

Corporate Responsibility Performance Review **2011**

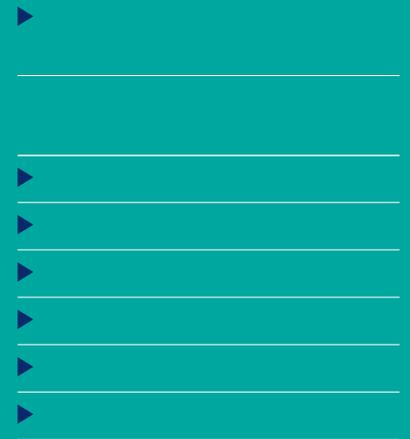
Building trust



Introduction

2011 was a challenging year.
But our integrated business model
proved resilient and our people
delivered a strong result

British Gas service engineer



Chief Executive's review

2011 was a challenging year. But our integrated business model proved resilient and our people delivered a strong result.



In the UK, wholesale gas commodity prices rose by 30% during 2011, driven by global factors including instability in the Middle East and North Africa and the Fukushima nuclear disaster. In North America, Direct Energy faced difficult market conditions for the retail energy supply business and continued low gas and power prices in our core markets.

Despite these challenges we made good progress implementing our strategy. We continued our programme of investment in diverse energy supplies and low carbon generation, moving closer to producing first power at our Lincs offshore wind farm in late 2012. 1.7m vulnerable households benefited in 2011 from British Gas initiatives that included a discounted tariff, interest free loans and payment assistance, household grants and free energy efficiency advice. We have expanded into new markets in North America, nearly doubling our customer base in the US North East.

Public perceptions of the energy sector are different in North America and the UK. In North America, wholesale gas prices have remained low and Direct Energy has seen a healthy improvement in customer satisfaction, as measured by net promoter scores. In the UK, British Gas also saw improving customer satisfaction scores, as well as decreases in customer complaints. Despite these operational improvements, our brand is less well trusted than before. Research indicates this is

due to factors that are impacting the wider energy sector as well as British Gas.

Retail price increases, driven by the wholesale market, coincided with pressure on household income for many of our customers due to the economic downturn. In the UK, although bills were actually lower than the previous year, the scale of unit price increases driven by factors outside the direct control of energy suppliers has resulted in public frustration with a consequent erosion of trust in the energy sector.

We are acutely aware that the poor economic climate in the UK is impacting household budgets and that any increase in energy prices will cause hardship for some and be poorly received by many. We therefore need to do what we can to provide affordable energy.

One of the most significant ways we help customers manage their energy costs is by making their homes more energy efficient. Over the past five years we've helped to insulate more than 2.5m customer homes in the UK. We continued to promote the energy efficiency measures that reduce bills and also help to cut carbon emissions. And, through our Carbon Emissions Reduction Target obligation we delivered more than 14.6m tonnes of lifetime carbon savings in 2011. British Gas was the first

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As an energy company, we recognise that our business activities impact the communities we serve and the environments in which we operate. Understanding and managing these impacts will help contribute towards strong, healthy societies and sustainable environments for current and future generations. Our corporate responsibility approach drives our ability to deliver our business strategy in a sustainable manner.

Sam Laidlaw
Chief Executive

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energy company to offer free insulation to our entire customer base and has now extended this offer still further to customers of our partner organisations.

We've also embarked on a programme of £500m of internal efficiency savings to help minimise operating costs and enable us to continue to offer competitive prices and products. Regrettably this required the loss of some 760 jobs in 2011 and I am grateful for the co-operation and professionalism shown by all of our employees during this process. Our people play a vital role in achieving our goals and the quality of service to which we aspire. We continue to invest in their careers to develop the skills we need. In 2011, we invested more than £20m in our academies and apprenticeships.

We cannot shield our customers from the long-term trend towards higher energy prices, but we remain committed to fair

pricing and strive to explain energy prices more clearly. British Gas launched the Honest Conversation in 2011 to explain the factors behind energy prices to UK consumers and raise the quality of the debate. Not only are commodity costs increasing due to worldwide growth in demand for oil and gas, but also more locally, the third party costs we are obliged to pay for transportation, distribution and the environmental levies to support renewables and encourage carbon reduction are an increasing component of the bill. We look to the Government and the Regulator to help foster a realistic discussion with the British people about energy prices and the need for major investment to pay for future energy security and lower carbon emissions.

A significant level of investment is required in the UK energy industry – an estimated £200bn by 2020 – to provide energy security and lower carbon emissions. Two factors are critical to making this viable: a profitable energy sector operating within stable

tax and regulatory frameworks; and an improvement in public understanding of the economics of energy prices leading to a restoration of trust in our industry. Centrica has a central role to play in steering the UK towards a future of affordable, secure and environmentally responsible energy.

In North America, the precise challenges are different, but our aims are the same – to seek opportunities to grow our business in a sustainable manner. We will continue to work with determination to achieve this wherever we operate.

I look forward to reporting our progress to you next year and welcome feedback on our efforts to date.

Sam Laidlaw
Chief Executive

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We've embarked on a programme of £500m of internal efficiency savings to be a leaner business and support our competitive position in challenging markets
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Our approach

We must understand the impacts we have on society and the environment. We do this through engaging with stakeholders, listening to their concerns, and assessing our impacts and risks. We have strong governance processes to oversee our activities and employ an independent, third-party to review our performance.

Governance

Our Corporate Responsibility Committee (CRC) oversees progress against our CR strategy and activities. The CRC met three times in 2011. For more information on committee activities and topics discussed in 2011, visit our [Governance performance summary](#).

Stakeholder engagement

We engage with stakeholders to identify their concerns, explore solutions and manage relationships. We highlight key engagements in 2011 throughout this report. We also have a [Stakeholder engagement summary](#) for 2011 available, which outlines stakeholder concerns and how we responded to them.

Assurance

We want stakeholders to be confident in the performance we report. So we asked Deloitte LLP to conduct external assurance on our most material metrics. Deloitte used the International Standard on Assurance Engagements (ISAE) 3000 to provide limited assurance on 14 non-financial key performance indicators. See Deloitte's assurance statement

and a list of the assured KPIs at www.centrica.com/CRassurance.

Materiality

Our [materiality criteria](#) measures the concern stakeholders have on an issue in general, combined with the potential impact that issue may have on our business. Based on this, we prioritised 11 issue areas, each of which includes a range of individual issues. The graph below outlines these issues across three categories: watch list, significant and priority.

This document covers our activities on the priority and significant issues in 2011, and refers back to our website where additional information is available on these. We will report progress on our watch list issues on our website through performance updates.

Risk management

Managing the risks to our business is essential to achieve our strategic objectives. We continue to work to embed social and environmental risk management into our existing business risk processes and procedures, to ensure these risks are effectively managed.

The social and environmental risks that are most significant to our business are included in the [Risks and Uncertainties summary](#) in our 2011 Annual Report and Accounts.

Navigating our reporting

We have changed the way we report. Rather than publish all information in one document, at one time, we now report information in four ways:

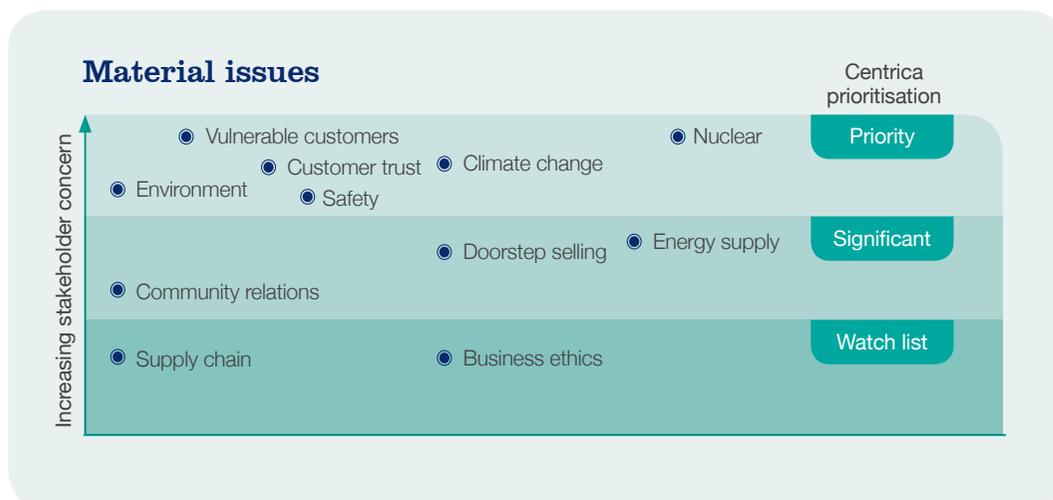
- ▶ **2011 progress**
This document reports 2011 progress on our strategic and material issues

- ▶ **Metrics**
Our data centre contains all our financial and non-financial performance metrics

- ▶ **Performance updates**
We will share updates about projects and initiatives in the Responsibility section at www.centrica.com/cr

- ▶ **Background and approach**
Our CR web pages outline how we approach our key issues from climate change to supply chain

JOIN THE ENERGY DEBATE
Visit our [News and Views](#) social media platform.



Key performance indicators

	Metric	Unit	2011	2010	2012 Target
Customer trust	Net promoter score (NPS) – British Gas ⁽ⁱ⁾	See Basis of Reporting	+26	+24	Achieve a British Gas NPS of +27 by end of 2012 by earning and maintaining customers' trust and providing the best value in the marketplace
	Net promoter score (NPS) – Direct Energy ⁽ⁱⁱ⁾	See Basis of Reporting	+28	+21	Achieve a Direct Energy NPS of +27 by end of 2012
	Vulnerable households helped by British Gas initiatives	Number	1.7m	1.6m	Provide support to our most vulnerable customers through programmes such as the Warm Home Discount and British Gas Energy Trust
Low carbon	Lifetime carbon savings driven by the Carbon Emissions Reduction Target (CERT) obligation	Tonnes of CO ₂ saved	14.6m	15.6m	Deliver total lifetime carbon savings of 15.6m tonnes of CO ₂ in 2012
	UK power generation carbon intensity	CO ₂ /kWh	199g ⁽ⁱⁱⁱ⁾	277g ^(iv)	270g CO ₂ /kWh by end of 2012 ^(v)
	Internal carbon footprint (property, fleet and travel)	Tonnes CO ₂ e	95,234	100,193 ^(vi)	Reduce the global carbon footprint of our existing offices, company vehicles and travel by 20% by 2015 (baseline year: 2007 ^(vii))
People and safety	Lost time injury rate (LTIR)	Per 100,000 hours worked	0.25 ^(viii)	0.43 ^(ix)	Continue progress in reducing LTIR to 0.225 per 100,000 hours worked by the end of 2012
	Fatalities	Number	0	0	
	Road safety incident number – high severity	Number	10	8	
	Road safety incident rate – low severity	Per 1 million km driven	7.5	9.5	Measure only ^(x)
	Total recordable injury rate (TRIR)	Per 100,000 hours worked	1.66 ^(viii)	2.13	Continue progress to reduce TRIR to 1.59 per 100,000 hours worked by end of 2012
	Retention rate	Percentage	89.5	89.9	Measure only
	Absence rate	Days per full-time equivalent employee	5.6	6.8	Measure only

The 2011 metrics to the left were assured by Deloitte for 2011 Corporate Responsibility performance reporting.

For the full suite of performance metrics, visit our [data centre](#). For more detailed information about the progress we made against our commitments in 2011, visit the [Progress against commitments](#).

- (i) NPS calculation methodology and scope for British Gas has been altered, and the 2011 and 2010 data reflect the new approach.
- (ii) The Direct Energy and British Gas scores are not comparable as they are measured differently.
- (iii) EU ETS verified figure. The 2011 Group-wide figure is 220g CO₂/kWh.
- (iv) Restated to represent 2010 figure verified by EU ETS. The 2010 Group-wide figure was 277g CO₂/kWh.
- (v) Our end of 2020 target is 260g CO₂/kWh. We plan to review this target in the second half of 2012.
- (vi) Figure updated following subsequent validation carried out on data.
- (vii) 2007 baseline has been assured by Deloitte for 2011 Corporate Responsibility performance reporting.
- (viii) 2011 figure includes third-party managed contractors for the first time and is not directly comparable with 2010 data.
- (ix) 2010 figure has been restated to include Clockwork Home Services data on a proforma basis.
- (x) In 2012, our road safety measurement will be based on avoidable incidents per 1 million km driven. A target will not be set for 2012 but figures reported in the 2012 Annual Report.

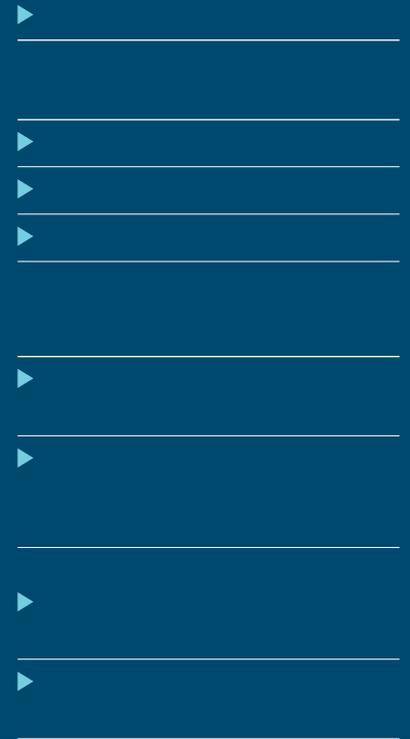
4 star rating

In 2011 Consumer Focus, the organisation that champions the cause of UK consumers, increased our rating for complaints handling from three to four stars out of a possible five

Treating customers fairly

Excellent customer service lies at the heart of our commitment to customer fairness

Apprentice at Dartford Engineering Academy, UK



Overview

Treating customers fairly is essential to earn their trust. Fairness means being open and honest in all our communications, ensuring that customers can access the best energy deals, and helping them make the cost of their energy more affordable.

The Direct Energy Customer Ideas Factory helps us to shape and change our ideas, gauge reactions to big news stories, and get advice on our communications

In 2011, we launched the Honest Conversation campaign, which invited British Gas customers to tell us what they think about our services

We launched a Fair Billing Charter for UK business customers designed to support small businesses who are struggling to pay their bills

Excellent customer service lies at the heart of this commitment to customer fairness and we are continuing to improve customer service levels so that concerns are dealt with promptly and consistently. We are also committed to ensuring that our sales and marketing, billing and other communications are clear and transparent.

During 2011, the challenging economic climate in the UK put pressure on household budgets. Rising energy prices and the impact of increasing government taxes on energy bills led to an erosion of trust between customers and the energy industry as a whole. In North America, the volatility of the wholesale market has the biggest impact on customers' energy bills.

We want to help customers understand how their bills are calculated and the factors that contribute to rising energy costs. While we aim to pass on price cuts wherever possible, many of the factors that contribute to energy bills are outside our immediate control. Through open and honest communications, we can support our customers in understanding and comparing energy costs so they always benefit from the lowest tariffs.

Helping customers reduce and manage their energy use through energy efficiency measures and smart technology enables them to cut their energy costs. This is particularly

important for customers who are most at risk from rising prices. We aim to ensure that even the most vulnerable are able to heat and power their homes by providing financial assistance, debt advice and energy efficiency measures. In the UK, we do this through mandatory programmes such as the UK Government's Warm Home Discount, the Carbon Emissions Reduction Target (CERT), the Community Energy Saving Programme (CESP), as well as through the British Gas Energy Trust and local partnerships. In the US, we offer heating, cooling, and ventilation products and services, enabling customers to better manage their home and business energy costs. Results from different regions cannot be compared due to cultural differences and different methodologies used. For more information, see www.centrica.com/nps.

Customer satisfaction

Providing excellent service consistently is a key commitment for us and an essential part of our relationship with customers. In North America and the UK, we track customer satisfaction levels using net promoter scores (NPS), which measure a customer's willingness to recommend us.

In North America, Direct Energy met its NPS^(xi) target, achieving a score of +28*,

We are committed to ensuring that our sales and marketing, billing and other communications are clear and transparent

(xi) The Direct Energy and British Gas scores are not comparable as they are measured differently.

* Assured by Deloitte LLP for the 2011 CR Performance Review. See www.centrica.com/CRassurance to view the assurance statement and Basis of Reporting.

a significant increase from +21 in 2010. Our US North residential and Ontario energy regions, US Home Services and Clockwork businesses all participated for the first time in 2011. This provided a broader picture of customer attitudes across our North American operations. The Direct Energy NPS measures a combination of contact and brand (referred to as relationship). However, despite this overall increase, NPS declined among Direct Energy’s business customers as a result of dissatisfaction with contracted energy rates and perceptions about the overall value of energy suppliers.

In the UK, we changed the way we track and report our customer service with NPS by combining the brand NPS we previously reported with a contact NPS. Brand NPS provides a useful insight into the overall perception of the British Gas brand, but it is also driven by factors such as price, over which we have limited control (see pricing feature on page 14). Contact NPS provides a better view of how we interact with our customers and the experience our customers have with us. We believe the combined score more accurately reflects customer satisfaction levels. In 2011, British Gas’ overall NPS^(xi) score was +26*, up from +24^(xii) in 2010. This improvement is despite concerns around increasing energy prices.



British Gas and Direct Energy NPS scores form part of Centrica’s non-financial performance indicators and are reported in our 2011 [Annual Report and Accounts](#). The metrics form part of the non-financial performance measurement within the senior management [Long Term Incentive Scheme](#) remuneration package.

Good customer service is one of the main reasons customers are likely to recommend us, and we aim to continually improve this through training for our engineers and call centre advisors. For example, British Gas introduced training in 2011 that aims to produce ‘engineers of the future’ with more

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(xi) The Direct Energy and British Gas scores are not comparable as they are measured differently.

(xii) NPS calculation methodology and scope for British Gas has altered in 2011, 2010 data has been restated at the new scope.

* Assured by Deloitte LLP for the 2011 CR Performance Review. See www.centrica.com/CRassurance to view the assurance statement and Basis of Reporting.



rounded capabilities and the ability to provide better advice about customers' energy needs. We will continue to roll out this training in 2012.

We introduced a range of initiatives to help improve customer service. We removed time targets for the length of customer calls giving employees longer to ensure queries are dealt with to customers' satisfaction. New technical innovations enable customer advisors at the centre to act quickly on customer feedback, capture customer comments and offer a call back service. These actions helped the British Gas call centre in Cardiff to win a silver medal for best contact centre in the world at the annual World Contact Centre Awards. Also, at the beginning of 2012 we launched a videoconferencing initiative called 'Look Who's Calling' that enables customer service advisors to tailor their approach to suit different customer personalities.

Our continued participation in the Nectar customer loyalty programme is also an important focus. Nectar members can collect points with British Gas which can be redeemed through a variety of high street and online retailers. Bonus points are available for Dual Fuel customers, submitting regular meter readings and purchasing additional British Gas repair and maintenance services. Analysis of our NPS data shows that customers who are aware of our involvement are more likely to recommend us than customers who are not aware of our involvement.

Listening to customers

Listening to customers and responding to their feedback helps us identify areas for improvement. British Gas' online Ideas Factory allows us to seek customer reactions to new and existing service and product ideas.

Around 2,500 customers participate in the British Gas Ideas Factory, an online panel set up in 2009 to help us understand customer responses to new and existing service and product ideas. We established the Direct Energy Ideas Factory in late 2010, seeking feedback from both employees and customers. The Ideas Factories help us shape and change our ideas, but can also be used to gauge reactions to big news stories, such as price rises, and to advise on the tone, content and design of our customer communications.

During 2011, we continued to implement recommendations made by the British Gas Customer Panel set up in 2010, including making our bills clearer and simplifying tariff structures. We appointed a permanent UK Customer Board in 2011 to oversee our progress.

British Gas also created a new panel specifically for business customers (with around 1,000 companies represented) as part of our efforts to engage with them.

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Doorstep selling

We can improve customer satisfaction by making sure that our relationship with customers is based on trust right from the start, and our sales practices play an important role in this.

Doorstep selling has been a common practice among utilities providers. It can be an effective way to reach customers and raise awareness of the financial savings and service offerings they can obtain by changing suppliers.

This is particularly important in our North American markets, where switching suppliers is not actively promoted and

consumers are less aware of such opportunities. In many markets, government does not actively promote retail energy choice, often communicating it through general information on websites. Direct Energy must inform consumers about retail energy choice and help them understand their options. Through door-to-door sales, sales kiosks and other marketing and communications, we try to help consumers gain the information they need to make an informed choice on the best competitive retail option. All our doorstep sales in North America have an independent post-sale verification to make sure the customer understands and is happy with the product.

In the UK, however, consumers are much more aware of the potential benefits of switching suppliers. Although doorstep sales still accounted for a portion of British Gas sales in 2011, and our sales practices were amongst the best in the industry, feedback from our sales agents and Customer Board showed that customers would rather book a home appointment than receive an unannounced visit. Responding to this feedback, in 2011 we decided to end unsolicited doorstep selling in the UK. Our decision was supported by broader research conducted by Consumer Focus, a UK organisation that champions consumer interests, which showed that many customers find doorstep selling old-fashioned and intrusive. Instead, we have introduced sales

channels that give customers more control, including a home appointment service booked in advance and at the customer's convenience, as well as stands at local events and shopping centres.

Monitoring complaints

We also track the volume and type of complaints across our businesses. In North America, Direct Energy received 4,179 total complaints in 2011, down from 5,271 in 2010.

British Gas' market share of residential customer complaints escalated to the Energy Ombudsman declined by 3.6 percentage points and Consumer Focus increased our rating for complaints handling from three to four stars out of a possible five. We also produce an [annual complaints report](#), which notes the number of complaints from British Gas domestic energy customers that we could not resolve on the same day or the next working day after we received them.

Improving our service for business customers is a particular focus in the UK. After self reporting, the regulator, Ofgem, undertook an investigation that resulted in a fine of £2.5m for the way British Gas dealt with complaints from small business customers. With millions of customer interactions every year, some complaints

.....
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unsolicited doorstep
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.....



are inevitable, but we recognise the need to handle them better. We have invested £4m to upgrade our complaints handling systems, processes and training.

Clear communications

We communicate with customers regularly through our bills, marketing, websites and call centres. Making these communications clear, open and honest is an important part of treating our customers fairly by ensuring they have the information they need to make informed decisions.

In North America, we only bill customers directly in two of our 25 markets (Alberta and Texas), meaning our communications with potential and existing North American customers are primarily through marketing. We aim to ensure our marketing communications are clear and honest, in line with Direct Energy's 'Simple, Friendly, Direct' culture.

In the UK, billing is one of our main communication channels with customers. The price of energy is a particularly important focus for UK consumers and we aim to communicate clearly about this (see feature on pricing, page 14).

In 2011, we launched the Honest Conversation campaign, which invited British Gas customers to tell us what they think about our services (see feature on the following page). As a result, British Gas improved the layout of bills and reduced the number of tariffs for residential customers to make it easier to understand how bills are calculated and compare costs. We now only have two types of tariff – fixed and variable – and we are exploring how we can further simplify the two-tier pricing structure. We also provide a [simple tariff checker](#) on the British Gas website so customers can see if they are on the best tariff for their needs. In early 2012, we committed to include a tariff comparison table on customers' annual energy statements which will enable customers to see if they are on the best tariff.

We have also made it easier for customers to change payment details, compare energy usage with others in their local area and submit meter readings online. Our efforts were

Market share of complaints to the energy Ombudsman – British Gas

	2011	2010	2009
British Gas residential customer complaints to energy Ombudsman as percentage of industry totals	13.2%	16.8%	15.6%
Market share of customers	32.5%	32.8%	32.5%

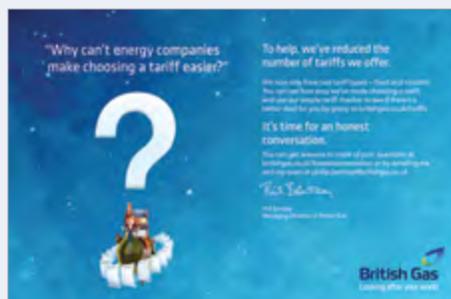
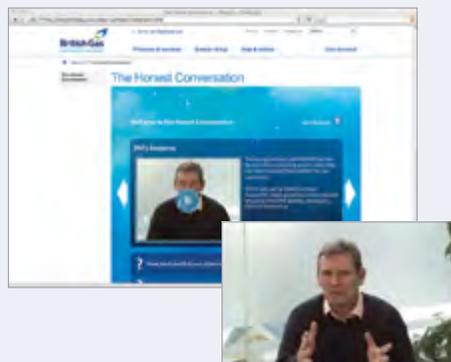
.....
 In North America, we aim to ensure our marketing communications are clear and honest, in line with Direct Energy's 'Simple, Friendly, Direct' culture

recognised by the comparability website uSwitch, which named British Gas the winner of the Best Online Services category in the 2011 uSwitch Energy Awards.

In 2011, we launched a Fair Billing Charter for UK business customers designed to support small businesses who are struggling to pay their bills. The Charter aims to put small business customers in control of their energy use and ensure they are not hit by big 'back bills' caused by errors beyond their control. By 2014, we have committed to phase out charging small business customers in arrears for more than one year's energy use as a result of inaccurate billing, as we have already done for residential customers.

The Honest Conversation

In November 2011, British Gas Managing Director Phil Bentley sent a letter to residential customers inviting them to contact him directly with the aim of establishing an Honest Conversation. Within three months he had received 8,300 responses, including suggestions on around 2,500 individual topics which we will use to help us improve our performance. The most frequently raised topics were energy prices, billing and customer service.



Do you want to be part of the Honest Conversation? [Click here](#) ▶

We have introduced a series of initiatives targeting these issues, including simplified tariffs, processes to help customers make sure they are on the right tariff, and a facility that allows customers to book a call back rather than waiting on the line. We are also looking to improve the way we communicate with customers through bill design and annual statements. To continue the Honest Conversation, we will send out further letters telling customers about what we are doing and we will also provide more information on energy bills.

Much of the initial focus on the Honest Conversation in the media, the UK Government and with external stakeholders has been on energy prices, as well as the complexity and lack of clarity around our pricing and tariff structures. We have responded quickly in these areas but as we analyse different aspects of the conversations we have had, we will explore ways of building trust on other issues.

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What our customers are saying

In view of the very large profits made by the energy suppliers in this country, there is no chance of improving your image until the most vulnerable in our society are not placed at risk of dying from hypothermia due to the high salaries and profit margins required by the executive staff of your company.

Hats off for a brilliant letter. How nice to be spoken to by the MD in person and in a straightforward way. Keep it up.

”

[Read more customer feedback on our website](#) ▶

Energy pricing in the UK: How it works

We aim to be transparent about the relationship between wholesale energy prices and what customers pay. But energy prices, our role in managing them, and how we can protect customers from price fluctuations, remains complex.

The images to the right show a breakdown of the different factors that contribute to energy costs – we include similar diagrams on customers’ bills. By far the largest contribution to bills is the wholesale cost of the energy itself. The remaining costs include our obligations under mandatory Government energy efficiency and rebate schemes, distribution costs via the National Grid, operating costs (the cost of running our business) and profit.

After tax, our profit margin is around 5% of customer bills, which we use to meet our duty to shareholders and reinvest into the business. Ensuring our business remains profitable is essential to attract investors, invest in future growth and secure the UK’s energy needs. We aim to minimise the cost of running our operations so we can pass on savings to customers where possible. With this in mind, we are working to make our operations more efficient, although the potential impact on customers’ energy

bills is limited because our operating costs account for only around 12% of the average electricity bill and 8% of the average gas bill.

The wholesale cost of the energy accounts for 38% and 56% of the average electricity and gas bill, respectively. We have very little control over this cost, which is influenced by national and global trends. In 2011, the UK imported more than 50% of its gas and this will increase to 75% over the next 10 years. This means we are increasingly competing internationally for available supplies. With gas-fired power stations accounting for 40% of the UK’s electricity generation, high gas prices also have a direct impact on electricity prices.

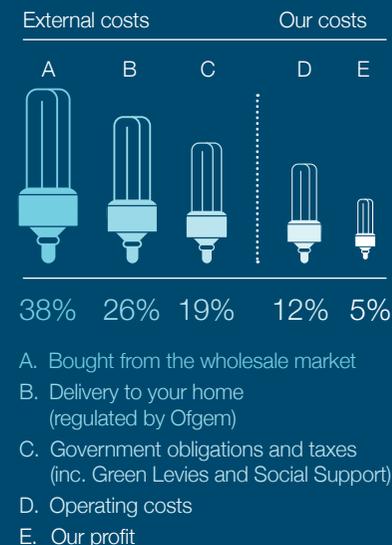
Wholesale gas prices remain highly volatile, while rising global demand is leading to an overall upward trend. The wholesale gas commodity price rose by 30% in 2011, driven in part by events such as the Fukushima nuclear disaster in Japan and the political upheaval in North Africa and the Middle East.

There are a number of ways we can help to limit the impact of price rises and volatility for our customers.

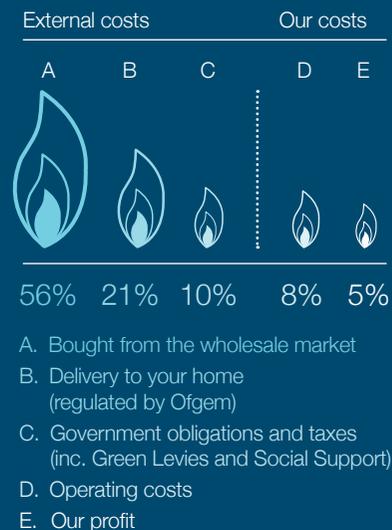
Like most energy companies, Centrica buys a significant proportion of its gas supplies in advance, usually around six months ahead, but in some cases up to two years. Known as ‘hedging’, this practice allows us to manage price volatility. While purchasing energy in advance can guarantee future supplies, the price can change on the day of delivery (known as the spot price). This means we can face a cost saving or increase, which may then be passed on to customers. However, a lag exists between increases or reductions in the wholesale market and corresponding changes to customer bills because the impact of wholesale changes isn’t realised until the energy is delivered.

While we are making our operations more efficient, and protecting customers from energy price volatility through hedging, one of the biggest contributions we can make to reducing energy bills is by helping customers cut the amount of energy they use through efficiency measures and smart energy management. This is discussed in more detail on page 24.

Electricity



Gas



Supporting vulnerable customers

The challenging economic environment, coupled with rising fuel prices, is affecting both residential and business customers. The most vulnerable are often the hardest hit, as energy costs account for a higher proportion of their income.

We remain committed to supporting those most at risk and offer a range of products and services tailored to support vulnerable customers.

In North America, deregulated markets mean prices are subject to variability at the national level for gas and the regional level for electricity. While gas prices have been relatively low since 2008, household electricity bills in the US have increased more than the rate of inflation for the past five years. In Texas and Alberta, the two regions where we have a direct relationship with our customers, when we see that customers may be exposed to peaks in costs, we proactively contact them to offer options to pay their bills over a period of time or to change the type of product they receive from us. This applies to our residential and small business customers.



In Texas, Direct Energy directly supports vulnerable customers through our Neighbor-to-Neighbor bill assistance programme, and made a \$431,871 contribution in 2011 – a 14% increase from 2010. The funds helped more than 5,900 customers in 2011 with grants of up to \$600. These are distributed through approximately 30 community organisations that assessed the level of need against the Texas Center for Public Policy Priorities' definition of poverty. Direct Energy customers are encouraged to help neighbours in need by donating to the bill assistance programme through their monthly bill.

In Alberta, vulnerable customer support is provided through governmental and non-government organisations, rather

than regulated energy companies. We have worked with these organisations to improve the communication of programmes to customers, and to enhance and streamline the processes that coordinate support. When we become aware of a vulnerable customer, we work with them to arrange flexible payment schemes.

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

In the UK, an estimated 5.5m households live in fuel poverty (defined by the UK Government as those that need to spend more than 10% of household income on fuel to adequately heat their homes). However, a new definition for fuel poverty is being considered by the Government, following recommendations from the Hills Report released in March 2012. The report is encouraging a definition that better considers the three main drivers of fuel poverty: income, energy price and the cost to heat the home (which could reflect poor energy efficiency).

British Gas' vulnerable customer initiatives benefited 1.7m* households in 2011, up from 1.6m in 2010. These initiatives

1.7m

In the UK, our vulnerable customer initiatives benefited 1.7m households (1.6m in 2010)

* Assured by Deloitte LLP for the 2011 CR Performance Review. See www.centrica.com/CRAssurance to view the assurance statement and Basis of Reporting.

included a discounted tariff, free debt and payment assistance, energy and household grants, free energy efficiency advice, products and services. In 2011, more than 340,000 customers continued

Warm Home Discount eligibility criteria

(Year 1: April 2011 – March 2012)

Core

- ▶ Targeted at very low income pensioners claiming a subset of pension credit. For the 2011/12 scheme the scheme was for Households in receipt of guarantee element of Pension Credit

Broader Households:

- ▶ On a very low income plus
 - over the age of 60, 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

to benefit from our Essentials social tariff but we closed new registrations to the tariff following the introduction of the UK Government's mandatory Warm Home Discount Scheme. Under the new scheme, UK energy suppliers are required to spend a combined £250m in 2011/12 (rising to £310m by 2014/15) to provide assistance with energy costs for vulnerable customers throughout England, Scotland and Wales via a one-off rebate payment (£120 in 2011/12).

The Warm Home Discount scheme separates eligible households into two groups – the 'Core' group and the 'Broader' group. Households in the Core group, which are identified as the most vulnerable, automatically receive the discount on their electricity bill without having to take any action.

Suppliers can set their own broader group qualifying criteria under Government Guidelines and British Gas has the widest in the industry, enabling us to support a greater number of households (see box to the left). We are the only supplier who committed to pay the Warm Home Discount for Year 1 to all customers who meet the eligibility criteria and applied before the end of January 2012.

We have provided more than 280,000 eligible British Gas customers with the £120 rebate for the 2011/12 winter period. This is considerably more than any UK

energy supplier and represents more than our equivalent market share of spend.

We are now transferring existing Essentials customers onto the new programme and identifying additional customers who fit within our broader group criteria. Essentials tariff customers will continue to benefit from their reduced tariff during 2012 until we transition them across to the Warm Home Discount, subject to eligibility.

Our other mandatory obligations include the UK Government's Carbon Emissions Reduction Target (CERT) and Community Energy Saving Programme (CESP), which support customers in reducing their energy costs through the installation of insulation and other energy efficiency measures. CERT requires suppliers such as British Gas to deliver carbon reductions by providing energy efficiency measures to households. In total, 40% of CERT savings must be delivered to 'priority' vulnerable and low-income households which includes 15% that must be delivered to a 'super priority' group identified as households considered to be at a high risk of fuel poverty. CESP is a similar energy efficiency scheme that helps vulnerable customers by targeting socially deprived areas. In 2011 our CESP programmes benefited more than 8,800 homes. (For more on CERT and CESP, see Low carbon, page 22).

.....
In 2011, the British Gas Energy Trust funded the establishment of 14 Energy Debt Advice Centres in collaboration with a range of advisory organisation partners across the UK
.....



On top of our participation in mandatory programmes, we support vulnerable customers through voluntary initiatives. In 2011, British Gas maintained its commitment to working in partnership with a number of organisations to address community fuel debt issues, and we are broadening the scope of our support to include energy efficiency measures, and to transition to a more local focus.

For example, we are working with Carers UK and RNIB to identify customers who would benefit from free loft and cavity wall insulation in their properties. This supports our CERT obligations for vulnerable customers, and particularly the ‘super priority’ group. British Gas has also taken steps to increase the level of support we offer to individuals and households in debt, in addition to regulatory requirements. We invested

£20m into the British Gas Energy Trust for 2011/12, and extended grant support for individuals and families to non-British Gas customers.

In 2011, the Trust funded the establishment of 14 Energy Debt Advice Centres through organisational grants, in collaboration with a range of advisory organisations across the UK. The Centres provide free face-to-face advice and support to both British Gas customers and the wider public struggling to pay energy and other household bills, as well as assistance in applying for grants from the British Gas Energy Trust. Four of the Centres are being managed by Citizens Advice Bureau (CAB), with the remaining Centres managed by other independent advisory organisations. British Gas has also funded 40 training courses through National Energy Action, which will train 600-800 community advisors on fuel debt and energy efficiency advice at a grassroots level.

British Gas is also supporting [CAB's Energy Best Deal](#), which will ensure that consumers and frontline staff who work with people at risk of fuel poverty have the knowledge to hand to make the right decisions about tariff choices, supplier choices, and energy efficiency measures. Helping customers make sure they are on the right tariff emerged as a clear priority through British Gas' Honest Conversation in 2011 (see page 13).

For business customers, British Gas' Small Business Advice and Expertise Service (SAVE) has helped more than 5,000 business customers reduce their debt by a total of £15m since its launch in 2010. The scheme responded to 17,000 enquiries in 2011 from small businesses seeking advice and support on keeping up with their energy bills, a 79% increase from 2010. It is managed by the British Gas Expert Credit Solutions Team that offers businesses financial and energy saving advice and can arrange extended repayment plans for businesses with large amounts of debt.

Helping customers manage energy costs

Reducing energy costs is a priority for all our customers, not just those considered to be vulnerable. The best way to manage energy costs is to use energy more efficiently.

We offer a range of products and services that help customers manage and reduce their energy use, including insulation and energy efficient appliances. British Gas customers who installed energy efficiency measures such as insulation and energy efficient boilers saw a 44% fall in gas use between 2006 and 2010, saving an average of £322 a year. A survey

“

I think it's always easier if you know that every time the bill comes in it's going to be right. So you don't have to worry about checking it and submitting a meter reading or anything like that.

David, 35
Birmingham

”

(xiii) Compares the usage from November 2008 through October 2009 with usage from December 2009 through November 2010.



of more than 100,000 customers using EnergySmart (see page 25) shows average gas use was cut by 3.6% and electricity consumption was down 4.1%^(viii).

We are building capacity to offer these solutions through our growing energy services business. Insulation is one of the most cost effective energy efficiency

improvements customers can make. We launched our insulation business in the UK in 2010, and in 2011 delivered more than 400,000 loft and cavity wall installations, doubling the number of installations in 2010 and helping us to meet our CERT obligation.

We are also increasing our smart metering and microgeneration capabilities. British Gas

is leading the introduction of smart meters that put customers in control of their energy use by showing them how much energy they consume and where they can cut down. Evidence shows that smart meters can increase customer interest in installing energy efficiency measures by showing how much they are spending on energy in real time.

In North America, where most markets lack mechanisms to encourage the introduction of energy efficiency and microgeneration technologies, Direct Energy offers a variety of energy tariffs to help customers manage costs. In the North East of the US, we introduced a new time of use product called 'Free Saturday', enabling customers to save money based on when they use energy. In Texas, many customers welcomed a prepaid product called Power-to-Go.

Demand-side management products, which help to manage the demand on the grid at peak times, are becoming more popular particularly among our business customers in North America. For more information, see Low carbon, page 25.

By helping customers reduce their energy use, we are helping them cut their carbon footprint as well as their costs.

.....
 We launched our insulation business in the UK in 2010, and in 2011 delivered more than 400,000 loft and cavity wall installations, doubling the number of installations in 2010 and helping us to meet our CERT obligation

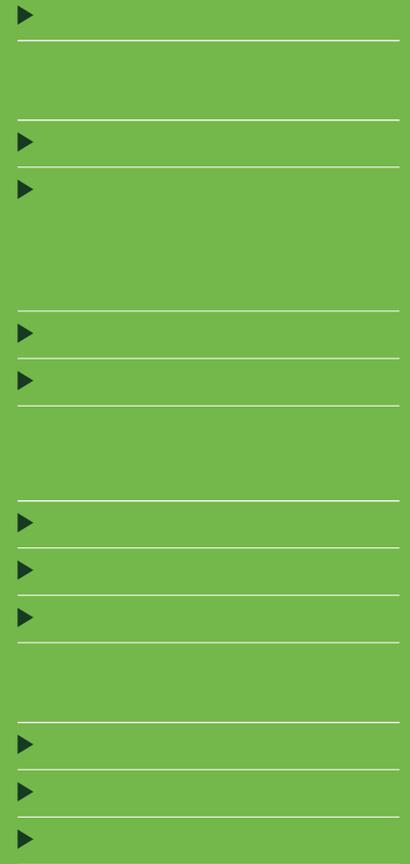
14.6%

Of the power we generated in 2011,
14.6% was from renewable sources

Low carbon

As an energy provider we have a big
role to play in decarbonising power
generation and helping to change
the way consumers use energy

Lynn and Inner Dowsing
Wind Farms, UK



Overview

Climate change is one of the biggest challenges facing the world. As an energy provider we have an important role to play in addressing this challenge by decarbonising power generation and helping to change the way consumers use energy.

We scaled up our solar business in 2011, installing solar panels in 2,377 homes which can collectively provide 12.8MW of power at peak capacity

British Gas is an industry leader in the installation of smart meters and has already fitted more than 80% (453,907) of the UK's total

In 2011, our absolute emissions fell to 7.7m tonnes CO₂e from 10.7m tonnes CO₂e in 2010, with the decrease attributable to putting four of eight gas-fired power stations into standby mode

There is still no agreement globally on reducing greenhouse gas emissions, despite some progress made at the United Nations climate change talks in Durban at the end of 2011. This means the onus is now on national and regional governments to devise their own regulatory frameworks. In North America, lowering carbon emissions is still not high on the agenda among governments or the public. The US remains the only signatory to the Kyoto Protocol not to have ratified it, and Canada announced its formal withdrawal from the Protocol in December 2011.

Government targets to cut greenhouse gas emissions have been set at the European and UK levels, and Centrica is committed to contributing to efforts to meet these targets. But tough economic conditions are making it harder for governments, industry and consumers to prioritise investment to address climate change in the face of austerity measures. We are one of a number of businesses seeking clarity from governments on the long term regulatory framework to help meet emissions targets.

In June 2011, for instance, Centrica was among 74 major European companies calling on the European Union to adopt a 30% emissions reduction target by 2020 based on 1990 levels. In Canada, Direct Energy was part of a coalition of energy companies and non-governmental organisations presenting a series of actions that government could

take on climate and energy policy. Direct Energy continued to work through organisations such as the Business Council for Sustainable Energy, the Alliance to Save Energy and the Energy Efficiency Coalition to encourage the US Government to support funding and tax credits for energy efficiency measures.

At the same time as governments continue to face these challenges, consumers' concerns about climate change are being pushed down their list of priorities as they struggle to balance household budgets. An Ipsos MORI poll found that the proportion of British adults viewing climate change as a priority declined by 16% between 2009 and 2011. A priority for us is to make sure customers realise that energy efficiency measures that cut carbon emissions also help to reduce their bills.

Despite these challenges, action is still needed to tackle climate change. To make any significant progress on climate change goals, a wide range of stakeholders must work together, and it is clear from opinion research that people look to companies such as Centrica to lead the way.

We are doing this in three ways: helping customers cut emissions from energy use, investing in producing energy from low carbon sources, and reducing our own

Government targets to cut greenhouse gas emissions have been set at the European and UK levels, and Centrica is committed to contributing to efforts to meet these targets



internal carbon footprint. Our efforts are mainly focused on the UK, where market and government support for low carbon measures is better established.

We are making good progress providing energy efficiency measures that help British Gas customers use less energy. Our carbon intensity is one of the lowest of the major power generators, we have invested more than £3bn over the last three years in lower carbon power

generation and currently have a number of offshore wind farm projects in the pipeline. We are also cutting emissions in our own operations, as well as identifying opportunities where further savings can be made.

Customer carbon

By far the largest proportion of carbon emissions from the energy industry comes from the gas and electricity used by consumers. Our [carbon map](#) shows

this and is available online. Helping our residential and business customers manage their energy use and providing opportunities for them to generate their own energy from renewable sources are among the most important ways we can contribute to a low carbon future.

In the UK, where most of our efforts on carbon reduction are focused, we concentrate on three areas: energy efficiency, microgeneration and smart technologies.

British Gas' team of almost 13,000 engineers is playing a critical role in making new technology and products available to our customers. In 2011, we recruited 941 additional people to train at our network of academies, supporting the rollout of our low carbon products and services. We plan to hire at least another 450 during 2012.

In North America, the market lacks mechanisms in certain states to encourage the introduction of solar and other microgeneration technologies. Incentives do exist for high efficiency air conditioners and furnaces, and Direct Energy is having success providing these products. Through the Clockwork Home Services acquisition, Direct Energy has also been able to expand the service of installing these types of equipment.

£3bn

We have invested more than £3bn in the last three years in lower carbon power generation



All these measures can help to keep bills down for customers, making energy more affordable both in the short and the long term (see Treating customers fairly, page 7).

Energy efficiency

Making improvements to energy efficiency is one of the most effective ways of reducing carbon emissions in the home and workplace. The three measures that make the biggest reductions in a customer’s gas use –

and related carbon emissions – are cavity wall insulation, energy efficient boilers, and loft insulation.

In 2011, British Gas was the first energy company to offer free insulation to our entire customer base and have now extended this offer still further to customers of our partner organisations. We are the only energy company to have invested in building our own insulation business, which now employs more than 1,000 people. In 2011, the insulation we delivered achieved carbon savings of 7.9m tonnes of CO₂ emissions.

British Gas energy efficiency installations

	2011		2010	
	Measures (millions)	CO ₂ savings (tonnes CO ₂)	Measures (millions)	CO ₂ savings (tonnes CO ₂)
Insulation	0.4	7.9	0.2	3.7
Energy efficiency products [†]	3.7	2.2	2.1	1.5
Energy efficient light bulbs	13.7	1.9	24.6	3.5
Other measures [‡]	5.7	2.6	17.1	6.9
TOTAL	23.5	14.6	44.0	15.6

CESP and CERT progress

	2011	2010
Tonnage of carbon delivered under CESP (cumulative) (million tonnes CO ₂)	1.4	0.45
Lifetime carbon savings – UK household energy efficiency products provided under CERT (million tonnes CO ₂)	14.6	15.6

The UK Government sees domestic and commercial energy efficiency as key to meeting its carbon reduction target of 80% on 1990 levels by 2050, and has regulated accordingly. The main domestic energy saving schemes are the Carbon Emissions Reduction Target (CERT) and the Community Energy Saving Programme (CESP).

CERT requires suppliers such as British Gas to deliver carbon reductions by providing energy efficiency measures to households – including insulation, boilers, energy efficient light bulbs, home appliances and energy saving devices. CESP is an obligation on UK power generators and energy suppliers to install energy efficiency measures in areas of severe social deprivation in partnership with

7.9m

In 2011, the insulation we delivered achieved carbon savings of 7.9m tonnes of CO₂ emissions

[†] Includes items such as energy (electricity) monitors, standby savers and water widgets.

[‡] Measures in this category include DIY loft insulation m², energy efficient glazing m², heat pumps, fuel switches, boilers, and home energy audits. CO₂ in this category is also derived from an undisclosed number of energy efficient domestic appliances, which would not have been brought to market without CERT funding.

local authorities and social housing providers. It takes a ‘community-by-community’ and ‘whole house’ approach, which means working to make an entire building or street more energy efficient rather than just a single property or apartment (see page 15 for more on support for vulnerable customers).

In 2011, we launched 45 CESP schemes across 40 low income areas, delivering 1.4m tonnes of equivalent carbon savings, achieving a 211% increase on 2010. Under CERT we provided household energy efficiency products with equivalent lifetime carbon savings of 14.6m tonnes in 2011, below our internal target of 16.3m tonnes. Having put considerable effort into building an insulation business and finding households suitable for insulation, we were disappointed to miss the target. However, we believe that industry CERT targets, extended to 31 December 2012, were set at unrealistic levels by the UK Government; a view reflected within the industry. Along with other suppliers, we are engaged in ongoing discussions with DECC, focused on delivering greater flexibility in how the obligations can be met.

We continue to grow our insulation business, having funded more than 410,000 domestic insulation jobs.

Future regulatory support for low carbon services in the UK

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 CESP and CERT are due expire at the end of December 2012 and the UK Government plans to replace them with the Green Deal and Energy Company Obligation (ECO). These programmes will provide us with further opportunities to engage the millions of homes that have yet to take advantage of energy efficiency measures.



The Green Deal will enable domestic and commercial customers to invest in energy efficiency improvements for no upfront outlay by spreading the cost of the measures over several years through instalments on their energy bills. In parallel, the ECO will provide additional support for solid wall insulation and investment to reduce energy bills for fuel poor households. British Gas has built a strong foundation in solid wall insulation

during 2011, following acquisition in December 2010 of external wall insulation experts ECL Contracts.

British Gas has been an early and lead proponent of the Green Deal. We launched our trial Green Deal programme – the Home Energy Plan – at the start of July 2011. The Home Energy Plan enables British Gas customers who pay by direct debit to take out low cost loans to invest in energy saving measures such as insulation and new boilers, or small scale renewable energy generation through, for example, solar PV. The loans are offered over five, 10 or 15 years, and the repayments must be less than the savings made.

By choosing to introduce the Green Deal early, we are helping to identify challenges and opportunities for the programme’s full scale implementation, and we are sharing our findings with the UK Government to support others taking similar measures.





Microgeneration

Microgeneration is the process of generating low carbon energy from relatively small-scale, and usually renewable sources. Proven methods include rooftop solar panels, air and ground source heat pumps and biomass boilers and we are expanding our ability to provide these solutions.

We scaled up our solar business in 2011, installing solar panels in 2,377 homes. We also performed larger scale projects such as an installation at Toyota’s Burnaston car plant. Collectively, we have put in place 12.8MW of solar PV capacity, compared with 428 installations in 2010 (1.8MW). In 2011, we paid a Feed-in-Tariff to around 20,000 of our customers.

Ground and air source heat pumps use energy from the ground and the air to provide heat to homes and businesses. They are expected to be a key part of the UK’s microgeneration sector by 2020. To position ourselves well for this growing market, we acquired the heat pump company Cool Planet in 2010. We grew its revenue from £500,000 in 2010 to £2m in 2011.

Small scale biomass boilers enable customers to generate their own heat from renewable sources rather than fossil fuels, reducing their impact on climate change. Anticipating an increase in demand following the launch of the Renewable Heat Incentive in 2011, we acquired the remaining stake in Econergy. As a leading biomass heating provider, Econergy enhances our ability to install biomass boilers in homes, businesses and commercial industries.

We believe that new technologies can play a significant role in decarbonising energy generation and we are supporting research

on their use. British Gas is one of the four lead partners in the Customer Led Network Revolution (CLNR), the UK’s biggest smart grid project. The three-year project was established in 2011 to assess 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. The CLNR is a £54m project that has received £27m funding from the £500m Low Carbon Network Fund, which was established by the UK energy regulator Ofgem to support the development of smart grid technology and assist in the creation of a low carbon economy.

Smart energy

Smart energy technologies are about making people more aware of their energy consumption. At the forefront of these

Microgeneration installations

	2011		2010	
	Installations (No.)	Generation capacity (MW)	Installations (No.)	Generation capacity (MW)
Solar PV	2,377	12.8	428	1.8
Heat pumps	326	2.25	N/A	N/A

2,377

We scaled up our solar business in 2011, installing solar panels in 2,377 homes which can collectively provide 12.8MW of power at peak capacity

technologies are smart meters, which provide real-time information on energy use to the customer. British Gas is an industry leader in the installation of smart meters and has already fitted more than 80% (453,907) of the UK's total. Our work so far indicates that having access to energy use information facilitates behaviour change among consumers, with 80% of our customers stating that smart meters have made them think differently about their energy use and 64% saying that they have undertaken energy efficiency improvements in their home since the smart meter installation.

Technology is developing rapidly, with new models of smart meters offering better functionality. To ensure that our meters continue to be at the forefront of this technology, we have adjusted our original target to install 2m smart meters down to 1.1m meters by the end of 2012. This reduced target will help us focus on delivering the latest technology and avoid installing large quantities of older models that may quickly become obsolete.

Smart meter installations

	Unit	2011	2010
Smart meters installed	Number of meters installed (cumulative since 2009)	453,907	260,351 [†]

[†] 2010 total restated as a result of an internal audit review of the installation data.

This does not reflect any changes in our commitment to deliver in this area.

Putting smart meters into every home and business will take years – the UK Government is targeting for this to be complete by 2019. So, for customers with traditional meters, British Gas has developed the EnergySmart package, which provides a free electricity monitor showing electricity consumption, costs and carbon emissions. Our survey in 2009/10 of more than 100,000 customers using EnergySmart has shown that the EnergySmart package can reduce energy use by as much as 12%. On average, users have cut gas use by 3.6% and electricity consumption by 4.1%^(xiv), which produces total carbon savings of approximately 163kg CO₂.

Additionally, British Gas has launched safety and security monitoring devices for customers' homes that are wirelessly connected to the internet, as well as 'SmartPlugs' that measure consumption and can be used to turn off lights and appliances remotely to save energy.

The market for electric vehicles continues to grow with manufacturers offering a range of electric cars and vans. British Gas is supporting the emergence of electric vehicles and is the preferred supplier of home and work charging stations for Nissan, Renault and Hitachi Capital. We're on track to be the largest installer of electric vehicle charging points in UK homes, supporting 70% of the domestic market in 2012.

While smart metering and energy management in the home are not yet widely taken up in North America, demand-side management products – those that help to manage the demand on the grid at peak times – are becoming more popular, particularly among our business customers. These provide customers with payment incentives for pledging to and actually reducing energy usage at peak times to decrease the stress on the grid. By providing these products, we have enabled customers to receive over \$3m in incentive payments, some of which has been used to fund internal energy monitoring infrastructure improvements and implement efficiency measures.

Lower carbon power

As an energy producer, we can play an important role in the move towards

163

On average, users cut gas use by 3.6% and electricity consumption by 4.1%, which produces a total carbon savings of approximately 163kg CO₂

^(xiv) When comparing usage from November 2008 through October 2009 with usage from December 2009 through November 2010.



a low carbon future by cutting carbon emissions from power generation.

Most electricity is generated by burning fossil fuels, one of the main contributors to climate change. Gas will remain part of the energy mix because of its relative low cost as a fuel source for power generation. It also emits less carbon than other fossil fuels and provides good flexibility for backing up more intermittent forms of generation such as wind.

A metric we use to measure the impact of renewable and nuclear generation on delivering lower carbon power is the amount of carbon avoided (see table below). This is a calculation that measures the difference between the carbon emitted from renewable or low carbon sources compared to what the emissions would have been had the electricity been purchased from third parties.

Carbon intensity

We measure progress towards our ambition to decarbonise energy production by monitoring the carbon intensity of the power we generate. Carbon intensity is measured in grammes of carbon dioxide emitted per kilowatt hour (g CO₂/kWh). This includes the carbon emissions from all our own generation facilities and through site-specific power purchase agreements we make with third parties.

In 2011, we reduced our Group carbon intensity by 21% to 220g CO₂/kWh (compared with 277g CO₂/kWh^(xv) in 2010). This decrease was strongly driven by UK carbon intensity performance, which showed a 28% reduction to 199g CO₂/kWh^(xvi) (compared with 277g CO₂/kWh in 2010). UK performance was due to the first full-year contribution of nuclear power from our 20% stake in EDF Energy Nuclear

CO₂ avoided through our renewable and low carbon generation

	Amount generated (GWh)		CO ₂ avoided [§] (million tonnes)	
	2011	2010	2011	2010
Renewables [†]	5,629	4,890	2,536,033	2,139,564
Nuclear	11,074 [‡]	6,717	4,977,708	2,924,801
TOTAL	16,703	11,607	7,513,741	5,064,365

7.5mt CO₂

Total CO₂ avoided through our renewable and low carbon generation

(xv) Restated to represent 2010 figure verified by EU ETS.

(xvi) EU ETS verified figure.

* Assured by Deloitte LLP for the 2011 CR Performance Review. See www.centrica.com/CRassurance to view the assurance statement and Basis of Reporting.

§ Carbon avoided is calculated using the 2010/2011 Fuel Mix Disclosure data.

† 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.

‡ This figure represents generation minus output lost during transmission. As such it differs from generation output on page 33.

Generation and the effect of placing four of our eight gas-fired stations into standby mode. For more information on our carbon intensity, see our [carbon intensity briefing note](#).

Because Centrica's power generation does not meet all our customer demand we have to purchase the difference on the wholesale energy market. While we know how much carbon is emitted by our own generation, to allow us to calculate our total carbon emissions accurately we need to know what type of generation has delivered the power that we have purchased on the wholesale market. This information is provided annually by the UK Government as 'fuel mix disclosure' figures. Analysis of our total fuel mix versus the UK average as reported in the Government's Fuel Mix Disclosure figures shows that for the financial year 2010/11 our fuel mix disclosure intensity was 338g CO₂/kWh (down from 416 in 2010) compared to a UK average of 450g CO₂/kWh. This places us second among the 'big six' energy suppliers.

Energy mix

Our portfolio of gas, nuclear and wind power works together to deliver a diverse range of energy sources while maintaining a reliable energy supply (see Energy supply, page 30). Of the power we generated in 2011 (including output

from our own generation and from site-specific offtake contracts), 14.6% was from renewable sources. In addition, 29% was from nuclear, resulting in a total of 43.4% produced from low carbon sources.

We already have a strong presence in offshore wind and are expanding our portfolio by building the 270MW Lincs offshore wind farm off the Lincolnshire coast. It is expected to produce first power later in 2012 and to be fully operational in 2013, providing electricity for 200,000 homes. We await consent decisions on two proposed projects at Race Bank and Docking Shoal, which if approved would provide enough power for 380,000 and 360,000 homes respectively. Of greatest significance is the potential from our Round 3 portfolio of projects in the Irish Sea Zone that we are co-developing with joint venture partner DONG Energy. Subject to consent and investment decisions, the zone may provide up to 4.2GW in capacity, sufficient to power up to three million homes.

Biomass presents new opportunities for us to build our renewable energy portfolio. We are exploring the potential for a new biomass power station in the UK and are committed to using sustainably sourced biomass (see Energy supply, page 30).

Our 20% stake in EDF Energy Nuclear Generation provides us with a 20% offtake

of EDF's nuclear power stations in the UK. We are also working with EDF on a joint venture in the UK in which we have the option to bring online a new generation of nuclear power stations (see Energy supply, page 30).

As a consistent source of power that can be turned on and off as needed, gas-fired power stations also provide the flexibility needed to back up renewable energy such as wind, which offers an intermittent supply.

Our Langage gas-fired power station, opened in 2010 near Plymouth, is one of the most efficient of its kind in the UK, thereby minimising associated emissions. Following a review of our remaining gas-fired power stations at the end of 2011, we announced in March 2012 the closure of our older and less efficient King's Lynn station.

Absolute emissions

We also measure our absolute emissions, which include emissions from our power generation. We have limited influence because we cannot simply cut power generation to reduce emissions since we have a responsibility to provide electricity for our customers. In 2011, our absolute emissions fell to 7.7m^(xvii) tonnes CO₂e from 10.7m^(xviii)

Our portfolio of gas, nuclear and wind power works together to deliver a diverse range of energy sources while maintaining a reliable energy supply

(xvii) This figure has been restated from the 2011 Annual Report and Accounts due to subsequent verification of the data.

(xviii) This is an updated figure to that reported previously and in the 2011 Annual Report and Accounts following subsequent validation carried out on data.

tonnes CO₂e in 2010, with the decrease attributable to putting four of eight gas-fired power stations into standby mode.

Both our business and our markets' energy demands are projected to grow, which is likely to increase our emissions in the future. However, we can, and do, work to improve the efficiency of our power stations and invest in more renewable sources (see Lower carbon power, page 25).

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

Managing our footprint

Although the biggest contributions we can make to tackling climate change are in helping customers reduce their carbon emissions and decarbonising electricity generation, we also aim to lead by example by cutting carbon emissions from our own operations. This also gives us an opportunity to engage our employees on sustainability and showcase new technologies.

In 2011, we developed a [carbon map](#) to show emissions across our business – and the level of influence we have over each part. This is helping us understand where our impacts are, and where we are best placed to reduce them.

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. This is different from our absolute emissions, which include emissions from our power stations, upstream oil and gas and downstream installation and servicing operations. We treat these two measurements separately because we can directly control our internal carbon footprint by changing how we act within the company. Our absolute emissions, however, are strongly driven by customer demand for energy which we aim to influence but do not control.

We are working hard to cut our internal carbon footprint by raising awareness among employees, making our offices more energy efficient, investing in lower carbon vehicles, and providing alternatives to business travel.

Across the Group, behavioural change is a key factor in reducing our internal carbon footprint, as many of the reductions depend on the activities of employees. We use a range of programmes to promote behavioural change, including training in 2011 for 758 drivers in fuel efficient driving techniques, offering financial incentives to encourage employees to choose less polluting vehicles, and providing videoconferencing technology to reduce the need for business travel.

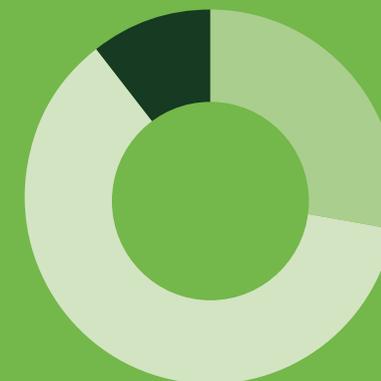
We also run campaigns to raise environmental awareness and encourage greener behaviours in our buildings.

Our Group target is to cut the annual carbon footprint of our 'core' business by 20% by the end of 2015 (from a 2007 baseline). In 2011, we achieved a 5% reduction year-on-year (equating to a 19% reduction against the baseline). Total carbon emissions from our office, fleet and travel were 95,234* tonnes. Our 2011 internal carbon footprint figures have been assured by Deloitte, as have those for the 2007 baseline year, providing a robust basis on which progress can be measured.

We set a carbon reduction target on our 'core' business so that we can monitor the effectiveness of our carbon reduction initiatives without the distorting effect of growth and mergers and acquisitions. See the [Basis of Reporting](#) for more information.

Managing emissions relating to our own operations is part of our overall environmental management, which covers a range of other impacts including water, waste and biodiversity. More information on these issues is available on our website under [Environmental practices](#). We report more than 60 environmental indicators in our online [data centre](#).

Breakdown of internal carbon footprint 2011



- Property 27.9%
- Fleet 61.7%
- Air and rail travel 10.4%

* Assured by Deloitte LLP for the 2011 CR Performance Review. See www.centrica.com/CRassurance to view the assurance statement and Basis of Reporting.

Property

Globally, we have reduced carbon emissions from the property portfolio of our core business by more than 35% since 2007. In 2011, we cut emissions from our main offices by more than 10% year-on-year. Initiatives that helped us achieve this include installing our first office biomass boiler in Manchester and installing one of the largest solar arrays in Scotland at our Edinburgh call centre. We also employed our expertise in energy efficiency to make further improvements in how we occupy and control our buildings.

We have set a target to reduce UK office emissions by a further 10% in 2012 by improving property management, making better use of building energy

management systems, and installing further microgeneration and efficiency measures along with our ongoing low carbon behavioural campaigns.

Fleet

In the UK, we continued to upgrade our fleet with more fuel efficient vans, achieving a 1% reduction in emissions from our core van fleet compared with 2010. In total, 2,279 commercial vans were exchanged for more efficient ones in 2011. We also began our first electric van trials in Leicestershire and intend to expand the trial further in 2012.

In North America, emissions in our core business fleet dropped by almost 8% during 2011, mainly due to a decline in operations related to the economic downturn. We have begun a trial of GPS tracking in new vans in

our Canadian markets, which allows us to monitor mileage and better manage travel.

Although we have reduced the carbon emissions from our core commercial fleet year-on-year, organic growth and acquisition have resulted in an overall increase in global fleet emissions of 22% (since 2007). We monitor and report these trends and apply the techniques used on our core fleet to systematically reduce the emissions from the incoming fleet where possible.

Business travel

We cut emissions from business company car travel in 2011 by more than 16% globally through various initiatives. However, air and rail travel increased by more than 16% due to a growth in business activity. As a result, emissions from our core business travel remained unchanged compared to last year.

In 2011, we introduced two Nissan Leafs complete with solar power canopies as pool cars at our Windsor and Staines offices in the UK. Employees can now use the electric vehicles for local travel. We also introduced electric cars as part of the company car scheme, and continued to install video and web conference equipment within our North America and UK operations to reduce the need for business travel, particularly by air.

10%

We have set a target to reduce UK office emissions by a further 10% in 2012 by improving property management, making better use of building energy management systems, and installing further microgeneration and efficiency measures along with our ongoing low carbon behavioural campaigns

Progress on our Group internal carbon footprint†

Property, fleet and travel (TCO ₂ e)	2011	2010
Property	26,589	29,658
Van Fleet	51,710	53,623
Car Fleet	7,032	8,425
Air	9,539	8,197
Rail	364	290
GLOBAL TOTAL	95,234*	100,193†

† See [Basis of Reporting](#) for scope.

‡ This is an updated figure to that reported previously, following subsequent validation carried out on data.

* Assured by Deloitte LLP for the 2011 CR Performance Review. See www.centrica.com/CRassurance to view the assurance statement and Basis of Reporting.

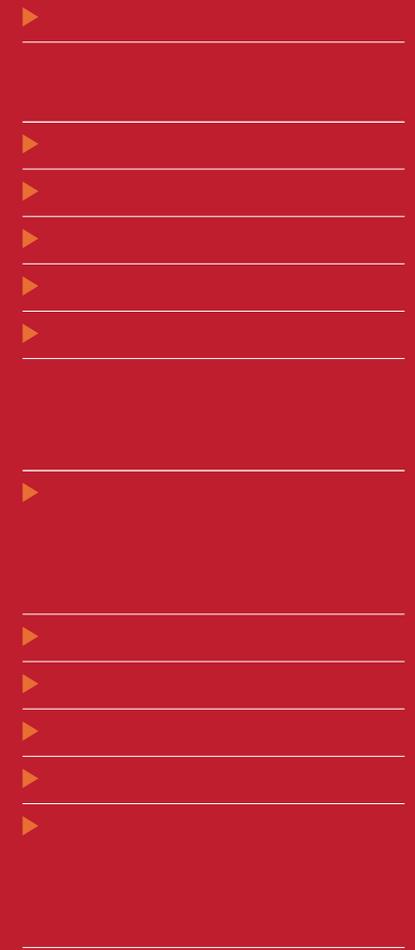
300%

Our aim is to increase our total offshore wind capacity by 300% to 560MW by 2016

Energy supply

Building a diverse portfolio of energy sources is critical to ensuring that we do not rely too much on any single source

Frontera Power Plant,
Texas, USA



Overview

Sourcing, generating and storing energy for millions of homes and businesses across the UK and North America is our core business. Consumers expect us to provide energy as and when they need it, and to do so in a responsible and sustainable way.

We acquired further assets in Alberta, Canada which will provide Direct Energy with an additional 45bn cubic feet equivalent of proven and probable gas reserves

We obtained our first full year of nuclear power generation through our 20% stake in EDF Energy's UK nuclear power stations

Centrica is a leading player in offshore wind farm development in the UK, with interests in three operational farms and a fourth under construction

Our commitment to supporting the move to lower carbon forms of generation and the need to maintain affordable energy prices must be balanced with our fundamental responsibility to provide a secure and reliable energy supply. Building a diverse portfolio of energy sources is critical to ensuring that we do not rely too much on any single source.

To do this, we are expanding our oil and gas exploration and production capabilities as well as securing liquefied natural gas (LNG) contracts from a number of countries. Similarly, we generate electricity from a range of sources. In the UK, our investment in nuclear generation is complementing our established network of gas-fired power stations. We are continuing to build offshore wind farms, and are exploring other renewable options such as biomass power generation.

Regulation can play a significant role in our ability to maintain energy supplies. Frequently changing regulatory frameworks create uncertainty around investment in renewable electricity and nuclear power. It is important that governments create clear regulatory environments that allow us to make long-term investments with certainty. We also seek stable tax regimes, because unanticipated changes reduce investor confidence and limit our investment and production capabilities. This was seen in March 2011 when the

UK Government enacted a new tax on oil and gas operations in the North Sea.

Wherever we source energy, we must make sure we minimise any environmental and social impacts that may arise. We have strong systems in place to do this, with community consultation playing a central role.

Energy security

Energy needs are different across our operating markets. In the US and Canada, where security of supply is a less pressing issue, the challenge is to capitalise on domestic energy reserves and to reduce reliance on foreign energy imports. In the UK, which has become a net importer of energy as North Sea gas reserves decline, the issue of energy security is more marked. Centrica and others in the energy sector must strengthen the country's energy infrastructure to ensure sufficient quantities of gas and electricity are available to meet future consumer demand. Stable regulatory frameworks are essential to attract the estimated £200bn of investment by 2020 that is required to do this.

Gas

As domestic UK gas supplies decline, we are exploring new overseas sources

Stable regulatory frameworks are essential to attract the estimated £200bn in long-term investment that is needed to meet future demand



and securing long-term deals to import LNG. In 2011 we expanded our reserves in Trinidad and Tobago. We also continued to develop long-term, stable trading relationships with major gas exporters, reaching agreements with Qatargas in Qatar and Statoil in Norway – the latter a 10 year deal that will begin in 2015 for 5bn cubic metres of gas a year.

Our oil and gas production in the North Sea progressed well in 2011. We extracted gas from two new wells and brought another field into full operation. Production outlook remains strong in 2012 and beyond. For more information on our production and exploration please see our 2011 [Annual Report and Accounts](#).

Our investment in gas storage in the UK is an important element of energy security,

allowing gas reserves to be stored during the summer months when demand is lower, and then to be drawn upon when demand increases in the winter. Our gas storage facility at Rough, off the east coast of England, provides more than 70% of UK storage capacity. Further storage capacity is needed as the UK continues to import a greater proportion of its gas requirements. Our commitment to develop new storage facilities remains, despite our decision to terminate our Bains storage project following poor results from seismic studies. We continue to assess our Baird and Caythorpe projects subject to improvement in market conditions.

In North America, further gas assets were acquired in Alberta, Canada in 2011. These will provide Direct Energy with an additional 45bn cubic feet equivalent of proven and probable reserves – an increase of approximately 8%.

Electricity

Many of the UK's coal and nuclear power stations are approaching the end of their operating lives, with more than 30% of capacity due to come offline by 2015. At a time when many UK companies are reluctant to invest because of economic uncertainty, we are taking a lead by deploying our capital – more than £300m in 2011 alone – to generate growth, invest in energy infrastructure, create jobs and provide a healthy return to our shareholders.

Centrica is investing significantly in nuclear power (through our 20% stake in EDF Energy Nuclear Generation) and renewable energy sources such as wind and biomass. Nuclear provides a stable baseload, but wind power is intermittent. Our gas-fired power stations play an important role in providing flexible back up for dips in wind power and surges in demand. We do not own or operate coal power stations. This combination provides greater energy security for the future and helps to decarbonise our power generation (see Lower carbon power, page 25).

Wind

Centrica is a leading player in offshore wind farm development in the UK, with interests in three operational farms and a fourth under construction. We also have interests in two onshore wind farms in Scotland.

Offshore construction at our Lincs wind farm, five miles off the Lincolnshire coastline, began in March 2011. More than half of the foundations were in place by the end of 2011. We expect it to deliver the first power (135MW) in the second half of 2012 and to be fully operational in the first half of 2013, delivering 270MW, enough for 200,000 homes.

We also have two proposed wind farms awaiting planning consent off the coast

30%

Many of the UK's coal and nuclear power stations are approaching the end of their operating lives, with more than 30% of capacity due to come offline by 2015

of Norfolk, at Race Bank and Docking Shoal. If approved, these would provide enough power for 380,000 and 360,000 homes respectively.

Centrica was awarded the rights in 2010 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 have been carrying out research and stakeholder consultations to identify areas within the zone that may be suitable for offshore wind farm development. We will then draw up plans for wind farm projects which will be subject to environmental impact assessments and planning consent.

Our aim is to increase our total offshore wind capacity by 300% to 560MW by 2016.

Nuclear

We see nuclear as an important part of the energy mix, as it provides a stable, low carbon source of baseload power to support the more intermittent power generation from renewables. In 2011, we obtained our first full year of nuclear power generation through our 20% stake in EDF Energy's UK nuclear power stations. In 2011, we sourced 11,157GWh of nuclear power – 29% of our total Group generation based on an offtake and power purchase basis.



Courtesy of British Energy (part of EDF Energy)

The joint venture with EDF Energy also gives us the option to secure 20% of the electricity from the next generation of new nuclear power stations. Together with EDF Energy, we have the option, subject to the appropriate permissions and economic case, to build up to four new reactors in the UK – two at Hinkley Point in Somerset and two at Sizewell in Suffolk. Collectively, these will provide electricity for more than 10m homes, while helping to reduce carbon emissions from power generation.

In July 2011, West Somerset District Council approved preparatory works at Hinkley Point C subject to finalisation of the Section 106 Agreement and conditions. In November, the Infrastructure Planning Commission, the independent body that examines applications for nationally significant infrastructure projects, accepted the Hinkley Point C main planning application for examination. For further

information on EDF Energy's new nuclear power stations, visit www.edfenergy.com/about-us/energy-generation/new-nuclear.

Biomass

As a renewable source of power, biomass can play a useful role in diversifying energy supply, although the associated environmental impacts must be managed responsibly (see page 35). Centrica is seeking consent to build and operate a power station fuelled by renewable biomass on the site of our existing gas-fired Roosecote power station at Barrow-in-Furness in Cumbria. Subject to a successful application and an investment decision, construction will begin in 2013, with the plant expected to be fully operational in 2016. It would produce up to 80MW of electricity, providing enough power for 125,000 households. We held the first informal consultation on this development in November 2011 and aim to submit a planning application for consent and begin more formal consultations in 2012. For more information visit www.centrica.com/roosecotebiomass.

Managing social and environmental impacts

We need to manage the social and environmental impacts that can arise from supplying energy. New forms of energy,

Breakdown of Group power generation[†]



- Gas as % of total Group generation **56.6%**
- Renewable as % of total Group generation **14.6%**
- Nuclear as % of total Group generation **28.8%**

[†] Based on our generation and site specific offtake

such as shale gas and biomass, present opportunities for improving energy security and moving towards a lower carbon future, but also raise significant concerns if operations are not planned or conducted in a responsible and sustainable manner.

Managing these risks is critical to protecting the environment, our reputation, retaining our licence to operate, developing new business, and earning the trust of people in surrounding communities. We work hard to ensure that our gas production and power generation activities are carefully planned and managed to avoid adverse impacts on the environment or human health, and to ensure they do not impinge on the human rights of local communities connected to our operations and our [supply chain](#).

We assess the social, ethical and environmental impacts of projects or acquisitions at their early stages, and engage with stakeholders to understand any potential impacts. Regular dialogue with local communities is essential to demonstrate that we are listening and responding to their concerns, particularly when we are constructing infrastructure such as power stations and wind farms, or exploring for gas. Through such engagement we seek to address any negative impacts our operations may have – and make the most of the benefits.

Assessing the implications of the Fukushima disaster for nuclear power

In March 2011 the Fukushima nuclear power station in Japan was hit by an earthquake and then a tsunami, which disabled emergency generators required to cool its reactors and led to meltdowns of reactors. This raised wide-ranging questions about the potential environmental and social impacts of the nuclear industry.

A report by HM Chief Inspector of Nuclear Installations, Dr Mike Weightman, was commissioned to assess potential implications for nuclear power generation in the UK. The report gave a clear endorsement of the safety culture and current performance of the nuclear industry in the UK, concluding that the UK nuclear power industry had reacted ‘responsibly and appropriately’ to the events in Japan, ‘displaying a leadership for safety and a strong safety culture’.

The Weightman report underlines the principle of ‘continuous improvement’,

which means that no matter how high the standards of nuclear design and subsequent operation are, the quest for improvement should never stop. Centrica agrees with that principle.

We are reassured by the report’s conclusion that nuclear power stations in the UK are safe and well protected, and that the need for new ones has not changed. With our partner EDF Energy, we have welcomed the report and have pledged to implement its 38 recommendations as we have the option to build four new reactors in the UK.

“

The quest for improvements to the standards for the design of nuclear facilities and their operation must never stop. Seeking to learn from events, and from new knowledge and experience, both nationally and internationally, must continue to be a fundamental feature of the culture of the UK nuclear safety system, both for operators and regulators.

Dr Mike Weightman, in a letter to Rt Hon Chris Huhne, Secretary of State for Energy and Climate Change

”



Wind

We are consulting with coastal communities that might be affected by our work to develop offshore wind farms in the UK. Our discussions with environmental organisations in 2011 led us to take steps to minimise potential damage to sensitive areas (see feature on the following page). We engaged further with stakeholders in 2011 regarding our proposed wind farms at Race Bank and Docking Shoal to assess the potential impact on local and migratory bird populations.

For potential developments in the Irish Sea Zone, our consultation is focused on Anglesey, parts of the North Wales coast and the Isle of Man – areas within a 35km radius of the zone. We will also be carrying out some consultation outside these areas as appropriate.

Part of the consultation has involved a series of nine public information days to give local people an opportunity to meet Centrica representatives and for us to explain and discuss our strategy in more detail. We will consult on the first wind farm in the zone to be taken through the consenting process throughout 2012 and 2013, before we submit any application to the National Infrastructure Directorate, which replaces the Infrastructure Planning Commission in April 2012. We will also consult about the associated onshore infrastructure.

Nuclear

Although we do not directly operate any nuclear facilities, we choose to report the waste and spent fuel which is produced as a result of our joint venture with EDF Energy. The data is available in our online [data centre](#).

All of EDF Energy Nuclear Generation's UK power stations are granted authorisations to dispose of radioactive waste by either the Environment Agency or the Scottish Environment Protection Agency. These authorisations require the recording of amounts of waste sent off-site each year. Nuclear waste is treated in a number of ways to reduce volumes before being disposed of, incinerated or, in the case of some metals, sent for recycling at specialist facilities in the UK. More information on the different types of nuclear waste and spent fuel is provided in the [Environmental practices](#) section of our website.

Gas

Apart from greenhouse gas emissions associated with gas use, its extraction and storage can have other, more local environmental impacts that we must manage. In April 2011, a tank was over-filled at our North Morecambe Gas Terminal in the UK, resulting in approximately two cubic metres of liquid being discharged into the containment bund. No liquid escaped onto the ground, but as the liquid contained odorous condensate, there were complaints from local residents

about the smell. The incident was fully investigated, and improvements have been implemented to prevent a reoccurrence of this type of incident on site.

We continue to monitor developments in shale gas as its production expands in North America. Some reports have highlighted potential social and environmental risks associated with the process used to extract shale gas. Centrica is not currently involved in the extraction of shale gas. Should we decide to invest in extracting shale gas at a later stage, we will apply the same rigour to managing and minimising the adverse impacts as we do with all other areas of our operations.

Biomass

The use of biomass as a fuel at power stations offers a real opportunity to reduce the reliance on fossil fuels in electricity generation. The large amount of biomass needed to fuel power stations raises concerns about potentially damaging social and environmental impacts. However, it is possible to source enough biomass in a sustainable manner using recognised, international forestry certifications and complying with the UK Government's biomass sustainability criteria. We are committed to only undertaking biomass projects that can be carried out sustainably, and are working with a range of stakeholders to achieve this.

.....
The use of biomass as a fuel at power stations offers real opportunity to reduce the reliance on fossil fuels in electricity generation
.....

Protecting salt marsh through responsible cable laying

Laying cables to bring power from our offshore Lincs wind farm to land on the east coast of England posed a challenge after attempts to use a drilling technique under the sea defences were unsuccessful in 2010.

Much of the terrain the cables would cross was made up of environmentally sensitive salt marsh as well as intertidal land. After consultation and discussion, we agreed with Natural England to use specialised trenching equipment to install cables under the protected salt marsh and a sea defence.

During the summer of 2011, we commissioned a specially designed trenching machine to minimise the impact of cable installation activities on the salt marsh. The trenching machine has large

tracks that exert low ground pressure. The first cable was buried several metres beneath the seabed to a point 8km from the shore, where it can be connected to one of two cables coming from the wind farm.

Subject to final consents from the relevant authorities, we plan to lay a second cable across the area in the early summer of 2012, applying what we have learned during the first installation. A plan has also been agreed to monitor the immediate and longer term impact, and to study the recovery of the salt marsh over the coming years.



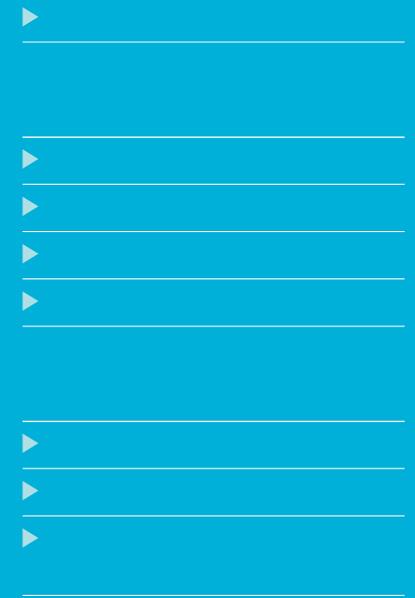
0.25

In 2011, we improved our lost time injury rate (LTIR) per 100,000 hours worked to 0.25

People and safety

We aim to build a culture where our employees are empowered and able to flourish, and where safety and wellbeing are engrained

Centrica employee at
Venture House, Staines, UK



Overview

Our people, how we treat them, how we help them develop and their safety, are essential to Centrica being a successful and trusted company.

British Gas engineering academies delivered 165,000 training days in 2011, of which the majority (71%) related to servicing and repairs

Our Employee Assistance Programme's life management service, which includes access to finance, legal and consumer advice, increased from 5% in 2010 to 22% in 2011

People

How our employees feel at work, and the trust they place in the company, is reflected in their interactions with stakeholders. We aim to build a culture where our employees are empowered and able to flourish, and where safety and wellbeing are engrained.

Leadership development

We need strong leaders to drive our business success. Our Talent Boards are designed to help us identify high potential managers and, through our leadership development programmes and master classes, we provide opportunities for them to develop their skills and capabilities. In 2011, nearly 150 high potential managers took advantage of these opportunities. We also look to move our highest potential managers around our businesses and geographies to give them stretching experiences with a view to improving the breadth of their leadership capabilities and the organisation's depth of talent.

To support our Group-wide emphasis on building trust, in 2011 our leadership development programmes focused on equipping leaders with the skills they need to establish and embed the right culture across the business. Centrica Energy used a series of experience workshops, facilitated by experts in neuroscience and motivation, to help their leaders deliver the required behaviours within

their teams. Direct Energy introduced 'Taking Charge of my Development', a guidance programme that advises employees on how to navigate their careers. British Gas' senior managers were encouraged through our Inspiring Leaders Programme to look at the cultural climate they set as leaders and how this can support delivery of the business' strategic objectives.

Training and development

We operate in a rapidly changing market, which means we must help our employees develop the skills to thrive in new environments. We need to make sure that the people we recruit – as well as those who have been with us for much longer – are continually updating their skills and knowledge. This not only allows us to deliver a high level of support for our customers, but also increases innovation within the business.

The services we provide, such as installing or maintaining heating, electricity, plumbing or upgrading meters, requires specific technical knowledge. Across the UK, British Gas' network of engineering academies provides opportunities to learn the technical skills necessary to become one of a range of insulation technicians. We invested £21m in our six training academies, which helped to deliver 165,000 training days to our 1441

Our Talent Boards are designed to help us identify high potential managers and, through our leadership development programmes and master classes, we provide opportunities for them to develop their skills and capabilities

apprentice and trainee engineers in 2011. The majority (71%) of this training was related to servicing and repairs.

Additionally, in 2011, 6,896 training days were delivered to 1,929 people at our Green Skills Centre in Tredgar, Wales. The centre is designed to give people from the local area, where there are high levels of unemployment, the skills required to make Britain's homes more energy efficient.

The technical capability of people in Centrica Energy is increasingly important. Frameworks have been established to help them benchmark their performance against best practice and to identify areas for development. Centrica Energy combines this with its focus on supporting the development of managers to create



the right working environment to encourage high performance in their teams.

In North America, Direct Energy delivered more than 22,700 hours of training, including safety and technical courses, and leadership and development programmes. In 2011, Direct Energy created a one-day training course for service technicians and residential call centre teams to help them better understand the company's culture and how it relates to providing high quality services to customers. This new course will be offered to employees in 2012.

Engagement

We want our employees to be engaged and motivated at work. This helps make our business more efficient, improves productivity, keeps costs down through lower attrition rates, and helps to make Centrica an employer of choice for new talent.

We engage with employees through a variety of channels to gauge how we are doing and to ensure we address any concerns. Direct Energy carried out an engagement survey in 2011, seeing an improvement in engagement from 2010. In the UK, British Gas' Honest Conversation campaign encouraged employees and customers to provide feedback on services and operations, while Centrica Energy has embedded the three values of The CE Way – high performance, pioneering

spirit and safety – and in 2012 will continue this focus to drive performance within their teams. These activities will help us understand our employees' concerns and experiences, enabling us to fine tune the development and rollout of an engaging and productive culture.

In 2011, we did not conduct a Group-wide employee survey, opting to undertake local temperature check surveys by department while we took the opportunity to take stock of how we measure engagement. The outputs of this exercise are being used to inform how we measure engagement in 2012 and beyond. From 2012 to 2014, employee engagement will be one of the non-financial key performance indicators in our senior managers' Long Term Incentive Scheme. More information is available in the Remuneration Report in our 2011 [Annual Report and Accounts](#).

Employee numbers

In 2011, we conducted a thorough review of our business to make sure we are organised in the most effective and efficient way. Primarily as a result of this review, there were 768 redundancies across the business in 2011.

However, Centrica continues to grow and during 2011 we created new jobs and opportunities, adding about 3,500

22,700

In North America, Direct Energy delivered more than 22,700 hours of training, including safety and technical courses, and leadership and development programmes



new roles in the UK. In 2011, we had an average of 39,432 people working at Centrica. This was up from 34,969 in 2010, primarily driven by new business growth in British Gas as it leads the provision of residential and business energy and services. Our employee numbers also grew in 2011 with the acquisitions of two energy retailers in the United States – First Choice Power in Texas and Gateway based in New York.

We continued our graduate and apprenticeship programmes to reach

talented young people who are increasingly struggling to find employment. British Gas hired 244 apprentice engineers and 697 trainee engineers across business areas in 2011, a total of 941 new hires. We also launched a new IT apprenticeship programme for 30 people. We increased our recruitment of graduates in the UK from 49 in 2009 to 72 in 2011, and were the highest climber in the 2011 Times Top 100 Graduate Employers list. Direct Energy recruited an additional 12 graduates in North America. Working for two to three years in a range of positions across our business, this pool of graduate talent will contribute to the continued success of our business in future.

The employee retention rate across the Group remained almost constant during 2011 at 89.5*%, compared with 89.9% in 2010.

For more information on employees, including other aspects such as diversity, visit our [data centre](#) and the [People section](#) of our website.

Safety

Our operations are inherently hazardous and we fully accept our responsibility to protect the health and safety of employees, contractors, customers and the wider public. Safety risks range from slips, trips and falls and road safety incidents in our customer-facing businesses to

the risk of a major incident at our oil and gas and power-generation facilities. We actively encourage a safety culture that goes beyond putting robust processes and procedures in place: we want to empower everyone to take responsibility for their safety and the safety of those around them.

Despite our best efforts in rolling out our safety management system including audits, gap analyses and roadmaps, incidents do occur.

We expanded our reporting scope in 2011, incorporating safety performance for our third-party managed activities that are not directly controlled by Centrica. This was part of our ongoing work to ensure a robust and best practice safety management system.

In 2011, we continued to improve our lost time injury rate (LTIR) per 100,000 hours worked to 0.25*†. The graph (right) shows our LTIR trend since 2005. Our total recordable injury rate was 1.66** per 100,000 hours worked in 2011, down from 2.13 the previous year. The majority of incidents involve engineers in our field-based customer service operations as a result of driving or injuries while working at customers' properties. There were no fatal incidents* involving Centrica employees in 2011.

Lost time injuries

Total (per 100,000 hours worked)



† 2011 figure includes third-party managed contractors for the first time and is not directly comparable with 2010 data.

† 2010 figure has been restated to include Clockwork Home Services data on a proforma basis.

* Assured by Deloitte LLP for the 2011 CR Performance Review. See www.centrica.com/CRassurance to view the assurance statement and Basis of Reporting.

Very regrettably, in the US a member of the public was killed in a road incident involving one of our employees.

LTIR is a Board level key performance indicator and is reported in our [Annual Report and Accounts](#). The metric forms part of the business' non-financial performance measurement within the Long Term Incentive Scheme remuneration package.

More safety data is available in our online data centre at www.centrica.com/datacentre.



Road accidents are a significant risk for British Gas and Direct Energy engineers who regularly drive to support our customers. In 2011, we recorded an incident rate of 7.5* per one million kilometres driven for low severity incidents. 10 high severity incidents* occurred. We prioritise driver training for high mileage employees, new drivers, those changing vehicle type and other high-risk drivers.

In 2011, we prohibited the use of hands-free mobile phones during business activities Group-wide. An e-learning programme called Safe Driving Plus was also introduced for office-based employees to promote safer driving for commuting and personal purposes. Direct Energy also introduced a more stringent Road Risk Policy in 2011, along with a new training programme for those who drive on business.

To view more safety metrics, visit our [data centre](#).

Managing major hazards

The management of major hazards – process safety – remains at the core of Centrica's oil, gas and power operations. In 2011 we had two significant process safety incidents: a tank overflowed at the Barrow onshore gas processing terminal, resulting in odour complaints from members of the public; and a well servicing mast blew over in high winds on the Millom West platform

in the East Irish Sea. No injuries resulted from either incident.

High-profile incidents such as the blowout on the Deepwater Horizon drilling rig in the Gulf of Mexico have put the spotlight on process safety. Following the release of the final investigation report into Deepwater Horizon in September 2011, Centrica further reviewed and strengthened the improvements made in 2010. This was backed up by an independent audit of progress against committed actions. Through the Oil Spill Prevention and Response Advisory Group, Centrica has been an active participant in the UK oil and gas industry's response to Deepwater Horizon. At Direct Energy we formed a Safety Risk Management Committee that reviews safety risk profiles and significant learning events.

A key component of Centrica's process safety strategy is to equip people working in our oil, gas and power businesses with the knowledge and skills to manage major hazards. In 2011, we delivered training courses to more than 250 frontline operators, technicians, engineers, managers and directors. This included training at the specialist Spadeadam facility in Cumbria, UK, where participants witnessed large scale demonstrations of fires and explosions to reinforce how to prevent and mitigate such hazards.

250

In 2011, we delivered training courses to more than 250 frontline operators, technicians, engineers, managers and directors

* Assured by Deloitte LLP for the 2011 CR Performance Review. See www.centrica.com/CRassurance to view the assurance statement and Basis of Reporting.

Nuclear safety

The tragedy of the tsunami in Japan and the subsequent nuclear disaster at Fukushima, in March 2011, was a significant test of the industry’s ability to deal with a crisis; a reminder that we can never be complacent about health, safety and the environment.

Centrica holds a 20% stake in EDF Energy Nuclear Generation. While we do not operate any nuclear facilities, we have a responsibility as a minority shareholder and as a member of the board of EDF Energy Nuclear Generation to monitor and oversee safety performance.

Following the events at Fukushima, the joint venture conducted detailed ‘stress tests’ of the shared assets as required by the European regulator in order to ensure the ongoing safety of their operation. The UK Government also published the Weightman report, endorsing the safety culture and current performance of the UK nuclear industry. We welcomed the report and have pledged with our partner EDF to implement the 38 recommendations.

For more detailed information, visit EDF Energy’s website at www.edfenergy.com/about-us/energy-generation/nuclear-generation. For nuclear energy metrics, visit our [data centre](#).

Health and wellbeing

We aim to promote the wellbeing of our employees and help to ensure their long-term health. Creating and supporting a healthy, flourishing workforce increases productivity, reduces absenteeism and promotes Centrica as a great place to work. This is an important factor in engaging and motivating employees so they can help us improve our relationship with customers.



A priority in 2011 was to encourage employees to become more aware of the impact that health and wellbeing can have on their performance, and to take the initiative to manage this themselves. We continued to focus on three key areas: helping employees manage their health and wellbeing through health assessments, workshops and practical advice (‘Be Well’); managing the health risks that employees face, and preventing problems escalating into illness or absence (‘Stay well’); and, when employees do become unwell, helping them get back on their feet and back to work (‘Get well’). The Group-wide absence rate decreased to 5.6* days per

full time equivalent employee in 2011 from 6.8 in 2010.

We created a Group standard for health surveillance and monitoring in 2011. Our Employee Assistance Programme (EAP), which offers employees help with personal problems that might adversely impact their work performance, health and wellbeing, was used by 9% of employees in 2011. This was similar to 2010 utilisation of 8.35%. However, the EAP’s life management service that includes access to finance, legal and consumer advice increased significantly from 5% in 2010 to 22% in 2011. This was due to a strong communications programme following the introduction of our new EAP supplier.

In 2012, management of the Group’s health and wellbeing programme will be transferred to individual business units to enable us to provide more tailored support for employees’ different needs and priorities.

For more on health and wellbeing, visit the [Health and wellbeing](#) section of our website.

Plans for 2012 at each business include:

- ▶ Centrica Energy: introducing an occupational health management system, health surveillance programme, lifestyle screening and ‘fitness to work’ assessments for high-risk roles
- ▶ British Gas: implementing wellbeing programmes focusing on areas such as nutrition and diet, money and debt support, smoking, men’s health, sleep, and reducing alcohol intake
- ▶ Direct Energy: focusing on increasing the number of employees who see wellness as a priority in the business by improving the Tri Fit initiative, which encourages employees to be more active

* Assured by Deloitte LLP for the 2011 CR Performance Review. See www.centrica.com/CRassurance to view the assurance statement and Basis of Reporting.



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