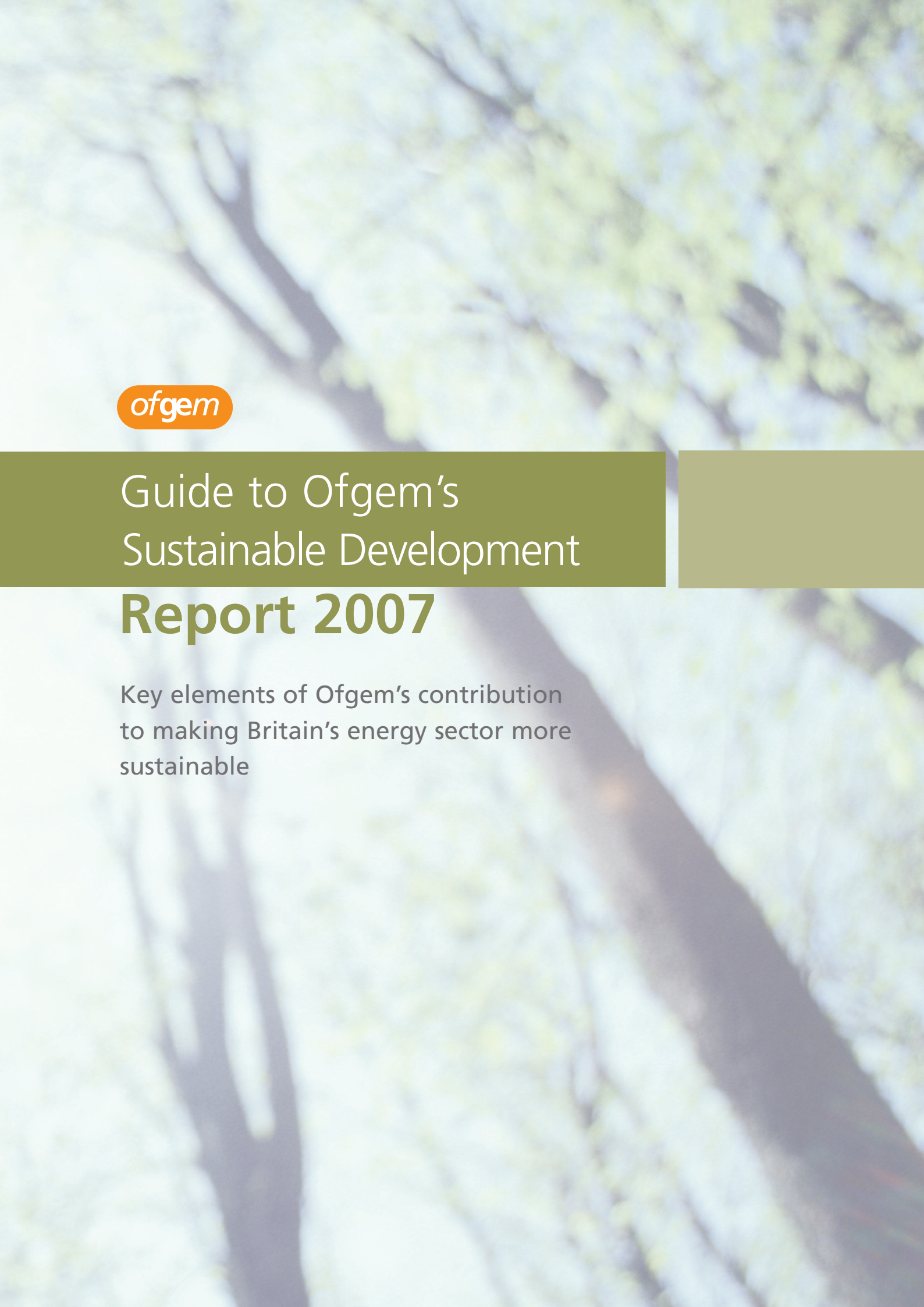


ofgem

Guide to Ofgem's Sustainable Development Report 2007

Key elements of Ofgem's contribution to making Britain's energy sector more sustainable


Access to choice, access to markets

Dealing with the impacts of climate change is high on the priority lists of governments and individuals worldwide. At the heart of policies adopted to tackle climate change are means to stem the output of carbon dioxide and other greenhouse gases. The energy sector is a significant contributor to the production of those gases.

So the energy industry has a key part to play in tackling climate change, but there is also a need to ensure that energy supply is secure, reliable and competitive, as well as being affordable. This combination of environmental, social and economic elements is the foundation of sustainability.

Ofgem is working to influence the pace and direction of sustainable development in Britain's energy sector. In our latest Sustainable Development report we detail how we have worked and will work with the energy industry to influence its contribution to the important goal of reducing greenhouse gas emissions.

We have kept up our dialogue with stakeholders to improve our understanding of their perspectives when we take decisions or advise Government and others. And we will continue to administer the various government schemes that aim to promote renewables, combined heat and power and energy efficiency and to provide advice to the Government on the future development of these schemes based on our experience in administering them.

We can help contribute to sustainability through our work to protect today's and tomorrow's energy customers' interests by promoting markets and regulating network monopolies.

This combination of access to choice for consumers and access to markets for producers is at the core of Ofgem's contribution to sustainable development

Ofgem themes

The matrix of issues that make up sustainable development is reflected in the way Ofgem categorises its work in the sector.

We address the sustainability challenge under five themes:

- Managing the transition to a low-carbon economy
- Eradicating fuel poverty and protecting vulnerable customers
- Promoting energy saving
- Ensuring a secure and reliable gas and electricity supply
- Supporting improved environmental performance

Managing the transition to a low-carbon economy

The gas and electricity industries form the single largest contributor to UK carbon dioxide emissions. 44 per cent of total greenhouse gas emissions in the UK are from the gas and electricity sector with 32 per cent of carbon dioxide emissions coming from power stations.

In this year's SD report, we show how last year carbon dioxide emissions from the energy sector rose as high gas prices led electricity generators to switch from using gas to coal which was cheaper but emits more carbon dioxide.

Clearly to hit Government-proposed targets of reducing UK carbon dioxide emissions as part of a wider European level reduction in greenhouse gas emissions of 20 per cent by 2020, is going to need a significant increase in emission reductions.

This will hinge upon growth in renewable generation and other low-carbon technologies, a decrease in the use of coal and other fossil fuels, as well as much more efficient energy use which are all assisted by Ofgem's decisions on rules governing the energy markets and its regulation of energy networks.

Beyond that we have advised Government and the European Commission in their policy decisions on climate change. And we administer and advise on a number of the schemes established by the Government to promote low-carbon technologies and energy efficiency including the Renewable Obligation, which requires suppliers to take an annually increasing percentage of their electricity from renewable generation.

Emissions trading

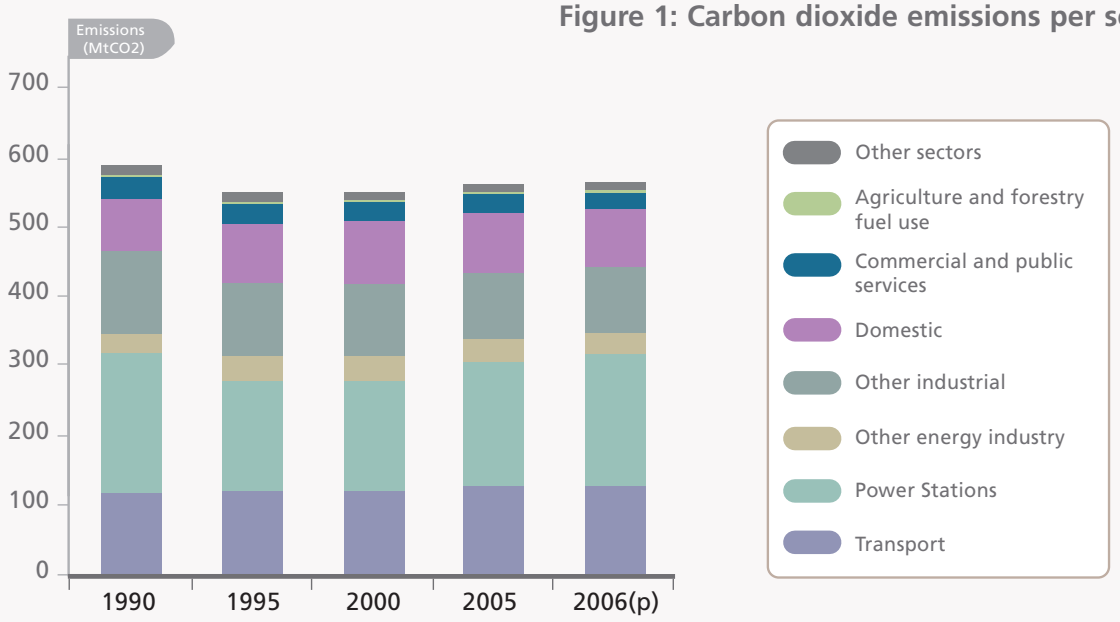
Since 2005 a market price has been put on carbon dioxide under the EU emissions trading scheme, which includes large industrial customers and electricity generators. Participants in the scheme get allowances to emit carbon dioxide which can be traded so those whose emissions exceed their allowances can buy from those who have surplus allowances.

This will provide incentives to reduce the use of high-carbon fuels like coal and to encourage a switch towards low-carbon technologies. But we have shown, in this year's SD report, the scheme has lacked impact because too many allowances were issued and were given away free.

We have made our views clear that there has to be tougher, long-term targets for emission reduction and full auctioning and pass-through of costs to end customers to create the strongest incentives for the energy industry to reduce carbon dioxide production and for users to reduce energy consumption.

In developing new environmental programmes it is important that the implications for fuel poverty are considered. Auctioning of EU ETS allowances could provide a revenue stream which the Government could, for example, use to provide assistance to the fuel poor as energy prices rise.

Figure 1: Carbon dioxide emissions per sector



Managing the transition to a low-carbon economy continued

Renewable growth

As important to the growth in low-carbon generation as renewable generators themselves are the networks that carry their output. Ofgem has more than doubled the allowed investment in GB's electricity grids over the five years to 2012. This increase includes funds to build the new infrastructure and upgrade existing networks to accommodate the 14GW of new renewable generation capacity currently at various stages of development.

At the same time we have proposed a regime for building the new networks required to connect what promises to be a rich seam of renewable energy – offshore wind power. Ofgem has devised a system based on competitive tendering to build the networks that will accelerate their delivery and hold down the cost to customers.

Ofgem and BERR have been jointly reviewing the transmission access arrangements and looking at better ways to deploy the available network capacity to bring on new generation (including renewables) more swiftly.

But growth in renewable generation is likely to depend on the construction constraints faced by new-build generation, created, to a large extent, by the existing planning process. So Ofgem has welcomed the steps that Government is taking to streamline the planning process, which we hope will bring low-carbon and renewable generation to market more quickly.

To put planning barriers in context, over twice the existing amount of installed generation capacity of onshore wind is currently going through the planning system for approval.

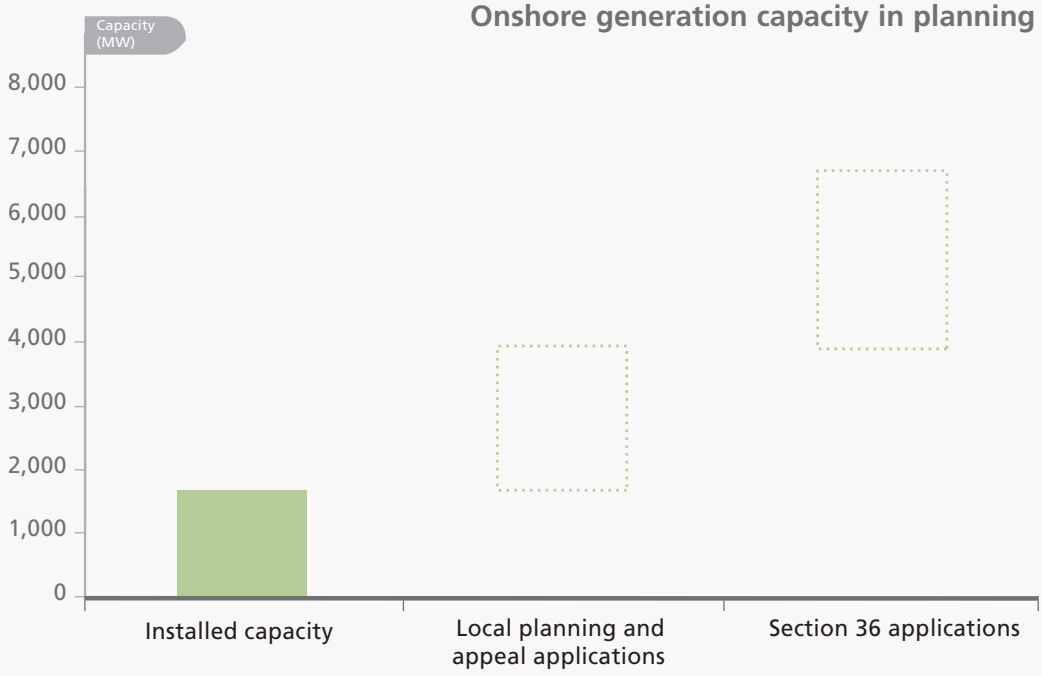
And planning delays can hold up the new network capacity that is needed.

Ofgem has welcomed the steps that Government is taking to streamline the planning process, which we hope will bring low-carbon and renewable generation to market more quickly.

Green tariffs

Together with industry Ofgem is developing new guidelines for renewable and low-carbon tariffs which will help to reduce the confusion customers have when choosing green tariffs. With greater clarity and transparency customers will be able to choose with greater confidence. If more people choose green tariffs this will encourage more investment in energy saving and low-carbon generation.

Onshore generation capacity in planning process



Ofgem has **more than doubled** the allowed **investment in GB's electricity grids** over the five years to 2012.

Ofgem is running a **£10 million trial** of **smart meters** with industry on **behalf of Government**.

Eradicating fuel poverty and protecting vulnerable customers

Promoting competition helps to reduce the costs of tackling climate change and encourage innovative products to help fuel poor and vulnerable customers.

Power of choice

We encourage customers to take advantage of the choices that arise from competition in the supply market. For example, the industry has devised a range of new products that are being taken up. About one in five consumers are on guaranteed fixed-price tariffs and most suppliers now have tariffs for vulnerable and fuel poor customers.

Rewarding networks

The price and investment control review of the electricity distributors in 2004 established a customer service reward scheme for companies that rewards them when they exceed their licence obligations regarding vulnerable customers. The reward scheme promotes best practice for all distribution network operators which will raise standards of service and support. We are planning to introduce a similar scheme for the gas distribution networks as part of the new price control.

Responsibility

Our research, guidance and encouragement have helped to steer companies into developing a range of corporate social responsibility schemes, including 'social tariffs' for low-income and other disadvantaged groups.

We have published analysis of suppliers' social programmes to highlight best practice and promote awareness of help available for vulnerable energy customers.

Wider problem

Ultimately, fuel poverty is part of a wider problem of poverty caused by a combination of high energy prices, low incomes and poor housing conditions. It is important for Ofgem and industry to help ensure prices are no higher than necessary and to promote energy efficiency measures that will help customers to reduce their energy demands. But Government also has a major role to play in tackling income and housing conditions.

Promoting energy saving

We have engaged with industry and Government in a drive to bring to the domestic energy market widespread use of advanced or "smart" metering technology which can help customers to use energy more efficiently, save on energy bills and lower the costs of prepayment meters.

We have formed an industry-wide group to agree minimum standards for smart meters and to look at how industry rules need to be changed to allow for wider use of the technology. Ofgem is running a £10 million trial of smart meters with industry on behalf of Government. Separately we are supporting the independent monitoring and evaluation of a small-scale trial of 200 smart meters.

License to innovate

Our review of the licence conditions for energy suppliers has given them more scope to innovate and compete in the retail market, while maintaining the protection that vulnerable customers in particular need. The review cleared the path for companies to offer deals which could include measures to enable consumers to reduce energy consumption through more efficient use. This would shift the emphasis of their business from selling kilowatt hours to meeting energy needs.



Ensuring a secure and reliable gas and electricity supply

Regulating networks

Ofgem's most direct influence on the energy sector's contribution to reducing emissions is through its price control regime for the energy networks. As part of the price controls, we ensure that the transmission companies can make efficient investments in the transmission network so they can connect new generation capacity, including low-carbon or renewable capacity.

Calling on Europe

Ofgem has been a leading voice in the call for measures to open Europe's energy markets to effective competition which will add to security of supply in Britain and across the continent.

Furthermore we have pushed hard to remove market barriers by, for example, ensuring there is greater transparency of information to all parties including customers. We have worked with European counterparts and transmission companies to ensure that the market gets much more data on European gas flows and capacity in the coming year. Where necessary, either in Britain or together with the European Commission, we can use our powers to address anti-competitive behaviour or practices in the market.

Imported gas

The gas market has responded to Britain's growing dependency on imported gas by investing £10 billion in gas import and storage projects. This investment is vital to the security and diversity of Britain's gas supply.

Products of this investment include new terminals for transferring liquefied natural gas onto the network which will enable Britain to import gas from around the world, including the Middle East, Central Asia, Africa and South America.

If these and the other new projects are completed they will provide by 2009 enough import capacity to meet 90 per cent of Britain's gas demand. And storage capacity could double by 2010 – although this is likely to depend on the planning process.

In the review of price and investment controls currently being worked up for the gas distribution networks, we have also proposed a number of measures to add to their sustainable development. These measures include simplifications of the quality of service arrangements, better protection for customers, and new incentives to cut emissions of methane – a potent greenhouse gas – from the distribution networks.

Supporting improved environmental performance

The gas and electricity industries affect the environment through emissions other than those that exacerbate climate change. The construction of new generation, pipes and wires, and other projects have a carbon footprint and can impact on our countryside and disrupt communities. We are working with all stakeholders to ensure that we consider this in all of our decisions.

Under our regulation of the gas and electricity transmission networks, we instigated a funding scheme for research and development that will support work on sustainable development priorities such as visual and environmental impact. The Innovation Funding Incentive was introduced this year for transmission companies following its success in electricity distribution.

Also under transmission regulation we have put in place firmer incentives for the companies to curb the release of sulphur hexafluoride – a highly potent climate-changing gas used in power equipment.

Consumer First

Our Consumer First project is a key piece of work looking at customer perceptions giving Ofgem greater insight into the views of energy users.

One such study provided pointers on customers' views on key environmental issues which included a willingness to accept that measures to arrest climate change will come with a cost.

A key objective of this work was to ensure our decisions and actions on sustainability are aligned with customer expectations.

For the **fifth consecutive year** we **passed** the annual audit of our **environmental management system**.

Innovation across the supply chain

Supply

Our promotion of competition has driven innovation in the market. Suppliers are offering a greater range of products to attract and keep customers. These have proved popular in the market: there are some nine million gas and electricity accounts on 'green', fixed-price and online deals, accounting for roughly 20 per cent of all energy accounts.

In the business market, suppliers are now offering smart meters and energy managed services to help business customers increase their energy efficiency. In the domestic market suppliers are starting to offer deals that reward customers for being energy efficient. All major suppliers now offer deals for customers who want to install their own electricity generation.

Networks

As part of the review of the electricity distribution sector price controls we have created incentives to minimise the number of supply interruptions experienced by customers.

We are working to remove barriers to deployment of technologies that can assist in the battle against climate change. An important example is our formation of an industry-wide group to establish a framework for the interoperability of smart meters – which give consumers information they can use to help them to reduce their energy consumption.

Generation

We have worked with government on a strategy for bringing on household-scale generation – known as microgeneration – which includes rooftop wind generators and gas boilers that generate power. For this technology to make its mark it needs support in gaining fair access to the networks and to getting a fair price for its output.

So Ofgem has established the Microgeneration Forum, which promotes the industry's efforts to develop charging regimes for use of the distribution networks by microgenerators, monitors the distribution network companies' long-term plans and will publish a proposal to lift competition in the provision of new connections for microgenerators.

Microgeneration is part of a breed of power production known as distributed generation – smaller than conventional power plant and connected to the distribution networks. Ofgem has started and chaired a group to look at the transmission arrangements for distributed generation which it seeking to make it easier for distributed generators to take part in the UK market.

This year we will publish our review of whether the terms currently offered by suppliers to domestic customers with microgeneration are fair.

Internal Environmental Management

For the fifth consecutive year we passed the annual audit of the environmental management system in our head office. And we have launched an internal sustainable development programme to improve our management of our environmental impact.

This year Ofgem achieved accreditation for its head office under a new building energy efficiency scheme.

The full report document: Sustainable Development Report 2007 is on the Ofgem website at:

http://www.ofgem.gov.uk/Sustainability/Documents1/Sustainable%20Development%20Report%20-%20Master%202007-10-30.pdf

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