CHAPTER 2

Saving Energy

If we are to achieve our goal of a 60% reduction in carbon dioxide emissions by 2050, then we need to look not just at reducing our carbon intensity through low carbon energy sources, such as renewables, but also at saving energy. The challenge is to deliver cuts in emissions in ways that impose least costs on our economy. Up to now, no major country has been able to grow its economy whilst delivering a sustained reduction in energy consumption. But using every unit of energy as efficiently as possible has to be our ultimate ambition. This may even lead to an absolute reduction in energy demand in the longer term. To this end, we are bringing forward ambitious proposals to deliver smarter and more efficient energy services – the heat and light we use in our homes and the power we need for our industries and transport.

The current situation

2.1 Saving energy is key to meeting our long-term energy challenges. It can help us reduce carbon emissions, which is vital if we are to tackle climate change. At the same time, by allowing us to use less energy for the same level of output – whether in industrial productivity or heating our homes – it can contribute to the security of our energy supply, to our economic growth (by lower bills for firms and consumers) and to tackling fuel poverty. Our ultimate ambition must be to use every unit of energy as efficiently as possible while maintaining our prosperity and competitiveness. If we could do this – essentially by wasting less energy – we might need to build fewer power stations in the decades to come than we might otherwise have to do. So energy efficiency is integral to our overall policy.

2.2 We have already put measures in place to promote energy efficiency. By 2010, those measures will reduce the UK's carbon dioxide emissions by over 7% compared to 1990 levels.[7]

2.3 But more needs to be done. Most energy use remains highly inefficient. For example, an average home requires four times as much energy to heat it as the average new home. And on current projections, if we do nothing, energy use and carbon emissions will rise after 2010 (for details see annex C). This is because economic growth is anticipated to increase energy demand; without further action, as current nuclear generation capacity is lost, it may be

7 Action set out in the Energy White Paper, the Energy Efficiency Action Plan and both the 2000 and 2006 Climate Change Programmes, will deliver a reduction in the UK's carbon dioxide emissions of 16% below 1990 levels. 40% of this improvement will be from energy efficiency measures.

replaced by higher-carbon sources; and many energy efficiency policies are currently only committed until 2010/2013. A strong policy framework will be needed for the longer term, and these proposals begin that work.

2.4 We can improve energy efficiency in two ways:

- reducing the amount of energy that we need to support our economy (our energy demand) through technological improvements, for example to the structure of buildings so as to reduce the energy required for heating and cooling or to appliances so they require less energy; and
- changing our behaviour to reduce the amount of energy that we waste.

2.5 Many energy efficiency measures, such as insulating a building or switching to efficient light bulbs, can be cost-effective – meaning that, over the long term, they pay for themselves by reducing energy bills. We estimate that by 2020 businesses and households could save around 25 MtC through cost-effective energy efficiency measures. Policies in the 2006 Climate Change Programme will deliver up to 10 MtC of that by 2010, and another 3 – 5MtC by 2020, but, as technologies develop, further savings could be made across a wide range of sectors. These include: energy-intensive businesses (around 2 MtC by 2020); non-energy intensive businesses (5 MtC); and the domestic (9 MtC) and the public sectors (1 MtC).

2.6 However, although it would deliver cost savings, businesses and households are not making the most of the full potential of energy efficiency. The Energy Efficiency Innovation Review, published in November 2005, summarised the reasons for this:

- lack of appreciation of the true costs and the long-term benefits of energy efficiency measures;
- market misalignment, due to regulatory failures, external budget constraints or split incentives (e.g. the tenant pays the energy bill so the landlord has no incentive to invest); and
- inertia, lack of interest, knowledge or awareness.

2.7 Government needs to respond to different market failures in different ways. In some cases regulatory interventions (e.g. building regulations and appliance standards) can be the most effective and cost effective response. There is also a role for better information (e.g. product labelling), incentives (e.g. the Climate Change Levy and the exemptions from it available through Climate Change Agreements); and market mechanisms (e.g. trading). A package of measures will be the most effective approach.

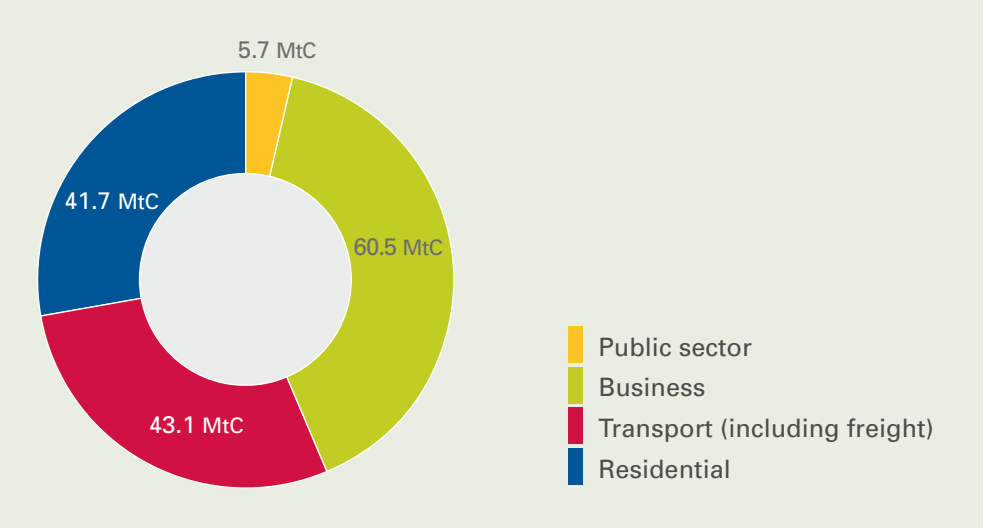
2.8 We consider that we can make the most impact with policies that address the reasons why businesses and households do not make the most of the opportunities to save energy.

Our aspiration

2.9 If we are to increase energy efficiency across the board, all sectors of society will need to play their part. This means creating the conditions for people and organisations to change; demonstrating the benefits (such as saving money, and improving the environment); and making action easier. It also means continuing to support innovation in the technologies for energy use.

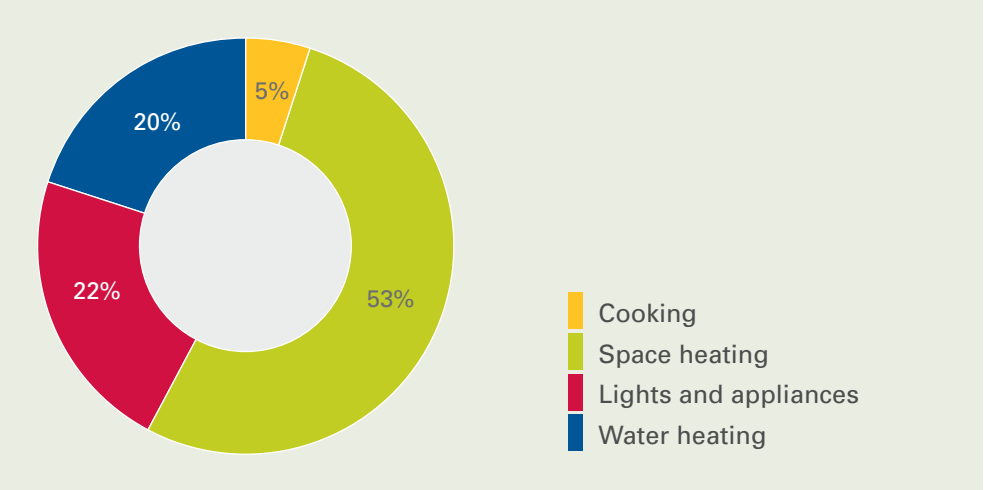
2.10 With the electricity and fuel we use in our homes and our cars, individuals are responsible for nearly half of the UK's energy use and carbon dioxide emissions (see chart 4). In the home, three quarters of the carbon dioxide we emit comes from energy used for heating and hot water and a fifth from lighting and appliances (see chart 5). Making homes – both new homes and the existing housing stock – more energy efficient is key to reducing our carbon dioxide emissions. For Government, this means both ensuring that people and communities have access to more energy efficient homes and equipment, and leading a new push to make thinking about carbon and energy an integral part of the culture. This will involve providing the information, advice, support networks and incentives to support energy efficiency and to change behaviour.

CHART 4. CARBON DIOXIDE EMISSIONS BY END USER IN THE UK, 2004 (MILLION TONNES OF CARBON)



Source: DTI, 2005

CHART 5. RESIDENTIAL CARBON DIOXIDE EMISSIONS, 2003



Source: Defra, The 2006 Climate Change Programme

2.11 The energy market itself has a key role to play. The current market is very much focused on the delivery of units of energy; profits come from increasing sales. We need to ensure that the regulatory and market framework for energy is in line with the objectives of energy saving and reduced emissions, and so stimulate a market for the supply of energy services – warmth, light and power rather than energy per se.

2.12 The Government must lead by example and it has set itself the ambition of delivering carbon neutral central government by 2012. Government, including Local Authorities, as one of the country's largest owners of land and buyers of goods and services, can bring strong purchasing power to bear to drive up energy efficiency standards. Central and local government have the potential to set market standards for goods and services that will become over time the norm for all purchasers.

2.13 The following proposals build on current successful measures and address key gaps and weaknesses identified. They focus on:

- raising energy efficiency standards for new buildings and for the products we buy;
- providing the structure in which a market for energy efficiency services can flourish, to improve the energy performance of existing homes and businesses, and bring forward the new demand side technologies needed to deliver longer-term energy efficiency improvements;
- increasing awareness in all sectors of society and providing the information, advice and support, which stimulate citizens to improve energy efficiency and cut energy waste;
- providing appropriate incentives for each sector of society to take up energy efficiency measures; and
- leading by example.

Raising energy efficiency standards for new buildings and for the products we buy

Carbon neutral developments

2.14 Around 30% of the houses that will be standing in 2050 are yet to be built. So while improving the existing housing stock is very important, it is equally vital to ensure that new houses are built to the highest possible cost-effective energy efficiency standards.

2.15 The Government has made considerable progress on this issue in recent years. Part L of the Building Regulations for England and Wales, which governs energy efficiency, has been repeatedly tightened. The changes introduced in 2002, 2005 (covering new boilers and windows) and April 2006 have collectively delivered a 40% improvement in the energy efficiency standards of new houses.

2.16 But we are determined to go further. As we have recently announced[8], our long-term ambition is to move towards carbon neutral development. This will take time to deliver. But a series of measures – a mixture of regulation, guidance, encouragement, and demonstration – is already in hand to move us significantly towards it. Government is:

2.16.1 Developing the 5 Levels for the Code for Sustainable Homes (CSH). The exact levels will be announced later this year, but we have already indicated that even Level 1 will require energy efficiency performance above the current Part L of Building Regulations. And Level 5 will require that new homes be carbon neutral.

2.16.2 Making clear that the levels should be taken to indicate the long-term direction of Building Regulations. This gives the construction industry a clear steer regarding our long-term intentions in this area.

2.16.3 Reviewing the guidance that accompanies Building Regulations, with a view to simplifying them and improving compliance with them. This is important, as the frequent changes to Part L have been difficult for certain (especially small) builders to keep up with. We need to clarify this guidance, and ensure that all new houses are built to the required standard. This is one of a number of steps we are taking to improve compliance with the Regulations (see box 2.1.).

2.16.4 Requiring all Government-funded new housing in England (such as English Partnerships and Housing Corporation developments) to meet the EcoHomes "Very Good" standard (equivalent to Level 3 of the CSH). Government is leading the way with this measure. It is also helping to develop the necessary skills and capacity in the industry to raise standards for all new houses.

2.16.5 Introducing energy performance certificates, for both new and existing buildings (see section 2.5.8). These will show how energy efficient a house is, and therefore how high the fuel bills are likely to be. They will therefore act as a powerful new indicator for buyers, significantly raising the profile of energy efficiency.

2.16.6 Developing a new Planning Policy Statement (PPS) on Climate Change. Government plans to consult on this later in 2006, and introduce it in 2007. Complementing the CSH, which covers the fabric of new developments, the new PPS will make clear that the location and design of new developments should also promote the reduction of carbon emissions. This will be done through, for example, promoting mixed-use developments and reducing the need to travel. The new PPS will also encourage the use of more sustainable energy sources, including microgeneration, and Combined Heat and Power.

2.16.7 Strongly urging local planning authorities in England to set ambitious policies for the percentage of energy in new developments to come from on-site renewables. PPS 22 gives them the power to do this.

8 In speech by Yvette Cooper, Minister for Housing and Planning, to the Green Alliance, 17/5/06. See: http://www.communities.gov.uk/index.asp?id=1500138

The Housing and Planning Minister made it clear in a statement to Parliament in June 2006 that all English planning authorities should include policies in their development plans that require a percentage of the energy in new developments to come from on-site renewables, wherever viable. We will continue to monitor this situation, with a view to taking further action, if necessary, to ensure that local authorities set appropriate targets in this area.

2.16.8 Consolidating all these measures in a series of demonstration projects. Again, this shows Government leading the way, showing what can be achieved in new developments. These include:

- a demonstration project by English Partnerships, working with local partners, in Northstowe, Cambridgeshire, to create a new settlement of 10,000 homes, which will aim to achieve a 50% reduction on energy use compared with conventional housing;
- English Partnerships (EP) running a second phase of the Design to Manufacture competition, building on the lessons learnt from the £60K house, and pushing the boundaries further. EP is challenging the industry to build low cost, low carbon and zero carbon homes, but this time looking at whole developments rather than individual homes; and
- undertaking a feasibility study into the Thames Gateway becoming a low carbon development area within a decade, and whether and how fast we can move towards zero carbon thereafter.

2.17 With these measures the Government is moving towards our long-term ambition of achieving carbon neutral developments. Obviously, the carbon savings associated will depend on how long reaching that goal takes. But they will ultimately be very significant. There are currently around 170,000 new houses built in England and Wales each year, and each emits around 0.8 tonnes of carbon per year. So if, for example, the goal were reached by 2020, we would save around 0.4 MtC by 2020, and 4 MtC by 2050.

2.18 Scotland has devolved responsibility for improving the energy efficiency standards of new build houses and the Executive is currently carrying out similar work in relation to reviewing building regulations; introducing energy performance certificates for buildings; planning policy, and permitted development rights. As part of this work, it will also consider better guidance and monitoring of compliance with building regulations.

BOX 2.1: ENSURING COMPLIANCE WITH BUILDING REGULATIONS

As noted in Section 2.16.3 above, the Government recognises that ensuring full compliance with Building Regulations – particularly Part L on energy efficiency – is an issue.

We took steps to address this when the new standards for Part L were brought in in April this year. The Government:

- introduced mandatory pressure testing and commissioning for new buildings;
- simplified the approach to showing compliance, and provided much more detail on ways of doing this;
- launched the largest ever training programme for new Building Regulations, including "train the trainer" events, regional road shows, and sending an e-learning pack to every Building Control Surveyor; and
- extended self-certification schemes to reduce burdens on local authorities, and make compliance more likely.

And since then, the Government has gone further. We have:

- taken powers in the recent Climate Change and Sustainable Energy Act 2006 to extend the time period for local authorities to prosecute breaches of energy efficiency standards. This used to be possible only within 6 months of completion of the work. Now authorities can prosecute within 6 months of discovering a breach (provided proceedings begin within 2 years). This is a very significant change;
- used that same Act to mandate a report to Parliament on compliance with Part L standards, to ensure they are given proper scrutiny; and
- worked with the industry to develop 7 Building Control Performance Indicators, of which ensuring compliance is one. These will give building control bodies a framework to monitor and improve their performance in key areas, such as ensuring compliance.

These measures are all in addition to our review of Building Regulations guidance, referred to in section 2.16.3. Together they form a comprehensive package, and demonstrate our ongoing commitment to addressing this issue.

Raising Standards for Energy-Using Products in Our Homes and at Work

2.19 Making the energy-using products in our homes and offices more efficient will help us to cut carbon emissions. The Government will work at international and EU level and with manufacturers and retailers in the UK to remove the least energy efficient products from the market. We will build markets for the best by setting a firm agenda to progressively raise standards. This will stimulate innovation and competition in the supply chain.

2.20 Much of our energy use goes to power appliances in our homes and businesses. For example, electric motors account for two thirds of all business electricity use, driving machinery, pumps, fans etc – which is equivalent to 40% of all the UK's electricity consumption (see chart 6).

Another 25% of the UK's total electricity is used to power lighting and appliances in the home. If we do nothing, this domestic use is predicted to rise by 20% between now and 2020 as new energy using products – such as computers and gaming consoles – become more common-place in the home. If we are to reduce this growth in energy demand we need to find ways to make the products we all buy and use more efficient.

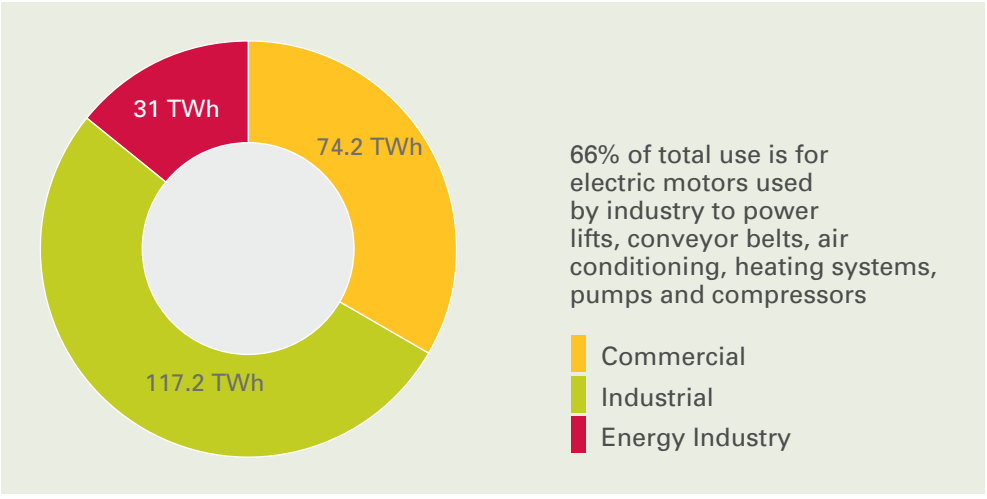
2.21 We use several ways to drive improvements in the energy efficiency of products, including EU legislation, voluntary agreements, labelling schemes, and building standards. The Government's Market Transformation Programme supports this work[9]. This is turn sits within the Government's broader Sustainable Consumption and Production Strategy (see footnote below). Our future policy will build on and strengthen this existing Government action.

2.22 We have identified several groups of products for action:

- domestic lighting;
- consumer electronics such as set top boxes, television sets and chargers;
- white goods such as fridges, freezers and washing machines;
- static electric motors and drives used in machinery such as pumps and fans (as used, for example, in air conditioning systems); and
- office equipment such as computers, printers and photocopiers.

2.23 Aiming to limit stand-by power consumption, which in 2004 used 8% of all residential electricity and is a rising trend, is also a priority for the Market Transformation Programme. We will continue to press at international level for full implementation of the International Energy Agency's 1 Watt initiative to reduce stand-by power consumption.

CHART 6. ELECTRICITY USE BY UK BUSINESSES (FIGURES IN TERAWATT HOURS, 2005)



Source: Defra's Market Transformation Programme

9 The Government's Market Transformation Programme works with industry and other interested parties to drive and underpin sustainable improvements in the energy efficiency and other environmental characteristics of products. (http://www.mtprog.com/). For more information about the Government's Sustainable Consumption and Production Strategy see www.defra.gov.uk/environment/business/SCP/

2.24 We will continue to work at the international, EU and UK levels to stimulate competition in the innovation and supply chain to raise standards through:

- the ranking of products, (e.g. through performance indicators, labels and lists); and
- the setting, publication and implementation of efficiency standards, using all suitable policy instruments.

2.25 Under the new framework directive on the Eco Design of Energy-Using Products (EuP), adopted in 2005, proposals will be brought forward to set standards for 14 products identified as priorities under the EU Climate Change Programme, including consumer electronics, lighting, heating, white goods and electric motors. These standards will apply across the EU and we in the UK will press for ambitious standards to be delivered under this Directive. Furthermore, delivering on our Gleneagles G8 commitment, we will take the lead in promoting international cooperation in setting product standards and in developing global responses to these issues.

2.26 At home, the Retailers' Initiative, announced in Budget 2006, is a key element of our products programme. The Government is working with major retailers and the Energy Saving Trust to introduce voluntary schemes to raise the energy efficiency of the goods they sell. Initially it is expected that these schemes will focus on consumer electronics but they may be expanded to other products.

2.27 The potential for cost-effective carbon savings from this policy are high: if we can raise standards for all the priority products sold in the UK, we can avoid over 1.3 MtC by 2010 and up to 4.7 MtC by 2020.

Providing the structure in which a market for energy efficiency services can flourish

Energy Efficiency Commitment Phase 3

2.28 Demand for energy services in the residential sector is rising by an average of 1.5% per year, equivalent to 0.6 MtC per year. But if the household sector is to contribute to our 2050 goal, energy use would need to fall by around 1.8% per year. This means we need to increase the efficiency of our homes and the lights and appliances we use in them and to reduce the amount of energy that we waste.

2.29 To encourage energy efficiency, Government needs to create the right frameworks and incentives for energy efficiency services – that is, practical assistance and advice helping homeowners and businesses waste less energy and use it more effectively – to flourish.

2.30 The Energy Efficiency Commitment (EEC) is one of the principal policy mechanisms by which we deliver energy efficiency into the home. Under EEC, energy suppliers are required to achieve targets for the promotion of energy efficiency improvements in the household sector in Great Britain. It has been highly successful at doing so and in a very cost-effective way. In the first three-year phase of EEC, which concluded in March 2005, suppliers delivered measures – including loft and cavity wall insulation – which will save

0.4 MtC each year, saving consumers £9 for each £1 spent and reducing consumer bills by £3bn over the period to 2020.

2.31 The second phase of the EEC runs from 2005 – 08. The 2006 Climate Change Programme has already announced that the target for suppliers to promote energy efficiency improvements will be increased by a further 50 – 100% under the third phase, which will run from 2008 – 2011.

2.32 With the passing of the Climate Change and Sustainable Energy Act 2006, the Government needs to consider changes to EEC that could allow all forms of microgeneration and other measures affecting consumer behaviour to be eligible under the Scheme. This would open up EEC, allowing suppliers to offer more options for the delivery of carbon savings, with a larger range of measures and more scope for innovation and competition amongst suppliers to encourage consumers to reduce their energy demand. The Government will therefore be consulting this summer on whether to extend the range of measures allowed under the third phase of EEC.

Supplier obligation to target household emissions

2.33 Government is committed to maintaining a household obligation on suppliers in some form until at least 2020. The level of ambition from 2011 should at least be equal to that under EEC3, delivering a minimum of 3 – 4 MtC by 2020.

2.34 The EEC has been very successful at delivering technical measures such as loft and cavity wall insulation, but it does not address the important issue of consumer behaviour, getting us to reduce waste or think about the energy efficiency of the appliances that we buy.

2.35 The Government therefore wishes to incentivise energy suppliers to engage more actively with customers in order to deliver greater energy efficiency in the home. We want to provide the right stimulus for them to develop new market opportunities to sell energy services, rather than just energy per se, so what the consumer buys are services for heating, lighting and powering their homes, in the most energy efficient way practicable. One way to achieve this, as identified by 2005 Energy Efficiency Innovation Review, could be to move in 2011 to a supplier obligation based on a tradable target set in terms of reducing absolute energy demand or carbon emissions from the household sector. Such an obligation, if introduced in this form, would replace the current Energy Efficiency Commitment once its third phase expires in 2011. It would focus energy suppliers' attention on how to deliver energy efficiency to their customers as a marketable service rather than a regulatory requirement. Our energy companies are willing to go in this direction – to change their whole business model – if we support them through the right policy framework. This is a major shift in thinking.

2.36 In the period up to 2011, we will seek to use the experience gained from EEC3 and the money announced in Budget 2006 for smart meter trials and other innovative measures and to learn whether and how this can best be done. Our long-term ambition is to incentivise a sustained reduction in household demand. We will carry out further analytical work and consultation with interested parties before deciding the final scope and objectives of the post-2011 framework.

Increasing awareness and information in all sectors of society

2.37 Householders are more likely to invest in energy efficiency improvements and to reduce the waste of energy if they are provided with timely, specific and relevant information on their energy use and how much it costs. Combined with the information in Home Information Packs showing where energy efficiency improvements can be made, better and more timely information will help householders make decisions on where and how they can make real savings on their energy bills. This will complement existing work by the Energy Saving Trust and measures set out in the UK Climate Change Programme.

Better energy bills

2.38 The Government proposes that it will mandate, from 2007 onwards, improvements in the information provided in domestic customers' energy bills, requiring bills to provide comparative historic energy use in graphical form (showing a customer how much energy they have used over previous periods), supported by information on energy efficiency.

2.39 Currently, between 25 – 50% of domestic bills supplied by energy suppliers at any one time are estimated. Unless they are using a pre-payment meter, current metering and billing arrangements provide little in the way of incentive for householders to think about how they use energy and the consequences their energy use has on climate change.

2.40 Studies show that consumers respond to the provision of historic information on their energy use in their bills, particularly when it is combined with more frequent and accurate bills[10]. The information also needs to be easy to understand. Consumers surveyed by Ofgem[11] preferred simple bar charts on bills to compare their own energy use with the last quarter or the whole of last year, but disliked benchmarking with 'average' homes. As this latter approach is suggested as being "useful" in the Energy Services Directive, it requires further examination. We will consult with Ofgem, the energy suppliers and interested parties as to what useful comparative benchmarking information can be provided cost-effectively in bills to aid customer awareness.

2.41 At present, energy suppliers are obliged to read meters once every two years. This licence requirement is under consideration in Ofgem's current review of gas and electricity supply licences, and the suppliers are advocating its removal. However, the full benefit of improved billing is realised when customers are provided with frequent, accurate bills. Replacing the existing requirement with a requirement to read meters annually, while also allowing suppliers to meet their obligations with customer self-reads may well improve information available to customers without increasing the regulatory burden on suppliers. We will consult further with Ofgem, the energy suppliers and interested parties on how we can cost-effectively improve the frequency at which customers are provided with accurate bills.

10 Studies report savings of up to 12% per year on energy use.
11 http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/8401_consumer_fdbak_pref.pdf

2.42 We estimate that even if the provision of historic information only delivers modest changes in behaviour, this proposal is highly cost-effective. Even if households only reduce their energy use by 0.25%, this will save 0.08 MtC by 2010 and just under 0.1 MtC by 2020. The proposal would add a one-off cost of 10-20p to a household energy bill in the first year.

2.43 Like the residential sector, most business customers receive a mixture of accurate and estimated bills over the course of a year. A study conducted for the Carbon Trust highlighted that access to timely energy data and the provision of accurate bills are a barrier to energy efficiency management in the business sector. The Government will therefore also consult with interested parties on the provision of information similar to that proposed for households for business customers not currently covered by half-hourly electricity and gas meters.

Real-time displays for households

2.44 The technology is available that can provide householders with direct, instant information on how much energy they are using and how much it costs by transmitting information from the electricity meter to a portable display. A recent study in Canada over a two and a half year period showed that households reduced their energy bills by an average of 6.5%[12].

2.45 Powergen is currently testing a real-time electricity display to determine the extent of energy saving that it can deliver to UK households. The results of this trial should be available in 2007. Other energy suppliers may propose further trials of displays under the trials of smart meters co-funded by Government and the energy suppliers, announced in the 2006 Budget.

2.46 The Government considers that real-time displays provide an effective means for households to check their energy use and can play a key role in helping householders to reduce their energy bills by identifying ways to save energy. Following on from the trials being conducted by Powergen, we intend to discuss with Ofgem, the energy suppliers and interested parties how best to rapidly roll out the provision of real-time displays which provide instant energy consumption and cost information on electricity use.

2.47 Our analysis indicates that such electricity displays will help us realise real carbon and energy benefits if there is a rapid roll out. If we started a 5-year programme to install such devices in households in 2007, we could see a 0.3 MtC saving by 2010, rising to 0.4 MtC by 2020. We estimate that this could add £2 – 6 per year to energy bills over the 5 year period, but would more than pay for itself through energy savings and hence reduced bills.

2.48 Currently there are no commercially available displays that can provide real-time information on gas use. The trials of smart meters, announced in the 2006 Budget, provide a means for meter manufacturers to bring forward such technology and to demonstrate its costs and benefits.

12 A summary of the various studies can be found in: Darby S. (2006) The effectiveness of feedback on energy consumption. A review for Defra of the literature on metering, billing and direct displays.

Smart meters for homes and businesses

2.49 "Smart meters" – that provide instant updates on energy use – and other sophisticated forms of monitoring can provide information that help consumers make more informed choices. The Government considers it should examine the scope for more sophisticated monitoring of energy usage, its costs and benefits through the forthcoming trials of residential smart meters and other forms of feedback about electricity and gas consumption, as announced in the 2006 Budget.

2.50 Smart meters have the potential to deliver many benefits to the energy supplier and the consumer[13]. They allow remote reading, avoiding the need for house calls and so ensuring energy bills are accurate. Smart meters can also be used with variable tariff structures for electricity consumption, for example, to discourage electricity use during peak periods. They can therefore contribute to improved energy security, as some network reinforcement and peak generation capacity could be avoided. Smart meters with an "import-export" facility allow consumers installing micro-generation such as small scale wind, solar (PV) panels or micro-CHP to sell their spare electricity to the grid.

2.51 Purchase and installation costs of smart electricity meters vary from £40 to £180, depending on function. Ofgem have estimated that the total cost of installing and maintaining one-way smart meters could be up to £5 – 8 billion[14]. In comparison, the current cost to gas and electricity customers of installing, reading and maintaining meters is £800 million[15] each year. These costs are estimated against a backdrop of little or no data on the implications of rapid roll-out to the likely costs and benefits of smart meters.

2.52 Our own analysis suggests that the full benefits of smart meters would not be realised unless there was a full roll-out. However, a full-scale smart metering programme could have serious implications for energy prices, potentially increasing annual gas and electricity payments by £20 each for ten years.

2.53 Ofgem recently published their opinion on the role and value of smart metering[16]. They wish to work with industry to remove those barriers that currently inhibit more innovative metering and to encourage inter-operability of meters between different suppliers. They also announced that they would not re-regulate responsibility for metering onto the network operators.

2.54 While smart metering technology is commercially available for the electricity market, further development is required to overcome technical issues for gas metering. The Government expects the metering industry to develop technology for gas customers similar to that already available for electricity, taking advantage of the Government-sponsored trials to test effectiveness.

13 Owen G. & Ward J. (2006) *Smart meters: Commercial, policy and regulatory drivers*. Report published by Sustainability first. http://www.sustainabilityfirst.org.uk/publications.php
14 These costs do not assume any savings from bulk purchase or bulk roll-out.
15 Ofgem(2003) Factsheet 26 "*Introducing competition in metering*". March 2003.
16 Ofgem (2006) "*Domestic Metering Innovation – Next Steps* Ref. 107/06. 30 June 2006.

2.55 Metering trials, co-funded by Government and the energy suppliers, will start this winter, with results available from 2008. They provide the opportunity to explore the wider benefits of smart metering to the UK economy. This includes the value of gas smart meters, where information is currently lacking. Through the trials we can test the effectiveness of smart meters in comparison with cheaper options such as improved billing and real-time displays. There is also the potential to test the value of different tariff structures on peak load shifting and energy reduction.

2.56 More also needs to be done to create a demand from business for smart meters and to raise awareness of energy efficiency.

2.57 The Carbon Trust is conducting a smart metering trial amongst SMEs to promote awareness and build support for smart metering. Early results suggest significant energy savings are possible. Once the results of this trial are available, in late 2006, the Government will be in a position to discuss with relevant parties how to address the barriers to smart metering in the business sector along with ways of improving awareness and information on energy efficiency.

Home Information Packs (HIPs)

2.58 The information available to homeowners about the energy efficiency of their homes will be further improved by the introduction of Home Information Packs (HIPs) in England and Wales, which will include energy performance certificates.

2.59 Under the EU's Energy Performance of Buildings Directive, energy performance certificates will be required for all buildings on change of occupation – such as when they are bought, sold or rented. For existing houses, Government is implementing this requirement by including the certificates in HIPs. They will be rolled out in England and Wales from June 2007. The Scottish Executive is currently considering the implementation and roll-out of this directive within the domestic sector in Scotland.

2.60 As the Government recently announced[17], the certificates will rate the energy efficiency of a house on a scale of A to G. Prepared by qualified home inspectors, they will include information on the current average costs for the heating, hot water and lighting of the house. And, crucially, they will include practical advice on which energy efficiency measures the owner/occupier could carry out to cut carbon emissions from the house and improve its energy efficiency rating.

2.61 The focus will especially be on measures, such as cavity wall insulation, and thicker loft insultion, that will quickly prove cost-effective. But the certificates will also list measures, such as solar panels and wind turbines, which could cut carbon emissions even further. Around 1.5m homes are put up for sale each year, and research shows that the vast majority of home improvements are carried out within 6 months of the purchase of a property. The certificates, therefore, will help to inform and influence the behaviour and spending decisions of up to 1.5m households per year.

17 On 14 June 2006 – see: http://www.communities.gov.uk/index.asp?id=1002882&PressNoticeID=2174

2.62 Energy performance certificates will also be required for non-domestic buildings. And all buildings used by public authorities or institutions, and frequented by the public, will be required to display their certificates, enabling the public to see and compare performance.

Looking at new measures to improve the existing housing stock

2.63 As the measures set out in this chapter make clear, the Government recognises the vital importance of tackling the existing housing stock. 70% of the houses that will be standing in 2050 have already been built, and many of the oldest ones are much less energy efficient than more recent ones.

2.64 So in addition to the energy efficiency measures set out here, the Government will continue its in-depth review of the existing stock, which was announced by the Minister for Housing and Planning in September 2005. It will conclude this work later this year.

Providing incentives for each sector of society

The large non-energy intensive business and public sector

2.65 Government policy to address emissions from business has so far been primarily focused on the energy intensive industries, through their participation in the EU Emissions Trading Scheme and Climate Change Agreements. Corporate leaders[18] have called for the Government to address the gap in its current policy coverage by developing "strong new policy instruments" to "focus on the large, non-energy intensive users of energy in the commercial and public sectors". The Energy Efficiency Innovation Review demonstrated that there are significant opportunities in the large non-energy intensive sectors to improve energy efficiency which are not currently being exploited.

2.66 Government believes that large commercial and public sector organisations have significant potential to achieve cost-effective carbon reductions. These large organisations cover about 15 MtC of emissions and analysis suggests they could cost-effectively save 0.5MtC per year by 2015, rising to 1.2 MtC per year by 2020.

2.67 The Government therefore proposes to consult later in the year on the most effective measures for achieving these reductions.

2.68 Analysis by the Carbon Trust concluded that participation in a mandatory auction-based emissions trading scheme, which targeted energy use related emissions, would incentivise the uptake of energy efficiency measures within the large non-energy intensive sector. Other policy options, which could also achieve energy efficiency improvements, include benchmarks on energy use, and voluntary reporting on emissions.

18 The Corporate Leaders Group have highlighted "that there is a need for further policy action if we are to realise the potential economic and environmental benefits of energy efficiency". The UK Business Council for Sustainable Energy have also pointed to this gap in our energy and climate change policies and called for "strong new policy instruments" to "focus on the large, non-energy intensive users of energy in the commercial and public sectors".

2.69 The consultation will therefore put forward a proposal for a mandatory emissions trading scheme, alongside other options for achieving our carbon reduction aims in this sector, and will invite views.

2.70 In order minimise administrative burden, the Government's proposal for such a trading scheme (or Energy Performance Commitment) will target emissions from energy use only by large organisations whose electricity consumption is greater than 3,000mWh/yr[19] and which are not included in the EU ETS and Climate Change Agreements. This would involve some 5,000 organisations in total, comprising sectors such as supermarket chains, hotel chains, government departments and large local authorities. Auction revenues would be recycled to participants.

Climate Change Agreements

2.71 The UK business and public sector is subject to a tax on their energy use – the Climate Change Levy – designed to incentivise industry and the public sector to reduce their demand for energy. In order to protect the competitiveness of the most energy-intensive sectors of industry, Climate Change Agreements (CCAs) were introduced as part of the Climate Change Levy package. Under these agreements, participating industries receive an 80% discount from the climate change levy, provided that they enter into agreements to meet energy efficiency targets or reduce their carbon emissions.

2.72 CCAs currently run until 31 March 2013. The final target period is 2010, and facilities that meet this target will be eligible to continue to pay the reduced rate of the Climate Change Levy until 31 March 2013. State aid approval for the CCAs was, unusually, granted for ten years up to 31 March 2011, because of the need for long-term stability for industry to plan for and invest in energy efficiency measures. A further state aid notification will therefore be required to cover the final two years of the current agreements and any extension of the agreements beyond 2013.

2.73 CCAs have successfully delivered substantial carbon savings in their first five years and are expected to continue to perform well. There are over 6,000 companies, covering over 14,000 sites in 54 sectors, now covered by agreements, with new applicants continuing to come forward.

2.74 In order to underpin achievements to date, Government will consider, in good time before the expiry of the current agreements, the future of CCAs and how we can take the objectives forward.

Leading by example

Carbon neutral government

2.75 The Government has announced its intention that, by 2012, the Government office estate will be carbon neutral. As part of this commitment we have set an aspirational target to reduce carbon emissions from central Government buildings by 30% by 2020. The Government has already introduced carbon offsetting for official air travel.

19 An analysis of this proposal can be found at:
www.defra.gov.uk/environment/climatechange/trading/uk/pdf/nera-enviros-report-060428.pdf

2.76 This measure will save approximately 0.8MtC per year and is designed to deliver a significant improvement in the way the Government manages its land and buildings sustainably.

London

2.77 Over the last year, we have been reviewing the powers of the Greater London Authority (GLA). As part of this review we have looked at a possible strategic role for the Mayor on energy and climate change in London. We propose a new statutory duty on the GLA to take action to mitigate the effects of climate change and adapt to its unavoidable impacts. The Mayor will publish a Climate Change and Energy Strategy setting out his plans for mimimising emissions of carbon dioxide caused by the use of energy in the capital, helping eradicate fuel poverty and harnessing the economic opportunities for London from investment and innovation in energy technologies and energy efficiency. He will also publish a Climate Change Adaptation Strategy setting out how the capital should adapt to the effects of climate change.

Local authorities

2.78 It is important that local authorities take action to combat climate change, in a cost effective way, taking account of local circumstances and priorities. Our proposals to provide a real incentive for local authorities to take action on climate change will be set out in the Local Government White Paper this autumn.

2.79 In Wales, all local authorities have signed a declaration on climate change committing them to producing a climate change action plan. Energy efficiency will be a critical area of importance in the development and implementation of these plans.

Local and community action

2.80 If we are to be successful in delivering the long-term cuts in carbon emissions that we need to avert dangerous climate change, the involvement of individuals will be critical. There are many barriers to individual engagement, but we anticipate that local authorities and community groups can play a key facilitating role. Research, such as that undertaken by Futerra for Government in 2005 (available on the DEFRA website), has shown that engagement at a local and community level is important. This is because attitudes to climate change are more likely to be changed through individual interaction and because climate change messages need to have local relevance to appeal to people.

2.81 It is for this reason that Defra launched its Climate Change Communications Initiative last year, aimed in large part at local and community level initiatives. This year, under the Climate Challenge Fund, we have already approved £4.8m worth of projects designed to raise awareness about and change attitudes towards tackling climate change. Examples of organisations that will receive funding include the Scouts, who will be encouraging members to 'Be Prepared for the Future', and the Women's Institute who will develop EcoTeams to help bring home the realities of climate change.

2.82 The 2006 Climate Change Programme stressed the importance of local and regional government in delivering emissions reductions, both as

community leaders and through their own estates and operations. It set out a package of measures to encourage action by local authorities. There is already excellent practice in some local authorities and the Government supports the work of the Energy Saving Trust and the Carbon Trust in disseminating and encouraging good practice.

2.83 But we recognise that individuals identify with different communities – some may look towards their local authority, parish councils or neighbourhood group; others may feel closer to clubs, societies, faith groups or other interest groups. We want to understand these links and the opportunities they present to overcome barriers to individuals taking action personally to combat climate change.

2.84 Over the next 12 months, DCLG, Defra, DTI and HM Treasury will undertake a joint study which will look at the role of 'community level' approaches to mobilising individuals, and the role of local authorities in particular in making them work effectively. It will draw on experience of what initiatives have worked and which haven't in both the environmental area and other policy areas, such as public health. In the light of this information, the study will also examine what new policy options, such as tradable personal carbon allowances (PCA), could be deployed to stimulate local action and consider their relative pros and cons. We expect it to report to Ministers in the first half of 2007.

Government procurement

2.85 We intend to save energy across the Government estate and to use the power of Government procurement to get better value for money through competition to provide more efficient and sustainable buildings, goods and services.

2.86 The Government buys goods, services and capital assets to provide better public services and how it does so can make a big difference, both to the achievement of its sustainable operational targets and to its external credibility.

2.87 The Government will play its part in reducing its energy demand by developing and implementing, for central Government departments, mandatory energy efficiency and sustainability standards for the goods and services we procure. We will also encourage their adoption more widely in public procurement.

2.88 These standards will apply to services which directly affect carbon emissions from the Government estate, wherever cost-effective – for example, services for the lighting and heating of its building and for IT.

2.89 In practical terms this means we will:

- Set and periodically raise ambitious energy efficiency standards for Government procurement of goods and services, adopting global best procurement standards for energy use wherever cost-effective;
- Extend, publish and maintain a list of forward-looking Government sustainable product standards (currently the 'Quick Wins' and other procurement guidance) to encourage market innovation and stimulate

competition amongst suppliers to bring forward improved buildings, goods and services that are good value for money; and
- Establish a clear framework of accountability and capacity to deliver within Government sustainable procurement.

2.90 The Sustainable Procurement Task Force (SPTF) published its National Action Plan on 12 June 2006. The Action Plan set out 6 recommendations in order for the UK to become amongst the leaders in the EU by 2009 (as we committed to the Sustainable Development Strategy 2005) and it identified 10 public sector procurement priorities for Government of which one was energy. It estimated that the total value of public sector procurement was £150bn. The public sector accounts for a greater proportion of sales for the growing environmental industries sector, currently worth some £25bn, than any other single UK customer.

2.91 The Government will give a full response to the report in the autumn.

2.92 The Office of Government Commerce estimates that Government can reduce energy use by 10% through behavioural change to reduce waste and a further 5% through use of more energy efficient products and services. It is currently developing a cross-government collaborative approach to deliver more effective procurement and use of energy within the Government Estate, focusing on cost reduction through better procurement, energy management and consumption reduction. The work will begin delivering in 2007.

2.93 As an example, we estimate that, if central Government procures only products meeting current best practice in energy efficiency, it could cost-effectively save about 40,000 tonnes of carbon per year from its use of IT equipment and lighting. More important will be the demonstration effect to business; the leverage effect of UK Government procurement power; and the dynamic effects on producers through the forward commitment – which will encourage the market to develop better performing products.

Fuel poverty

Energy Efficiency measures can help consumers cut their electricity and gas bills. They can be one of the ways to help tackle the problem of fuel poverty, and ensure that the most vulnerable consumers can afford to heat their home to an adequate standard.

2.94 Everyone should be able to afford an adequate energy supply and to live in a warm home. This social aspect of energy has driven policy since 1997. The number of households having to spend disproportionate amounts of their income on fuel bills has declined.

2.95 Fuel poverty is defined as the need to spend more than 10% of income on fuel to maintain a satisfactory heating regime. Between 1996 and 2003, the number of vulnerable households in fuel poverty fell from around 5 million to around 1.5 million across the UK. Strategies to end fuel poverty depend ultimately on improving housing standards and rising incomes, policies that have been given priority.

2.96 One of the key background reasons for the reduction is a stable economy with high employment and income growth. The UK economy is currently experiencing its longest unbroken economic expansion since quarterly records began, with GDP now having grown for 55 consecutive quarters. The economy has generated 2.4 million additional jobs since 1997.

2.97 In addition to a stable economy, good progress has been made on tackling poverty in vulnerable elderly households and households with children. Since 1997, pensioner poverty has fallen by over two thirds in absolute terms, lifting 2.1 million older people out of absolute low income and around 1 million pensioners out of relative low income. A single pensioner is now guaranteed a minimum weekly income of £114.05 compared to just £69 in 1997. Additionally, the Winter Fuel Payment is a significant, well-timed payment, which reassures older people about keeping their homes warm in winter.

2.98 For households with children, recent data shows that between 1998/99 and 2004/05, the number of children in relative low income households fell from 3.1 million to 2.4 million on a before housing cost basis. As a result of reforms, by April 2006 families are on average £1,500 a year better off than they were in 1997.

2.99 The Government has put in place a range of specific fuel poverty policies that are having an increasing impact. Thanks to Warm Front and its equivalents in the Devolved Administrations – Scotland's Warm Deal and Central Heating Programme, Wales' Home Energy Efficiency Scheme and Northern Ireland's Warm Home Scheme – some 1.5 million homes have been helped. Other policies helping to tackle fuel poverty include the Energy Efficiency Commitment, with a proportion of measures directed towards a priority group of low income customers, and the Decent Homes Standard in England, through its requirement that, for a home to be decent, there must be a certain level of thermal comfort. As a result of energy efficiency measures provided through the first phase of EEC (2002-05), low income households are now benefiting by some £127m a year. By helping to improve the energy efficiency of fuel poor households these schemes improve their quality of life.

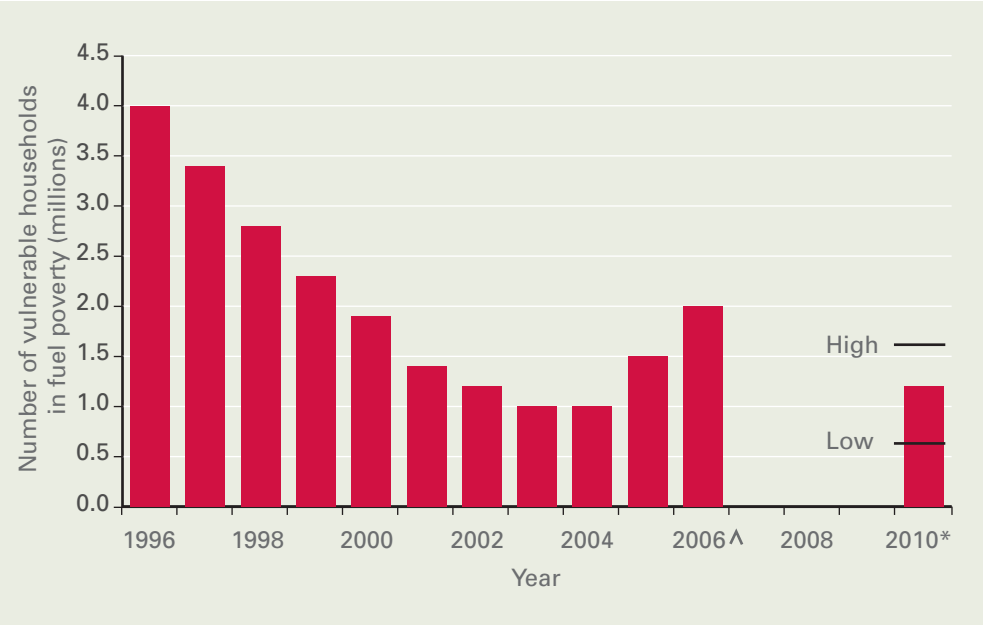
2.100 The effectiveness of all schemes is examined periodically, and changes are made to improve their impact. There is an increasing role for Benefit Entitlement Checks in fuel poverty programmes, which both increase household income and establish eligibility for assistance.

2.101 Other bodies also help to tackle fuel poverty. These range from charities such as National Energy Action and the National Right to Fuel Campaign, who carry out valuable research into best practice in tackling fuel poverty, to Ofgem and energywatch in their work encouraging best practice and making sure the market works for vulnerable customers. Energy suppliers also pursue a variety of actions to help their most vulnerable customers, including measures such as the Home Heat Helpline which provides vulnerable customers and their representatives with a central point of information relating to the range of help available from their supplier and others.

2.102 Rising energy prices will now, however, reverse the downward trend in fuel poverty. Figures for 2004 showed that fuel poverty remained broadly unchanged relative to 2003, with analysis suggesting that the total number of vulnerable households in fuel poverty is likely to rise by around one million households in England between 2004 and 2006. In the latter part of the decade, fuel poverty is forecast to fall, as energy prices stabilise and incomes continue to grow, but there are still likely (on this central price scenario) to be over a million vulnerable households in England in fuel poverty, excluding consideration of energy efficiency measures available under our main programmes (see chart 7).

2.103 This new trend poses a particular challenge. Government has already acted to start to meet the challenge of rising energy prices on achievement of the fuel poverty targets. An additional £300m has been made available to UK fuel poverty programmes over the period 2005 – 08. This additional funding takes fuel poverty funding in England alone in 2005 – 08 to over £800m. Government has also pledged to continue Winter Fuel Payments for the length of this Parliament. Measures such as this, the Pension Credit and the Child Tax Credit, continue to improve the incomes of vulnerable and low-income households.

CHART 7. HISTORIC AND PROJECTED NUMBERS OF VULNERABLE HOUSEHOLDS IN FUEL POVERTY IN ENGLAND AFTER ECONOMIC EFFECTS (MILLIONS)



^ Positions in 2005 and 2006 are based on the modelling of the impact of income and energy prices movements on the number of vulnerable households in fuel poverty.

* Position in 2010 is based on modelling and shows central price scenario as the main bar, with lines indicating the level of fuel poverty under the low and high price scenarios. These are based on an oil price in 2010 of US $40/barrel (bbl) under the central case, $20/barrel under the low case and $67/barrel under the high case.

Source: DTI, 2006

Fuel poverty within the Energy Review

2.104 It is clear though that further action is needed to tackle fuel poverty. We need to ensure that:

- we get details of the help that is available to those who need it most;
- we explore further ways to reduce a household's energy bills via energy efficiency measures;
- the energy a household consumes is competitively priced; and
- households who are eligible for benefits are claiming them.

2.105 Looking ahead, we will be taking forward work in each of these areas.

Immediate action

2.106 In conjunction with the Devolved Administrations, we will step up our efforts at getting the wide range of existing assistance to those most vulnerable to the effects of fuel poverty. We have been looking at the data sources to identify a simply defined group. Those on (or eligible for and then ultimately in receipt of) Pension Credit aged over 70 are the group we have identified to target. Overall, around a fifth of this group were fuel poor in 2004, compared with 6% of the population as a whole, giving an improved chance of someone helped being in fuel poverty. This group covers over a quarter of the fuel poor in 2004. We will, as a priority, work with industry to get measures to this group.

2.107 We need to use effective communication methods to ensure these households come forward. We will continue to work with a wide variety of partners such as DWP, where we can learn from the experience of the Local Pension Service, which in the period ending March 2006 has made over one million face-to-face visits, and has established joint teams with local authorities in 96 areas, the 'Warm Front Scheme', energy suppliers; and voluntary organisations to maximise our reach. We will develop a strategy to ensure assistance is given to as many of these households as soon as possible.

2.108 In this work it is important that Government and those who provide measures, advice and support work together to ensure vulnerable customers are helped and resources are not wasted in duplicating activity. We need to build on experience such as the Warm Zones initiative, an area-based approach that enables a systematic identification of vulnerable households and a co-ordinated delivery of necessary improvement and related services.

2.109 Once a household has come forward, we will do all we can within the current schemes to take that household out of fuel poverty. This can include a benefit entitlement check to ascertain eligibility to Pension Credit and other benefits, the available measures and referral to energywatch products that will make choosing the most appropriate tariff more straightforward.

2.110 We recognise that older households in receipt of Pension Credit are not the only group suffering from fuel poverty. We will consider rolling out this approach to further identified vulnerable groups after this winter.

2.111 For some households the challenge is in the availability of energy efficiency measures to tackle fuel poverty. The development of new technologies has the potential to help tackle the legacy of cold homes. We will explore the scope for using some of the money already available for the Low Carbon Building Programme to install new technologies (including biomass and heat pumps) to bring renewable sources of energy to elderly households and others in cold homes. In Scotland, the Scottish Executive has recently announced a pilot scheme to test the use a combination of domestic-scale renewable technologies to tackle fuel poverty.

Longer-term actions

2.112 Under the Energy Efficiency Commitment (EEC) at least half of all energy savings are currently directed at a 'Priority Group' of low income customers. The scheme has been highly successful at delivering energy efficiency measures in a very cost effective way. In the first three-year phase of EEC, which concluded in March 2005, suppliers exceeded their targets, delivering measures that will save 0.4 MtC per annum.

2.113 We are currently considering changes to EEC over the period 2008 – 11, and as part of this will consider how the scheme's social objectives should be met in future. The exact details of EEC from 2008 will be subject to an initial consultation this summer, followed by a Statutory Consultation next spring.

2.114 Through EEC and other measures, energy suppliers play an important role in mitigating the impact of high energy prices on the most vulnerable in society. Building on the companies' recognition of their responsibilities in this field the Government now wishes to work with them and other key players to examine how the continuing challenge of fuel poverty can be best addressed.

Conclusion

2.115 The measures outlined above will have a positive effect on the lives of some of those most vulnerable to the effect of cold, damp homes. However there are still a range of issues that need to be addressed.

2.116 Beyond the immediate actions being put forward, further progress towards the Government's fuel poverty targets will depend on measures to increase the incomes of the fuel poor or to reduce their bills. The Government will continue to monitor the impacts of various factors on the vulnerable fuel poor and examine the effectiveness of current measures.

2.117 In dialogue with the energy companies and other interested parties we will continue to keep the policy framework under active review.

Summary of Energy Saving proposals

- **The Government will move towards its long-term ambition of carbon neutral development in England and Wales by:**
  - **i) setting stretching energy efficiency levels for the Code for Sustainable Homes;**
  - **ii) making clear that these will govern the future direction of Building Regulations;**
  - **iii) reviewing the Building Regulations guidance to improve compliance with them;**
  - **iv) requiring all government-funded housing to meet at least Level 3 of the Code for Sustainable Homes;**
  - **v) introducing energy performance certificates for new and existing houses;**
  - **vi) developing a new Planning Policy Statement on Climate Change; and**
  - **vii) strongly urging English planning authorities to set ambitious policies on renewable energy.**

- **The Government will work at international and EU level and with manufacturers and retailers in the UK to remove the least energy efficient products from the market and to build markets for the best of them by setting a firm agenda to raise standards progressively, so stimulating innovation and competition in the supply chain.**
- **We will launch a statutory consultation next spring on phase 3 of the Energy Efficiency Commitment. Prior to this we will hold an informal consultation this summer to explore whether we can extend the range of measures allowed under EEC.**
- **The Government is committed to maintaining a household obligation on suppliers in some form until at least 2020. We will do further work on the option of moving after 2011 to a supplier obligation based on tradable targets or caps for household energy demand or carbon emissions.**
- **The Government proposes that it will mandate, from 2007 onwards, improvements in the information provided in domestic customers' energy bills, requiring bills to provide comparative historic energy use, supported by information on energy efficiency.**
- **We will consult with interested parties on what further useful comparative benchmarking information can be provided and how we can cost-effectively improve the frequency at which customers are provided with accurate bills.**
- **We intend to discuss with Ofgem, the energy suppliers and interested organisations on how best to roll-out rapidly the provision of real-time displays which provide instant energy consumption and cost information on electricity use.**
- **The Government will examine the scope for more sophisticated monitoring of energy usage, and its costs and benefits, through the forthcoming trials of domestic smart meters and other forms of feedback about electricity and gas consumption.**
- **The Government will also work with interested parties to address the barriers to improved metering and billing in the business sector, including the possibility of introducing smart metering.**

- **The Government proposes to consult later this year on the introduction of a new measure for the large non-energy intensive organisations which lie outside the EU ETS and Climate Change Agreements.**
- **The Government will consider, in good time before the expiry of the current agreements, the future of the Climate Change Agreements and how we can take the objectives forward.**
- **The Government will play its part in reducing its energy demand by developing and implementing, for central government departments, mandatory energy efficiency and sustainability procurement standards and will encourage their adoption more widely in public procurement.**
- **Beyond the immediate actions being put forward, further progress towards the Government's fuel poverty targets will depend on measures to increase the incomes of the fuel poor or to reduce their bills. The Government will continue to monitor the impacts of various factors on the vulnerable fuel poor and examine the effectiveness of current measures.**
- **In dialogue with the energy companies and other interested parties, we will continue to keep the policy framework under active review.**