dti

CREATING A LOW CARBON ECONOMY

First annual report on implementation of the Energy White Paper

APRIL 2004

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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.

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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
- ENVIRONMENT AGENCY
- FOREIGN & COMMONWEALTH OFFICE
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- MINISTRY OF DEFENCE
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- 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

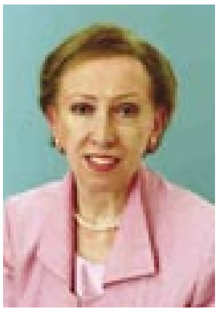
Contents

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 of 24 February 2003 to 23 February 2004 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

Patricia Hewitt
Secretary of State for
Trade and Industry



Margaret Beckett
Secretary of State for
the Environment,
Food and Rural Affairs

Energy is, at last, a talking point. That is a significant step forward since the publication of the Government's White Paper, last February. There is surely no issue more fundamental to our economy and way of life. We need energy to heat our homes, to help us travel and to power our businesses. And yet, perhaps because the UK has enjoyed its own supply of natural resources for so long, it has been all too easy to take energy for granted.

The White Paper *Our Energy Future – creating a low carbon economy* was designed to encourage everyone to face up to the challenges ahead. Climate change is real. We need to act now to avoid the devastating impact which higher temperatures and sea levels could have. Poorer countries would be least able to cope. They already increasingly suffer from lack of adequate energy supply. At the same time, our own supplies of oil, coal and gas are inevitably declining and we will depend increasingly on importing energy. We need to work internationally to ensure the immediate, and long-term, reliability and affordability of energy supplies in the UK, and globally. Our economic well-being and security depend also on our partners in the closely interlinked international political and economic systems of which we are a part. Supply failure would have massive, and very rapid, negative consequences for all of us.

We may not yet have reached a consensus on how to tackle all of these issues in just 12 months. But active and intelligent debate is a strong sign of growing acceptance that we all have a role to play in meeting these challenges. This report goes one step further. It confirms the commitment we made in the White Paper and provides a summary of the practical steps which have already been taken in pursuit of our long-term goals. Working effectively and openly together is a common feature of the examples given, whether they involve international agreements or action to provide sustainable energy for local communities.

This is a good start - but only a start. The White Paper sets a framework for policy development over 50 years. It is vital that Government, industry, regulators, consumer associations and other organisations are able to discuss the impact of our policies in the years ahead, based on clear evidence, and can contribute to the development of new initiatives as circumstances change.

Our plans for promoting energy efficiency and for supporting CHP are published alongside this report. We will be looking for your views as we come to review the Climate Change Programme later this year. And we will be working ever more closely with international partners, next year, as the UK takes up the Presidency of the G8 and European Union.

We all know the scale of the task ahead of us. This report quantifies just the first few steps along a very long road. But it also shows the importance of working together across all parts of the economy if we are to make real progress towards our aims.

The last twelve months and the way ahead: an overview

Our continued commitment

1.1 The Energy White Paper set out a bold, new strategy for energy policy until 2050. It put climate change at the heart of decisions about the way in which we generate and use energy. It established a clear and long-term framework against which business and domestic consumers can plan and make decisions with confidence.

We remain committed to the four objectives:

- to put ourselves on a path to cut the UK's carbon dioxide emissions by some 60% by about 2050, with real progress by 2020;
- to maintain the reliability of energy supplies;
- to promote competitive markets in the UK and beyond, helping to raise the rate of sustainable economic growth and to improve our productivity; and
- to ensure that every home is adequately and affordably heated.

There have been significant achievements this year

1.2 Our Sustainable Energy Policy Network (SEPN) website[1] sets out 112 key milestones as a first step towards achieving the White Paper's long-term commitments. In all, 56 of these milestones had been completed at the end of March. The following examples show the range of these achievements. Further ones are set out in the following chapters: Reducing carbon emissions; Energy reliability; Competitive energy markets; and Tackling fuel poverty.

1 http://www.dti.gov.uk/energy/sepn/progress.shtml

- We gave consents for some 1.6 gigawatts (GWe) of renewable capacity and there are projects with a capacity of around 2 GWe in the pipeline for which applications have been submitted. The UK's first major offshore wind farm at North Hoyle, off the North Wales coast, started generating electricity in late November (see cover photo).
- We are taking a key step to increase certainty about the EU Emissions Trading Scheme (EU ETS) by submission of the UK's draft National Allocation Plan (NAP) to the European Commission. The draft NAP is a policy package that advances Government objectives to incentivise least cost abatement of carbon dioxide, to maintain incentives for security of supply and to attract investment to the UK. The EU ETS will become a central feature of our policy to cut the amount of carbon dioxide that the country emits when trading begins in 2005.
- The UK and Norway announced in October 2003 a Ministerial agreement on principles for a new Framework Treaty clearing the way for the construction of a new pipeline to the UK capable of delivering 20% of UK annual gas demand and facilitating other prospective cross-boundary developments.
- We have introduced innovative changes to the United Kingdom Continental Shelf (UKCS) licensing regime, to reduce entry barriers for smaller players. The level of interest in the latest Round was particularly encouraging – 54 new 'promote' licences were awarded alongside 35 traditional ones. As a direct consequence, 3 new exploration wells have been drilled, and a 'prospect fair' was held in November 2003 where promoters informed financiers and industry contacts of their prospects in order to attract investment for drilling.

- We issued Ofgem with Social and Environmental Guidelines in February 2004. The Government expects Ofgem, consistent with its statutory duties, to facilitate the achievement of the social and environmental objectives, targets and aims set out in the Energy White Paper.
- We held a successful Better Buildings Summit in October 2003, which looked at what Government and industry could do to improve the sustainability of all aspects of construction and to maximise the potential of energy efficient technologies in new developments and in refurbishment.
- Research undertaken by independent consultants on behalf of the DTI confirmed that the UK had the most competitive gas and electricity markets of all the European Union and G7 nations.
- Energy efficiency programmes are making an increasing impact on fuel poverty and we have assisted over 750,000 vulnerable households in England through the Warm Front programme alone.
- We have launched a £10 million ultra-low carbon car challenge, inviting proposals from the automotive industry to build and demonstrate a family-sized car capable of achieving fuel efficiency of at least 75 miles per gallon.

Markets have responded

1.3 Our experience over the past six months has shown that the market is working well to deliver secure energy supplies. Last summer, the National Grid Company (NGC) forecast that margins might be tight over the winter. Subsequently, prices rose, and previously mothballed plant was brought back into service. Plant margins increased as a result from around 16% to over 20% for the winter period. This is a similar level to last year, and to the level in the mid-1990s.

We are taking early action to build on success

1.4 We introduced the Energy Bill into Parliament immediately after the Queen's speech in November. Subject to Parliamentary approval this summer, it will:

- Enable developers to access the considerable renewable energy resources further offshore to generate electricity, subject to environmental impact assessments being undertaken. The consents regime will operate on an integrated basis within and beyond territorial waters.
- Create a single wholesale electricity market for Great Britain (British Electricity Trading and Transmission Arrangements – BETTA), by creating a GB System Operator that is independent of generation and supply. BETTA is intended to benefit Scottish consumers in terms of price and choice. BETTA will also ensure the cost of upgrading the transmission system to accommodate renewables is spread across all of GB.

We are reacting promptly as circumstances change

1.5 We have responded to concerns that investors needed more confidence in the stability of the renewables market. Stephen Timms (Minister for Energy, E-Commerce and Postal Services) and Lewis MacDonald (Deputy Minister for Enterprise and Lifelong Learning in the Scottish Executive) announced plans to increase the level of the Renewables Obligation for the years from 2010-11 to 2015-16. The level will increase in stages from 10.4% to 15.4%. This addresses concerns as to the likely fall in the value of Renewables Obligation Certificates (ROCs) as our target of 10% electricity coming from renewable sources by 2010 comes closer to being achieved. This announcement has provided certainty beyond 2010 without changing the Obligation itself or pre-empting the 2005-6 review. The market has responded positively.

But there are significant challenges ahead

1.6 Implementation of the White Paper amounts to a substantial programme of work over the next 50 years. While Government, its agencies, the Devolved Administrations, regional bodies and other stakeholders can point to many achievements over the last 12 months, it is essential that they are considered together, as one step towards a long-term goal. There is much more to do.

1.7 Our environmental targets have become more challenging. Economic growth is expected to be higher than originally forecast. Recent carbon dioxide emissions have risen, even accounting for the initiatives already in place, mainly as a result of using more coal than expected to generate electricity. Plainly, our policies on energy efficiency, emissions trading, renewable sources, transport and others will need to deliver more in future. This applies equally to our other goals:

- The number of vulnerable households in fuel poverty in the UK has fallen from about 4 million in 1996 to around 1¾ million in 2002, the latest date for which statistics are available. But some vulnerable groups will be difficult to reach. And while the price rises which we expect to see over the next few years will help encourage investment, we shall need to ensure that our support for low-income groups is adequately resourced and effective.
- Even with healthy capacity margins for electricity, we can never guarantee that such a complex system will always be 100% reliable. We have conducted a thorough investigation into the London and Birmingham power failures to ensure that the necessary lessons are learnt. The conclusions and recommendations have been passed to the companies concerned, who are working constructively with us to make their systems even more robust for the future.
- Whilst the transition to importing gas has led to a number of infrastructure projects, for both import and storage facilities, these have been slow to go forward. The Government has reached agreements that will help clear the way for new import projects and transit routes with the Norwegian and Russian Governments. We shall continue to work with project sponsors, to identify and, where possible, remove barriers.

Effective collaboration is vital to success

1.8 The Government alone cannot deliver the commitments in the White Paper. It demands close collaboration with a wide range of stakeholders, including regulators; regional bodies; the energy and energy efficiency industries; and Non-Governmental Organisations (NGOs). We plan to ensure that these organisations take an active role in discussion about policy development, programme management and implementation as circumstances change, to ensure that the UK remains on track to meet our targets. Already, we have:

- Established the Sustainable Energy Policy Network, to ensure that Departments and other organisations are working together to monitor progress against targets, under the direction of a new Ministerial Group jointly chaired by the Secretary of State for Trade and Industry and the Secretary of State for the Environment, Food and Rural Affairs. The new Sustainable Energy Policy Advisory Board provides independent, expert advice to the Ministerial Group.
- Launched a website[2] to ensure that detailed plans to implement the White Paper, and achievements, are open to public scrutiny. It contains contact details for senior officials managing the various aspects of the programme.
- Developed a set of indicators to show performance against the targets over time. Key ones are shown at the beginning of the chapters that follow. More detail is available in the UK Energy Sector Indicators 2004 report[3], which is being published alongside this annual report and is described in the Annex.
- English regions have continued to make progress on the development and delivery of strategic approaches to energy issues. This includes a growing number of regional strategies, partnerships, initiatives and not-for-profit companies to deliver key regional priorities; the Appendix sets out a detailed report on regional activities[4]. We have established a Regional Energy Group[5], bringing together representatives of energy partnerships from each of the 9 English regions to provide a regional perspective on the development of national energy policy.

1.9 We will continue to work closely with other organisations. We have published a number of other major documents alongside this report, which are outlined in the Annex. As promised in the White Paper, the Energy Efficiency Implementation Plan (EEIP) sets out in detail how current and future programmes are expected to contribute to our goal of cutting carbon emissions, the risks attached to the programmes, and ways in which we intend to manage them.

1.10 We welcome comments on these and other publications. In such a challenging and long-term project, flexibility to react to circumstances is vital. We are about to embark on a series of reviews, beginning with the Climate Change Programme this Autumn, followed by the Renewables Obligation in 2005-6. This process will ensure that current programmes continue to provide the most efficient method of meeting our targets over time. Early comments on consultation documents – and on our policies in general – will help inform our work.

2 http://www.dti.gov.uk/energy/sepn
3 http://www.dti.gov.uk/energy/inform/energy_indicators/index.shtml
4 http://www.dti.gov.uk/energy/sepn/annualreport/regionalannexfar.pdf
5 http://www.dti.gov.uk/energy/sepn/reg_energy_group.shtml

Reducing carbon emissions

Our commitments

Addressing the threat of climate change is at the heart of the UK's energy policy. The Energy White Paper established a new goal for energy policy: to put ourselves on a path to cut the UK's carbon dioxide emissions – the main contributor to global warming – by some 60% by about 2050, with real progress by 2020.

The UK has a Kyoto Protocol commitment to reducing greenhouse gas emissions by 12.5% below 1990 levels by 2008-12 and a national goal to move towards a 20% reduction in carbon dioxide emissions below 1990 levels by 2010. On the basis of policies current at the time of the White Paper including the full impact of the Climate Change Programme, our carbon dioxide emissions might have amounted to some 135 Million tonnes of Carbon (MtC) in 2020. To be on track for our longer-term goals, we will aim for cuts in carbon of 15-25 MtC below that level by 2020.

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.

We are committed to a target of 10GWe of Good Quality Combined Heat and Power (CHP) being installed by 2010.

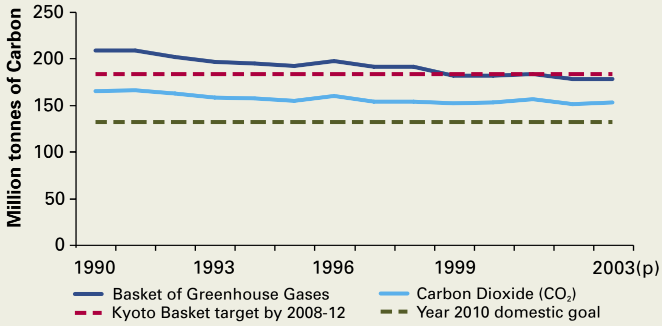
Our aim for renewables is that they should supply 10% of UK electricity in 2010, as long as the cost to the customer is acceptable. We aspire to double renewables' share of electricity from our 2010 target by 2020.

We can reduce the impact of transport on the environment through better, cleaner vehicles and fuels and by our actions to reduce the negative impacts of traffic growth.

Progress to date

2.1 The latest estimates (Chart 1) based on energy production and consumption in 2003 indicate that although emissions rose by 1.5% during 2003, they have fallen by 7.5% since 1990. This rise in emissions in 2003 is almost entirely accounted for by increased coal burn at power stations.

Chart 1: Greenhouse gas and carbon dioxide emissions[6]



2.2 Our priorities for reducing carbon dioxide emissions are energy efficiency and renewable energy resources:

- The UK's energy intensity index (primary energy consumed per unit of GDP) has fallen at a rate of around 2% per annum since 1970 (Chart 1.8 in UK Energy Sector Indicators 2004 report[7]). We need to make a step change improvement to our energy efficiency and increase this rate if we are to meet our objectives.
- We estimate that the share of electricity supplied to customers from energy sources eligible for the Renewables Obligation rose from 1.7% in 2002 to 2.0% in 2003. Electricity from all renewables amounted to 2.9%.

6 Source: DTI for 2003 provisional CO_2 estimates; Defra other data
7 http://www.dti.gov.uk/energy/inform/energy_indicators/index.shtml

- The Renewables Obligation has been the Government's main mechanism for promoting renewable energy since its introduction in April 2002. Since then, we have given consent for some 1.6 GWe of renewables capacity (which, when built, would represent about 1.4% of electricity supplied). There are projects in the pipeline with a capacity of around 2 GWe.

Milestones met

2.3 To deliver our objectives for cutting carbon emissions:

- We announced new carbon and energy efficiency targets for the Central Government estate, and a list of products and services to be procured with higher environmental standards.
- We launched the Sustainable Buildings Task Group at the Better Buildings Summit to identify how Government and industry can improve the quality and sustainability of new and refurbished buildings.
- We announced a 2-year pilot to test if relaxing the 28-day rule from April 2004 for energy service packages stimulates marketing and consumer take-up. Ofgem have consulted and announced their final proposals on the details of the pilot. Once licences are amended we hope supply companies will come forward with innovative proposals for helping consumers reduce their energy bills.
- We announced a major new training programme for the heating industry, led by the Energy Saving Trust.
- Budget 2004 announced new economic incentives for energy efficiency, including tax relief for landlords installing insulation, a reduced rate of VAT on ground-source heat pumps, extension of Enhanced Capital Allowances and new eligibility criteria for the Climate Change Agreements.
- We have worked with energy suppliers, the energy efficiency industry and other stake-holders to develop proposals for the Energy Efficiency Commitment (EEC) after 2005. We expect to consult on these plans shortly.
- We consulted on draft planning guidance for renewables in October 2003 and have continued to resource planning facilitation work at regional level, including the development of regional targets and support for champions to promote them.
- We are publishing an Energy Efficiency Implementation Plan and a CHP Strategy alongside this report.
- The Scottish Executive published a renewable energy strategy for Scotland in May 2003 and set a target that 40% of electricity generated in Scotland by 2020 should be from renewable sources.

Looking ahead and managing risks

2.4 We remain firmly committed to our international commitments and are on course to exceed our Kyoto target. The UK's immediate domestic goal is more challenging still: to reduce carbon dioxide emissions by 20% (based on 1990 levels) by 2010. This position gives us credibility and influence in our dealings with Europe and other countries as we seek to secure international agreement to reduce carbon emissions and promote practical initiatives to develop sustainable energy technologies. On the international agenda, Russian ratification of the Kyoto Protocol remains our short-term priority.

2.5 We are a year into our 50-year strategy and we have already set in place effective policies and programmes for tackling climate change. It is vital that we allow flexibility to react to changing circumstances if we are to stay on the right track towards our domestic goals.

2.6 A prudent analysis shows that carbon emissions will have reduced by some 21 to 22 MtC in 2010 compared to 1990 levels. In percentage terms we are already on course for a 13 to 14% reduction over this period. We will need to review existing policy measures and assess the potential for strengthening these and introducing new ones to meet our climate change objectives in the light of the emerging risks and in the context of the expected impact of the EU ETS. Through the review of the Climate Change Programme later this year we will be looking carefully at what further action will be needed over the next 5 years to manage these risks.

2.7 Recent modelling work suggests that CHP capacity is now likely to fall short of the 2010 target of 10GWe. The CHP Strategy, published alongside this document, will set out our support measures for CHP.

2.8 The Energy White Paper stated that we do not rule out the possibility that at some point in the future new nuclear build might be necessary if we are to meet our carbon targets. To keep the option open the Government will maintain the work it is already undertaking in research, design and development. The current economics of nuclear power make it an unattractive option for new generating capacity and there are also important issues for nuclear waste to be resolved. Before any decision to proceed with the building of new nuclear power stations, there would need to be the fullest public consultation and the publication of a White Paper setting out the Government's proposals.

2.9 Carbon savings from the transport sector remain challenging and are relatively expensive when compared to other sectors. We are, however, developing policies to improve the carbon efficiency of transport which will have an impact over the next decade. This work includes promoting the development and take-up of new technologies and fuels. We shall set out our strategy for increasing the amount of biofuels used by road transport in the UK later this year. The Air Transport White Paper has committed the Government to press for the aviation sector to be included in the EU ETS as soon as possible. And we are pressing the European Commission to finalise a further round of Voluntary Agreements on new car fuel efficiency with the automotive industry.

Camphill, Aberdeenshire – solar photovoltaic installation part-funded by DTI Major Demonstration Programme.

2.10 Investment in the research, development and demonstration of new technologies is a key part of our strategy. An exciting development has been the establishment of a UK Energy Research Centre (UKERC) by the Research Councils on 1 April 2004. The Centre will provide new leadership and promote greater coherence in energy research. It will promote excellence at the hub of a wider UK energy research network, and will provide an ideal focus for wider international engagement.

Energy reliability

Our 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.

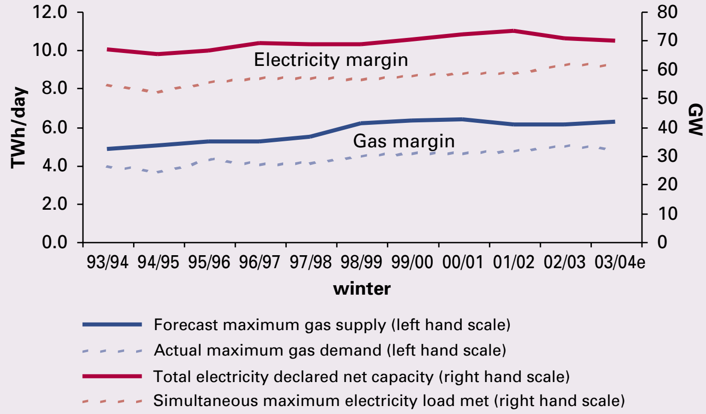
We are committed to maximising economic benefit from the UK's oil and gas reserves and maintaining production levels of 3 million barrels of oil equivalent per day from these reserves until 2010.

Progress to date

3.1 The Government is committed to a market-based approach to delivering secure energy supplies. The past six months have shown how this can work effectively. NGC's forecasts last summer were for lower levels of electricity generating capacity over this winter. Subsequently, prices rose and generators brought previously mothballed plant back into service with plant margins rising from around 16% to over 20% for the winter period.

3.2 Following last autumn's power failures in London and Birmingham, both DTI's Engineering Inspectorate and Ofgem launched investigations. The Inspectorate has presented recommendations to the electricity companies who have embraced them and are working towards their full implementation. Ofgem's investigation is separate and independent, and is focusing on compliance with the companies' statutory and licence obligations. Ofgem will be announcing its findings later in the year.

Chart 2: Gas and electricity capacity margins – maximum supply and maximum demand 1993/4 to 2003/4[8]



3.3 The UK has a very good record for maintaining reliable energy supplies. The average level of unsupplied electricity over the past 5 years has been just 0.0001% of the total supplied. However, it can never be guaranteed that such a complex system as electricity supply will be 100% reliable. It is important that we learn the lessons from power failures in the UK and abroad, and that plans are in place to deal with power shortages should they occur.

Milestones met

3.4 To deliver our reliability objectives since the publication of the Energy White Paper:

- We reached agreement with Russia during President Putin's visit to the UK in June 2003 on closer co-operation on energy and signed a memorandum of co-operation on a North European gas pipeline.
- DTI and Ofgem have jointly published reports twice a year through the Joint Energy Security Supply Group (JESS), most recently in November 2003, to monitor current and likely future indicators of trends in security.

8 Sources: National Grid Transco and DTI – 2003/2004 data are DTI estimates.

- In November 2003 we reached agreement with the gas industry on the release of operational information to Transco about offshore activity to help Transco manage the system more efficiently. Further work is ongoing to consider what information could be released in aggregated form to the wider market.
- The Gas Industry Emergency Committee has developed an Incident Response Plan to coordinate handling major or potentially major losses of supply to consumers. Work to bring together these plans with those for electricity is at an advanced stage, to ensure that, in an emergency, account is taken of the impact that one has on the other.
- We agreed a joint Memorandum of Understanding concerning the preservation of normal gas supply transmission with the gas supply industry in May 2003. DTI and industry agreed to work together to minimise the impact of any gas shortages on domestic consumers.
- The Chancellor of the Exchequer announced in his pre-Budget statement in December 2003 enhanced tax relief for exploration spending through an Exploration Expenditure Supplement for companies investing in the North Sea for the first time.

Connah's Quay Power Station and Gas Treatment Plant (courtesy of Powergen).

Looking ahead and managing risks

3.5 The key challenge for the security of the UK's energy supplies over the next five years will be to manage the transition to becoming a net importer of oil and gas. There is every reason to believe that this can be managed successfully. All other G7 countries, with the exception of Canada, are already net importers of energy. We will work to resolve disputes, promote peaceful political and economic reform and improve investment regimes and energy sector management in the Middle East, parts of Africa and the countries of the former Soviet Union, focusing on key links in the supply chain to the UK. We aim to provide early warning of, and help prevent, terrorist and other threats to the energy infrastructure, and encourage activity to improve network resilience.

3.6 We will continue to support the market delivery of new infrastructure to import oil and gas. The UK and Norwegian Energy Ministers announced on 2 October 2003 an agreement on principles that will be incorporated in a new Framework Treaty for future cross-border oil and gas co-operation between the two countries. This has cleared the way for the construction of a new pipeline to the UK capable of delivering 20 billion cubic metres per year of Norwegian gas – some 20% of current UK annual gas demand. DTI and Ofgem are also working closely with the industry to facilitate the development of a number of other key gas infrastructure projects, including the development of new and existing interconnectors, and three separate Liquefied Natural Gas (LNG) import projects.

3.7 A key issue for the future is to ensure compatibility between upstream gas and UK appliances. The first phase of a study into issues relating to EU and UK gas quality has already been completed.

3.8 We continue to seek to maximize the full economic recovery of remaining UKCS oil and gas reserves. PILOT – the high level Government/industry forum – is overseeing a number of successful initiatives. These include changes to the licensing system and improving the ability of companies, particularly new entrants, to gain acreage and fair access to existing seismic data and infrastructure. There is much to play for. Current reserves are estimated to be similar to those volumes already recovered.

3.9 We also need to ensure that there is adequate and timely investment in the UK's electricity supply. In the long-term, market signals will indicate when there is a potential shortfall of generation and where investment in new plant is therefore both needed and economically viable. The latest NGC projections suggest that with just existing plant and plant already under construction, the plant margin will remain at or above 20% in the winters of 2004/5 and 2005/6. In addition, other projects already have all the necessary consents and can move swiftly to construction when the commercial position is right. We will continue to keep this situation under careful review.

3.10 Over the next five years, we need to support the market delivery of secure gas and electricity supplies by giving priority to:

- Ensuring adequate market signals develop so as to trigger the market to construct new generation plant when it is needed.
- Ensuring that security of supply is fully taken into account by economic and environmental regulation.
- Removing barriers to the commercial exploitation of alternative sources of gas supply and ensuring appropriate infrastructure.

Competitive energy markets

Our 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.

4.1 Competitive energy markets are central to our energy policy. They are the best means of delivering reliable supplies of affordable energy whilst encouraging energy efficiency and minimising the impact on the environment. We monitor our competitiveness by looking at how our markets work, for example whether they are open to new entry. We also look at what impact our policies have on the cost of energy for UK consumers and how this compares with costs for foreign consumers and with historic costs and projections for the future.

Progress to date

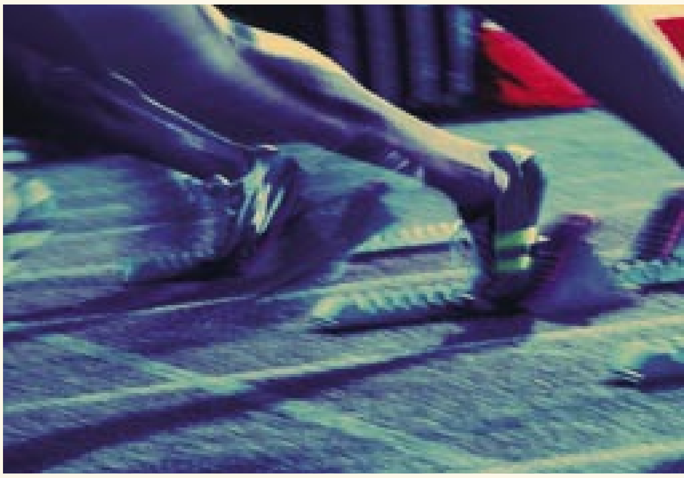
4.2 The UK has the most competitive energy markets of all EU and G7 countries. Chart 3 compares our competitiveness score with other selected EU countries (based on provisional 2002 data) and shows that the UK is more competitive than other countries in both its electricity and gas markets.

4.3 Industrial prices for

- Electricity fell by 6.8% in real terms during 2003, continuing the downward trend of the previous ten years.
- Gas increased slightly in 2003 by 0.7% in real terms, having fallen by 20% over the last decade.

Domestic consumer prices for

- Electricity fell by 1.9% in real terms including VAT in 2003 and have fallen by 29% since 1995.
- Gas prices fell by 1.2% in real terms including VAT in 2003 continuing the trend of a 16% fall since 1995.



4.4 Average UK industrial prices in 2002 for

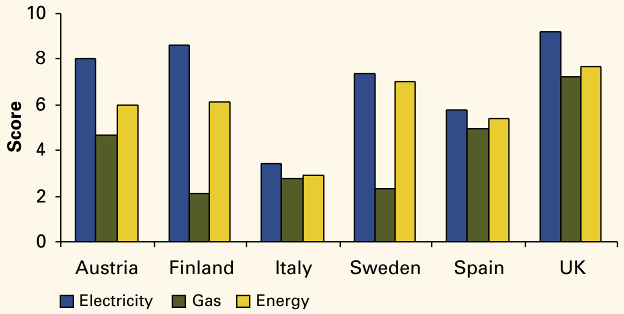
- Electricity were the fourth lowest in the EU, both including and excluding taxes, out of the eight countries for which data is available.
- Gas were the second lowest in the EU, both including and excluding taxes, out of the seven countries for which data is available. The UK has consistently had the lowest or second lowest prices since 1995.

Average UK domestic prices in 2002 for

- Electricity including taxes were the fifth lowest in the EU and the eighth lowest excluding taxes, out of the eleven countries for which data is available. UK domestic electricity prices (including taxes) have been below the EU average every year since 1982 and below the G7 countries average every year since 1983;
- Gas were the third lowest including taxes in the EU, and the sixth lowest excluding taxes, out of the ten countries for which data is available.

4.5 The EU adopted measures in July 2003 which will provide the basis for a properly competitive, European-wide energy market. They will require the opening of national gas and electricity markets for commercial customers by 1 July 2004, and for domestic customers by 1 July 2007.

Chart 3: Competitiveness score for selected energy markets (provisional 2002 data)[9]



Milestones met

4.6 To deliver our objectives for promoting competition and competitiveness:

- The Energy and Utility Skills Council was formally licensed in February 2004, and will consider how skills gaps in the industry can be addressed. A further skills council, Cogent Plus, covering the oil and gas extraction and petroleum industries, has also recently been licensed.

Looking ahead and managing risks

4.7 We will need to work with others to pursue our energy policies through a wide range of international alliances and institutions, including the EU, the G8, and the International Energy Agency (IEA). We will continue to work to promote liberalisation and the opening of energy markets to competition. A key area is harmonising arrangements for cross-border trade in gas and electricity. Encouraging sustainable energy consumption in the US and other major economies, including fast-growing countries such as China will also contribute to efficient markets.

9 The methodology was developed by OXERA, based on indicators of energy market liberalisation and applied to energy markets in the EU and G7. It is designed to be both analytically robust, drawing on well-identified indicators of market competitiveness and practical for the purpose of annual assessment. An initial sift is used on all EU and G7 countries to identify those with the most competitive markets, which then undergo a more detailed analysis. The final report is available at http://www.dti.gov.uk/energy/gas_and_electricity/competitiveness_structure/oxera_report.pdf

4.8 After a decade in which prices have fallen, we expect there to be a steady rise in electricity and gas prices for domestic and industrial consumers over the period to 2010, but in real terms we expect prices to remain below the average over the last 30 years. This takes account of wholesale electricity prices rising from historically low levels, the introduction of the EU ETS, the impact of the Renewables Obligations and increases in the cost of fossil fuels.

4.9 We have already introduced a wide range of measures to promote energy efficiency and further measures are proposed in the EEIP. This should mean that, for many consumers, projected increases in prices will not translate into higher energy bills. In addition it is important that all consumers take advantage of the different prices offered in the competitive market. In 2003, for example, consumers who remained with the incumbent electricity supplier paid, on average, £21 more on a standard credit bill of £237 than consumers who had switched to an alternative supplier. For gas, non-switchers paid, on average, £46 more on a standard credit bill of £289.

4.10 Any projections of energy prices even for short periods ahead are very difficult. This is mainly because of uncertainty about the price of carbon in the EU ETS and about the extent to which wholesale price recovery and changes in fossil fuel prices will feed through into electricity and gas prices to final consumers. Further analysis is required on this issue and will be undertaken.

Tackling fuel poverty

Our 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 Wales by 2010. The ultimate aim is that, as far as reasonably practicable, no household in Britain should be living in fuel poverty by 2016-18.

Progress to date

5.1 The latest estimates show that the number of vulnerable fuel poor households in the UK has fallen from about 4 million in 1996 to an estimate of around 1¾ million in 2002.

Milestones met

5.2 Good progress has been made with lower prices over the last few years, with continued increased income through the benefits system making a significant contribution.

- Income improvement measures over the last year have included the new Pension Credit, which replaced the Minimum Income Guarantee, ensuring that, from April 2003, no single pensioner has had to live on less than £102.10 a week (£155.80 for couples).
- The energy efficiency programmes (Warm Front in England, equivalent programmes by the Devolved Administrations and the EEC) are also making an increasing impact.

The Government's second annual UK Fuel Poverty Strategy Progress Report, 2004 provides more detail.[10]

10 http://www.dti.gov.uk/energy/consumers/fuel_poverty/strategy2004.pdf

A GOVERNMENT FUNDED INITIATIVE

5.3 The Government welcomes the input from its Fuel Poverty Advisory Groups in England, Scotland and Wales. The English Group has recently published its second annual report.[11] This highlighted the Group's recommendation about the need, among other things, for more resources and better integration of programmes and improved targeting. The Government has set out its preliminary response in the second annual progress report.

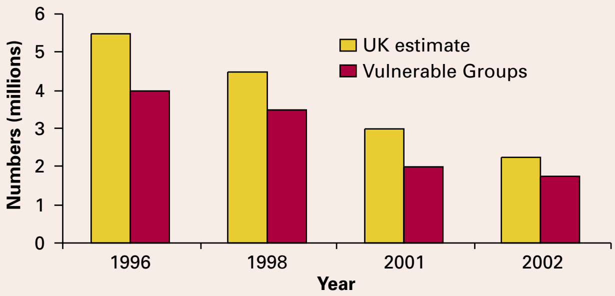
Looking ahead and managing risks

5.4 To deliver our fuel poverty objectives we are taking forward work in a number of areas:

- The future format and targeting of Warm Front will be outlined in the forthcoming Fuel Poverty Implementation Plan, to be issued after the spending review in the summer.
- We will shortly consult on proposals for an expanded EEC for the three years from 2005-6.

11 http://www.dti.gov.uk/energy/consumers/fuel_poverty/fuel_adv_grp/report2.pdf

Chart 4: Number of households in Fuel Poverty (UK)



Source: Department of Trade and Industry[12]

5.5 In acting to tackle fuel poverty, we are seeking a more targeted approach to identify the households in most need. We are looking at opportunities for enhancing programmes such as Warm Front, and the interaction with programmes such as the EEC and the Decent Homes Standard, to provide a more cost effective solution to fuel poor homes. We will also need to continue to look at measures to improve the incomes of those at risk, delivered through wider poverty and social exclusion policies.

5.6 From April 2004 the Scottish Central Heating Programme will be expanded to upgrade or replace partial or inefficient central heating systems for people who are over 80 in the private sector. Communities Scotland is currently analysing the results of the Scottish House Condition Survey 2002 and will produce a detailed report on fuel poverty in the Spring. The Scottish Executive will then be in a better position to analyse fuel poverty in Scotland and to see what effects their programmes are having. We will then consider what we will need to do after our current programmes end in 2006.

5.7 At present, there are no reliable estimates of the number of Welsh households in fuel poverty, but, in time, the Welsh Household and Dwelling survey should provide this. The Assembly has therefore commissioned research to estimate the extent of fuel poverty in Wales and is conducting an interim evaluation of the Home Energy Efficiency Scheme.

5.8 Future fuel prices are important to the achievement of our fuel poverty objectives for 2010 and the next decade. We expect prices to rise in the period to 2010, but domestic energy will still be cheaper in real terms than 10 years ago and form a lower proportion of income. There will also remain benefits for all consumers, including those that are less well-off from switching to suppliers with the lowest prices (see paragraph 4.9). In addition, an increasing focus on energy efficiency – making improvements to the home so it can be kept warm at an affordable cost – will be needed to reduce the real cost of energy. It will be important that funds from a range of programmes, such as Warm Front, the EEC and local authority capital budgets, are better coordinated to provide maximum impact.

5.9 We recognise that progress on eradicating fuel poverty amongst vulnerable households by 2010 will become increasingly challenging as unit costs rise and as the more challenging cases remain. This will include hard-to-heat homes and households without access to gas supply. A number of solutions will be needed including the provision of full central heating for all fuel poor households. Extending the gas network will be the most cost effective solution in some cases. In others, oil or possibly alternative technologies may prove to be effective. We will continue to pursue work on these areas with the Advisory Groups, and other stakeholders.

12 http://www.dti.gov.uk/energy/consumers/fuel_poverty/index.shtml

Annex

Other reports and plans published alongside this report

Combined Heat and Power (CHP) Strategy

The CHP Strategy indicates what Government support measures are needed to help set the sector on course to achieving the Government's target of at least 10 GWe of Good Quality installed capacity by 2010. Reaching the target will require roughly a doubling of CHP capacity over current levels.

Energy Efficiency Implementation Plan (EEIP)

The EEIP is a delivery plan for the energy efficiency strategy set out in the Energy White Paper. It details how the Government plans to implement the strategy set out in the Energy White Paper, which will require a doubling in the historic rate of improvement in energy efficiency.

UK Fuel Poverty Strategy Second Annual Progress Report 2004

The report provides an update on actions since the publication of the UK Fuel Poverty Strategy in November 2001 and highlights some key areas for attention during the coming year. More detailed supporting information is available in the internet edition of this publication.

UK Energy Sector Indicators 2004

This is a supplement to the first annual report on the implementation of the Energy White Paper. It sets out a range of indicators that can be used to help monitor progress towards the four goals of energy policy.

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