p>One-on-one discussions</p> <p>Site visits</p> <p>CR supplier assessments</p> <p>Supplier Forum</p>	<p>Payment terms We are a signatory of the Prompt Payment Code and we have signed up to the Government Supply Chain Finance initiatives.</p> <p>Listening to suppliers Through our 'Voice of the supplier' programme, we are contacting our major suppliers to get feedback on their experience of engaging with Centrica and the areas we can improve.</p> <p>Risk management We are now rolling out a supplier assessment programme designed to work with suppliers to improve social and environmental performance within our supply chain.</p>
Communities	<p>Social media and online discussion forums</p> <p>Regular and ad hoc meetings with charities and local community partners</p> <p>Public consultations</p> <p>Employee volunteering</p>	<p>Community investment In 2012, we contributed £233.6m to supporting vulnerable customers, charities and community and social projects through our mandatory programmes and charitable activities.</p> <p>Poverty and social exclusion Started a five-year agreement with Shelter to help one million British households improve the standard of their homes. Contributed £12.7m into the British Gas Energy Trust to provide people struggling to pay their bills with advice and grants.</p> <p>Skills and employment Continued our UK apprentice and graduate schemes. Supported the launch of the Plotr campaign to help young people in the UK around qualifications and career choices.</p>
Trade Unions	<p>Formal consultation, national quarterly meetings and regular local meetings</p> <p>Informal regular and ad-hoc meetings</p> <p>Informing local representatives about matters that affect their members</p>	<p>How we manage change and business re-organisations Extensive formal consultation took place in all our business restructures, and we supported employees through a range of measures including regular communications, career development, outplacement and financial support.</p> <p>Pensions auto enrolment and benefits transformation project Unions have been fully engaged throughout the pensions auto enrolment and benefits transformation process through consultation and communication.</p>

KEY PERFORMANCE INDICATORS

	Metric	Unit	2012	2011	What's next
Customer Fairness	Net Promoter Score (NPS) – British Gas ⁽ⁱ⁾	See Basis of Reporting	+30 ^{(ii) (iii)}	+26 ^{(iii) (iv)}	To remain within the high performance range within each business.
	Net Promoter Score (NPS) – Direct Energy ⁽ⁱ⁾	See Basis of Reporting	+39 ^{(ii) (iii)}	+28 ^{(iii) (iv)}	
	Vulnerable households helped by British Gas initiatives	Number	2.1m ⁽ⁱⁱ⁾	1.7m ^(iv)	Continue to support our most vulnerable customers through the British Gas Energy Trust and obligations such as the Warm Home Discount.
Low carbon	Lifetime carbon savings driven by the Carbon Emissions Reduction Target (CERT)	Tonnes of CO ₂ saved	15.0m	14.6m ^(iv)	Whilst the CERT programme ended on 31 December 2012 we will continue to work towards our obligations in this area.
	Smart meters installed	Number of meters installed (cumulative since 2009)	881,794 ^(v)	459,422 ^(vi)	British Gas will continue to be the UK leader in smart meter installations.
	Carbon intensity of power generation ^(vii)	gCO ₂ /kWh	UK: 159 Group-wide: 197	UK: 199 ^(iv) Group-wide: 220	Reduce our Group power generation carbon intensity to 260 by end of 2020.
	Total carbon emissions	Tonnes CO ₂ e	7.4m ⁽ⁱⁱ⁾	8.4m ^(viii)	
	Internal carbon footprint (property, fleet and travel)	Tonnes CO ₂ e	91,988 a 2% reduction on 2011	94,092 ^(viii) a 5% reduction on 2010	Reduce the carbon footprint of our core offices, company vehicles and travel by 20% by 2015 (baseline year: 2007). ^(iv)
Energy supply	Legal action	Number	0	4 ^(ix)	Continue to target zero legal actions through implementing certified environmental management systems
People and safety	Lost time injury frequency rate (LTIFR)	Per 100,000 hours worked	0.20 ⁽ⁱⁱ⁾	0.25 ^(iv)	Reduce accident rates across all businesses, with increasing focus on the TRIR as a representative measure. At a Group level we aim to maintain, and if possible further improve, our LTIFR of 0.20.
	Total recordable injury rate (TRIR)	Per 100,000 hours worked	1.42	1.66 ^(iv)	
	Road safety incidents rate – low severity	Per 1 million km driven	5.0	7.5 ^(iv)	Continue the reduction in road safety incidents through proactive driver safety programmes.
	Road safety – number of high severity incidents	Number	6	10 ^(iv)	
	Fatalities	Number	0	0 ^(iv)	
	Significant process safety event	Number	0 ⁽ⁱⁱ⁾	2	Continue to focus on the management of our major accident hazards. We track detailed leading metrics at an executive level, with the ultimate aim of zero significant process safety events.
	Retention	Percentage	89.7	89.5 ^(iv)	Encourage and maintain healthy retention levels.
	Absence	Days per full time employee	8.2	7.3 ^(x)	Focus on driving down absence in British Gas.
	Employee engagement	Mean score out of 6	4.72 ⁽ⁱⁱ⁾	n/a ^(xi)	Implement action plans driven out of the 2012 engagement survey.

For the full suite of performance metrics, visit our [data centre](#).

For more information on the impacts across our value chain, visit the [Understanding our Business](#) feature on our website.

- (i) The Direct Energy and British Gas scores are not comparable as they are measured differently.
- (ii) Assured by Deloitte LLP for 2012 reporting, see [website](#) for more information.
- (iii) High performance range
- (iv) Assured by Deloitte LLP for 2011 reporting, see [website](#) for more information.
- (v) Assured by Deloitte LLP for the 2012 reporting. See [website](#) to view Deloitte's full assurance statement and the Basis of Reporting. This figure represents cumulative smart meter installations for residential and business customers. Only data representing 514,482 smart meter installations was assured by Deloitte due to the historical nature of the data.
- (vi) Figured updated following subsequent validation carried out on data.
- (vii) 2012 data subject to final EU Emissions Trading System (ETS) verification.
- (viii) Restated following subsequent review of historical data.
- (ix) 2011 data has been updated to reflect pending legal actions which were only concluded in 2012.
- (x) Restated due to change in methodology for recording absence.
- (xi) An engagement survey was not completed in 2011.



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