

Secure Sustainable Affordable Energy

Introduction

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Introduction

Government's long-term strategy for energy was set out in the 2003 Energy White Paper "*Our energy future – creating a low carbon economy*". The challenge set for the Department was to ensure that competitive energy markets deliver secure, sustainable and affordable energy supplies, through delivery of the Department's contribution to the four goals of UK energy, reducing carbon emissions, maintaining reliable energy supplies, promoting competitive markets, and making energy affordable for the poorest households in the UK.

In the first two years of delivery against that strategy the Department has been able to report good progress against its short term goals. The UK remains one of the few European countries on track to meet its Kyoto commitment to address climate change; and its economy has become substantially more energy efficient, with energy consumption increasing by just 2% since 1997, despite a 21% increase in GDP.

Efforts have also been focussed on setting in place more of the foundations for the 50-year energy strategy, plotting the route to meet targets and putting in place plans for the long term. A Report on implementation of the Energy White Paper is produced annually.

Recent national and global developments have brought increasing challenge to the UK's energy aims, with evidence about the adverse impact of climate change continuing to grow; rising global fossil fuel prices; with the UK becoming a net gas importer sooner than expected; and a general heightening of sensitivity around global energy issues.

While Government remains committed to the key priorities set out in the White Paper, the current Energy Review will consider whether additional measures are necessary to ensure we make further progress towards our medium and long-term energy goals.

Through its Export Control Organisation, the Department supports Government efforts to prevent proliferation of arms and other strategic goods. The UK's strategic export controls are based on national and international commitments concerning transfers of conventional weapons, missiles, chemical and biological weapons and nuclear-related goods and technology. The Department, in conjunction with other Government Departments, is responsible for issuing or refusing export licences.

The Department also works to ensure nuclear security and safety, through supervisory and regulatory activities to protect the public and international safety. Substantial technical assistance is also given to Former Soviet Union and East European countries in addressing

nuclear legacy issues, to reduce the global threat posed by the potential spread of weapons and materials of mass destruction.

Sustainability and the Environment

Performance in 2005-06

Greenhouse gas emissions are kept on a path to being 12.5% below 1990 levels in 2008-2012, in line with our Kyoto commitment and moving towards a 20% reduction in carbon dioxide emissions from 1990 levels by 2010.

3.169 While current projections suggest the UK is in line to meet its Kyoto commitment, it is recognised that more needs to be done if it is to remain on track to meet its more challenging domestic goal of a 20% reduction in CO₂ emissions by 2010. The Department made an active contribution to the Defra-led review, which led to the 2006 revised Climate Change Programme. This programme sets out a package of existing and new policy measures across Government and locally to try to move us closer to meeting our emissions goals, while ensuring we consider the impacts on competitiveness and security of supply. Energy supply is only one of the part of the emissions story, and the programme also focuses on areas such as transport, housing, agriculture and energy efficiency, which fall to other Government Departments.

3.170 Phase I of the EU Emissions Trading Scheme (ETS) commenced in January 2005, requiring operators to start monitoring emissions and hold allowances to cover those emissions. In May 2005 the Phase I (2005-07) National Allocation Plan (NAP), and individual allocations, was published and the UK Registry

began operation-enabling operators to fully participate in the scheme.

3.171 736million 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 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 65million tonnes of carbon dioxide (around 8%) below business as usual projections, by 2007.

3.172 Legal proceedings were taken to require the European Commission to consider a proposed increase of 20million allowances, to the provisional UK NAP figures submitted to them. In November the Court of First Instance judged that the Commission were wrong to reject the UK's proposed amendment, and required them to consider the UK's amended plan and to make a fresh decision on it. The Commission has again rejected the proposed amendment on procedural grounds and Government is considering its response.

3.173 Following consultation undertaken in the summer of 2005 on Phase II EU ETS (2008-12), stakeholder responses have been analysed and Government has made decisions on allocation methodology and expansion of the scope. The UK has decided to broaden the scope of the EU ETS in Phase II in light of the guidance on Phase II NAPs from the European Commission, and through a harmonised approach with other Member States. This expansion will cover additional CO₂ emissions from glass, rock wool, gypsum, flaring from offshore oil and gas production, petrochemical crackers, carbon black and integrated steelworks. The Department published detailed guidance on the

Phase II allocation methodology, and definitions of activities following the expansion of scope. The Department also issued a consultation paper on carbon dioxide emissions projections for industrial sectors covered by the EU ETS.

- 3.174 Consultation on the draft National Allocation Plan for Phase II for the UK was launched on the 28 March, with views sought before 23 May. The final cap will be decided in the summer when Government is required to submit the plan to the EU.
- 3.175 The Department has commissioned further work on analysis of forecast emissions for EU ETS sectors; established a Projections Advisory Group to improve exchange of views and information and continues to work to ensure competitiveness of UK businesses is fully taken into account when making decisions on Phase II.
- 3.176 Following consultation in the summer 2005, the Microgeneration Strategy was published on the 28 March. The objective being to create the conditions under which microgeneration becomes a realistic alternative or supplementary energy generation source for the householder, for the community and for small businesses. The strategy includes the Low Carbon Buildings Programme, which has an £80m budget over three years, which will help to fund the installation of microgeneration technologies in a range of buildings. This will supersede the former Clear Skies and Photovoltaic Major Demonstration programmes, and aims to take a more holistic approach to reducing carbon emissions by innovatively combining energy efficiency and microgeneration technologies.

International

- 3.177 Good progress was made on international climate change measures under the UK G8 presidency. The Gleneagles agreement accepted the consensus on the science behind global emissions, and agreed an action plan to help deliver on the agreement that emissions should slow, stop and reverse. The plan engaged the G8 countries, the World Bank and the International Energy Agency. This led onto the first meeting of the unprecedented Gleneagles Dialogue where work continued on the shared global challenge of climate change, energy security and access to energy.
- 3.178 A commitment to make a contribution to the delivery of energy policy objectives, as set out in the Energy White Paper, was included in the new RDA tasking Framework, within the context of a wider commitment to Sustainable Development.
- 3.179 The Department has continued to support the development and delivery of strategic approaches to energy in the English regions, through a seedcorn fund of £100,000 per region. This has been matched by the regions, drawing on a range of public and private sources, and has supported a number of programmes – for example: integration of energy into local and regional plans and strategies; regional communications and awareness raising schemes aimed at individuals and businesses; supply chain and skills development work; and local demonstrator projects for low carbon energy technologies, such as biomass, low carbon buildings and hydrogen.

Proportion of electricity produced from renewable energy supplies is increased, consistent with our wider goals for affordable and reliable energy supplies, to achieve 10% of electricity from renewables, at acceptable cost, by 2010.

3.180 The 10% renewables target is ambitious, but since the introduction of the Renewables Obligation¹⁰⁰ (RO) in 2002, there has been a step change in the amount of new renewable generating capacity coming through. In 2004, 3.1% of the UK's electricity came from RO eligible sources, rising to 3.6% from all sources of renewable energy. Wind energy remains the fastest growing renewable technology and 2005 surpassed all records for the amount of new wind capacity installed. In June 2005, the UK became one of only eight countries around the world to have installed over 1,000 MW (or 1 gigawatt) of wind capacity. At the beginning of 2006, the UK had some 1,300 MW of installed (onshore and offshore) wind capacity.

3.181 Looking forward, development activity continues at a high rate with 6,900 MW of onshore and 2,700 MW offshore windfarms in the planning system. In 2005, four consent applications under the second round of offshore windfarms were submitted to the Department. Of these, the London Array development has the potential to be the largest offshore wind farm in the world, supplying around 1% of the UK's electricity supply equivalent to 750,000 households. The Department also brought forward a Research Advisory Group to fund research into the impact of wind farms on the environment, including addressing concerns over seascape, birds and navigational safety.

3.182 In October 2005, E.ON UK, one of the World's leading power and gas companies, took the decision to proceed with a 44 MW dedicated biomass power station in Scotland. Construction of the £90million power station, the largest UK plant of its kind, began in January 2006 and will help create over 300 jobs. Plans for a new 100 MW hydroelectric power station at Glendoe in Scotland were also given the go-ahead in July 2005. The Glendoe hydroelectric power station will be one of the largest conventional hydro plants in the UK, and will generate enough green energy to meet the power needs of 250,000 homes. Construction is expected to take three years commencing in the spring of 2006.

3.183 The Department's 2010 Target Team continues to work to address barriers to new large-scale renewable generating capacity in the UK. Recent successes include the recommendations of the Eskdalemuir study on the effects of wind turbines on radar installations, which will enable objections to more than 1 gigawatt of renewable projects to be lifted.

2005-06 Review of the Renewable Obligation

3.184 In the 2003 Energy White Paper, Government gave a commitment to carry out a review of the RO. The Review was not a fundamental rethink of the Obligation, but an opportunity to improve its overall effectiveness. The resulting amendments have been made to the Renewables Obligation Order, which subject to parliamentary approval will come into force on 1 April 2006. The key changes being made are to eligibility rules in the area of energy from mixed wastes and improvements to the administration of the Obligation to

¹⁰⁰ The Government's primary mechanism for supporting the development of new renewable generating capacity is the RO. The RO is a market-based mechanism requiring electricity suppliers to source an increasing percentage of their electricity sales from eligible sources of renewable energy.

reduce the regulatory burdens on companies that benefit from, or are required to comply with, the Obligation. The Review also looked at making it easier for small generators to access the benefits of the RO. These proposals require primary legislation and it is intended to use the Climate Change and Sustainable Energy Private Members Bill to bring these in at an early opportunity. This would then allow changes to the secondary legislation to be made.

Research and development is conducted into low carbon technologies (renewable, clean fossil fuel and nuclear) that could play a role in the longer term UK energy mix, and the regime for successfully implementing them is progressed.

3.185 The Carbon Abatement Technologies Strategy, and the UK Hydrogen Strategy were published in June 2005. The implementation process is underway and expected to be finalised in 2006. A £50million four year funding package was announced for carbon abatement technologies, hydrogen and fuel cells demonstration projects. Funds are expected to be made available as capital grants, although the precise nature of the scheme will be dependant on State Aids approval.

3.186 State Aids clearance has been received for a £50million programme of Wave and Tidal demonstration projects. The Department continues to work with UK Energy Research in developing a route map for marine R&D, including identifying the cost reductions necessary for commercialisation. The Department issued guidance to developers in November 2005 on consents procedures designed to facilitate the deployment of wave and tidal energy demonstration devices.

3.187 In January 2006 the Department announced the official launch of the UK Energy Research Partnership (UKERP). The UKERP involves key stakeholders such as the Research Councils, the Carbon Trust, leading energy R&D businesses, Government Departments, and HEIs. The Partnership, jointly chaired by Sir David King, Government Chief Scientific Adviser, gives strategic direction to UK energy research and innovation, promoting a coherent approach to addressing UK energy challenges.

Numbers of significant environmental incidents and the impacts of offshore developments are minimised, and regulation does not unnecessarily burden industry or create any taxpayer liability to arise from decommissioning activity.

3.188 No significant environmental incidents were reported and all offshore developments have been consented only after demonstrating no significant environmental impact. The Oil Pollution Prevention Control (OPPC) Regulations have been implemented and the Oil in Produced Water Trading Scheme is scheduled to commence in 2007. This will allow industry to minimise and share the costs of achieving the 15% reduction in oil in produced water discharges required under the OSPAR Recommendation 2001-01.

3.189 The Department continues to implement e-business and the programme is scheduled for completion in 2006. An electronic registry was developed in house for the Oil in Produced Water Trading Scheme, saving considerable costs to the industry. A decision process was agreed with industry for decommissioning derogations – where the footings of large steel or concrete

structures may be left in place. This will allow more efficient derogation applications and transparent decisions and offer the industry more certainty over the potential outcome of the process.

Cost benefit analysis is fully integrated into EU policy making and Directives are negotiated and implemented at least cost to UK business during development, and subsequent post implementation impact assessment.

3.190 The Department is working closely with Defra who lead on the Registration, Evaluation and Authorisation of Chemicals (REACH) Directive, a cornerstone of Government's better regulation agenda and the EU commitment to sustainable development. Initial estimates are that costs to EU business have been reduced by as much as €660million.

3.191 The Waste Electrical and Electronic (WEE) Directive aims to address the environmental impact of electrical and electronic equipment (EEE) and to promote its separate collection. The Government has announced a review of progress on implementing the requirements of the directive. The review is intended to ensure that the UK achieves maximum benefits in terms of sustainable development at least cost to business. It involves officials from several government departments, together with Devolved Administrations and the Environment Agencies. On completion of the review, Government expects a further consultation on draft regulations and guidance to take place in the spring.

3.192 The Large Combustion Plants Directive imposes tough new limits on the emission of certain noxious substances and dust, which come into force on 1 January 2008, to be tightened again

on 1 January 2016. Defra lead on implementation, but the Department has worked very closely with industry and the Environment Agency, who will enforce the Directive when it comes into force.

Businesses adopt corporate social responsibility as part of their business strategy, and reduce environmental impacts from GDP growth. Businesses adopt a Code for Sustainable Buildings.

3.193 The Department's Sustainable Development Action Plan (SDAP) was approved by Ministers in December 2005, setting out principles and highlighting areas of key importance – Energy Policy and Use; Technology and Innovation; Diversity Issues and our Operational Commitments – together with the Department's plans for monitoring, evaluation and accountability.

3.194 Under the EU Presidency, a successful Corporate Social Responsibility (CSR) Conference was held in December 2005. The conference considered how CSR could help drive forward progress towards broader international goals. It paid particular attention to the role of financial institutions in CSR and developed a number of themes, including ways in which the financial sector can contribute towards achieving the Millennium Development Goals.

3.195 Since 2000, the number of UK companies reporting on CSR has increased year on year so that now the majority of UK top companies disclose CSR information. By 2004-05 only 17 of FTSE 100 companies were described in annual survey by Salterbaxter as non-reporters. The focus is now on quality of reporting and UK companies have led in global surveys in terms of quality of their CSR reporting.

Plans for 2006-07

- ▼ Reduce greenhouse gas emissions by 12.5% from 1990 levels in line with the UK's Kyoto commitment, and move towards a 20% reduction in carbon dioxide emissions from 1990 levels by 2010, and a further reduction in carbon dioxide emissions by 60% by 2050, through measures including energy efficiency and support for renewable energy, working with Defra and DfT;
- ▼ Increase the proportion of electricity generated from renewable sources, consistent with the Department's wider goals for affordable and reliable energy supplies;
- ▼ Encourage domestic and international R&D into emerging low carbon technologies (renewable and clean fossil fuel) that could play a role in the longer term UK energy mix, and progress the regime for successfully implementing them, including introducing demonstration and deployment measures;
- ▼ Work with the offshore oil, gas and renewables industries to minimise the number of significant environmental incidents and the impacts of offshore developments, and regulate without undue burden on the industry or taxpayer liability.

Figure 3.20

Expenditure on Sustainability and the Environment (£million)

	2003-04 Outturn	2004-05 Outturn	2005-06 Working provision	2006-07 Plans	2007-08 Plans
Total	25.3	31.0	60.7	103.7	88.3
<i>of which:</i>					
New and renewables Barriers Busting	-	0.5	12.3	8.6	8.6
Sustainable Energy Capital Grant	7.6	15.8	28.0	72.8	59.8
Photovoltaic Grant Scheme	2.2	5.2	4.0	4.0	4.0
New and Renewables – Capital Grant (CMF/NFFO/PIF Source)	10.4	3.8	10.0	0.0	0.0
Energy Efficiency R&D Fund	0.0	0.0	0.0	0.0	0.0
Other	5.1	6.3			
<i>of which:</i>					
Environmental Surveys	2.5	2.4	2.5	2.5	2.5
Chemicals Notification	0.5	0.9	0.7	0.7	0.7
Chemicals Notification – Appropriations in Aid	-0.6	-1.4	-0.7	-0.7	-0.7
Consolidated Policy Studies Programme	1.6	2.7	1.8	1.7	1.7
Offshore Aerial Surveillance	0.3	0.3	0.3	0.3	0.3
EU Emissions Trading Scheme	-	0.0	0.0	0.0	0.0
Innovation Group	0.7	0.9	2.0	1.5	1.5

Security of Energy Supply

Performance in 2005-06

Well functioning UK energy markets ensure availability of supply to meet demand at affordable prices, through adequate supplies of gas and electricity to meet peaks and disruptions, with efficient regulation of electricity infrastructure.

3.196 It is not Government policy to intervene in gas markets or prices, and over the long run this has given the UK low gas prices and increased choice for domestic and industrial customers, and between 1995 and 2003 some of the cheapest prices in Europe. However, the decline in North Sea production, increasing world prices for fossil fuels, and an early cold spell in the winter combined to cause an increase in gas prices in 2005-06, and subsequently electricity prices. In response to these pressures, coal-fired capacity carried an unusually high proportion of the generating load in 2005.

3.197 Throughout the year the Department has worked closely with industry and OFGEM in order to ease the effects of high prices and maximise supplies, for example through the work of the Gas Prices Working Group in identifying improvements in the operation of the gas market, and the report on the Forward Gas Market. Efforts have been directed to actions such as the maximising of gas supplies and pursuing energy market liberalisation in the EU.

3.198 In addition to encouraging domestic consumers where appropriate to take energy efficiency measures, switch gas supplier and payment method to mitigate the effect of price increases, Government is working with suppliers,

OFGEM and Energywatch to develop further initiatives to mitigate the impact of price rises on vulnerable consumers.

3.199 Some price increases are inevitable as the market works to signal the need for additional imports as production from the North Sea declines. The Department will continue to support the market delivery of new infrastructure to import oil and gas and already some £10 billion of private sector investment is going into providing gas to UK markets in the next few years. In April 2005, UK and Norwegian Energy Ministers signed a Co-operation Treaty, paving the way for unprecedented co-operation on North Sea oil and gas projects between the two countries, including the construction of a new pipeline to the UK. The pipeline, (Langeled South), will be operational from winter 2006 and will be capable of delivering up to 16% of peak UK gas demand. The Treaty also covers the development of any future oil and gas reservoirs, which straddle the maritime boundary between the two countries.

3.200 Other infrastructure being built includes the BBL Interconnector, which could supply up to 10% of UK peak day demand, and should begin to come on stream in 2006; the further upgrading of the existing Interconnector; two major Liquefied Natural Gas import terminals, currently being constructed in Pembrokeshire, and potential new gas storage facilities. The Department has additionally established the Gas Supply infrastructure Task Force to identify and tackle any regulatory obstacles to new gas supply projects.

3.201 The Department, in the interests of more efficient energy markets, shared analysis with market participants – for example two reports were published, on the potential for demand side response

and on the functioning of the forward markets in gas. These are available on the Department's website¹⁰¹.

3.202 The Department also commissioned work from Oxera on optimum security of supply in a competitive market and the results of their findings were published in their journal *Advancing Economics in Business* (November 2005).

UK is an influential player on the global energy scene, working to achieve open and liquid energy markets and favourable conditions for investment in energy resources, as demonstrated by worthwhile progress on global warming, Africa and energy.

3.203 The first energy Permanent Partnership Council with Russia was held in October 2005 and marked a significant step forward in EU-Russia energy relations. Member States (through the UK Presidency) took the lead and this approach was commended in the EU/Russia summit as a "model for cooperation". It offers a precedent for EU relations with third countries that can be consolidated in the new European energy policy arising from the Hampton Court Summit.

3.204 The Energy Community Treaty with the States of South East Europe was signed in October. The Treaty represents a major step forward in bringing stability and growth to both the EU and South East region.

Europe

3.205 A successful Energy Council, chaired by Malcolm Wicks in December, brought broad consensus that secure electricity and gas supplies at competitive prices, delivered on open, transparent and competitive markets are crucial to

Europe's competitiveness; and that full implementation of the second electricity and gas directives is vital. The Department's efforts to promote the development of competitive markets in the UK, Europe and beyond have contributed to the delivery of full liberalisation in UK electricity and gas markets, and the Department continues to support the need for more effective action by the Commission to further ensure the development of competitive EU energy markets.

3.206 The Department has worked alongside other Government Departments to improve the way in which the global oil market functions. In 2005 the Department used the UK presidencies of the G8, G7 and EU to promote international efforts to improve the functioning of the oil market and tackle market failures – for example in improving data transparency, specifically through the Joint Oil Data Initiative (JODI), and reducing barriers to investment – and will continue to work with producers and consumers on taking this forward.

UK's coal, oil and gas reserves provide maximum economic benefit and contribution to security of supply, with maintenance of oil and gas production of 3million barrels of oil and gas equivalent per day by 2010.

3.207 Efforts on UKCS reflect the substantial quantities of oil and gas to be produced from under the North Sea. The Department is working closely with industry to ensure the UK has the best licensing, environmental and business frameworks to attract the investment and activity needed to deliver this potential. The Department's innovations on licensing are particularly important,

101 <http://www.dti.gov.uk/energy/publications/policy/index.shtml>

such as the “promote” and “frontier” licences, providing opportunities for a wider range of companies to invest here. The Department has a key role in generating new activity via offshore licensing rounds – where North Sea acreage is offered up for exploration and appraisal activities.

3.208 In 2005 the Department awarded the highest number of licences in UK North Sea history – 152 Licences in total, covering 266 Blocks. The spread of awards covers 70 Traditional, 76 Promote and 6 Frontier licences, with strong competition for some Blocks. 17 firm drilling commitments have been made – the most for over a decade. The applications have brought in a further 24 new entrants.

3.209 The Government and industry continue to pursue initiatives to stimulate North Sea investment and activity. PILOT, a Government/industry oil and gas task force set up in 1998 to make North Sea more competitive, aims to maintain/increase UK Continental Shelf (UKCS) production so that a target of 3million barrels of oil and gas equivalent a day in 2010 is reached.

3.210 Current exploration levels continue to be relatively low – although 2005 UK Offshore Operators Association Economic Report anticipates upturn in 2005 and next few years with a significant increase in rig activity.

3.211 Coal output fell to 20million tonnes in 2005 (down from 24.5million tonnes in 2004), and for the first time, surface mined output (10.44million tonnes) exceeded deep mined production (9.56million tonnes). The latter reflected poor performance at 7 surviving larger mines in the first half of the year, but the prospects for 2006 are better and this level of production could be maintained despite the planned

mothballing of 2 mines. Surface mine operators continue to struggle to obtain planning permission for new sites, especially in England, where output halved from 3.04million tonnes in 2004 to 1.45million tonnes in 2005. Output remained steady in Scotland and Wales (7.75million tonnes and 1.23million tonnes respectively).

Effects of significant disruptions to electricity, gas, or oil (including petrol) supplies are minimised.

3.212 The Department is currently implementing a change programme to re engineer the way the Department responds to emergencies across all 7 sectors for which it is responsible. The Emergency Preparedness Project is led by a senior manager from National Grid on a year’s secondment, with the aim of a well trained and committed group of the Department’s staff available at all times to respond effectively to crisis situations.

3.213 The Buncefield fire tested the new emergency arrangements and notwithstanding the fact that lessons were learned the new processes proved to be robust. Although ODPM were in the lead for the incident as a whole The Department played a key role in working with industry and across Whitehall to resolve short-term surface fuel distribution issues and the fuel shortages affecting Heathrow Airport.

3.214 The Department is engaging more closely with the emergency preparedness body of the downstream gas and electricity industries, The Energy Emergency Executive, with an oversight committee having been formed, chaired by the Department and consisting of representatives from OFGEM and National Grid, in order to provide a direct link to Ministers and to direct work.

- 3.215 Private sector input has also been obtained for work currently underway on Project Blackstart, which looks at the required technical response to a complete power outage across the UK.
- 3.216 The Department led UK participation in the response to the disruption of oil supplies caused by Hurricane Katrina in the USA. This involved making available to the market some of the emergency stocks of oil held by companies in the UK as part of a global action led by the International Energy Agency. This succeeded in calming markets and prices. However, the Department needs to ensure that the UK system for holding emergency oil stocks remains robust in the long term as the UK becomes more dependent on imports and stocking obligations increase. The Department is therefore consulting with industry about proposed changes to the system, including the long-term potential of establishing an agency to run the system.

Consumer's benefit from the most efficient allocation of resources and competitive prices and terms as a result of UK remaining in top 3 most competitive energy markets in EU and G7.

- 3.217 The project to open up the electricity trading market in Scotland went "live" as planned on 1 April 2005. It introduced a single wholesale electricity market for the UK with a single transmission system operator independent of generation and supply interests; a common set of trading rules so that electricity can be traded freely across the UK; and a common set of rules for access to, and charging for, the transmission network. For further information on competitive energy markets please see the entry for PSA 4 in this report.

Department is working effectively with DEFRA to ensure Government is on a path to eliminate fuel poverty in vulnerable households by 2010 Fuel poverty.

- 3.218 The Government's UK Fuel Poverty Strategy Fourth Annual Progress Report was published in April 2006, providing an update on developments and progress made in the last year and clarifying policies and priorities to tackle fuel poverty going forward. There has been a considerable reduction in the number of households in fuel poverty, and it is estimated that in the UK numbers have fallen by over 4million since 1996, down to about 2million in 2004.
- 3.219 Increases in energy prices will reverse some of these reductions. Analysis of overall effects of changes in fuel prices and incomes, excluding consideration of energy efficiency improvements, suggested that the total number of vulnerable households in fuel poverty is likely to rise by around 1million households in England between 2003 and 2006, with a proportional increase in the Devolved Administration.
- 3.220 The Department is also carrying out a number of pilots in designing, developing and delivering projects in deprived communities outside the main gas networks. This involves the provision of gas connections where economically viable, and of renewables based community-heating projects where they are not. Further work on the best ways to tackle fuel poverty in the light of rising energy prices is being taken forward in the context of the Energy Review.

Energy review

3.221 The Energy Review was launched by the Prime Minister and the Secretary of State for Trade and Industry at the end of November 2005. On 23 January the Secretary of State and the Minister for Energy launched the consultation document 'Our Energy Challenge: securing clean, affordable energy for the long term'. The consultation ran until 14 April and had a broad scope, considering all aspects of the energy system including both energy supply and demand. The consultation document set out the energy challenges the UK is currently facing, and invited responses to the evidence presented and to what should be done to secure clean and affordable energy for the long term.

PRIORITY ACTION – Security of Energy Supply

Progress in delivering the Department's objective of ensuring the continuity and security of energy supply – at affordable prices through competitive markets, while minimising environmental impacts, and delivering social objectives – has been regularly reviewed by the Executive Board as a priority action.

This reflects the importance of reliable energy supply at competitive prices as a key condition of creating business success. The UK has generally performed well over the last few years on providing a dependable system of physical distribution networks and access to sufficient and affordable energy, with fewer unplanned interruptions to electricity supply than in any European country except the Netherlands, and only a small number of threats to oil and gas supply.

Plans for 2006-07

- ▼ Support well-functioning UK energy markets to ensure availability of supply to meet demand at affordable prices to consumer benefit;
- ▼ Ensure that the UK is an influential player on the EU and global energy scenes, working to achieve open and liquid energy markets and favourable conditions for investment in energy resources;
- ▼ Maximise the economic benefit, and contribution to security of supply, from the UK's coal, oil and gas reserves;
- ▼ Ensure that the effects of significant disruptions to electricity, gas or oil (including petrol) supplies are minimised;
- ▼ Eliminate fuel poverty in vulnerable households in England by 2010, in line with the Government's Fuel Poverty Strategy objective, working jointly with Defra;
- ▼ Following a period of extensive public consultation and stakeholder engagement, the Energy Review will continue its full assessment of options to help the UK make further progress towards its medium and long-term energy policy goals. Government will make a policy statement following this assessment during 2006.

Figure 3.21

Expenditure on Security of Energy Supply (£million)

	2003-04 Outturn	2004-05 Outturn	2005-06 Working provision	2006-07 Plans	2007-08 Plans
Total	6.8	36.2	30.5	4.8	3.9
<i>of which:</i>					
Oil and Gas Maximising Recovery Programme	2.7	2.7	2.5	2.5	1.6
Other	4.1	-	-	-	-
<i>of which:</i>					
Offshore Geology	0.7	0.8	0.6	0.6	0.6
OG Competitiveness	1.2	1.9	1.4	0.6	0.6
OG Payment to CSO	0.0	0.0	0.0	0.0	0.0
UNCLOS	0.0	0.0	0.1	0.0	0.0
Delimitation Survey	0.0	0.0	0.0	0.0	0.0
Oil and Gas Gazette	0.1	0.0	0.1	0.0	0.0
European Energy Charter	0.3	0.3	0.3	0.3	0.3
International Energy Agency	0.9	1.0	1.0	0.8	0.8
Energywatch - pensions	0.0	0.0	0.0	0.0	0.0
Energywatch	12.0	13.2	13.1	13.1	13.1
Licence Fee Receipts	-12.0	-13.3	-12.9	-13.1	-13.1

Nuclear Security and Export Control

Performance in 2005-06

Export licence applications processed promptly and accurately

3.222 The licensing performance project (JEWEL) has been implemented, except for IT aspects which are ongoing, and has been a major contributor to meeting Key Performance Indicators (KPIs) and creating scope for efficiency savings. KPIs for processing of applications and ratings have been met or exceeded in calendar year 2005. 73% of standard individual export licence applications were processed in 20 days in 2005, against a target of 70%; and 97% in 60 days, against a target of 95%. The number of licences produced per officer per year has risen from 68 in 2003 to 90 in 2005; average costs per standard individual licence have decreased from £525 in 2004 to £450 in 2005. JEWEL has created a single licensing

community through the establishment of joint management structures, joint induction and new business processes. More joined up IT licence application processes are being developed through the SPIRE project.

3.223 Building on the JEWEL programme, the Export Control Organisation (ECO) is implementing a continuous improvement strategy to enable it to handle the same volume of licence applications with fewer staff, and also to improve the service to exporters. Projects underway include a successful development of the Smart Front End filtering mechanism, the piloting of new procedures for dealing with weapons of mass destruction (WMD) end-use cases, the development and launch of software tools to help exporters identify the licensable status of goods and appropriate open general licences, the establishment of staff training modules, and an extended programme of training seminars for exporters. The Department has also deepened its dialogue with exporters.

International Non-Proliferation objectives are met whilst impact on UK organisations is minimised

3.224 The UK has continued to cooperate fully with the International Atomic Energy Agency (IAEA) and European Commission on the application of nuclear safeguards to the UK, and with the Organisation for the Prohibition of Chemical Weapons (OPCW) on the application of the Chemicals Weapons Convention to the UK Chemical Industry. Reporting requirements to all organisations have been met in full, and on time. The Department has played a major part in the development of new approaches to inspections in all organisations, in particular with the European Commission (Euratom Treaty) safeguards framework, as part of the UK's Presidency.

UK Nuclear Component of the G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction is delivered.

3.225 The Department manages, on behalf of Government, a £38.7million programme to address nuclear cold war legacy issues in the Former Soviet Union (FSU). The programme is part of a G8 initiative to reduce the global threat posed by the spread of weapons and materials of mass destruction and the Prime Minister has committed up to £500million to this work over the period 2003-13.

3.226 Following on from implementing a robust project management structure for the programme and completion of legal Agreements with the Russian Federation in 2003, a major portfolio of projects was initiated during 2005-06. Key projects underway or completed during 2005-06 include:

- ▼ NW Russia projects at Andreyeva Bay to make Spent Nuclear Fuel safe and secure, dismantlement of a nuclear submarine at Nerpa shipyard, and the construction of a new Spent Nuclear fuel facility at Atomflot Murmansk taking up some £20million;
- ▼ Delivery of a successful £4million portfolio of FSU nuclear security projects by April 2006 (including the second contribution to the USA led Pu reactor closure project, and starting a second security project at the Karpov Institute early in the New year);
- ▼ Recruitment of new project management contractors by 1 April 2006. Implementation of a £330,000 project to ensure the safe and irreversible decommissioning of the Soviet designed fast breeder reactor in Aktau, Kazakhstan.

3.227 A detailed report reviewing progress during 2005 and plans for 2006 was published in December 2005: The G8 Global Partnership, progress during 2005 on the UK's programmes to address nuclear, chemical and biological legacies in the FSU. The Department prepared and published this report on behalf of the FCO and Ministry of Defence (MOD). The document also sets out the long-term priorities for the programme and includes a description of the projects underway¹⁰².

A continuously improving framework for effective and proportionate regulation of nuclear safety and security.

3.228 Security in the civil nuclear industry continues to be regulated by the Office for Civil Nuclear Security (OCNS) whose activity is governed by the Nuclear Industries Security Regulations 2003 (NISR 03). The Regulations are now

¹⁰² Copies of the report and further details of projects underway are available from www.dti.gov.uk/energy/nuclear.fsu

firmly established and are providing a coherent, proportionate framework to oversee this vital activity.

3.229 Director OCNS publishes an Annual Report on the state of security in the civil nuclear industry and the effectiveness of regulation¹⁰³. With regard to the latter, projects to criminalise trespass on civil nuclear sites and to amend NISR 2003 are underway.

3.230 Where required, an armed response at nuclear sites is provided by the Civil Nuclear Constabulary, which was created from the UK Atomic Energy Authority Constabulary in April 2005. The Civil Nuclear Constabulary has consolidated its position as a stand alone Force, complying with the legislative requirement to hold a Police Authority meeting in public, and continuing the deployment of Support Units to nuclear generating sites in accordance with, OCNS's requirement to test nuclear sites' emergency preparedness frequently, and usually involve local emergency services and local Government bodies.

Plans for 2006-07

- ▼ Process export licence applications promptly and accurately and improve the service offered to exporters;
- ▼ Contribute to meeting the UK's international non-proliferation obligations while minimising the impact on UK organisations (including business);
- ▼ Deliver the UK Nuclear Component of the G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction;
- ▼ Continue to improve the UK's framework for the effective and proportionate regulation of nuclear safety and security.

Figure 3.22

Expenditure on Nuclear Security and Export Control (£million)

	2003-04 Outturn	2004-05 Outturn	2005-06 Working provision	2006-07 Plans	2007-08 Plans
Total	65.5	58.4	60.7	51.4	51.4
<i>of which:</i>					
Export Licensing via Internet Service (ELVIS) Project	0.1	0.3	0.8	0.8	0.8
Nuclear support to the former Soviet Union	42.1	35.2	38.7	32.2	32.2
Nuclear Energy Agency subscription	0.5	0.5	0.5	0.3	0.3
International subscriptions (non-proliferation)	15.7	18.7	19.0	18.1	18.1
Emergency Planning Work	2.1	0.2	0.0	0.0	0.0
British Energy Crisis Team	4.9	6.0	0.0	0.0	0.0

103 A copy of the latest report published in July 2005 can be viewed at: http://www.dti.gov.uk/energy/nuclear/safety/dcns_report4.pdf