

The logo for Ofgem, consisting of the word "ofgem" in a white, lowercase, sans-serif font inside an orange rounded rectangle.

# Sustainable Development

in the gas and electricity sectors 18.12.08



Achieving a sustainable low carbon economy is impossible without a low carbon energy sector. The challenges facing the energy sector to 2020 and beyond are clear - dramatic changes, over a sustained period, are needed to achieve a low carbon energy system. These changes will come at a significant cost, although the costs of unmitigated climate change will be higher, at a time of historically high energy prices, financial turmoil and difficult economic prospects. This combination presents real difficulties for vulnerable customers. Minimising these impacts is an important part of achieving sustainable development.

As energy regulator, we are alive to these tensions. We are committed to doing what we can to address climate change and to do so in a way that avoids unnecessary burdens on customers. We work with Government and the electricity and gas sectors to create a framework for innovation and smarter solutions.

## The Energy Act 2008 has made two changes to Ofgem's duties:

- our duty to contribute to the achievement of sustainable development has been promoted so that it is on an equal footing with our duties to meet reasonable demand and financing authorised activities.
- it has been highlighted that our principle objective refers to future as well as existing customers

We recognise the importance of these amendments and we will build on the progress we have made over the last three years to ensure that Ofgem fully plays its part in meeting the challenge of sustainable development.

## Managing the transition to a low carbon economy

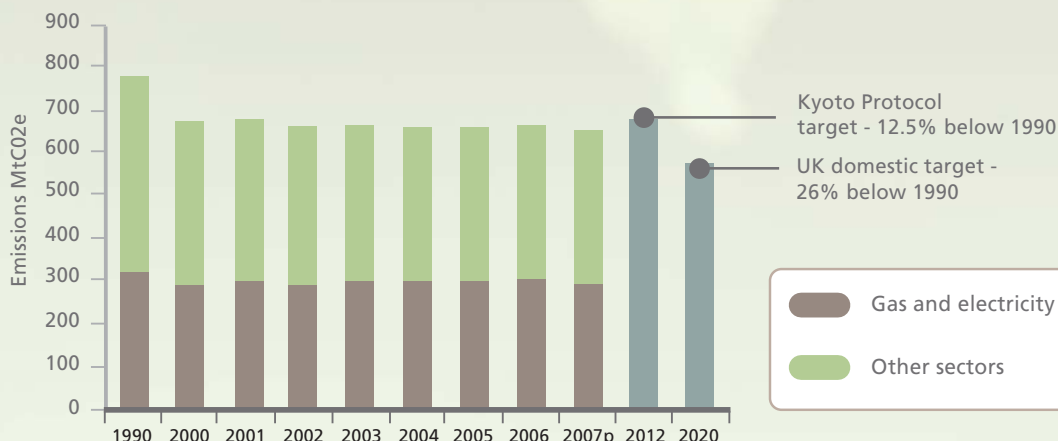
Power stations account for around a third of the UK's CO<sub>2</sub> emissions, with the domestic and industrial sectors accounting for around a further third. Provisional estimates show that greenhouse gas emissions related to the energy sector fell by about 4 per cent between 2006 and 2007.

This can be partly explained by changes in the generation mix: a shift from coal- to gas-fired generation and a small increase in renewable generation.

### Ofgem is working with Government on several policy initiatives to tackle emissions, including:

- advising on development of the Renewables Obligation, Supplier Obligation and heat policy;
- improving transmission access arrangements to facilitate more timely connection of generation projects, including renewables;

Figure 1: Gas and electricity sector contributions to national greenhouse gas emissions 1990-2007



- introducing flexible licensing and regulatory options for distributed energy; and
- developing the regulatory regime for the offshore transmission network.

We also issued guidance to the industry code panels on the treatment of greenhouse gas emissions under the existing code objectives and, on behalf of the Council of European Energy Regulators, responded to the European Commission's proposals on the "Climate action and renewable energy package".

### Going forward we will:

- assess whether our existing regulatory model is still fit for purpose as part of our 'RPI-X at 20' work;
- consider the role of Distribution Network Operator's in helping to tackle climate change as part of fifth Distribution Price Control Review; and
- oversee reforms to facilitate the connection of new generation to the transmission network and implement the regulatory arrangements for the offshore transmission network.

## Eradicating fuel poverty and protecting vulnerable customers

A household is in fuel poverty if it needs to spend more than 10 per cent of its income on energy to maintain an adequately warm home.

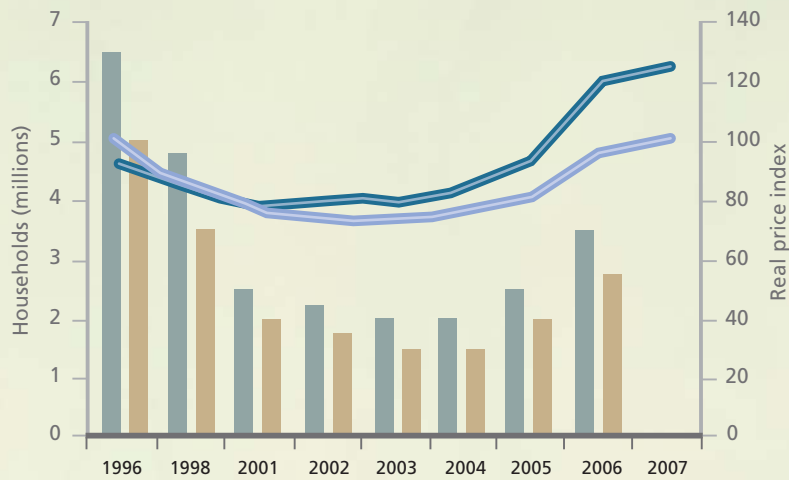
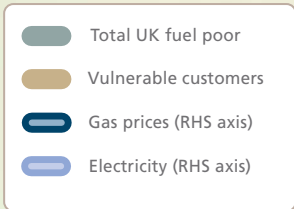
Government has set targets for fuel poverty to be eradicated by 2018. Fossil fuel prices have been very volatile over the past year and energy bills have been historically high. Official estimates show that in 2006, 3.5 million households in the UK were in fuel poverty, of which 2.75 million were vulnerable households. Government projections show that rising fuel prices

could mean another 0.7 million households were in fuel poverty in 2007 and may increase by a further 0.5 million in 2008. In addition, our Energy Supply Markets Probe found that vulnerable consumer groups were not able to participate effectively in the competitive market and so were not benefitting fully from the range of products on offer.

We have supported initiatives to improve targeting of support for vulnerable customers, including hosting a Fuel Poverty summit, and working with suppliers to disseminate best practice. We have worked with Citizens Advice Bureau to develop an Energy Best Deal campaign aimed at vulnerable customers. We have provided clarity on the definition of a social tariff and the other forms of assistance that will count towards the suppliers' commitment to government. We are also introducing incentives for gas companies to expand the gas network to help fuel poor households that currently use more expensive fuels.



Figure 2: Estimated number of UK households living in fuel poverty 1996-2006



**In 2009, we will:**

- continue our work with Government, suppliers and other key stakeholders to influence the debate around fuel poverty and find the most effective ways to tackle it;
- carry out a further review of suppliers' debt and disconnection practice;
- implement measures based on the findings of the Energy Supply Markets Probe to help customers make better informed choices on suppliers' offers; and
- report on suppliers social programmes.

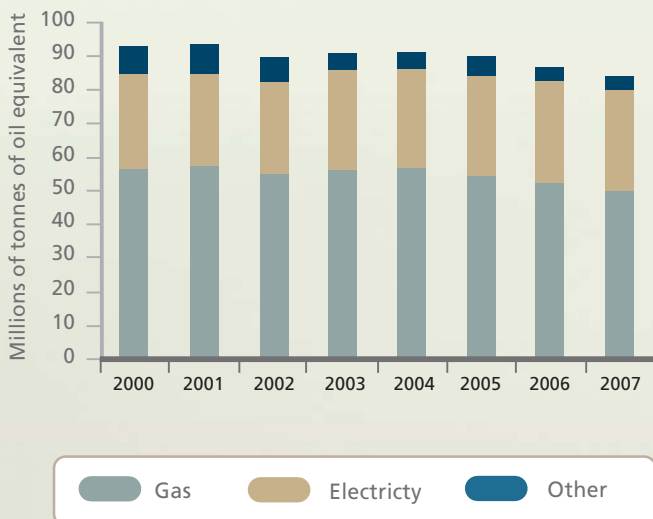
**Promoting energy saving**

Energy efficiency can deliver reductions in emissions, contribute to security of supply and reduce the costs of meeting our energy needs.

In 2007, final energy consumption, excluding transport fuels, fell by 3 per cent, which was the third consecutive decline in annual consumption. Consumption of electricity fell by around 3 per cent and consumption of gas by around

4 per cent in 2007 compared to 2006. This contributed to a reduction in greenhouse gas emissions in 2007.

Figure 3: Non-transport energy demand



The second phase of the Energy Efficiency Commitment (EEC) ended in 2008. Suppliers achieved 187TWh of energy savings, exceeding the overall target of 130 TWh. Drawing on our experience in administering the EEC, we have assisted Government in implementing its successor, the Carbon Emissions Reduction Target, as well as contributing to the shape of suppliers' future obligations for delivering improved energy efficiency performance in households.

We have also worked with suppliers on the testing and evaluation of consumption information and smart metering.

**Going forward, we will:**

- continue with our administrative work and advice to Government; and
- identify and pursue opportunities to stimulate sustained behavioural change and the uptake of energy efficiency at the household level.

## Ensuring a secure and reliable gas and electricity supply

Secure and reliable energy supplies depend on a range of factors including the availability and diversity of supplies, adequate network infrastructure and efficient system management and operation.

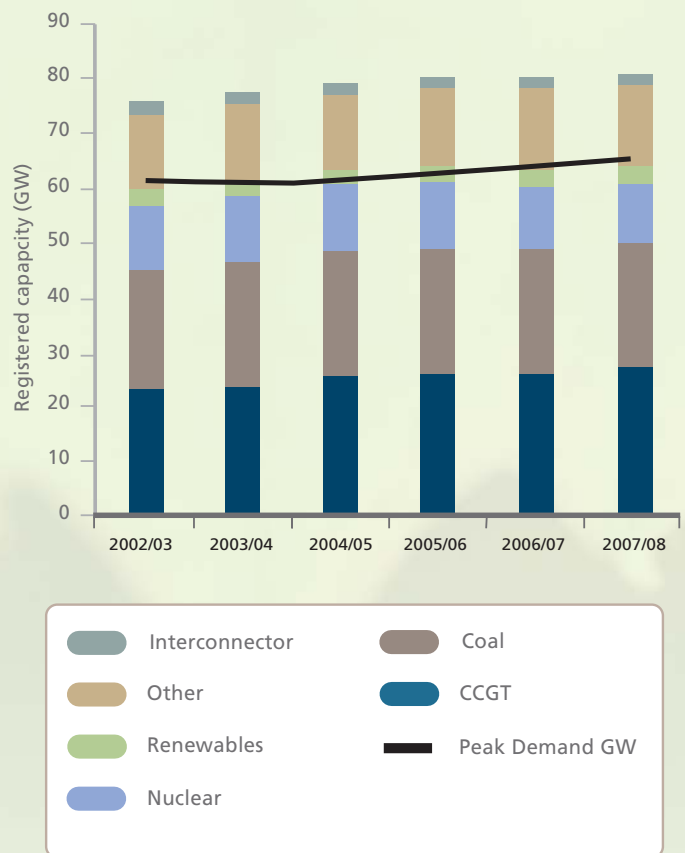
In 2007, Great Britain had approximately 80GW of electricity generating capacity, 40 per cent of which was built between 1965 and 1975 and 25 per cent of which has been commissioned since 1995. A significant proportion is expected to close over the next few years as a result of new air quality standards and the scheduled decommissioning of the UK's ageing nuclear power stations. This is largely expected to be replaced with new conventional and renewable capacity.

We have been working with DECC on the Energy Markets Outlook to assess any emerging risks that could impact on security of supply and working with energy customers and key stakeholders to allow greater use of demand side management in contributing to security of supply. In networks, we have taken forward work on developing long-term electricity network scenarios and review the incentives on the transmission system operators to manage short-term network constraints.

### Going forward, we will:

- continue with much of this work, as well as our work on liberalising the European market;
- publish a balanced scorecard on the performance of the gas distribution networks; and
- as part of the fifth Distribution Price Control Review, set out policy proposals for the development of the electricity distribution networks.

Figure 4: The UK electricity generation mix



This factsheet highlights some of the key indicators from Ofgem's 2008 Sustainable Development Report and outlines some of the actions that Ofgem has taken in the last year. The full document is available at:

<http://www.ofgem.gov.uk/Sustainability/Pages/Sustain.aspx>

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