



dti

**CREATING A LOW CARBON  
ECONOMY**

Second annual report on  
the implementation of the  
Energy White Paper

JULY 2005

defra 

The DTI drives our ambition of 'prosperity for all' by working to create the best environment for business success in the UK. We help people and companies become more productive by promoting enterprise, innovation and creativity.

We champion UK business at home and abroad. We invest heavily in world-class science and technology. We protect the rights of working people and consumers. And we stand up for fair and open markets in the UK, Europe and the world.

## Sustainable Energy Policy Network

This annual report is being published as part of the work of the Sustainable Energy Policy Network (SEPN).

SEPN is a network of Government departments, Devolved Administrations, regulators and other key organisations that are jointly responsible for delivering the Energy White Paper, *'Our Energy Future – creating a low carbon economy'* published in February 2003.

<http://www.dti.gov.uk/energy/sepn/index.shtml>

SEPN's members comprise the:

- Cabinet Office
- Carbon Trust
- Department for Education and Skills
- Department for Environment, Food and Rural Affairs
- Department for International Development
- Department of Trade and Industry
- Department for Transport
- Energy Saving Trust
- England's Regional Development Agencies
- Environment Agency
- Foreign & Commonwealth Office
- HM Treasury
- Ministry of Defence
- Northern Ireland Office
- Office of the Deputy Prime Minister
- Office of Gas and Electricity Markets
- Prime Minister's Office
- Regional Co-ordination Unit
- Regional Energy Group
- Scotland office
- Scottish Executive
- Wales Office
- Welsh Assembly Government

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Foreword by Secretary of State for Trade and Industry and Secretary of State for Environment, Food and Rural Affairs.

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### ***Sustainable Energy Act 2003***

The report is published in accordance with the Secretary of State's obligations under section 1 of the Sustainable Energy Act 2003. It describes progress made in the reporting period 24 February 2004 to 23 February 2005 towards: cutting the United Kingdom's carbon emissions; maintaining the reliability of the UK's energy supplies; promoting competitive energy markets in the UK; and reducing the number of people living in fuel poverty in the UK. The report is based on information available to the Secretary of State at the date of its completion.

# Foreword

Today, more than ever, the issue of energy is in the spotlight of active debate both nationally and internationally, not least of the UK's leadership. Last year our annual report outlined the strategies we were building for long-term delivery of our goals. We also published our Energy Efficiency Action plan; our CHP strategy; the 2nd annual report on our fuel poverty targets and our fuel poverty action plan. These were the first, important steps taken to implement an ambitious strategy for the next 50 years.

But we recognise we need to do more to meet the goals we set. The White Paper set out a long term framework for policy development with four key objectives: to put ourselves on the path to cutting UK carbon dioxide emissions, to maintain the reliability of energy supplies, to promote competitive markets in the UK and beyond and to ensure every home is adequately and affordably heated. We remain committed to these goals.

But the White Paper did not try to set out all the detail of those policies for the years ahead. The Government keeps under review progress against the Energy White Paper goals and the options for meeting them; this is vital if we are to stay on track to deliver the strategy. For example, work is under way to design a new Climate Change Programme, this will include a review of our energy efficiency policy options as well as looking at energy supply options.

Alongside this annual report on the energy strategy we are also publishing the Fuel Poverty Annual Report, the new Security of Supply Annual Report and our Energy Indicators.

Our work with international partners is particularly significant this year, in which the UK holds the G8 and EU Presidencies. We have aimed to work through these Presidencies to further our objectives set out in the 'International Energy Strategy', jointly launched by FCO, DTI and DEFRA on 28 October 2004. These include reducing our own and other developed countries' emissions, as well as engaging emerging economies in consideration of ways to meet their energy demands sustainably. At the Gleneagles Summit the G8 adopted an action plan to exploit cleaner technologies which meet our energy needs and safeguard the climate, including measures to develop technologies such as bioenergy and cleaner coal, to promote energy efficiency, and to finance investment in clean technologies in emerging economies.

The fact that the UK is on track to exceed its obligations under the Kyoto Protocol means that we are already leaders in the field of tackling climate change. But there is more to do to meet our domestic goal as set out in the Government's manifesto, of

achieving a 20% reduction on carbon dioxide emissions on 1990 levels by 2010. Our review of progress will show us how to get back on track. And that requires a concerted effort at national, regional and local level.

The challenges remain and so does our commitment to providing sustainable, reliable and affordable supplies of energy through competitive markets.



*Margaret Beckett*

Rt Hon Margaret Beckett MP  
Secretary of State for  
Environment, Food and Rural Affairs



*Alan Johnson*

Alan Johnson MP  
Secretary of State for  
Trade and Industry

# 1. The last 12 months and way ahead: An overview

- 1.1 At the end of the first 12 months following the 2003 Energy White Paper we were able to report good progress against our short-term goals. The second 12 months have seen continued progress. However this second year has also been about setting in place more of the foundations for the 50-year energy strategy, plotting the route to meet our targets and putting in place plans for the long term.

## The Energy Act 2004

- 1.2 Those commitments from the Energy White Paper requiring primary legislation have now been met via the Energy Act which received Royal Assent on 22 July 2004. The Act supports the Government's commitment to a sustainable energy policy for the future whilst taking responsibility for cleaning up the nuclear legacy of the past. It implements commitments in the 2003 Energy White Paper and the 2002 White Paper "Managing the Nuclear Legacy".

## Significant achievements this year

- 1.3 The following are some highlights of the main developments towards the four objectives of the Energy White Paper over the last 12 months:
- The **Kyoto Protocol** came into force on 16 February 2005. This is the first international treaty to set binding emissions reduction targets on developed countries and so far 150 countries have ratified it.
  - The importance of working with international partners cannot be underestimated, and we have demonstrated this by making climate change a key theme of our **G8 Presidency** with a particular focus on engaging with emerging economies as their energy needs grow:
    - The Defra-sponsored international scientific conference, "Avoiding Dangerous Climate Change" (see [www.stabilisation2005.com](http://www.stabilisation2005.com)) on 1-3 February 2005 which considered the climate change impacts of different greenhouse gas levels;

- The March Energy and Environment Ministerial Roundtable, at which Ministers, and representatives from businesses, international and other non-government organisations considered practical approaches to climate change and priorities for further work (see [www.defra.gov.uk/corporate/international/energy-env/index.htm](http://www.defra.gov.uk/corporate/international/energy-env/index.htm)).
- The **EU Spring Council** agreed to consider with other parties a range of targets for emissions reductions (15-30% by 2020) to take the discussion on medium and long-term targets forward.
- The **EU Emissions Trading Scheme** (EU ETS) commenced in January 2005. The objective of the scheme is to reduce in the most cost effective way emissions of greenhouse gases, whilst at the same time establishing a market price for carbon to stimulate efficiency savings and the development of new technologies.
- We concluded a new **Framework Treaty with Norway** that could secure up to 20 per cent of the UK's future gas demand – a very significant development as we move towards becoming a net importer of gas.
- The **International Energy Strategy** was launched by FCO, DTI and Defra on 28 October 2004 and addresses the urgent need for global action to tackle climate change and the importance of delivering secure and affordable energy supplies. Its core message is that these two challenges are inseparably linked and demand a joined-up coherent response. FCO, DTI and Defra are working together to provide that policy response.
- We exceeded our 2004 target for the **Warm Front Scheme**, which helps us to take households out of fuel poverty. The Scheme has so far helped more than 1 million vulnerable households to heat their homes more affordably. We are making an additional £140 million available for the Warm Front programme over the years 2005-8 – a total of £251 million of Government funding to tackle fuel poverty in 2007-8.
- The **Renewables Obligation Order** 2005 came into force on 1 April 2005. The changes to the Obligation include an increase in the level of the Obligation to 15.4% by 2015/16; this will provide investors with additional confidence. Further details can be found at [http://www.dti.gov.uk/renewables/renew\\_2.2.4.htm](http://www.dti.gov.uk/renewables/renew_2.2.4.htm). Legislation made in Northern Ireland in February 2005 introduced a Renewables Obligation there with effect from 1 April 2005 to operate in tandem with the GB Obligations within a single UK-wide market for Renewables Obligation Certificates (ROCs).
- The **British Electricity Trading and Transmission Arrangements** (BETTA) went live in April 2005. BETTA provides a common set of trading rules so that electricity can be traded freely across Britain and a common set of rules for access to and charging for the transmission network.

- The **Nuclear Decommissioning Authority (NDA)** was established on 1 April 2005, its constitution having been laid down in the Energy Act 2004. It has now taken on responsibility for driving forward the clean-up of 20 UK civil nuclear sites and is developing a strategy covering its plans for this work.
- The Government announced the intention to double the level of **Energy Efficiency Commitment (EEC)** activity from 2005 to 2011, subject to a review in 2007. This is expected to lead to investment of over £2 billion between 2005 and 2011, saving customers £4 billion from their bills to 2020.
- In July 2004 we published a transport white paper '**The Future of Transport: a network for 2030**'
- We published our **Carbon Abatement Technologies strategy** (<http://www.dti.gov.uk/energy/coal/cfft/catstrategy.shtml>) in June 2005. This sets out the work programme needed to support the development of sustainable fossil fuel technologies mainly using coal and natural gas. The Strategy recognises that fossil fuels will continue to be a major source of energy for decades to come not just in the UK but in developing countries such as China and India, and that technologies need to be developed and deployed which will radically reduce CO<sub>2</sub> emissions from the use of these fuels. Improved combustion efficiency and, later, Carbon Capture and Storage are seen as the key technologies for achieving this aim.

## Taking the energy strategy forward

1.4 Some of the key developments taking place in 2005-06 are:

- **G8 Presidency** In respect of climate change, the Gleneagles Summit on 6-8 July achieved agreement that Climate Change was happening now, that human activity was contributing to it and that we had to tackle it with urgency. G8 leaders adopted an action plan to exploit cleaner technologies to meet energy needs and safeguard the climate, including measures to develop technologies such as bioenergy and cleaner coal, to promote energy efficiency, and to finance investment in clean technologies in emerging economies.

They also agreed a new dialogue involving the G8, the emerging economies and the key international institutions to create a pathway to a post Kyoto agreement. The new Dialogue between the G8 + 5 and others will have its first meeting in the UK in November.

- **EU Presidency** During the second half of 2005 the UK holds the Presidency of the European Council. This will enable us to continue driving forward open and competitive markets across Europe and to promote long term security of supply as well as continuing our focus on international action to tackle climate change, begun through our G8 Presidency.
- The UK **Climate Change Programme Review** (CCPR) commenced in September 2004. It is looking at how existing policies to reduce greenhouse gas and carbon dioxide emissions are performing and the range of policies that might be put in place in the future. As part of the review, a formal consultation exercise has been carried out to seek stakeholder views, this closed on 2 March 2005. Both the Energy Efficiency Review and the feasibility study looking into a Renewable Transport Fuel Obligation are due to conclude shortly and the results will be considered in the context of the Climate Change Programme, due to be published by the end of the year.
- We are reviewing the **Renewables Obligation** to improve its effectiveness. A preliminary consultation, seeking views on a limited number of changes, has now closed and its results will inform a statutory consultation, detailing the Government's intentions, later this year.
- The Government's **strategy for the promotion of microgeneration** will be completed by April 2006, with a public consultation running between June and September 2005. The strategy will aim to identify the most appropriate and cost effective ways of promoting small-scale generation of heat and electricity from low carbon sources (for example, solar photovoltaics, solar thermal, micro-wind, heat pumps, and microCHP). The strategy will also look at the issues around Building Regulations and planning policy, technical matters relating to connection to the distribution network, metering and the Low Carbon Buildings Programme.
- On 31 March the Government published a communication document outlining the Government approach to **Phase II of the EU ETS** and inviting views on a number of specific issues. The Government is currently gathering an evidence-base to inform decision-making on the Phase II (2008-2012) National Allocation Plan. The CCPR consultation, comments from stakeholders and the output from a number of consultancy contracts will all contribute, and it will also take into account views from other Member States. The Government intends to consult on key Phase II issues in July 2005. The Directive states that the NAP must be submitted to the Commission by June 2006 and based on this timetable, a draft NAP should be available around the turn of the year.

- The National Assembly for Wales launched its consultation document, **“Energy Wales: route map to a clean, low-carbon and more competitive energy future for Wales”** on 20 June<sup>1</sup>. It sets out the Assembly’s vision for Wales as a showcase for clean energy and energy efficiency whilst also ensuring competitive and secure supplies and includes an action plan showing progress milestones. Consultation closes on 12 September 2005.
- The Scottish Executive is reviewing its **Scottish Climate Change Programme** in parallel with the UK review. The review is considering the scope for strengthening existing measures and introducing new ones in areas devolved to Scottish Ministers. On 30 June 2005, the First Minister announced the Executive’s commitment to establish Scottish climate change targets in areas of Executive responsibility. These will be developed for inclusion in the revised Scottish Programme, which will be published before the end of 2005.
- The second phase of the **Energy Efficiency Commitment** commenced on 1 April 2005, with a target of 130 TWh<sup>2</sup>, roughly doubling activity levels from the previous phase, and projected to save 0.68MtC by 2010.

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1 [www.wales.gov.uk/subitradeindustry/content/consultations/ewrm-map-e.pdf](http://www.wales.gov.uk/subitradeindustry/content/consultations/ewrm-map-e.pdf)

2 EEC target is set in fuel – standardized, lifetime-discounted TWh.

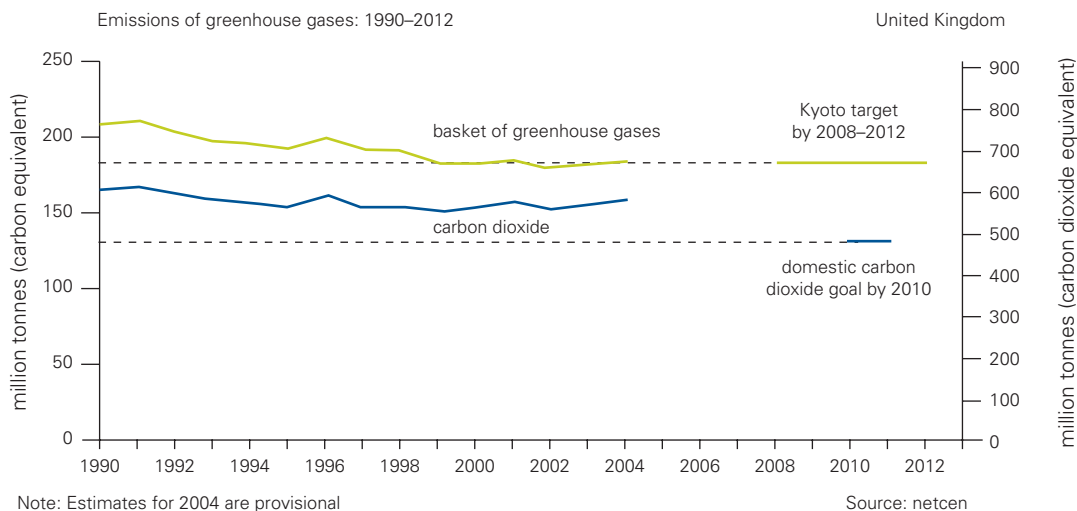
## 2. Reducing Carbon Emissions

### **Commitments**

The Government established a new goal for energy policy: to put ourselves on the path to cut the UK's carbon dioxide emissions by 60 per cent by 2050, with real progress by 2020. The UK also remains committed to the Kyoto protocol commitment to reduce greenhouse gas emissions by 12.5 per cent below 1990 levels by 2008-12. In its recent manifesto the Government stated its commitment to achieving a 20 per cent reduction in carbon dioxide emissions below 1990 levels by 2010.

### Progress to date

#### Progress against international and domestic targets for emission reductions



- 2.1** The Kyoto protocol came into force on 16 February 2005. The UK's target is to reduce greenhouse gas emissions by 12.5 per cent below base year levels by 2008-12. The latest provisional estimates (Figure 1) show that total UK greenhouse gas emissions in 2004 are provisionally estimated to have fallen 12.5 per cent below 1990 levels. Current projections show that they should be about 20 per cent below by 2010. This means that we are still on track to achieve our target under the Kyoto Protocol.

- 2.2** In addition to our international commitment, the UK also has two national goals to reduce carbon dioxide emissions. The Energy White Paper set out a national goal to move towards a 20 per cent reduction in carbon dioxide emissions below 1990 levels by 2010. The Energy White Paper also committed to putting ourselves on the path to reduce carbon dioxide emissions by some 60 per cent by about 2050, with real progress by 2020. Emissions of carbon dioxide for 2004 are provisionally estimated to have been about 4.2 per cent lower than in 1990 and are projected to be 14 below by 2010.
- 2.3** We recognise that more needs to be done in order for us to meet our national carbon dioxide emissions goals. The current review of the UK Climate Change Programme provides the opportunity for us to examine the range of policies we might put in place in the future, to put us back on track towards our 2010 and longer term carbon dioxide goals.
- 2.4** The Energy White Paper said that we would focus efforts to achieve our environmental goals primarily through emissions trading, increasing renewables capacity and improving energy efficiency.

## EU Emission Trading Scheme

- 2.5** Phase I of the EU Emissions Trading Scheme (EU ETS) commenced in January 2005, requiring operators to start monitoring emissions. The approved National Allocation Plan for the first phase of emissions trading (2005 – 2007) was published at the end of May 2005. 736 million allowances were allocated to over 1,000 operators in the UK. Nearly 200 operators participating in the Scheme opened their Registry accounts later that week. The first trade on the spot market also took place. The Registry allows allowances to be transferred to other accounts both within the UK and other participating countries. The EU ETS is set to reduce carbon dioxide emissions from 12,000 power plants and other installations covered across the EU, with UK installations contributing reductions of around 65 million tonnes of carbon dioxide (around 8 per cent) below business as usual projections, by 2007. Work is already under way to consult industry about the implementation of Phase 2 of the Scheme which will commence in 2008.

The Government is taking legal action against the Commission in a dispute about the final level of allowances proposed for Phase 1 of the scheme. The Government will be making an application for proceedings to be expedited. It is hoped that judgement of the court will be received in the first half of 2006.

Implementation of the EU ETS is a devolved matter in the UK. Accordingly, policy decisions were developed by the UK Government and the Devolved Administrations for Scotland, Wales and Northern Ireland. The Government action described above is a joint action by the UK Government and the Devolved Administrations.

## Increasing Renewables Capacity

- 2.6** The Renewables Obligation Order 2005 came into force on 1 April 2005. The changes to the Obligation were the subject of a statutory consultation during 2004 and include: raising the profile to 15.4% by 2015/2016; mutual recognition of Northern Ireland Renewables Obligation Certificates issued under the new Northern Ireland Obligation and those from the GB-wide Obligation; a single recycling mechanism for the different buy-out funds, increased flexibility for small generators and measures to secure the buy-out fund.
- 2.7** The Government is also conducting a Review of the Renewables Obligation, having consulted on the terms of reference for this review in August 2004. DTI published a preliminary consultation document in March 2005 in which views were sought on a limited number of options for changes to the Renewables Obligation. The following issues were covered: extending the profile of the Obligation; altering aspects of the working arrangements; modifying the rules for low cost technologies and energy from mixed wastes. The position of Combined Heat and Power and some other detailed technical or definitional issues were also covered. Consultation closed on 13 June and its results will inform a statutory consultation later in the year that will set out the Government's position.
- 2.8** Planning Policy Statement 1 – Delivering Sustainable Development (PPS1), published in February 2005, set out the Government's policy framework for the planning system, centred on the core principles of sustainable development. It explained that planning policies and decisions should be based on an integrated approach to achieving sustainable development. With regard to the prudent use of natural resources, PPS 1 seeks to promote and encourage the use of renewable resources (e.g by the development of renewable energy). The aim should be to minimise the need to consume new resources over the lifetime of a development, for example through promoting energy efficient buildings.
- 2.9** Planning Policy Statement 22 (PPS22) on Renewable Energy (published in August 2004) and its companion Guide to PPS22 (published December 2004) is a significant step towards facilitating the delivery of more renewable energy development. While acknowledging the need to consult the Planning and Licensing Authorities and statutory consultees as early as possible to

ensure any constraints on the proposed development are taken into account, PPS22 provides a clear and positive policy framework for bringing forward and deciding renewable energy proposals. In Wales a Technical Advice Note (TAN8) has been developed to supplement the policy set out in Planning Policy Wales and the Ministerial Interim Planning Policy Statement on Renewable Energy. TAN8 refers to the land use planning considerations of renewable energy, however UK and national energy policy provide its context. The Assembly Government has a target of 4TWh of electricity per annum to be produced by renewable energy by 2010 and 7TWh by 2020. In order to meet these targets the Assembly Government has concluded that 800MW of additional installed capacity is required from onshore wind sources and a further 200MW of installed capacity from offshore wind and other renewable technologies. Delivering these targets through the planning system is therefore at the core of TAN8.

- 2.10** DTI and Ofgem are issuing a joint consultation document on the regulatory regime for offshore transmission in July at the same time as a DTI consultation on adjusting transmission charges for renewable generators in the North of Scotland. Both these consultations will be important to connecting renewable energy to the Grid.

## Energy Efficiency

- 2.11** The Energy White Paper identified energy efficiency as the safest, most cost-effective way to meet all of the energy policy goals, particularly the national goal to reduce carbon dioxide emissions by 2010. We expect more than half the emissions reductions in our existing Climate Change Programme – around 10 MtC per annum by 2010 – to come from energy efficiency. Further ahead we believe that energy efficiency can contribute around half of the additional 15-25 MtC savings we are likely to need by 2020.
- 2.12** Energy Efficiency: The Government's Plan for Action, published in April 2004, set out a package of measures to deliver a step change in the improvement of energy efficiency in all parts of the economy – to deliver annual carbon saving of 12 million tonnes by 2010. This is a 20 per cent increase over the level of savings anticipated at the time of the White Paper and will save UK households and businesses over £3 billion per year on their energy bills. Further evaluation of energy efficiency measures is being carried out through the Energy Efficiency Innovation Review, which will be a key input to the wider review of the UK Climate Change Programme. The Welsh Assembly's soon to be launched Energy Saving Wales portal website will provide a single point of contact for individuals undertaking a categorised search for providers of advice, financial assistance, general guidance and training in the context of both energy efficiency and small-scale renewable energy.

- 2.13** The Building Regulations were amended recently to raise the energy efficiency standards for central heating boilers. From 1st April gas boilers installed in existing dwellings will have to have a seasonal efficiency of 86% or greater. In practice this means that only those condensing boilers in the A and B Sustainable Energy Database for Boilers in the UK bands can be installed. This requirement will also apply to oil-fired boilers from April 2007.

Section 81 of the Energy Act 2004 requires the Government to report annually on progress achieving its energy efficiency aims. This is covered in detail in Chapter 6.

## Looking ahead

- 2.14** Current projections show that the UK's emissions of the basket of six greenhouse gases are expected by 2010 to be about 20 per cent below base year levels, with emissions of carbon dioxide expected to be about 14 per cent below 1990 levels. As the manifesto said, the Climate Change Programme Review will show us how to get back on track to meeting our goal of cutting carbon dioxide emissions by 20% by 2010. The revised programme is due for publication by the end of the year. Key contributions to the revised programme will be initial plans for Phase 2 of the EU Emissions Trading Scheme; the results of the Energy Efficiency Innovation Review; and the results of the feasibility study into a Renewable Transport Fuel Obligation (RTFO).
- 2.15** Following the preliminary consultation in the first part of this year, the Government will set out its proposed position on the Renewables Obligation Review in a statutory consultation document due for publication later in 2005.
- 2.16** Work continues to develop a strong domestic supply chain to support renewables projects. The supply chain analysis study on the Scroby Sands offshore windfarm to be published in July 2005, indicates that UK content within the project was measured at 48%. The report sets a benchmark for future projects and offers the potential to better understand the relative current success of UK businesses in securing work within the offshore wind industry.
- 2.17** International aviation emissions currently do not count in the national inventories of greenhouse gas emissions, as there is no international agreement yet on ways of allocating such emissions. However, we are committed to ensuring that the long-term development of aviation is sustainable and that it meets its external costs. The Future of Air Transport White Paper set out our aim of including aviation in the EU ETS from 2008 or as soon as possible thereafter. The European Commission has work in hand

looking at how best to address the climate change impacts of aviation, including emissions trading. A Communication by the Commission suggesting a way forward is due in July. We expect to debate the options and agree a way forward during our EU Presidency.

- 2.18** As stated in the Energy White Paper we do not rule out the possibility that new nuclear build might be necessary at some point in the future if we are to meet our carbon targets. Before building any new nuclear power stations there would have to be the fullest public consultation, and a white paper setting out our proposals. The Prime Minister has stated that a decision on nuclear power will need to be taken during this Parliament.

# 3. Energy Reliability

## **Commitments**

Our goal is that people and businesses can rely on secure supplies of energy – gas, fuel and electricity – at affordable prices delivered through competitive markets whilst minimising the impact on the environment.

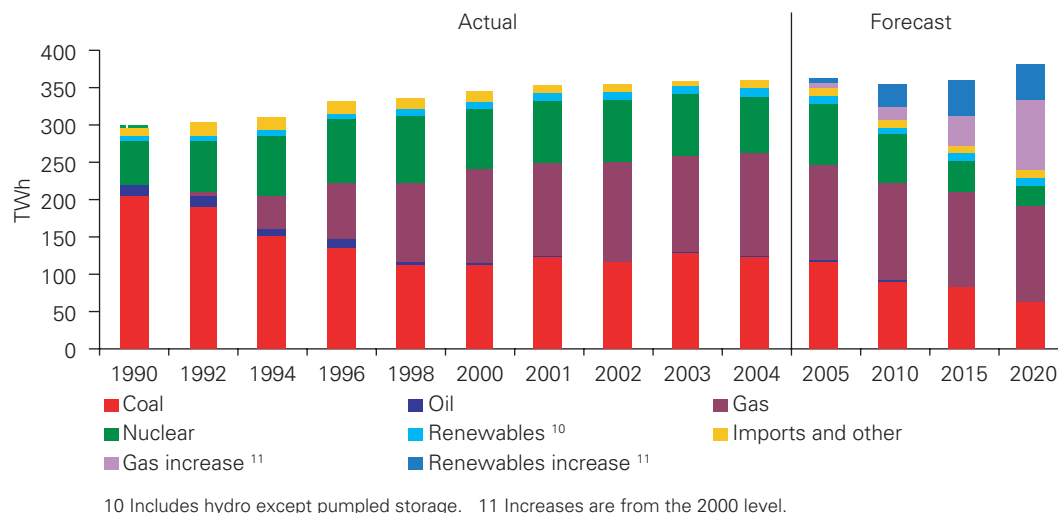
We are committed to maximising economic benefit from the UK's oil and gas reserves and maintaining production levels of 3 million barrels of oil equivalent per day until 2010.

## Progress to date

- 3.1 North Sea oil and gas will continue to play a key role in helping to meet the UK's energy needs well beyond the next decade. Around 34 billion barrels of oil equivalent (boe) have been produced so far, with potentially up to 22 billion boe still to be recovered. Government is working hard with the industry via a number of initiatives to realise this potential and ensure we maximise economic recovery of UK oil and gas reserves.
  
- 3.2 The Government and Ofgem continually monitor developments in the gas and electricity market through the **Joint Energy Security of Supply Group (JESS)**. The Group also looks for ways of helping the market to work effectively to secure energy supplies and provides information to market participants to help them plan investment decisions. The most recent JESS report was published in November 2004<sup>3</sup>. As an example of the information JESS publishes, the following chart shows how electricity demand is likely to be met by different forms of generation and illustrates the potential requirement for new investment.

3 <http://www.dti.gov.uk/energy/jess/jessreport5.pdf>

## Electricity Generation by Fuel Type



Sources: Digest of UK energy statistics and DTI projections.

**3.3** In addition to JESS, section 172 of the Energy Act 2004 now provides for the Secretary of State to report to Parliament on security of supply on an annual basis. The new **Section 172 Security of Supply Report** is being published alongside this report. DTI also has a commitment to report to the European Commission under its Gas and Electricity Security of Supply Directives. It is intended that all these reports are streamlined into an annual reporting cycle on security of supply. A JESS stakeholders event is planned for Autumn 2005 to consider how JESS reporting in the future could most usefully supplement the section 172 report.

The Section 172 report covers in more detail the short and medium term outlook for the UK supply-demand balance. It draws on National Grid Transco's (NGT) preliminary outlook for next winter, published by Ofgem for consultation on 31 May<sup>4</sup>. This suggests that whilst the gas market is likely to be tighter than in recent winters, it is only under an extreme weather scenario that the possibility of severe shortages for non-domestic users may arise. It clearly indicates that there will be no problem for domestic consumers of gas. As in previous years, NGT will publish its Final Winter Outlook Report for 2005/06 this autumn in the light of responses received to this report.

**3.4** As **the international dimension to security of supply** becomes more important, the FCO has stepped up its work in this field, working with other departments. The International Energy Strategy sets out our international objectives. Apart from the activity in the G8 and EU Presidencies, other priorities are:

<sup>4</sup> [http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/11584\\_14405b.pdf](http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/11584_14405b.pdf)

- to work, multilaterally (through organisations such as the EU and International Energy Agency) and bilaterally to press for energy market reform and improved energy sector governance in major producing countries;
- to work, with others, for stable and competitive international oil and gas markets;
- to encourage political and economic stability in key producer countries;
- to improve take-up of renewable energy and a more efficient use of energy globally; and
- to enhance action to improve network resilience, mindful of the threat of terrorism.

**3.5** Oil prices have been both relatively high and volatile over the past year. Strong global oil demand growth has tightened capacity throughout the supply chain. Over the last year we have worked with producing and consuming countries and relevant international organisations, such as the International Energy Agency, to promote greater transparency in oil markets and to improve the investment climate in oil producing countries. For example, the International Energy Forum Secretariat in Riyadh has now taken a co-coordinating role in the Joint Oil Data Initiative (JODI), aimed at improving the quality of oil market data, and the JODI database is due to be launched later in 2005.

## Looking ahead

- 3.6** Between 1997 and 2003, the UK was a net exporter of gas on an annual basis, mainly via the Bacton-Zeebrugge interconnector. As a result of declining UK Continental Shelf production, in 2004 the UK was again a net importer of gas and a large and growing import requirement is expected by the end of this decade and beyond. Although reliance on gas imports is not a new feature of the UK energy supply mix, the extent of previous dependence – imports met as much as 25 per cent of UK demand in the 1980s – was not on the scale now anticipated (perhaps 40 per cent by 2010 and 80 per cent or more by 2020).
- 3.7** We will continue to support the market delivery of new infrastructure to import oil and gas. For example, a deal between the UK and Norway that could secure up to 20 per cent of the UK's future gas demand was signed on 5 April 2005. The new Framework Treaty covers a wide range of potential cross-boundary oil and gas developments. In addition to the Langedled South

pipeline project, the new Treaty will cover the development of future oil and gas fields that straddle the maritime boundary between the two States and the use of offshore infrastructure on one continental shelf to explore for and develop an oil and gas reservoir on the neighbouring shelf.

- 3.8** There have also been a number of key investment decisions that will improve long term entry capacity. For example, in September 2004 NGT held auctions for long-term entry capacity at existing entry points to its system and a prospective new entry point at Milford Haven. The Milford Haven auction enabled shippers to buy capacity rights for gas to be delivered onto the National Transmission System (NTS) from prospective LNG importation facilities being developed in the area. As a result of bids received, Transco has submitted a proposal to OFGEM for the release of 350 GWh/d incremental capacity with effect from October 2007. The delivery of physical NTS capacity for this new entry point will include the construction of a 128 km extension of the NTS. NGT have also recently announced the expansion of the Grain LNG terminal.
- 3.9** Government is committed to giving the market as much advance notice and clarity as possible on the way new measures – particularly environmental regulation – will be implemented to inform decision-making and maximise the scope for efficient market response. There could be implications for security of electricity supply arising from the impending introduction of a series of European initiatives and Directives aimed at reducing pollution. The desired outcome of environmental regulation is to shift the overall generation mix towards cleaner technologies. The EU Emissions Trading Scheme, Large Combustion Plant Directive, Integrated Pollution Prevention and Control Directive and National Emissions Ceiling Directive will all operate in the same direction, providing incentives and limits on emissions to encourage a move towards cleaner forms of generation.

# 4. Competitive energy markets

## **Commitments**

Our goal is to promote competitive markets in the UK and beyond, helping to raise the rate of sustainable economic growth and to improve productivity.

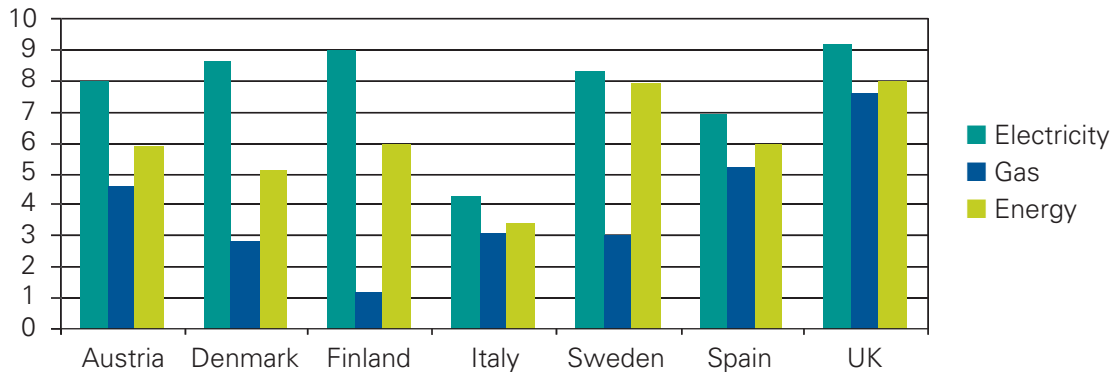
## Progress to date

- 4.1** The Energy White Paper made it clear that Government believes independent **economic regulation** of our energy markets delivers significant benefits. This view has not changed. The duality of the statutory duties placed on the Secretary of the State and the Regulator in gas and electricity legislation ensures that the separate responsibilities are carried out in a way that provides regulatory certainty. This is a must if markets are to have the confidence to make long-term investments. The Government continues to set the regulatory framework but does so in close consultation with Ofgem. ministers and senior officials meet Ofgem on a monthly basis. At policy development level, there is an ongoing dialogue between Ofgem and the DTI.
- 4.2** Energy markets in the UK remain amongst the most competitive in the EU on both industrial and domestic electricity and gas prices. The following chart is drawn from a report prepared for DTI by Oxera and published in September 2004<sup>5</sup>. This compared the competitiveness of energy markets in a range of countries, selected according to whether they had liberalised sufficiently. The report suggests that the UK is on course to remain within the top three competitive markets in each year up to 2008. This good performance is based on the early liberalisation of gas and electricity markets in the UK. Other countries' scores will improve as they implement EU market liberalisation directives.

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5 Source: "Energy Market Competition in Europe and G7" by Oxera for DTI (September 2004)

### Competitiveness of UK energy markets compared with selected EU members



**4.3** We have taken measures to implement the **2003 EU energy liberalisation package** in Great Britain, notably by introducing a licensing regime for interconnectors and by requiring electricity suppliers to inform customers of the fuels used in power generation. We support the Commission in the work it is doing to ensure the package is properly implemented in all Member States and look forward to the report DG TREN are due to make on this later this year. We also support the review of competition in the sector being undertaken by DG Competition. Both these initiatives will inform thinking on what further EU action may be necessary for the proper development of a competitive energy market.

**4.4** With the exception of 2002 and 2003 electricity **prices** for both domestic and industrial customers in 2004 were at their lowest level in real terms since 1970. In 2004 (all figures include tax):

- UK industrial gas prices were the second lowest in the EU and lowest in the G7;
- Domestic gas prices were the third lowest in the EU and lowest in the G7;
- Industrial electricity prices were the sixth lowest in the EU and second lowest in the G7; and
- Domestic electricity prices were fourth lowest in the EU and lowest in the G7.

**4.5** Domestic energy prices have been rising mainly as a result of increasing wholesale gas and electricity prices, higher international coal prices and also the effects of policy measures aimed at addressing climate change – principally EU Emissions Trading. Despite these rises and due to the international impacts of increases in underlying fossil fuel prices, UK has remained amongst the most competitive in the EU and G7 in terms of industrial and domestic energy prices.

- 4.6** Funding for **research and development** is also an important aspect of maintaining competitive markets. Following allocation of the Science Budget, announced in March 2005, Research Council expenditure on energy R&D is expected to rise from £40mpa to £70mpa by 2007-8. This will support research and skills across the broad range of energy technologies ensuring that we maintain and improve the skills required for preserving existing generating capacity, help to develop new renewable energy sources and energy efficiency, as well as supporting development of distribution technologies and addressing non-technological drivers (regulatory, socio-economic, environmental). The UK Energy Research Centre (with £13m funds from the Research Councils over 5 years) started operating in October 2004. It has a headquarters at Imperial College, London, a venue for intensive research and networking at Oxford and involves 12 separate research institutions in the research programme.
- 4.7** The Government funds a spectrum of R&D activity into emerging energy technologies, mostly focused on renewable or carbon abatement technologies (see Chapter 6 which covers these in more detail). The Welsh Energy Research Centre is an all-Wales collaborative body formed by research groups from the Universities of Cardiff, Swansea, Glamorgan and Bangor, and from the Institute of Grassland and Environmental Research. The Centre will be based at the WDA's Engineering Centre for Manufacturing and Materials at Port Talbot (ECM2). The aim of the virtual centre is to add value to existing research work, fostering the development of collaborative research projects which integrate along the energy chain. The Centre will facilitate closer integration of energy research objectives with Welsh energy policy and will lead to a more rapid exploitation and commercialisation of research work. The Centre will support Welsh research bodies in their networking with UK, European and International research initiatives.

## Looking forward

- 4.8** The UK will hold the Presidency of the European Council between July and December 2005. Key energy priorities will be to drive forward open and competitive energy markets in Europe; promote long-term security of supply and to tackle climate change. Further details are available at [www.dti.gov.uk/eupresidency2005/](http://www.dti.gov.uk/eupresidency2005/)
- 4.9** We are keen to build on progress made at the March 2005 European Council. Its conclusions showed commitment within the EU to address climate change on an international level, and made significant inroads into forging a framework for later action on a global scale. EU Heads of Government moved the climate change debate forward significantly by recommending that reductions in the order of 15-30% by 2020 (compared to 1990 levels) would need to be

considered by the developed world to ensure that average global temperatures do not rise by more than two degrees centigrade.

- 4.10** Both electricity and gas prices have been at or near historically low levels in real terms over the last few years. In 2004, however, prices started to increase as the wholesale price of gas rose due to global oil price increases and the tightness of the UK gas market. This tightness will gradually ease by 2007/8, and while oil and hence absolute gas prices may remain high, the differential with Continental prices should diminish. This will impact on electricity prices, but they will also be driven by various other factors, such as CO<sub>2</sub> costs and supply/demand balance in the power market.
- 4.11** In the 2005 Budget, the Government announced its plans to establish a new UK Energy Research Partnership to bring a more strategic focus to R&D being conducted across the board, in both the private and public sectors. This will bring together public and private funders of energy research to improve dialogue, identify shared priorities and enhance opportunities for collaboration. Discussions on the practical implementation of the new Partnership are now progressing with key stakeholders.

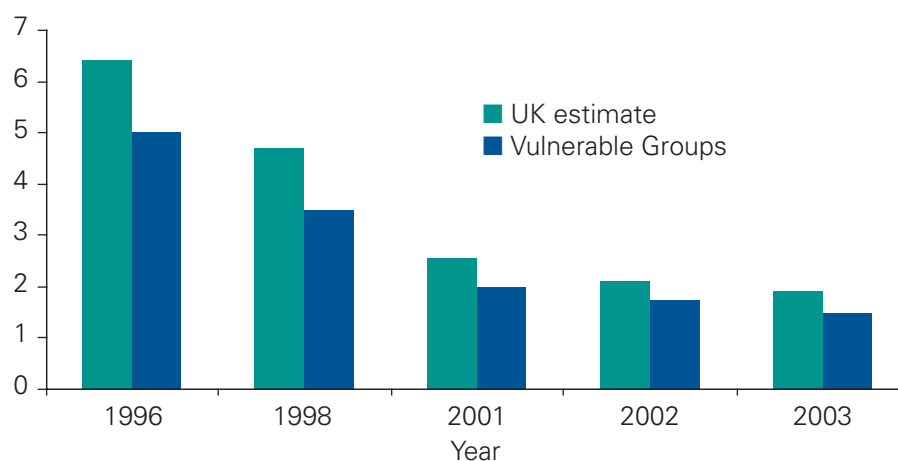
# 5. Tackling Fuel Poverty

## Commitments

The goal of the Government, and the Devolved Administrations, is to seek an end to fuel poverty. In particular we will seek an end to fuel poverty in vulnerable households in England and Northern Ireland, as far as reasonably practicable, by 2010. Wales and Scotland are committed to end fuel poverty, as far as reasonably practicable, by 2018, and Scotland has an interim aim of reducing fuel poverty by 30 per cent between 2002 and 2006. The ultimate aim is that, as far as reasonably practicable, no household in the UK should be living in fuel poverty by 2016-18.

## Progress to date

### Estimated Number of Households in Fuel Poverty in the UK



Source: The UK Fuel Poverty Strategy, 3rd Annual Progress Report 2005

- 5.1** *'Fuel Poverty in England: The Government's Plan for Action'* was published on 30 November 2004 and outlined the wide range of policies and programmes that will contribute to tackling fuel poverty. We have reported on progress to date in the UK Fuel Poverty Strategy Third Annual Progress Report. We have also carried out a consultation and peer review into the

methodology for calculating the number of households in fuel poverty, which is being published alongside the Annual Report.

- 5.2** The number of households in fuel poverty in the UK as a whole has fallen by over four and a half million since 1996, to a level of around two million in 2003. In England, fuel poverty has fallen from around 5.1 million in 1996 to 1.2 million in 2003. In Scotland the Scottish Executive published “*The Scottish Fuel Poverty Statement August 2002*”<sup>6</sup>. This sets out Scotland’s overall objective for fuel poverty, which is “to ensure that, so far as reasonably practicable, that people are not living in fuel poverty in Scotland by November 2016”. The Scottish Executive is also committed to achieving a 30 per cent reduction in fuel poverty by 2006 based on the 2002 Scottish House Condition Survey. The most recent figures available from the 2002 Scottish House Condition Survey indicate that fuel poverty has more than halved between 1996 and 2002 – from 738,000 (35%) households in 1996 to 286,000 (13%) in 2002.
- 5.3** In Wales the Welsh Assembly Government’s target is, that as far as reasonably practicable, no household in Wales should be living in fuel poverty by 2018. The Home Energy Efficiency Scheme (HEES) is the Assembly Government’s main vehicle for lifting Welsh households out of fuel poverty. HEES has a budget of £14.1 million for 2004/05. The Scheme has met the Fuel Poverty Commitment for Wales’ target of assisting 38,000 households in Wales by March 2004. The Commitment also sets out the Assembly Government’s intention to assist 95,000 households by March 2007. However, this target is now looking challenging considering the increasing costs of helping fuel poor homes. The Assembly Government currently plans to report progress against the Commitment once more accurate estimate of the number of households in fuel poverty is available from the Living in Wales survey.
- 5.4** The Government has a target to ensure that all social sector homes in England meet the Decent Homes Standard by 2010. Figures from the English House Condition Survey for 2003 show that the number of social sector non-decent homes has fallen by 13 per cent since 2001. There has been a 20% reduction in the number of social sector homes failing on the thermal comfort criterion, from over 1.3 million homes in 2001 to less than 1.1 million in 2003. Since 2001, 470,000 dwellings have received work to improve their energy efficiency under the decent homes programme or as part of wider local authority work to update the stock.

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6 [www.scotland.gov.uk/library5/environment/sfps-00.asp](http://www.scotland.gov.uk/library5/environment/sfps-00.asp)

## Looking ahead

- 5.5** We have made good progress in treating households through the Warm Front Scheme in England, with more than one million vulnerable households now having been assisted. We have announced improvements to the Warm Front Scheme in England, which came into force for the new phase of the Scheme earlier this year.
- 5.6** In Scotland, the Central Heating Programme was set up to ensure that all social sector housing and vulnerable private sector households receive free central heating by 2006. In addition, by 2006 all pensioners in the private sector with no central heating will also have benefited from the Programme.
- 5.7** Northern Ireland runs the Warm Homes Scheme and launched 'Ending Fuel Poverty: A Strategy for Northern Ireland' on 23 November 2004. It aims, subject to necessary resources, to eliminate fuel poverty in vulnerable households by 2010, and in non-vulnerable households by 2016. In addition, no household in the social rented sector should suffer from fuel poverty by 2016. The strategy recognises that the best way to tackle fuel poverty is through a partnership approach, which entails working with organisations that have an influence on income, fuel costs, energy provision and efficiency and with organisations from the voluntary and community sector.
- 5.8** Recent increases in energy prices will have made it more difficult to meet our fuel poverty targets. DTI and Defra are working with suppliers and voluntary organisations to look at ways vulnerable consumers can best take advantage of the assistance available to them.
- 5.9** The key outcome of our discussions has been that the supply industry has proposed the establishment of a Helpline dedicated to assisting vulnerable customers in accessing the full range of services available to them. The industry is now working up this proposal, with a view to the Helpline being in place in October, ready to take calls from customers or their representatives.
- 5.10** Around 9,000 communities lack access to a mains gas supply. During 2004/5, the Design and Demonstration Unit (DDU), a team of private sector secondees based in DTI, has undertaken a range of activities designed to assist deprived communities in non-gas areas. These projects use a model developed and refined by the DDU. This draws on a variety of funding sources and is replicable on a larger basis. The DDU continues to seek to expand the range of funding sources available for this work.
- 5.11** The Government welcomes the input from its Fuel Poverty Advisory Groups in England, Wales, Scotland and Northern Ireland. The Fuel Poverty Advisory

Group in England published its third annual report earlier this year, which highlighted the need for consideration to be given to the resources needed to tackle fuel poverty, the need to consider those homes that are ‘hard to heat’ and further underlined the importance of all Government departments working together on this issue

- 5.12** As described earlier in Chapter 4, energy prices began to rise in 2003, even though prices remain at historically low levels in real terms. The potential impact of these price increases on progress towards meeting the targets set out in the UK Fuel Poverty Strategy means that efforts will have to be focused on finding the most sustainable or “future proof” ways of tackling fuel poverty. There is a continuing need for action to improve both energy efficiency and incomes for those who are most susceptible to fuel poverty and its impacts. The changes to Warm Front in England will help to address these issues

# 6. Additional reporting following the Energy Act 2004

## Energy sources and technologies

- 6.1 Section 81 of the Energy Act 2004 requires the Government to include information in this annual report about a range of energy sources and technologies. Specifically “work carried out to develop or use listed energy sources or technologies: clean coal technology; coal mine methane; biomass; biofuels; fuel cells; photovoltaics; wave and tidal generation; hydrogenation; microgeneration; geothermal sources, and any other energy source/technology which may cut carbon emissions.” Detail on each is in the table below:

Type of energy source/technology	Action proposed or taken to develop or deploy
Carbon reducing technologies (including coal)	<p>A Carbon Abatement Technologies strategy was published in June 2005 and is available at <a href="http://www.dti.gov.uk/energy/coal/cfft/catstrategy.shtml">http://www.dti.gov.uk/energy/coal/cfft/catstrategy.shtml</a></p> <p>The Government is spending just over £500 million between 2002 and 2008 to help emerging renewable and low carbon technologies, in the form of R&amp;D spending and funding for capital grants. Industry-led collaborative R&amp;D is also supported through the Technology Programme, which provides least £20 million each year and also through the EPSRC/Carbon Trust’s Carbon Vision programme which provides around £9million total over 5 years. Under the SuperGen initiative the EPSRC will be funding research in to Conventional Power Plant Lifetime Extension.</p>
Coal Mine Methane	<p>The Coal Authority has developed a scheme for supporting the flaring of methane where this is an environmental hazard. The funding to support this scheme is currently being sought.</p>

Type of energy source/technology	Action proposed or taken to develop or deploy
Biomass	The Biomass Taskforce led by Sir Ben Gill is due to report shortly with its recommendations to the Government. The Government has announced grants of over £60million for energy crops and biomass. Under the SuperGen initiative research councils are funding £2,897K of work over the next 4 years.
Biofuels	The Government has put in place fuel duty incentives to encourage sales of biofuels in the UK. Biodiesel and bioethanol are both taxed at 20 pence per litre less than fossil diesel and petrol. As a result of these incentives, sales of biofuels were between 1 and 2 million litres a month during 2004, but increased rapidly in early 2005, reaching over 10 million litres in May. The Government announced in December 2004 that it would carry out a feasibility study into a possible Renewable Transport Fuel Obligation (RTFO). The study is well underway and is due to conclude shortly. The results of the study will be considered in the context of the review of the UK Climate Change Programme later in 2005
Fuel cells	<p>The DTI has supported the research and development of fuel cell technology since 1992 under what was the Advanced Fuel Cell Programme (part of the then Renewable Energy Programme). Under the SuperGen initiative fuel cell research will receive £1,960K of funding over the next 4 years. Fuel Cell research and development is now supported through the DTI's Technology Programme which invites collaborative proposals for research and development twice a year.</p> <p>Fuel Cells UK (<a href="http://www.fuelcellsuk.org">www.fuelcellsuk.org</a>) has been established with initial funding provided from DTI to help develop and represent UK Fuel Cell interests.</p>
Photovoltaic (PV)	The Major PV Demonstration Programme was extended in September 2005 by £6m until March 2006. Under the SuperGen initiative the EPSRC are funding £3,092K of research over the next 4 years.
Hydrogen	In mid 2004 a team was commissioned to develop a strategic framework for hydrogen energy. This work reported to DTI in December 2004, identifying areas where hydrogen could meet major long term UK energy policy priorities. (published as ' <i>A Strategic Framework for hydrogen energy in the UK</i> '). This report and Government response is available on the DTI's website at: <a href="http://www.dti.gov.uk/energy/sepn/hydrogen.shtml">http://www.dti.gov.uk/energy/sepn/hydrogen.shtml</a>

Type of energy source/technology	Action proposed or taken to develop or deploy
Wave and Tidal	<p>The DTI has developed and will implement this year a “<i>Wave and Tidal Stream Energy Demonstration Scheme</i>” worth up to £42 million that will support the first larger-scale wave and tidal farms. This is funded under the £50 million ‘<i>Marine Renewables Deployment Fund</i>’ announced last year. This will continue to be underpinned by industry led research and development.</p> <p>To complement both these initiatives and other activities such as the Research Councils ‘Supergen’ Marine Consortium and the European Marine Energy Centre we will seek to develop a strategic framework that will deliver a programme of work in the following areas; Environmental research (£2,609K); Resources; Standards and Infrastructure. We will also seek to develop and put in place a consenting regime for the first marine demonstration projects.</p>
Hydro generation	<p>Currently, of the renewable energy supplied across the United Kingdom, in 2003 roughly 30% came from hydropower. However, opportunities to deploy this technology within the UK are now becoming more limited, not only because most of the economically attractive sites for schemes have already been exploited but also environmental concerns are limiting the further development of this technology.</p> <p>The Government is promoting the take up of micro-hydro by households and communities through its “Clear Skies” capital grants scheme. The Engineering and Physical Sciences Research Council (EPSRC) is also funding £3,481K of research over 4 years.</p>
Micro generation	<p>Work has started on the development of the Government’s strategy for the promotion of microgeneration. More information is available at <a href="http://www.dti.gov.uk/energy/consultations/microgen.pdf">www.dti.gov.uk/energy/consultations/microgen.pdf</a></p>
Geothermal sources	<p>The Government published in 2002 ‘<i>Assessment of Technological Options to address Climate Change – A Report for the Prime Minister’s Strategy Unit</i>’. Cost remains a significant barrier to geothermal energy however its potential globally is significant and we will continue to keep it under consideration.</p>

## Science and engineering

- 6.2** Section 81 of the Energy Act 2004 also requires us to report on “the maintenance of scientific and engineering expertise in the UK for the development of energy sources.”
- 6.3** The Research Councils are currently spending some £40m a year on energy R&D through a variety of programmes and initiatives – including SuperGen, Towards a Sustainable Energy Economy (TSEC), Carbon Vision (jointly with Carbon Trust) and the Fusion programme.
- 6.4** Cogent, a Sector Skills Council covering the chemicals, nuclear, oil and gas, petroleum and polymer industries, was formally launched on 2nd March 2004.

### **Cogent’s objectives are:**

- To improve productivity and business performance through skills development;
- To reduce skills gaps and shortages;
- To increase opportunities to boost skills and productivity;
- To influence skills supply across the spectrum, including apprenticeships, higher education and national occupational standards.

They will also work closely with the recently established Nuclear Decommissioning Authority (NDA) and its contractors to ensure that necessary skills are available and sustained.

- 6.5** To fulfil our commitment to ensure the retention of a highly qualified nuclear skills base we have put measures in place to support and develop the necessary skills. Cogent takes a strategic view of the nuclear sector to ensure that the education and training base can meet the nuclear employers current and future needs.
- 6.6** Cogent has established the Nuclear Advisory Council to ensure that it gathers the views of employers and their supply chain. This will enable it to better estimate demand and scope teaching/education supply issues.

## Nuclear Fission Research and Development

- 6.7** As part of the Government's commitment to keeping the nuclear option open we recognise that research plays an important role in maintaining a high degree of nuclear competence and knowledge. We have, therefore, put in place a range of initiatives that play a significant part in fulfilling our White Paper commitment.
- 6.8** We have made opportunities available for researchers to take part in research that will investigate various issues surrounding nuclear fission. This will be carried out as part of the Research Councils *Towards a Sustainable Energy Economy* initiative. Up to £6 million of this initiative is being committed to nuclear fission research over a four-year period.
- 6.9** To keep abreast and involved with international developments on nuclear fission research the UK signed the Generation IV Framework Agreement on 28 February. It will facilitate the start of international collaborative research on advanced reactor systems that will offer a carbon free international energy option for the future (2030 and beyond).
- 6.10** The UK's participation is in line with Government policy on keeping the nuclear option open over the longer term, as set out in the Energy White Paper. It will support UK skills and our capability to keep abreast of international developments and inform UK policy development. Funding of up to £5 million for UK participation in international research on advanced reactor systems has been agreed. Research Councils are also putting £16m per annum into fusion research.

## Energy Efficiency

### **Commitments**

- The Energy White Paper identified energy efficiency as the safest, most cost-effective way to meet all of the energy policy goals, particularly the national goal to reduce carbon dioxide emissions by 2010. We expect more than half the emissions reductions in our existing Climate Change Programme – around 10 MtC per annum by 2010 – to come from energy efficiency. Further ahead we believe that energy efficiency can contribute around half of the additional 15-25 MtC savings we are likely to need by 2020.
- On 17 November 2004, Government accepted an amendment to the Housing Bill (now the Housing Act 2004), which places an obligation on the Secretary of State to take reasonable steps to ensure an increase of at least 20% in residential energy efficiency in England by 2010 from a 2000 baseline to publicly underline our already strong commitment to energy efficiency.

### **In detail**

- *'Energy Efficiency: The Government's Plan for Action'*, published in April 2004, set out a package of measures to deliver a step change in the improvement of energy efficiency in all parts of the economy – to deliver annual carbon saving of 12 million tonnes by 2010. This is a 20 per cent increase over the level of savings anticipated at the time of the White Paper and will save UK households and businesses over £3 billion per year on their energy bills.
- A key measure in the action plan 2004 included an announcement of our intention to double the level of Energy Efficiency Commitment (EEC) activity from 2005 to 2011, subject to a review in 2007. This is expected to lead to investment of over £2 billion, saving customers £4 billion from their bills to 2020.
- Concurrent with the Action Plan, Defra also published the *Combined Heat and Power (CHP) Strategy* in April 2004, which sets out a framework of measures introduced by the Government to support the growth of CHP capacity in the UK, including exemption of Good Quality CHP from the Climate Change Levy, and reiterates the Government's commitment to its target of at least 10,000 megawatts of installed Good Quality CHP capacity by 2010. We are working to maximize the delivery of existing CHP measures with the CHP Industry. Some post-Strategy measures have already been delivered this year, including securing the future of the Community Energy programme with further funding of £10m; and extending the micro-CHP VAT reduction in Budget 2005.

- The Electricity and Gas Energy Efficiency Obligations Order 2004 came into force on 22 December 2004. This is the legislation for the Energy Efficiency Commitment (EEC) for 2005-08, which commenced on 1 April 2005. This second phase of the EEC is at broadly double the level of the activity of the EEC 2002-05 and will make a significant contribution to the reduction of greenhouse gas emissions in the household sector – expected to save around 0.7 million tonnes of carbon a year by 2010.
- Following a White Paper commitment, the Energy Services Working Group (ESWG) was set up with Ofgem, Defra, DTI, energy suppliers and others to explore how to create an effective market in energy services. The Group considered the perceived barriers caused by the current 28-day notice period and the need to maintain adequate freedom of choice and consumer protection for customers. The group proposed a relaxation of the 28 day rule in order to promote energy services. The pilot that will test out whether the 28-day rule can be waived, whilst maintaining adequate consumer protection, was launched in May 2004 and will last for two years.
- A new £20 million fund to support technological innovation in energy efficient technology was announced by the Chancellor in the Pre Budget Report. The new fund will provide a focus for public and private investment in energy efficiency, and will help to build new partnerships between experts from business, research and policy-making. The Carbon Trust, who manage the fund, are finalizing its development in consultation with Government.
- Increased funding has been allocated for REEEP (Renewable Energy and Energy Efficiency Partnership) of £2.5 million in 2005/6 REEEP now has a fully established International Secretariat based in Vienna and a number of Regional Secretariats. These are generating a large number of innovative projects – over 280 from over 60 countries under the latest bidding round.
- To help inform the Climate Change Programme Review, the Chancellor announced in December's Pre-Budget Report a joint Defra/HMT Energy Efficiency Innovation Review. This Review is examining how technological, policy, financial and behavioural innovation could best contribute to the long-term step change in energy efficiency to which we are committed.
- A first draft of the Code for Sustainable Buildings was issued around the time of Sustainable Communities Summit in January. The Code will set out clearly specified minimum performance requirements for energy, water and resource efficiency to encourage innovation in building design and construction. The Office of the Deputy Prime Minister (ODPM) is leading this process in close co-ordination with Defra, other Government Departments, Industry and key stakeholders.

- Defra announced in February 2005 a £12 million Climate Change Communications initiative over the next 3 years to change public attitudes to climate change. Key parts of the initiative include a new fund to support activities at a local and regional level, a toolkit for communicators and a new website.
- Budget 2005 announced new fiscal measures to support energy efficiency: a reduced rate for the installation of micro-combined heat and power (micro-CHP) and also extends the reduced rates to air source heat pumps; the extension of the Landlords Energy Saving Allowance scheme – which provides landlords a clear incentive to improve the energy efficiency of their houses – to cover solid wall insulation; an energy efficiency theme under the 2005-06 round of the Invest to Save Budget (ISB); and a commitment by HMT to host a summit later this year to explore the development of energy services markets in the UK.

## Looking forward to 2005-06

Expected developments in the coming year include:

- The launch of the new Building Regulations;
- The launch of the Code for Sustainable Buildings – From April 2006, all new homes receiving government funding will meet the new Code for Sustainable Buildings, and we will encourage local authorities to apply similar standards to private homes. The Government aims to issue a formal consultation document later this year and publish the Code in early 2006.
- Increased funding has been announced for the Energy Saving Trust (£10m) and the Carbon Trust (£60m) for the next three years.
- Start of the £20 million energy efficiency technology fund;
- Conclusion of the Energy Efficiency Innovation Review
- The Scottish Executive announced on 7 December 2004 its plans to publish an energy efficiency strategy for Scotland. The aim is to set up a framework, define objectives and create a more joined-up approach for energy efficiency interventions by the Executive. The Executive expect to publish the strategy by the end 2005

## Joint Working Group on Energy and the Environment

DTI, Defra and Ofgem established the Joint Working Group on Energy and the Environment in 2003, fulfilling a commitment in the Energy White Paper (paragraph 9.15). The Group, which also includes the Environment Agency, HM Treasury and the devolved administrations, first met in December 2003 and has so far met seven times. It has discussed a very wide range of environmental issues relating to the

gas and electricity industries and, through providing a forum for discussion of high-level issues of this nature, has made an important contribution to the Sustainable Energy Policy Network and the development of policies in a joined-up manner.

Amongst the issues that have been considered by the Group are methodologies for assessing the environmental impacts of gas and electricity and, in particular, best practice in the design of environmental impact assessments. Infrastructure issues have been considered, including the future contribution of micro-generation and the trend towards more distributed generation. On the technology side, the Group is monitoring work by various agencies to look at the opportunities for billing and metering to help customers manage their energy more effectively.

The Group also stimulated new work to develop indicators to show progress towards environmental targets, including information on different sectors of the economy and the impacts of different technologies and policy measures. A separate Sub-Group on Indicators was set up to take this work forward.

The Group adopted an open way of working and a full set of its papers and discussions are available at:

<http://www.dti.gov.uk/energy/environment/jwgee/jwgee.shtml>

This website reports on the development of indicators of the environmental impacts of the electricity and gas industries developed by the Sub-Group on Indicators. Indicators are already available for the domestic sector and plans are outlined for indicators for the industrial, transport and service sectors.

Also available on the website is information on the Group's wide-ranging future work programme. This addresses issues covering regulation of the gas and electricity industries, their infrastructure and emergent technologies, the further development of emissions trading and other strategic issues.

# Annexes

Other reports published alongside this report:

UK Fuel Poverty Strategy Third Annual Progress Report 2005, available at [http://www.dti.gov.uk/energy/consumers/fuel\\_poverty/fuel\\_strategy.shtml](http://www.dti.gov.uk/energy/consumers/fuel_poverty/fuel_strategy.shtml).

First Annual Report on the Security of Energy Supply, available at <http://www.dti.gov.uk/energy/publications/policy/index.shtml>

UK Energy Sector Indicators 2005, available at [www.dti.gov.uk/energy/inform/energy\\_indicators/index.shtml](http://www.dti.gov.uk/energy/inform/energy_indicators/index.shtml)

Energy White Paper Annual Report – Regional Annex, available at [dti.gov.uk/energy/sepn/secondannualreport\\_regional.pdf](http://dti.gov.uk/energy/sepn/secondannualreport_regional.pdf)

A table of completed Energy White Paper commitments, available at [dti.gov.uk/energy/sepn/secondannualreport\\_commitments.pdf](http://dti.gov.uk/energy/sepn/secondannualreport_commitments.pdf)



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