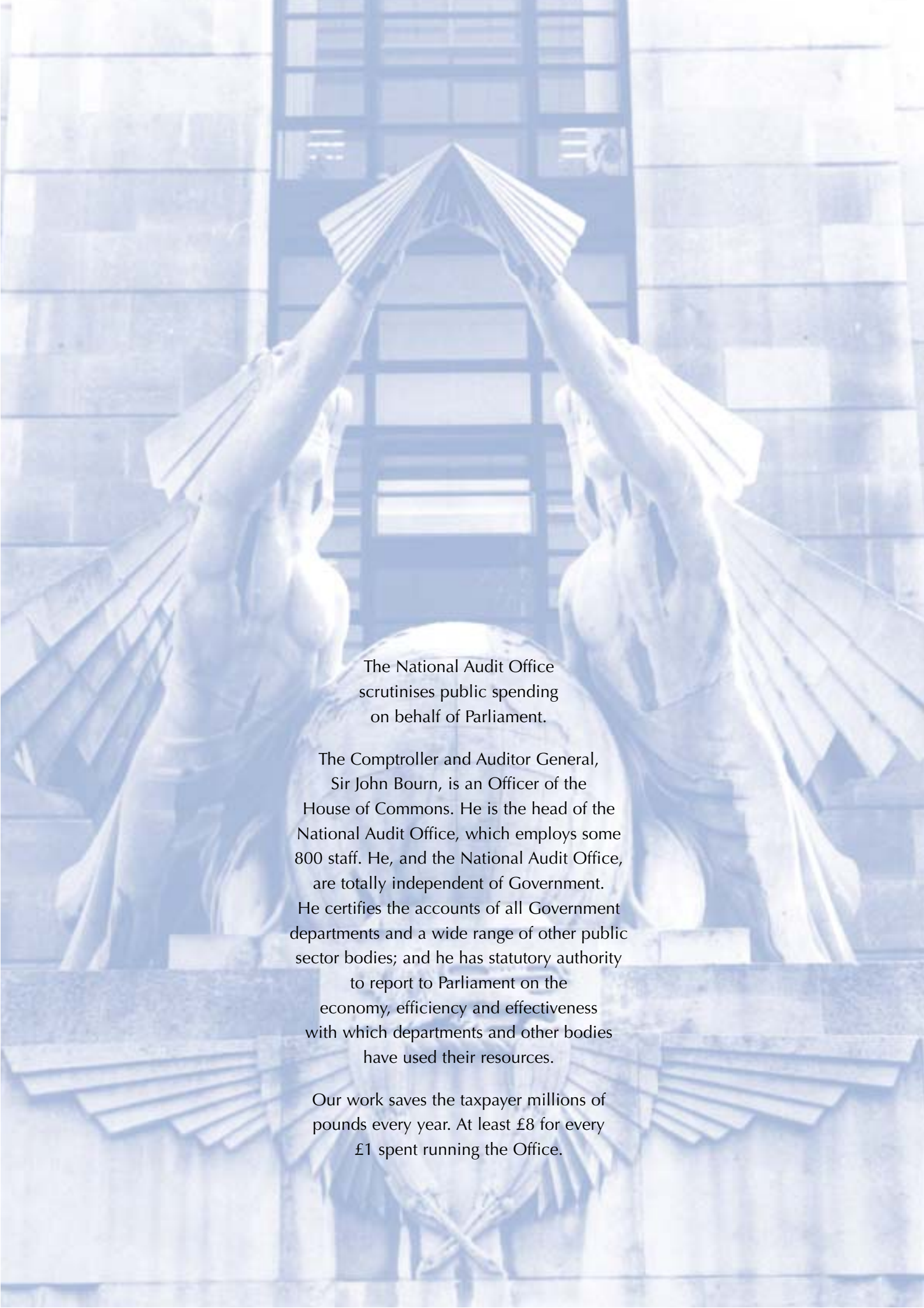


Ofgem
Social Action Plan and Household Energy Efficiency

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL
HC 878 Session 2003-2004: 22 July 2004





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This report has been prepared under Section 6 of the National Audit Act 1983 for presentation to the House of Commons in accordance with Section 9 of the Act.

John Bourn National Audit Office
Comptroller and Auditor General 13 July 2004

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Contents

Executive summary 1

Part 1

The role of Ofgem	11
Ofgem's social and environmental responsibilities	11
Ofgem's Social Action Plan	12
Suppliers' energy efficiency programmes	12
Other programmes aimed at improving energy efficiency	13
The scope and methodology of this report	13

Part 2

Ofgem's Social Action Plan	15
The methods of paying for gas and electricity bills	15
The standard of energy efficiency advice provided by suppliers to consumers	16
Suppliers' debt prevention and management practices	17
Switching supplier for customers in debt	18
The Department for Work and Pensions Fuel Direct Scheme	19
Suppliers' Priority Services Registers	20
Ofgem's other work to help disadvantaged consumers	20
Ofgem's measurement of performance	21

Part 3

Energy efficiency programmes provided by suppliers	23
Suppliers' achievements under the third Energy Efficiency Standard of Performance	23
The outcome of the Standards programmes	25
Progress of the Energy Efficiency Commitment	25
The cost of implementing the Energy Efficiency Commitment	27
The switch to energy efficient products	28
The challenges facing future energy efficiency programmes	29

Appendices

1. Study methodology	31
2. Ofgem's Social Action Plan work programme, March 2000	32
3. Details of the Energy Efficiency Standards of Performance (the Standards) and Energy Efficiency Commitment (the EEC) programmes	33

executive summary

- 1 The Office of Gas and Electricity Markets (Ofgem), a non-ministerial Government department, is the regulator of Britain's gas and electricity markets. Its principal objective¹ is to protect the interests of consumers, wherever appropriate by promoting effective competition. It has a range of secondary duties which include the duty to have regard to energy efficiency, the environment and certain disadvantaged groups. In addition, it must also have regard to the Government's wider social and environmental policy objectives, set out in guidance issued by the Secretary of State. To satisfy its duties in this area, Ofgem uses a range of tools, including amending the licences of gas and electricity suppliers, encouraging suppliers to develop and implement initiatives to help customers, and making the public aware of developments in the energy market. This report focuses on two aspects of Ofgem's role in relation to two government policies: the social aim of eliminating fuel poverty and the environmental aim of reducing carbon emissions through improving household energy efficiency.



- 2 In 2002 around 2.25 million households in the UK were classified as being in fuel poverty.² This is compared with around 4.5 million in 1999.³ People are considered to be in fuel poverty if they need to spend more than 10 per cent of their income on all fuel use and to heat their homes to an adequate standard of warmth.⁴ Low income, poor energy efficiency of housing, and high fuel prices are all factors that can lead to fuel poverty. About half of the reductions in the numbers in fuel poverty in recent years have come from lower gas and electricity prices; the other half have come from increases in incomes. Fuel poverty can damage people's health and quality of life - the prevalence of winter deaths is greater in people living in homes that are poorly heated. The Government's Fuel Poverty Strategy, published in November 2001, has an overall aim of eliminating fuel poverty in England by 2016 and eliminating it within vulnerable groups by 2010 as far as is reasonably practicable.⁵ One of the objectives of the Energy White Paper, published in February 2003, is that every home should be adequately and affordably heated.

¹ As set out in *The Utilities Act 2000*.

² *UK Fuel Poverty Strategy Second Annual Report, April 2004*.

³ *UK Fuel Poverty Strategy - Consultation Draft, Department of the Environment, Transport and the Regions, 2001*.

⁴ Generally defined as 21°C in the living room and 18°C in other occupied rooms.

⁵ Different targets apply for Scotland and Wales.

- 3 Ofgem recognises that it has an important contribution to make in helping vulnerable consumers and tackling fuel poverty, and launched its Social Action Plan in March 2000. Working with energy suppliers, Ofgem has introduced specific measures to protect consumers which, when allied with the development of competition, should bring benefits to vulnerable consumers and those in fuel poverty. Ofgem's broad objectives are to:
- ensure that vulnerable consumers share fully in the benefits of competition and deregulation;
 - promote innovation and best practice among suppliers, for example in debt prevention and management; and
 - improve the quality of energy efficiency advice and of the specific services provided to vulnerable consumers, and help those on low incomes have access to energy efficiency measures from energy suppliers.

Ofgem has, where appropriate, amended suppliers' licences, and has pursued the rest of its initiatives through a joint working approach with energy suppliers.

- 4 On efficient use of energy, both the Government and the Energy Regulator⁶ have been concerned to control, and ultimately reduce, the amount of energy the country consumes. Environmental factors, especially the need to reduce the impact of climate change, have been a driving force. The Energy White Paper set the objective of reducing carbon dioxide emissions by 60 per cent by 2050, with real progress to be achieved by 2020. The Government's Energy Efficiency Action Plan, published in April 2004, sees the installation of energy efficiency measures in households, resulting in reduced energy consumption, as one of the main ways of achieving the reductions required.
- 5 Since 1994 suppliers have had to install energy efficiency measures to achieve energy savings in domestic households. The Office of Electricity Regulation (Offer) and its successor Ofgem were responsible for the Energy Efficiency Standards of Performance (the Standards) from 1994 to 2002, which were administered by the Energy Saving Trust.⁷ In April 2002 Defra introduced the Energy Efficiency Commitment (the EEC), which is administered by Ofgem. Unlike the Standards, the EEC is underpinned by statute.⁸ Defra is consulting on an expansion of the EEC to run from 2005 to 2011.
- 6 Energy suppliers spent £260 million meeting their energy savings targets under the Standards.⁹ Defra has estimated that suppliers will incur some £486 million¹⁰ meeting their targets under the EEC, which involves a greater level of activity. Each supplier has a direct incentive to meet its energy savings target under the EEC - failure may result in a financial penalty.¹¹

6 *The Office of Electricity Regulation until June 1999 and the Office for Gas and Electricity Markets since.*

7 *The Energy Saving Trust was set up by the Government in 1992 following the Rio de Janeiro Earth Summit with the goal of achieving the sustainable and efficient use of energy to cut carbon dioxide emissions. It is a non-profit organisation funded by Government and the private sector.*

8 *The Energy Efficiency Commitment was established by The Electricity and Gas (Energy Efficiency Obligations) Order 2002 as provided for by the Utilities Act 2000.*

9 *Estimated by the Energy Saving Trust.*

10 *The figure of £486 million includes Value Added Tax.*

11 *Ofgem's ultimate sanction is a penalty of up to 10 per cent of turnover.*

- 7 Defra is also responsible for and funds the Warm Front programme, which helps alleviate fuel poverty.¹² The scheme provides a range of insulation and heating measures to vulnerable people in owner-occupied homes or privately rented accommodation to improve the energy efficiency of their homes and in so doing helps to alleviate fuel poverty. It has funding of around £150 million a year. On the basis of a report by the Comptroller and Auditor General, the Committee of Public Accounts reported on Warm Front in February 2004.¹³ Ofgem does not administer Warm Front.
- 8 There are a series of inter-actions between the EEC, Warm Front, and other energy efficiency initiatives:
- the EEC's primary purpose is to improve domestic energy efficiency. This can lead to reductions in consumption, thereby reducing carbon emissions, or benefit consumers in other ways (for example, warmer homes, greater use of electrical equipment). It operates through suppliers who have energy savings targets to meet and the costs may feed through to consumers. While Warm Front's objective is to assist vulnerable households, all consumers - including those not in fuel poverty - can benefit under the EEC;
 - to help meet their targets under the EEC, and reduce costs, suppliers can purchase measures installed under Warm Front. This money is then used to supplement funds available for Warm Front; and
 - there are several other activities which can contribute to the Government's fuel poverty and energy efficiency objectives. For example, the Warm Zones pilot, supported by the Government, was aimed at systematically identifying and directing assistance to those in fuel poverty in defined areas. And the Energy Saving Trust has a nationwide network of Energy Efficiency Advice Centres which provide advice to householders and promote the range of energy efficiency programmes.

12 The Warm Front scheme covers England. Different schemes, with similar objectives, apply in Scotland and Wales.

13 Warm Front: Helping to Combat Fuel Poverty, Report by the Comptroller and Auditor General, HC 769 2002-03; Warm Front: Helping to Combat Fuel Poverty, Report by the Committee of Public Accounts, HC 206, 2003-04.

Ofgem's Social Action Plan

- 9 Through its Social Action Plan, Ofgem has developed a range of initiatives to help vulnerable consumers reduce their energy bills and increase their participation in the competitive market. It has worked with suppliers in implementing these and has encouraged suppliers to focus on the needs of vulnerable consumers, including those in debt.
- 10 Our findings are:
 - A **Although numbers in fuel poverty are falling, it is difficult to measure the overall effect of Ofgem's Social Action Plan.** Ofgem has introduced a wide range of initiatives to help vulnerable consumers and those in fuel poverty. It has measured movement in key indicators, such as the number of customers repaying a debt, as proxies for successful outcomes. The numbers in fuel poverty have fallen since 2000, but there are other factors at play in the market, such as falling energy prices and increased incomes, and it is therefore difficult for Ofgem to attribute results specifically to its Social Action Plan initiatives.
 - B **Some consumers prefer to pay for their gas and electricity by pre-payment meter, but may not be aware that they are paying extra.** Over 3.5 million consumers pay for their gas or electricity through pre-payment meters. While some people are put onto pre-payment meters by their suppliers to help recover debts, many others prefer to use pre-payment meters because they help them budget more effectively and can prevent them from falling into debt. Consumers who pay by pre-payment meter for both gas and electricity could save up to £63 a year if they paid by monthly direct debit. Separate research carried out by Ofgem, *energywatch*¹⁴ and on behalf of suppliers from 1999 to 2002 has shown that a significant proportion of consumers do not realise that they are paying more, but the research exercises differed as to the exact number of people affected.
 - C **Ofgem is encouraging the industry to innovate in order to reduce the prices charged to pre-payment meter customers.** Ofgem's policy is that prices should reflect the costs incurred by suppliers and that pre-payment meter customers should pay the additional costs of the meter and associated infrastructure to support payment. Ofgem is, however, promoting competition in the provision of meters to encourage innovation and reduce costs. New metering technology already exists, and may have the potential to reduce operating costs, but very few such meters have been installed.
 - D **The standard of energy efficiency advice is improving.** Ofgem's research showed that when customers called suppliers' call centres, only 46 per cent were referred immediately to energy efficiency helplines; and one third of callers were not advised about energy savings measures they might be able to install. Ofgem published guidance in October 2002 and conducted a second mystery shopping exercise in autumn 2003. This found that the quality of advice had improved, but that the performance of call centres in identifying the need for advice was still poor.

¹⁴ *Energywatch is the consumer representative body for the gas and electricity markets.*

- E Ofgem has found it difficult to obtain reliable figures from suppliers for the number of customers in debt.** Ofgem first required suppliers to provide figures for the number of customers in debt (those with sums owing beyond one billing quarter) in July 2001. Suppliers experienced difficulties in producing figures to comply with Ofgem's definition of debt and this resulted in marked fluctuations in the numbers being reported each quarter. This made it difficult to identify underlying trends. Ofgem produced revised guidance in June 2002 and its work with suppliers has resulted in improvements in the accuracy of the figures reported. As at December 2003, 1.2 million gas and electricity customers (about five per cent of all customers) were repaying a debt.
- F Consumers can make savings by changing supplier, but some consumers cannot switch because they have outstanding debts.** Ofgem worked with suppliers and introduced a 'protocol' in February 2004 enabling pre-payment meter customers with debts of under £100 to switch supplier. However, during a three month trial 39 per cent of customers that applied to switch were ineligible. The proportion of eligible customers that completed the process and switched supplier was just 7.7 per cent. Ofgem worked with suppliers to identify and rectify problems in the process of switching identified by the trial.
- G The number of customers on the Fuel Direct scheme operated by the Department for Work and Pensions is falling.** Under the Fuel Direct scheme, customers in debt and in receipt of certain benefits¹⁵ can have a standard amount deducted from their benefits to cover their debt and on-going consumption. Since the beginning of 2001, the number of customers on the scheme has fallen by some 14,500 (23 per cent) to 48,500.
- H Ofgem monitors suppliers' performance on its Social Action Plan initiatives, though it has not set specific targets for them to achieve.** Ofgem analyses data for a range of indicators and has investigated the reasons for undesirable trends, such as an increase in electricity disconnections in 2002. It does not, however, have powers to enforce specific targets and considers that such an approach could have unintended consequences. For example, suppliers could reduce the number of customers in debt by increasing the number of disconnections.

¹⁵ *Income Support or Income Based Jobseeker's Allowance.*

Energy efficiency programmes provided by suppliers

- 11** The Energy Efficiency Standards of Performance (the Standards) were set up by Offer and Ofgem and administered by the Energy Saving Trust. The Energy Efficiency Commitment (the EEC) has been set up by Defra under the Utilities Act 2000 and is administered by Ofgem. Both programmes have improved the energy efficiency of many homes, resulting in more comfortable living conditions and lower bills. They have also helped to cut carbon dioxide emissions - the Energy Saving Trust has estimated that the Standards programme delivered annual carbon savings of 0.24 million tonnes (0.5 per cent of annual household output) and Defra expects the EEC to save a further 0.4 million tonnes annually. The costs of achieving these savings broadly feed through to customers. Under the EEC, if suppliers pass on the full cost it will add £7.20 per year (1.2 per cent) to the average combined gas and electricity bill.
- 12** Our findings are:
- A Energy suppliers appear to have met their energy savings targets.** Ofgem has estimated that under the Standards programme suppliers delivered energy savings of around 21 terawatt hours, against a target of 19.9 terawatt hours¹⁶. And it has estimated that, as at March 2004, suppliers are ahead of the rate required to meet their higher targets under the EEC. In administering the EEC, Ofgem has established robust arrangements for checking suppliers' schemes and obtaining reliable data.
 - B Some of the estimated energy savings from the Standards programme have not been achieved in practice.** Suppliers' energy savings targets are based on theoretical assumptions about the amount of energy that will be saved from individual energy efficiency measures after allowing for consumer behaviour. While each measure should, in theory, produce a saving for the consumer, this has not necessarily led to the expected reduction in overall energy consumption. Research¹⁷ published in July 2003 covering the Standards programme showed that estimated energy savings have not been fully achieved in practice. There are several reasons for this, including the lower than expected average energy consumption of households prior to the installation of measures; and consumers opting to take more benefit than expected in the form of 'comfort'¹⁸ rather than reducing consumption. The most recent research, covering the period 2000 to 2002, concluded that energy savings were 10 per cent lower than expected, though the research was limited to households in the 'disadvantaged' (low income) group.
 - C Defra is reviewing some of the assumptions underpinning the estimates of energy savings and plans to evaluate the EEC programme more fully in 2007.** In August 2003 Defra commissioned the Energy Saving Trust to manage a programme of research aimed at verifying several key assumptions and identifying any changes needed. This work is on-going. As part of the Climate Change Review, Defra proposes to examine the cost-effectiveness of the EEC in achieving the required level of carbon savings. This work will be carried out in 2007 and will inform the EEC programme from 2008 to 2011.

¹⁶ One watt hour of electricity is equal to one watt of power being consumed in one hour. A 100 watt light bulb used for one hour will consume 100 watt hours of electricity. A terawatt hour is a thousand million watt hours.

¹⁷ The research was published by Ofgem and the Energy Saving Trust.

¹⁸ Following the installation of energy efficiency measures, some consumers opt to heat their homes to a higher standard rather than take the benefit in the form of lower bills.

- D Suppliers will have to put in more effort in targeting energy efficiency measures at disadvantaged customers.** To ensure that all customers can benefit, both the Standards and the EEC have required a proportion of effort to go on a disadvantaged (low income) or priority (in receipt of specified benefits) group. Suppliers met the disadvantaged group target for the third Standards programme, in part through partnerships with social housing providers. Under the EEC, as at March 2004, 46 per cent of suppliers' activity had gone to priority group customers against a target of 50 per cent. However, schemes involving social housing providers take time to set up and Ofgem expects the shortfall to be made up by the end of the EEC programme in March 2005. Suppliers are concerned that it is becoming harder to reach priority group customers through such schemes. Research by Ofgem and Defra indicates that there is sufficient scope for work in the social housing sector from 2005 to 2008.
- E Suppliers do not report the costs involved in meeting energy savings targets under the Energy Efficiency Commitment.** The nature of the scheme does not require suppliers to report to Ofgem on their costs in meeting their targets. However, Ofgem is responsible for advising policy makers and detailed information on the cost of delivering the EEC is useful for policy makers in carrying out regulatory impact assessments and evaluating whether the EEC is a cost-effective delivery mechanism. In September 2003 suppliers provided details of the direct costs of installing measures to independent consultants and average figures were reported to Ofgem and Defra. These excluded suppliers' marketing costs because such costs were amalgamated with suppliers' broader marketing budgets.
- F Suppliers have to achieve a balance in determining the levels of subsidy to offer.** Some consumers may be receiving subsidies above those which are needed to incentivise them to install measures. Some unnecessary subsidy is unavoidable. Defra estimates this by reference to the number of measures that would have been installed anyway ('business as usual') and takes this into account in calculating targets. Using Defra's figures, our economic consultants, Oxera, calculated that over the three years of the EEC £102 million goes in subsidy to customers who would have installed energy efficiency measures anyway - around 20 per cent of the programme costs. Suppliers have to pitch their funding levels so as to ensure they attract enough business to meet their targets without adding unduly to their own costs or to prices charged to customers.
- G The installation of energy efficiency measures has led to significant changes in the market for household appliances.** In the market for 'cold' appliances (for example, fridges), the market share of A and B rated (the most efficient) products has increased from under 10 per cent in 1996 to 76 per cent in 2003. The change was in part helped by the implementation of an EU Directive in 1999 which restricted the sale of 'cold' appliances to category C or above. And the distribution of 17 million low energy light bulbs from 1994 to 2002 under the Standards helped contribute to a 50 per cent reduction in the wholesale price of these light bulbs which in turn has led to lower retail prices.
- H The required level of energy savings under the next energy efficiency programme, from April 2005, will present a significant challenge to suppliers.** Defra's proposal for the EEC from 2005 to 2008 is for a doubling of the overall level of activity. For suppliers to achieve this, consumer demand for energy efficiency measures will need to increase considerably.

our recommendations

Ofgem's Social Action Plan

13 Ofgem's Social Action Plan involves a series of initiatives designed to bring benefits to vulnerable consumers and those in fuel poverty. Ofgem has reacted to developments in energy markets by introducing new initiatives and evolving existing ones. It has undertaken to intensify its co-operation with industry to identify imaginative solutions and encourage the development of best practice. The following recommendations set out options for how the Social Action Plan could develop in future:

- A** Ofgem should encourage suppliers to offer pre-payment meters as cost effectively as possible. It should also press ahead with its efforts to introduce competition into the metering market and to explore the scope for more innovative and cheaper forms of pre-payment.
- B** Ofgem should identify ways of making consumers more aware of their energy consumption and the prices they are paying. For example, provided the benefit can be justified by up-front investment costs, it could encourage suppliers and consumers to install new technology 'smart' meters in prominent household positions, enabling consumers to monitor and control real time energy use. It could also encourage suppliers to set out on energy bills the scope for savings from cheaper tariffs and payment methods and from specific energy efficiency measures.
- C** Ofgem should review the operation of the debt assignment scheme after one year, in February 2005. It should use suppliers' and customers' experiences of the scheme to identify how it could be expanded to include customers with debts over £100 and those not on pre-payment meters. In doing so, it will need to ensure that expansion of the scheme is in the public interest and that the benefits to customers outweigh the costs to suppliers.



Energy efficiency programmes provided by suppliers

- 14** Ofgem is the administrator of the EEC, while Defra, as policy maker, is responsible for its design. As administrator, Ofgem's role is to monitor suppliers' progress in meeting their targets and provide advice to Defra. It has played the role of administrator effectively. Our recommendations highlight how Ofgem can continue to work in partnership with Defra to improve the design and implementation of the EEC.



- A** Ofgem is an economic regulator, with a primary statutory objective to protect the interests of consumers, wherever appropriate by promoting effective competition. In general, it has a degree of discretion in using its powers to achieve its statutory objectives. For the EEC, it has less discretion and must administer the scheme within the terms of the Statutory Instrument laid by Defra before Parliament. This is appropriate since the programme involves the transfer of substantial amounts of money and benefit between consumers. We found no evidence that this has caused tension within Ofgem, or between Ofgem and Defra. Nevertheless, we consider that Government should be cautious about extending the responsibilities of independent regulators such as Ofgem to administer detailed schemes in future if these would conflict with the regulator's principal statutory objective of protecting the interests of consumers.
- B** Ofgem should use its knowledge of the operation of the EEC to assist in Defra's on-going evaluation of key assumptions underlying energy efficiency programmes. In particular, more research is needed into the extent to which theoretical energy savings credited to suppliers are achieved in practice. This research should be carried out as part of Defra's wider work on energy efficiency and the results should be available to inform the development of future energy efficiency programmes, including the EEC from 2008 to 2011.
- C** In administering the next EEC, Ofgem should use its close relationship with suppliers to encourage them to provide information on the full costs of meeting their energy savings targets, and should highlight for Defra any features of the programme where suppliers appear to be incurring disproportionately high costs.
- D** Ofgem should continue to monitor suppliers' performance in meeting their energy savings targets. For future phases of the EEC, Ofgem should inform Defra about any unnecessary burdens on suppliers created by the EEC to assist with Defra's preparation of its Regulatory Impact Assessments.



Part 1

The role of Ofgem

Ofgem's social and environmental responsibilities

- 1.1 The Office of Gas and Electricity Markets (Ofgem), a non-ministerial Government department, is the economic regulator of Britain's gas and electricity markets. Its role is to protect the interests of consumers, wherever appropriate by promoting effective competition. Ofgem also has a range of secondary duties, which include the duty to have regard to energy efficiency, the environment and certain disadvantaged groups.
- 1.2 Ofgem must also have regard to the Government's wider social and environmental policy objectives. In February 2004 the Secretary of State for Trade and Industry issued revised social and environmental guidance to Ofgem. The guidance requires Ofgem to take account of the objectives in the Government's Energy White Paper on tackling fuel poverty and sustainable development, including the continued reduction of greenhouse emissions. This replaces guidance issued in November 2002.
- 1.3 Ofgem's Corporate Plan for 2004 to 2007 identified seven themes for its work:
 - i) creating and sustaining competition;
 - ii) regulating network monopolies;
 - iii) helping to protect the security of Britain's energy supplies;
 - iv) being a leading voice in Europe;
 - v) helping protect the environment;
 - vi) helping to tackle fuel poverty; and
 - vii) improving Ofgem's efficiency and effectiveness.
- 1.4 The National Audit Office has reported on Ofgem's work to introduce competition in a series of reports¹⁹, and has also reported on the regulation of monopoly in *Pipes and Wires*.²⁰ This report focuses on two aspects of the role of Ofgem in contributing to two Government policies: the social aim of eliminating fuel poverty and the environmental aim of reducing carbon emissions through improving household energy efficiency.
- 1.5 In 2002 around 2.25 million households in the UK were classified as being in fuel poverty. People are considered to be in fuel poverty if they need to spend more than 10 per cent of their income on all fuel use and to heat their homes to an adequate standard of warmth. Low income, poor energy efficiency of housing and high fuel prices are all factors that can lead to fuel poverty. About half of the reductions in the numbers in fuel poverty in recent years have come from lower gas and electricity prices; the other half have come from increases in incomes. Fuel poverty can damage people's quality of life and health - the likelihood of ill health and premature death is increased by cold homes. The UK has around 40,000 more deaths in winter than in the rest of the year. Studies²¹ suggest that the prevalence of winter deaths is greater in people living in homes that are poorly heated and in particular homes with low energy efficiency. The Government's Fuel Poverty Strategy, published in November 2001, has an overall aim of eliminating fuel poverty in England by 2016 and eliminating it within vulnerable groups by 2010 as far as reasonably practicable.

19 *Giving Customers a Choice - The Introduction of Competition into the Domestic Gas Market, HC 403, 1998-99; Giving Domestic Customers a Choice in Electricity Supplier, HC 85, 2000-01.*

20 *Pipes and Wires, HC 723, 2001-02.*

21 *For example, Cold Comfort: The social and environmental determinants of excess winter deaths in England, 1986-1996, Paul Wilkinson et al, 2001.*

- 1.6 In February 2003 the Government published an Energy White Paper, entitled *Our energy future - creating a low carbon economy*. This White Paper focused on three challenges facing the UK's energy system: environmental change; the decline of the UK's indigenous energy supplies; and the need to update much of the UK's energy infrastructure. It sets out four goals for energy policy: reduce carbon dioxide emissions by 60 per cent by about 2050, with real progress by 2020; maintain the reliability of energy supplies; promote competitive markets in the UK and beyond; and ensure that every home is adequately and affordably heated. In April 2004 the Government published *Energy Efficiency: The Government's Plan for Action* in which it set out its detailed plans for delivering the commitments in the Energy White Paper.

Ofgem's Social Action Plan

- 1.7 Ofgem recognises that it has an important contribution to make in tackling fuel poverty and this is reflected in its seven themes. Its Social Action Plan, launched in March 2000, focuses on areas where specific measures to protect consumers, along with the development of competition, can work together to bring benefits to vulnerable consumers and the fuel poor. Ofgem's broad objectives are to:

- ensure that vulnerable consumers share fully in the benefits of competition and deregulation;
- promote innovation and best practice among suppliers, for example, in debt prevention and management; and
- improve the quality of energy efficiency advice and of the specific services provided to vulnerable consumers.

Ofgem's Social Action Plan complements other work by Ofgem to help consumers. This includes encouraging consumers to take advantage of the competitive market and administering the Energy Efficiency Commitment. Part 2 of this report reviews Ofgem's progress in meeting its objectives under the Social Action Plan. Details of Ofgem's Social Action Plan work programme are set out at Appendix 2.

Suppliers' energy efficiency programmes

- 1.8 Since 1994 Ofgem and its predecessor Offer have set and administered programmes requiring energy suppliers to install energy efficiency measures in households and to achieve target levels of energy savings. The Energy Efficiency Standards of Performance (the Standards) ran in three separate phases from 1994 to 2002. The phases that ran from 1994 to 2000 were aimed solely at electricity suppliers; gas was added in 2000. The Standards were replaced in April 2002 by the Energy Efficiency Commitment (the EEC) which runs to March 2005. Ofgem was responsible for the design and outcome of the Standards, but for the EEC this responsibility rests with the Department for the Environment, Food and Rural Affairs (Defra), with Ofgem being responsible for administering the programme. Defra is consulting on an expansion of the EEC to run in two phases from 2005 to 2011.
- 1.9 The EEC is roughly three times the size of the Standards programme in terms of annual target energy savings (after taking into account the different methods for crediting savings). The Standards programme cost suppliers £260 million over its eight years; the EEC is estimated to cost £486 million over three years. Changes in Ofgem's statutory powers under the Utilities Act 2000 now mean that, unlike previous schemes, if suppliers fail to meet their EEC target they face a financial penalty, ultimately up to 10 per cent of turnover. Ofgem's work in administering the EEC reflects its themes of helping protect the environment, and helping to tackle fuel poverty (paragraph 1.3 above).

Other programmes aimed at improving energy efficiency

1.10 The Department for Environment, Food and Rural Affairs funds a scheme (Warm Front) that provides a range of insulation and heating measures to vulnerable people in owner-occupied homes or privately rented accommodation to improve the energy efficiency of their homes. In doing so the scheme helps to alleviate fuel poverty. The scheme has a budget of around £150 million each year. Eligibility for the scheme is based on receipt of specified benefits. In 2001 the Department of Trade and Industry and Defra launched a pilot 'Warm Zones' scheme. This adopted a door to door approach to promoting energy efficiency measures in selected urban areas drawing on funding from a range of existing programmes to alleviate fuel poverty.

1.11 Part 3 of this Report is complementary to the recent Comptroller and Auditor General's Report on Warm Front. The EEC has the primary objective of reducing energy consumption and consequently carbon emissions, whereas Warm Front aims to improve the energy efficiency of vulnerable households and help remove them from fuel poverty. And Warm Front involves direct intervention and expenditure funded by taxpayers, while the EEC is one of a range of duties placed on private sector companies by Government policy, the cost of which broadly feeds through to consumers.

1.12 The Committee of Public Accounts reported on the effectiveness of Warm Front in February 2004. The Report found that:

- only around a third of grants made help the fuel poor, and a third or more fuel poor households are not eligible for grants;
- the scheme has no eligibility criteria reflecting the energy efficiency of the home;
- £14 million was spent on providing light bulbs and draught proofing to households in a sample year, though they have limited impact on energy efficiency and fuel poverty; and
- the scheme offers few practical options for 'hard to treat' homes such as those off the gas network or with solid walls.

1.13 There is a complex inter-action between the EEC, Warm Front, and other energy efficiency initiatives:

- the EEC operates through suppliers who have energy savings targets to meet and the costs may feed through to consumers. While Warm Front's objective is to assist vulnerable households, all consumers - including those not in fuel poverty - can benefit under the EEC;
- to help meet their targets under the EEC, and reduce costs, suppliers can purchase measures installed under Warm Front and this money is used to supplement funds available for Warm Front;
- the Warm Zones pilot programme drew on a range of activities to encourage energy efficiency improvements, including EEC and Warm Front funds, which could be supplemented by contributions from other sources; and
- the Energy Saving Trust has a nationwide network of Energy Efficiency Advice Centres which provide advice and promote the range of energy efficiency programmes to householders.

The scope and methodology of this report

1.14 We examine Ofgem's implementation of key initiatives under its Social Action Plan in Part 2 of the report. Its administration of household energy efficiency programmes is reviewed in Part 3 of the report. The report sets out what has been achieved and the difficulties that have been encountered. In carrying out our examination, we analysed the results reported against each programme, examined Ofgem and Defra documents and interviewed key officials, consulted stakeholders and undertook a survey of energy suppliers. We commissioned advice from Oxera on aspects of the energy efficiency programmes. We also convened an expert panel to advise us on our findings. Appendix 1 describes our methodology further.



Part 2

Ofgem's Social Action Plan

2.1 In May 1999 Offer and Ofgas²² identified the main sources of disadvantage affecting vulnerable consumers. Ofgem²³ took account of these factors in its Social Action Plan, published in March 2000. This part of the report examines Ofgem's progress in implementing key initiatives under the Plan:

- promoting choice and cost-effectiveness of payment methods;
- improving the standard of energy efficiency advice to consumers;
- promoting best practice in debt management and debt prevention;
- enabling consumers in debt to switch suppliers; and
- a series of other initiatives to help vulnerable consumers.

The methods of paying for gas and electricity bills

2.2 There are three main methods of paying for gas and electricity - quarterly (standard credit), monthly direct debit, and pre-payment meter. Direct debit is the cheapest method, with customers usually offered a discount on their bills. Pre-payment meters are the most expensive because they are more complex and cost more to maintain than standard credit meters and suppliers have to provide additional support services. This reflects Ofgem's policy that all payment methods should reflect the costs involved.

2.3 Many low income customers use pre-payment meters and are therefore paying more for their energy. In 2003, 2.0 million gas customers (10 per cent) and 3.7 million electricity customers (15 per cent) used pre-payment meters. Within these figures, a significant proportion of households use pre-payment meters for both gas and electricity. **Figure 1** sets out the average annual premium for low, medium and high users at the end of 2003. A medium user on pre-payment for both gas and electricity will pay £31 a year²⁴ more than someone paying quarterly and £63 a year²⁵ more than a direct debit customer.

1 Average annual pre-payment meter premiums for gas and electricity

	Low user (£)	Medium user (£)	High user (£)
Gas			
Premium over standard credit	10.25	21.75	33.75
Premium over direct debit	23.38	41.75	60.50
Electricity			
Premium over standard credit	8.75	9.25	11.38
Premium over direct debit	17.63	21.13	25.50

Source: Data compiled from www.uSwitch.com and the energywatch website

22 Office of Electricity Regulation and Office of Gas Supply.

23 Ofgem replaced Offer and Ofgas in June 1999.

24 Figure 2 shows that a medium user will pay a premium of £21.75 for gas and £9.25 for electricity over standard credit.

25 Figure 2 shows that a medium user will pay a premium of £41.75 for gas and £21.13 for electricity over direct debit.

2.4 Customers may be uncertain of the additional costs associated with using a pre-payment meter. Research into customer awareness has produced a range of results:

- MORI research conducted for Ofgem in 1999 found that 43 per cent of pre-payment meter customers knew they were paying more, but 33 per cent did not and 25 per cent actually thought it was cheaper;
- the Electricity Association²⁶ found in 2001 that 64 per cent of customers using pre-payment meters for both gas and electricity realised that it was a more expensive payment method; and
- NOP research conducted for energywatch in March 2002 found that only 30 per cent of gas pre-payment customers and 23 per cent of electricity pre-payment customers realised that it was more expensive. This research also found that around 20 per cent of gas and electricity pre-payment customers thought that paying by pre-payment meter was cheaper (Figure 2).

2.5 Ofgem originally aimed to reduce the number of customers on pre-payment meters, but it recognises that many customers prefer them to other methods of payment. The Electricity Association's research found that they allow customers to budget more effectively and can help to eliminate concerns about falling into debt. Ofgem has therefore shifted its focus to improving the information given by suppliers to pre-payment customers about costs and energy usage and promoting competition in the provision of meters to encourage innovation and reduce costs. New metering technology already exists, and may have the potential to reduce operating costs, but very few such meters have been installed.

2.6 Pre-payment meters ensure that customers pay for their gas and electricity in advance of consumption. Suppliers do not, therefore, face the risk of customers falling into arrears. Our review of suppliers' websites in late 2003 showed that there is no specific information aimed at encouraging pre-payment meter customers to switch to cheaper payment methods, although most do promote direct debit as the cheapest. Several suppliers also provide information on how to change from using a pre-payment meter to a credit meter.

The standard of energy efficiency advice provided by suppliers to consumers

2.7 Consumers can save money by improving energy efficiency within the home. Suppliers are required to provide energy efficiency advice to customers as part of their licence conditions.²⁷ By following advice, and installing energy efficiency measures, consumers can save up to £200 a year.²⁸ Changes in the way consumers use energy can, on their own, produce savings of around ten per cent.²⁹ The installation of energy efficiency measures is covered in Part 3 of the report.

2.8 In June 2002 Ofgem published the results of a 'mystery shopping' exercise to explore the quality of advice given out. The results identified variable performance and Ofgem concluded that all suppliers could improve their services to customers:

- 75 per cent of calls to suppliers' **general call centres** were connected at the first attempt, but only 46 per cent were referred immediately to their dedicated energy efficiency helplines;
- mystery shoppers received more useful advice from **energy efficiency helplines** but some callers were still dealt with inadequately. Callers were often not asked questions which could establish whether they were in fuel poverty or might qualify for grants, and one third of callers were not advised on energy saving measures;
- the survey of general call centres and helplines of **minor suppliers** indicated that several did not have arrangements in place for providing energy efficiency advice; and
- the **telephone survey of customers** who had contacted suppliers' helplines showed that they had encountered many of the same problems as the mystery shoppers. Advisers addressed the immediate concern without broadening the scope of their advice.

2 NOP research on pre-payment meter customers, March 2002

Do you think using a prepayment meter is cheaper, more expensive or costs about the same as other payment methods?	Cheaper (%)	More expensive (%)	About the same (%)	Don't know (%)
Gas customers	18	30	32	21
Electricity customers	21	23	39	17

NOTE

Figures have been rounded independently so the total for gas customers does not equal 100.

Source: energywatch - based on a sample of 278 electricity and 208 gas pre-payment meter consumers

26 Affording Gas and Electricity, Electricity Association, March 2001.

27 Licence Condition 25 - Efficient use of electricity/gas.

28 Paragraph 4.17, Social Action Plan Annual Review 2003, Ofgem, March 2003.

29 Effective advice: Energy efficiency and the disadvantaged, Environmental Change Institute, December 2000.

2.9 Ofgem did not consider the imposition of additional regulation to be appropriate and instead, following consultation within the sector, published a best practice guide for the provision of energy efficiency advice. The key principles are for suppliers to:

- use calls to explore all possibilities for improving the efficiency of the customer's home, ensuring that advice is relevant to the circumstances;
- follow up calls with printed information, energy audits and visits where appropriate;
- identify and help customers that might be eligible for grants; and
- ensure easy access to advice, professional help and positive outcomes.

2.10 Ofgem invited suppliers to develop and implement strategies incorporating these principles.³⁰ Ofgem also encouraged domestic suppliers to sign up to the Energy Efficiency Partnership for Homes Code of Practice, which offers a 'kite-mark' to service providers that demonstrate a commitment to quality standards of service.

2.11 In December 2003 Ofgem published the results of a second mystery shopping exercise which found that there had been improvements in the quality of advice given by suppliers' specialist energy efficiency helplines, but the performance of general call centres in identifying the need for advice and referring callers for specialist help was still poor.

2.12 Our survey of suppliers revealed the difficulties they face in getting customers interested in obtaining and acting on advice. Numbers seeking advice are low - an average of 82 customers per 100,000 were given direct advice by their supplier in early 2003, although this does represent an increase of 36 per cent compared with spring 2001.

Suppliers' debt prevention and management practices

2.13 One of Ofgem's main aims under its Social Action Plan is to facilitate better debt prevention by energy suppliers.³¹ In February 2001 Powergen reported the results of its research, commissioned by Ofgem, into the causes of customers' debts and ways of dealing with them more effectively. Powergen identified the main causes as reductions in income and significant 'life change' events, such as divorce or separation, redundancy, or long-term illness. Around 44 per cent of customers questioned admitted that a recent event or change in circumstances had triggered payment difficulties.³²

2.14 Although the reasons for indebtedness are largely beyond Ofgem's control, in January 2003 Ofgem and *energywatch* jointly published best practice guidelines entitled 'Preventing Debt and Disconnection' focusing on six areas (**Figure 3**). Ofgem invited suppliers to develop strategies to help customers already in debt and prevent those at risk from falling into debt. Ofgem and *energywatch* plan to visit suppliers during 2004 to review their debt prevention strategies and to assess the implementation of the guidelines.

3 Guidelines on preventing debt and disconnection - the six key areas

- Minimising billing errors
- Using incoming calls to identify customers in difficulty
- Using customer records to target energy efficiency improvements
- Demonstrating flexibility in debt recovery
- Offering sustainable solutions to customers in extreme hardship
- Helping customers who are unable to manage their own affairs

2.15 Estimated bills can also be a cause of debt and timely meter reading could help reduce the build-up of debt. Suppliers' licences require them to read a meter every two years. Although many suppliers attempt to read meters quarterly, gaining access to customers' premises can be difficult. These difficulties could be overcome by using remote metering technology that does not require access, although this technology could be costly to install.

2.16 A Department of Trade and Industry Working Group concluded in September 2001 that 'smart' meters (which, for example, display information on energy usage in money terms) could, when combined with energy efficiency advice, help reduce consumption. Ofgem has taken steps to introduce competition in metering with the aim of cutting costs and promoting innovation. This has involved separating out metering charges from other costs to enable suppliers to choose alternative metering providers.

2.17 Ofgem first required suppliers to provide figures for the number of customers in debt (those with sums owing beyond one billing quarter) in July 2001. Suppliers experienced difficulties in producing figures to comply with Ofgem's definition of debt and this resulted in marked fluctuations in the numbers being reported each quarter. This made it difficult to identify underlying trends. Ofgem produced revised guidance in June 2002 and its work with suppliers has resulted in improvements in the accuracy of the figures reported. As at December 2003, 1.2 million gas and electricity customers (about 5 per cent of all customers) were repaying a debt.

30 Chapter 6, *Good practice in the provision of energy efficiency advice to domestic customers - a Consultation Document*, Ofgem, October 2002.

31 Ofgem defines debt as sums owing beyond one billing quarter.

32 Pages 21 and 23, *Powergen/Ofgem Research Report - Scope for better prevention and management of debt*, February 2001.

Switching supplier for customers in debt

2.18 Pre-payment meter customers who take advantage of competition between energy suppliers can expect to save money on their bills. Analysis of price comparison data for late 2003 in **Figure 4** shows that a medium gas user could potentially save £39 (11 per cent); the saving for a medium electricity user is even more dramatic at a potential £62 (20 per cent). Some customers are prevented from switching, however, because of outstanding debts.

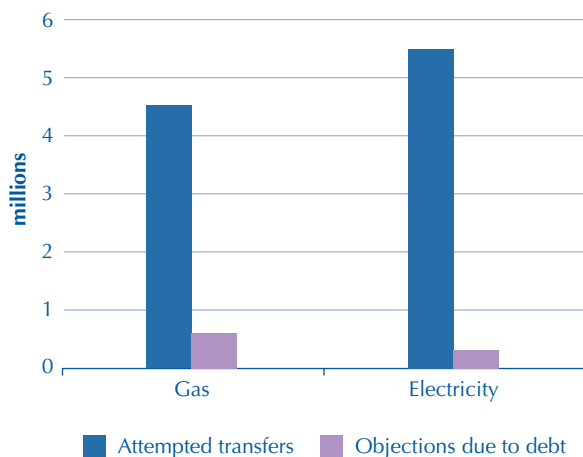
2.19 Customers with a debt over 28 days old have experienced difficulty switching to another supplier because their existing supplier can block the transfer. This reduces the risk to suppliers that customers will not pay their debts once they have switched, but it reduces access for customers to more competitive tariffs. In 2003-04 around nine per cent of all energy customers attempting to switch supplier were blocked in this way (**Figure 5**). There are significant variations between the proportion of gas customers blocked (13 per cent) and electricity customers (six per cent).

4 Potential annual savings for pre-payment meter customers

	Usage	Maximum price (£)	Minimum price (£)	Price range (£)	Maximum saving (%)
Gas	Low	213	187	26	12
	Medium	361	322	39	11
	High	514	455	59	11
Electricity	Low	201	145	56	28
	Medium	312	250	62	20
	High	422	355	67	16

Source: National Audit Office analysis of energywatch and www.uSwitch.com data based on the South West region, November 2003.

5 Attempted transfers of supply blocked because of outstanding debt, 2003-04



Source: Ofgem

2.20 Following discussions with Ofgem, suppliers designed a scheme which would allow pre-payment customers with debts under £100 to switch supplier, with the new supplier 'purchasing' the debt at a factor of 90 per cent. Suppliers trialled the new arrangements from December 2001 to February 2002. The results are shown in **Figure 6**. Although 61,138 customers applied to switch supplier, 23,843 of these (39 per cent) were ineligible as their debts were 'complex' under the terms of the scheme and outside its scope. A debt is 'complex' if it is disputed, erroneous, poorly defined or ineligible for tax reasons. Of the 37,295 eligible customers, 2,858 (7.7 per cent) completed the process.

6 Results of the debt assignment trial, December 2001 to February 2002

	Total	Percentage of those applying	Percentage of those eligible
Customers applying to switch	61,138		
Customers deemed eligible	37,295	61.0	
Debt details passed to new supplier	15,006	24.5	40.2
Customers agreeing assignment	3,371	5.5	9.0
Customers transferred	2,858	4.7	7.7

Source: Report on Evaluation of Debt Assignment Trial, Ofgem, 31 July 2002

2.21 Ofgem's report identified several reasons for the low completion rate and other stakeholders also expressed concerns:

- customers found the re-assignment process confusing and complex;
- customers were often unwilling to consent, as required by the Data Protection Act, to the details of their debt being passed to the new supplier;
- suppliers considered the process to be cumbersome and this created errors and delays. They also had difficulty in tracking information;
- one supplier told us that a balance needs to be struck between ensuring effective competition whilst not exposing suppliers to unmanageable levels of risk; and
- *energywatch* considered that administrative arrangements were too complex and designed to reduce suppliers' costs rather than maximise effectiveness for customers.

2.22 Working with Ofgem, suppliers took the experience of the trial into account in redesigning and improving the assignment process. A major issue was the need to ensure the customer consents to debt details being passed to the new supplier. A letter was developed for this purpose, advising customers of their options. Suppliers implemented these new arrangements (termed the 'debt assignment protocol') in agreement with Ofgem in February 2004. Ofgem plans to review progress after 12 months and has estimated that up to 70 per cent of pre-payment customers with a debt are now eligible to switch supplier.

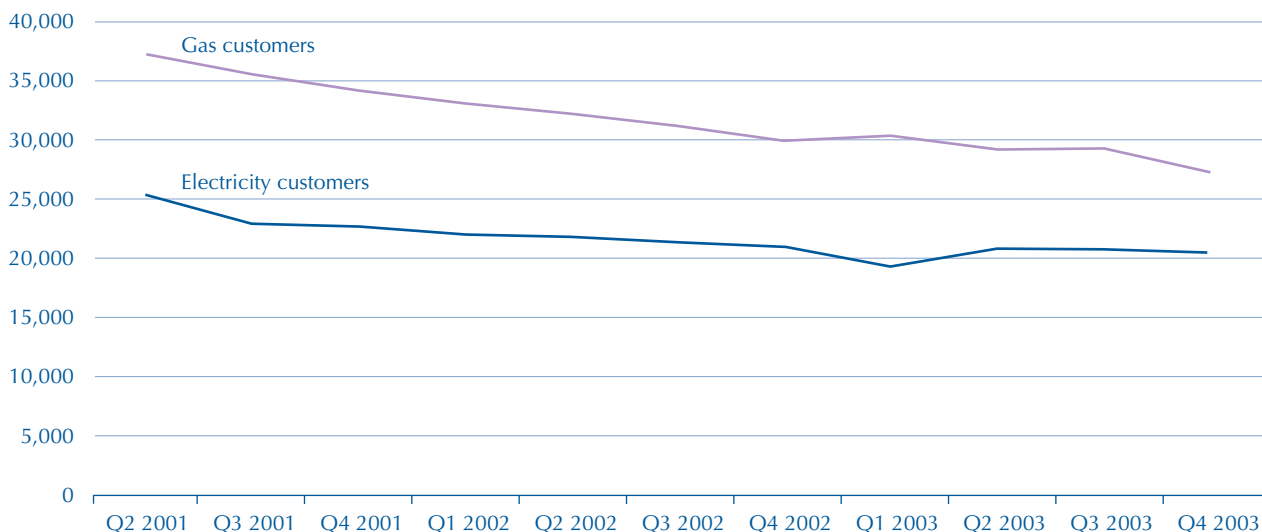
The Department for Work and Pensions Fuel Direct Scheme

2.23 The Department for Work and Pensions operates a system of third party deductions from benefits for debts such as water and fuel bills. In 1976 Fuel Direct was introduced against a background of increasing fuel prices and a rising number of disconnections. When customers are in debt to their energy supplier either they or the supplier can apply to have deductions made directly from benefits (Income Support or Income Based Jobseeker's Allowance). The deductions, based on a standard amount, cover the debt and on-going consumption. Fuel Direct is designed as a measure of last resort for vulnerable customers.

2.24 The numbers on Fuel Direct have fallen steadily since 2001 from a total of some 63,000 to 48,500 by the end of 2003, representing only two per cent of eligible benefit recipients (**Figure 7 overleaf**). There may, however, be an element of double counting in the overall figure as some customers have deductions made for both gas and electricity. The fall in the use of Fuel Direct partly mirrors a decline in the numbers claiming the relevant benefits.³³

2.25 A total of £26.9 million was deducted from benefits through the Fuel Direct scheme in 2003. The Department for Work and Pensions has recently introduced an automatic processing system which has significantly reduced the costs of operating third party deductions such as Fuel Direct. The overall cost has fallen from £44 million in 2000 to around £21 million in 2004. It is not possible, however, to disaggregate the costs of operating Fuel Direct from the overall cost of third party deductions.

7 The numbers on Fuel Direct are falling for gas and electricity customers



Source: National Audit Office analysis of Ofgem data

Suppliers' Priority Services Registers

2.26 Under their licences, suppliers are obliged to maintain a Priority Services Register of customers who are of pensionable age, disabled or chronically sick, and make additional services (for example gas safety checks) available to people on the Register. At September 2003 the number of customers on suppliers' registers, for the supply of gas and electricity, totalled 1.29 million.

2.27 In December 2003 Ofgem published research into the quality of services provided by suppliers and the views of eligible customers. Ofgem found that 76 per cent of eligible customers had not heard of the Priority Services Register and only 53 per cent were aware of any of the additional services offered. It found that suppliers' front line staff were not always aware of the Register and types of customer eligible for inclusion. Ofgem concluded that suppliers need to do more to publicise the Register and its benefits; consider means by which they communicate with eligible customers; review the training given to front line staff; and do more to promote the free gas safety check. Ofgem will be conducting further research at the end of 2004 to see if awareness of specific services available under the Register has improved.

Ofgem's other work to help disadvantaged consumers

2.28 Ofgem has undertaken work aimed at ethnic minority consumers. It has identified a significantly lower incidence of switching among African/Caribbean consumers than other groups. In 2003 Ofgem supported a pilot energy scheme undertaken by Camden Borough Council. The scheme's objectives are to raise awareness among ethnic minority households of how to:

- reduce bills and improve comfort through switching supplier;
- make their homes more energy efficient; and
- access grants and other services available.

Ofgem is providing literature on switching, and is helping to evaluate the results to see if the initiative can be extended to other areas of the country where there are ethnic minority households.

Ofgem's measurement of performance

2.29 Ofgem publishes data each quarter on how suppliers are meeting certain aspects of their licence obligations (for example, numbers of customers in debt and levels of debt). Drawing on this, Ofgem identified 'target trends' for six debt prevention indicators and progress on these for 2003 compared with 2002 is shown in **Figure 8**. In addition, the Social Action Plan includes 12 indicators that Ofgem uses to monitor the progress of its initiatives and to provide a more general view (**Figure 9**).

2.30 Ofgem uses adverse movements in both sets of indicators to highlight areas where it needs to take action, both at an industry and company level. It has investigated the reasons for undesirable trends, such as an increase in electricity disconnections in 2002. Ofgem does not set specific targets for the indicators as it does not have the powers to enforce them and it considers a holistic approach more appropriate. Strict adherence to targets could have unintended consequences - for example, suppliers could reduce the number of customers in debt by increasing the number of disconnections.

2.31 Ofgem set out the latest position on its Social Action Plan indicators in its fourth annual review of the Social Action Plan published in March 2004. For those indicators that relate to the initiatives covered in this report, progress has been as follows:

- the number of customers using pre-payment meters for gas or electricity has increased by 7.5 per cent, from 5.3 million in 1999 to 5.7 million in 2003;
- the rate of switching by vulnerable customers (the over 65s and those on low income or in receipt of benefits) is close to, though a little below, the national average;
- the number of gas supply disconnections was 15,973 in 2003, 28 per cent below the 1999 level (though the number has varied considerably over the three year period, rising as high as 26,088 in 2001). The number of electricity supply disconnections was 1,361, up from 373 in 1999, but still considered by Ofgem to be very low;

8 Ofgem's debt prevention indicators - target trends and actual trends for 2003 compared with 2002

Indicator	Target trend	Actual Trend
Number of consumers repaying a debt	↓	↔
Percentage with debt over £300 carried forward from previous bill	↓	↓
Number of consumers disconnected for non-payment of debt	↓	↓
Number of pre-payment meters installed to recover debt	↓	↓
Number of consumers provided with energy efficiency advice	↑	↓
Number of consumers in debt given energy efficiency information	↑	↓

Source: National Audit Office analysis of Ofgem data

9 The Social Action Plan indicators

- | | |
|--|---|
| 1 Total number of households in fuel poverty | 7 Number of disconnections |
| 2 Number of customers using pre-payment meters | 8 Level of self-disconnections (pre-payment meters) |
| 3 Debt repayment levels | 9 Numbers of customers receiving energy efficiency advice |
| 4 Tariff and payment choice | 10 Warm Homes Initiatives (energy efficiency measures installed in priority group households) |
| 5 Switching rates | 11 Customer satisfaction with supplier |
| 6 Numbers of customers on Priority Service Registers | 12 Prices |

- the number of customers receiving energy efficiency advice from their supplier fell 18 per cent from 132,336 in 2002 to 108,894 in 2003 and the number receiving information (in the form of printed literature) fell 25 per cent from 268,006 in 2002 to 201,601 in 2003;
- less than 10 per cent of eligible customers are on Priority Service Registers and the number of free gas safety checks dropped to 48,440 in 2003.

2.32 Although Ofgem has developed an array of indicators, it has not conducted research into how effective its initiatives have been in reducing fuel poverty. The general movement of indicators may not be a good proxy for this as any reduction might be due to external factors outside Ofgem's control (for example, rises in incomes). Ofgem told us that it would be very difficult to assess how peoples' lives have changed as a result of individual initiatives, and it is difficult to assess whether and why individual households have been removed from fuel poverty.



Part 3

Energy efficiency programmes provided by suppliers

- 3.1 This part focuses on the third Energy Efficiency Standard of Performance, which ran from April 2000 to March 2002, and the Energy Efficiency Commitment (EEC) which operates from April 2002 to March 2005. Ofgem was responsible for the design and outcome of the Standards, but for the EEC this responsibility rests with the Department for the Environment, Food and Rural Affairs (Defra), with Ofgem being responsible for administering the programme. Over the five year period, energy suppliers will have spent some £600 million on these programmes which are expected to deliver about a two per cent per year improvement in household energy efficiency.
- 3.2 Under these programmes, energy suppliers are responsible for delivering energy savings. The overall energy saving target is based on several factors, including the rate of progress needed to meet the Government's climate change commitments, the mix and cost of energy efficiency measures that are likely to be installed by suppliers, and the cost to customers in the form of higher bills. Each supplier's individual target is based on the number of customers it serves. As at April 2004, 12 suppliers were required to meet a target.
- 3.3 Suppliers market schemes to customers and social housing partners, offering energy efficiency measures, such as insulation and low energy light bulbs. If suppliers passed on their costs in full, the cost to the customer of the third Standards programme would have been £1.20 per fuel per year and would be an estimated £3.60³⁴ under the EEC. Details of the Standards and the EEC are in **Figure 10 (overleaf)** and explained further in Appendix 3. The detailed energy and carbon saving figures for the Standards and the EEC are not directly comparable.

Suppliers' achievements under the third Energy Efficiency Standard of Performance

- 3.4 Ofgem and the Energy Saving Trust have estimated that the energy efficiency measures installed under the third Energy Efficiency Standard of Performance achieved total energy savings of 12TWh (7TWh of gas and 5TWh of electricity) against a target of just over 11TWh. **Figure 11 (overleaf)** shows how these savings were achieved. And overall, Ofgem has estimated that over all three standards programmes since 1994, energy suppliers have achieved savings of 21 TWh against a target of 19.9 TWh.
- 3.5 Although Ofgem and the Energy Saving Trust (EST) have confirmed that the measures needed to achieve the 12 TWh savings have been installed, they have not been able to finalise the savings credited to each supplier. The deadline for suppliers to submit final reports was 31 March 2003 (one year after the end of the programme), but suppliers missed this deadline for 41 per cent of schemes. This is because mergers and takeovers within the industry meant that responsibility for several suppliers' targets changed hands; and suppliers gave priority to developing schemes for the new EEC.

34 Defra estimates this figure to be about £4 when adjusted to 2004 prices: Page 39, *The Energy Efficiency Commitment from April 2005 - Consultation Proposals*, Defra, May 2004.

10 The Energy Efficiency Standards of Performance and Energy Efficiency Commitment

	Standard 1 1994-98	Standard 2 1998-2000	Standard 3 2000-02	EEC 2002-05
Target energy saving	6.1TWh	2.7TWh	11.1TWh ¹	62TWh ¹
Estimated annual carbon saving	← 0.24 million tonnes ² →			0.4 million tonnes ²
Total cost to suppliers	£100m	£45m	£110m ³	£486m ³
Cost to customers (per fuel, per year)	£1	£1	£1.20 ⁴	£3.60 ⁴
Policy	OFFER	OFFER	Ofgem	Defra
Administration	EST/Offer	EST/Offer	EST/Ofgem	Ofgem
Minimum number of customers for supplier to be included in programme	None	None	50,000	15,000
Specific focus	Electricity only, equitable treatment of low income consumers was considered important in setting the targets	Electricity only, 60-80% focus on low income consumers	Electricity and gas, 67% spent on disadvantaged group	All fuels, 50% of saving to be achieved through priority group

NOTES

- 1 After taking account of changes in the way energy savings are credited to suppliers, the target energy saving for the EEC is three times greater than that for the third Standard programme.
- 2 The methodology for estimating the level of carbon savings from schemes evolved through each programme. As such the carbon figures are not directly comparable.
- 3 The costs for the first and second Standards are the actual costs incurred by suppliers, based on the customer levy of £1 per customer per fuel per year. The costs for the third Standard and the EEC are the estimated potential costs to suppliers of meeting their targets if they adopt the illustrative mix of measures developed by Defra to inform the setting of the target.
- 4 This is the cost to customers, per fuel per year, if suppliers incur the cost estimated by Defra and pass this on in full.

Source: National Audit Office analysis of Ofgem and Energy Saving Trust data

11 The measures installed and percentage of total estimated energy savings credited to suppliers under the third Energy Efficiency Standard of Performance

Energy efficiency measure	Measures installed (thousands)	Percentage of total estimated energy savings credited
Cavity wall insulation	98	29
Lighting	7,427	28
Loft insulation	110	18
Boilers	58	14
Refrigeration	159	7
Heating controls	53	3
Other insulation	22	1
Kettles	222	1
Other	5	less than 1
Total	8,154	100

NOTE

- 1 Figures have been rounded independently so columns may not equal totals.

Source: A review of the Energy Efficiency Standards of Performance 1994 - 2002, Ofgem and Energy Saving Trust, July 2003

The outcome of the Standards programmes

3.6 Ofgem credits suppliers with energy efficiency savings for each measure installed. The saving attributed to a particular insulation or heating measure is calculated before installation by the Building Research Establishment Domestic Energy Model (BREDEM), based on a series of assumptions. For insulation and heating measures, these assumptions include:

- the heating regime - that is, the air temperature before installation, the proportion of the household heated, the efficiency of the heating system and the level of hot water usage;
- the thermal property of the dwelling before installation; and
- consumer behaviour after the measure has been installed, which can include taking the savings in increased comfort rather than lower bills.

3.7 Research into the impact of energy efficiency measures, specifically insulation, installed in domestic dwellings under each of the individual Standards programmes has found that the attributed levels of energy savings are not being achieved in practice:

- For the first Standard programme (1994 to 1998) the level of observed energy savings (by reference to 'before and after' meter readings) was 12 per cent, less than half the level expected. This was sufficient, however, for the measures to be cost effective. The research concluded that homes were heated to a lower standard, pre-installation, than assumed by the BREDEM model.
- Research into the second programme (1998 to 2000) identified savings of a third of those expected. This research was more sophisticated because, in addition to comparing meter readings, it included measurements of indoor temperatures, the amount of electricity used to heat water, and surveys of dwellings. Household temperatures rose by around 0.4°C after the measures were installed. However, the research was of limited statistical value because of the low sample size and the timing of the trial.
- Disadvantaged households take higher levels of savings in the form of comfort. The Standards programmes assumed that such households take 50 per cent of savings as comfort. Research into the third programme (2000 to 2002) on the installation of insulation in 400 disadvantaged gas-heated homes concluded that energy savings were ten per cent lower than expected, with 55 per cent taken as comfort rather than 50 per cent.

3.8 This research into the outcome of the Standards programmes raises questions about the accuracy of the assumptions used to estimate energy savings, the performance of the measures installed, and the effect of consumer behaviour.³⁵ The level of energy savings actually achieved by consumers may be lower than the level credited to suppliers in meeting their targets. Further work is needed in three areas:

- a detailed review of the assumptions underlying the existing model;
- the establishment of appropriate comfort factors for non-disadvantaged households; and
- observation of the performance of individual measures in a sample of households.

Progress of the Energy Efficiency Commitment

3.9 The EEC replaced the Energy Efficiency Standards of Performance in April 2002. At 31 March 2004, suppliers had achieved estimated energy savings of 47 TWh, 76 per cent of the target of 62 TWh. **Figure 12 (overleaf)** shows the rate at which these savings have been achieved.

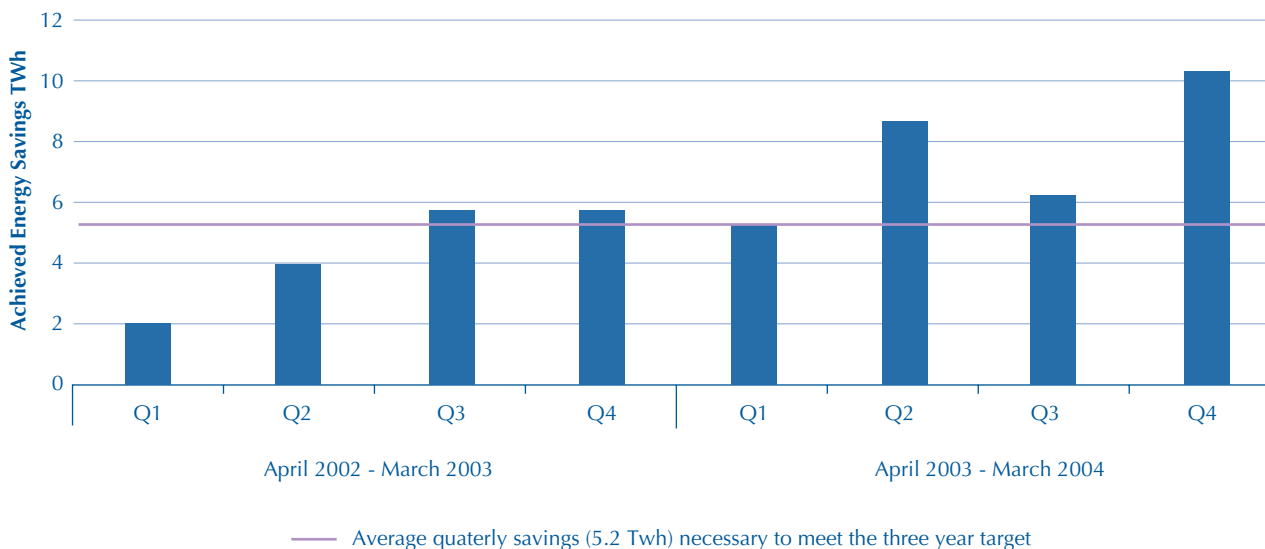
3.10 For the first six months, the level of savings achieved was below the rate needed each quarter (the horizontal line in Figure 12) to meet the three year target. Ofgem attributed this to the lead times needed for suppliers to design schemes, enter into contracts with manufacturers and installers, and promote schemes to the public. The suppliers we consulted considered that key details about the EEC (for example, the overall target) were not finalised sufficiently early and this prevented them from making an early start. However, although the targets were not confirmed until the Statutory Instrument was laid in Parliament in November 2001, the first consultation involving suppliers took place in April 2000, and suppliers could carry over activities under the third Standards programme towards their EEC targets.

3.11 Monitoring suppliers' progress in meeting their targets requires robust arrangements. Ofgem has strengthened the administrative arrangements for the EEC compared to the third Standards programme:

- *The audit of suppliers' schemes is more comprehensive.* Ofgem requires its appointed auditors, in validating a selection of suppliers' schemes, to carry out a more detailed programme of checks. Ofgem also plans to carry out audits on the completion of schemes as well as at an interim stage.

³⁵ How consumers behave has an important impact on the level of energy saved. For example, it is possible that some consumers do not adjust their energy consumption after the implementation of energy efficiency measures, but compensate for the higher average temperature of their homes by opening windows.

12 Estimated savings (TWh per quarter) under the EEC from April 2002 to March 2004



Source: Ofgem Quarterly Energy Efficiency Commitment Updates

- Ofgem has improved compliance of suppliers in submitting reports. Most suppliers meet the deadline of 10 days after the quarter end for submitting information on their quarterly performance and the timetable for submitting scheme proposals is respected.
- The tools developed by Ofgem have enabled suppliers to provide more reliable data. Suppliers had previously submitted details of proposed schemes to the Energy Saving Trust via spreadsheets which, because of the way they were designed, could include errors that would impact on the level of savings credited.³⁶

3.12 Defra proposed in May 2002 to undertake an evaluation of the impact of energy efficiency measures and in August 2003 appointed the Energy Saving Trust to prepare a specification and invite tenders. The proposed monitoring includes: meter readings to estimate 'comfort' factors; temperature analysis to track changes in temperatures before and after the installation of measures; and an analysis of dwellings' thermal properties. This evaluation is being undertaken as part of Defra's wider work on energy efficiency. Given the lead times involved in obtaining accurate data, and the need for peer review, it is unlikely that the results of this research will be available before mid-2005, several months after the start of the next programme.

3.13 Ofgem monitors the performance of suppliers in meeting their energy savings targets. Defra does not propose to carry out a comprehensive evaluation of the effectiveness of the EEC programme from 2002 to 2005 in meeting its overall energy saving and carbon reduction targets. This is because there are several other energy efficiency programmes (paragraph 1.12). Defra, working with other Government agencies and the Building Research Establishment, continually monitors these programmes and keeps the assumptions about the theoretical behaviour of energy efficiency measures in homes under regular review.

3.14 Defra was concerned to ensure that suppliers' funding of energy efficiency measures is equitable and that poorer customers who contribute to the programme have the opportunity to benefit. To achieve this, 50 per cent of each supplier's energy saving target must be delivered to a priority group, defined as being those in receipt of one or more 'passport' benefits.³⁷ The support for lower income customers is also expected to make some contribution to reducing fuel poverty.

3.15 To maximise the cost effectiveness of their expenditure on priority group customers, suppliers have worked closely with the social housing sector (for example, local authority housing departments and housing associations).

³⁶ Suppliers adjusted the assumptions in these spreadsheets to test the energy savings sensitivities of their proposed schemes. If the assumptions were not re-set to their defaults by the supplier before the scheme was submitted, this would need to be picked up by the EST's quality control arrangements.

³⁷ Council tax benefit, housing benefit, income support, an income-based jobseeker's allowance, an attendance allowance, a disability living allowance, a war disablement pension together with a mobility supplement or a payment under constant attendance allowance, industrial injuries disablement benefit where it includes constant attendance allowance, and state pension credit. Child tax credit and working tax credit are included where the household's relevant income is less than £14,200.

This has enabled suppliers to offer energy efficiency measures to a large number of people at one time. Ofgem has estimated that during the first two years of the programme, the priority group received 46 per cent of the total savings, below the target of 50 per cent. However, schemes involving social housing partners take time to set up and Ofgem expects the shortfall to be made up by the end of the EEC programme in March 2005.

3.16 Each of the suppliers we consulted expressed concern at the increasing difficulty of meeting the priority group target and the reducing partnership opportunities within the social housing sector. Outside of this sector, suppliers tend to incur higher costs:

- *it is harder for suppliers to identify priority group customers.* Although Defra estimated in 2001 that there were 8.8 million priority group customers, suppliers do not have full access to the tax credit and benefit claimant data needed to identify in advance those in receipt of benefits; and
- *priority group customers require a greater subsidy.* Customers in the priority group have lower incomes than the non-priority group, and suppliers have to fund a higher proportion of measures themselves to encourage take-up. This, along with the social housing providers' contribution to the measures, is reflected in suppliers' targets.

3.17 There is a risk that as suppliers look to the private rented and owner occupier sector, where some 80 per cent of the fuel poor live, suppliers' costs will rise and that this will be passed onto customers in the form of higher energy prices. Research by Ofgem indicates that there is sufficient scope for work in the social housing sector from 2005 to 2008.

3.18 Ofgem has analysed the distributional consequences of the EEC and concluded that it is difficult to estimate how many priority group customers are actually benefiting. It considers that, of the 8.8 million households in the priority group, some eight million will not receive a major energy efficiency measure and only five per cent will receive an energy efficient appliance. However, more than 40 per cent will receive enough low energy light bulbs to offset the increase in their bill. Overall, Ofgem concluded that half the priority group will benefit from the EEC.

The cost of implementing the Energy Efficiency Commitment

3.19 The Committee of Public Accounts report on the first Standards programme (from 1994 to 1998) concluded that there should be an incentive for suppliers to deliver energy savings in the most cost effective manner.³⁸ To achieve this, there is no longer a direct levy on customers - it is up to suppliers how they meet their targets. This creates an incentive for suppliers to minimise the cost per energy saving - keeping the cost to the customer to a minimum.

3.20 There is, however, no transparency of the costs incurred in meeting the objectives of the EEC. The cost of the EEC is met by suppliers, who may recover some or all of their costs from customers through retail tariffs. As such, there is a public interest argument for greater transparency in the amount of money spent. Ofgem is responsible for advising policy makers and detailed information on the cost of delivering the EEC is useful for policy makers in carrying out regulatory impact assessments and evaluating whether the EEC is a cost-effective delivery mechanism. In September 2003 suppliers provided details of the direct costs of installing measures to independent consultants and average figures were reported to Ofgem and Defra. These excluded suppliers' marketing costs because such costs were amalgamated with suppliers' broader marketing budgets.

3.21 Furthermore, some consumers may be receiving subsidies above those which are needed to incentivise them to install measures. Defra estimates this by reference to the number of subsidised measures that would have been installed anyway ('business as usual') and takes this into account in setting the overall targets. A certain amount of unnecessary subsidy is unavoidable. Using Defra's figures, our economic consultants, Oxera, calculated that over the three years of the EEC £102 million goes in subsidy to customers who would have installed energy efficiency measures anyway - around 20 per cent of the programme costs. Suppliers have to pitch their funding levels so as to ensure they attract enough business to meet their targets without adding unduly to their own costs or to prices charged to customers.

3.22 As part of the Climate Change Review, Defra proposes to examine the cost-effectiveness of the EEC in achieving the required level of carbon savings. This work will be carried out in 2007 and will inform the EEC programme from 2008 to 2011.

The switch to energy efficient products

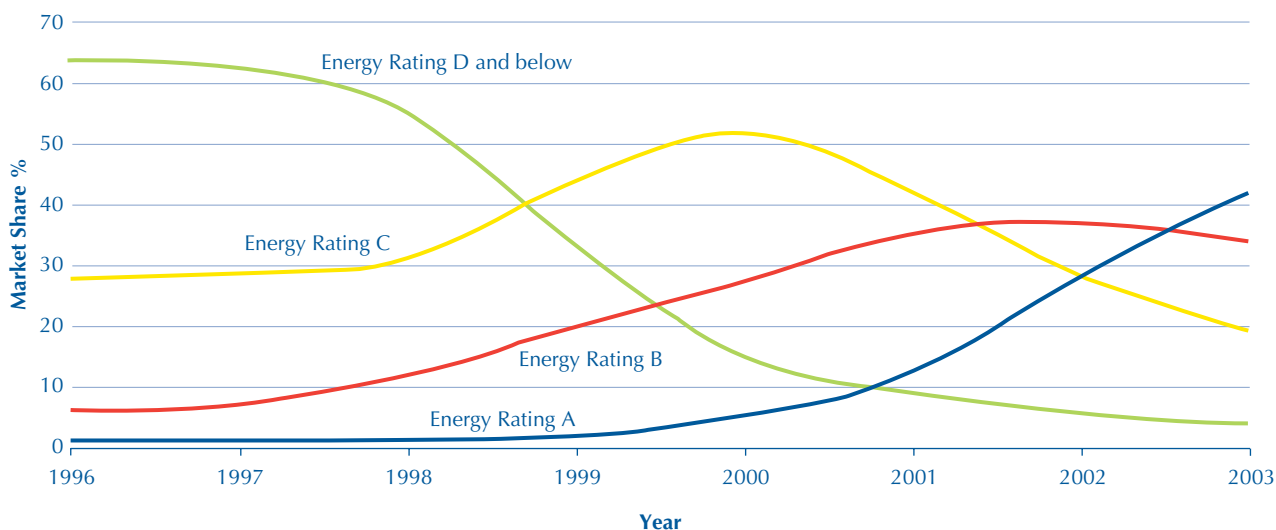
3.23 During the course of the Standards and the EEC there has been a degree of market transformation, with sales of cold appliances³⁹, light bulbs and boilers shifting toward more energy efficient products.

3.24 An EU Directive requires that certain appliances are rated for energy efficiency - from A for the most efficient to G for the least.⁴⁰ In 1996, mid-way through the first Standards programme, the market share of D rated 'cold' appliances stood at over 60 per cent. In September 1999 the EU Maximum Consumption Directive was implemented which restricted the sale of 'cold' appliances (excluding chest freezers) to category C and above. This, together with 160,000 appliances rated A or B installed under the third Standards programme, has resulted in the top two efficiency categories now dominating the cold appliance market.⁴¹ This process has continued under the EEC. The market share for A and B rated appliances has increased from 10 per cent in 1996 to 76 per cent in 2003 (Figure 13).

3.25 The sale of traditional light bulbs forms the largest part of the light bulb market. But in the last ten years the market for energy efficient light bulbs has grown. These are a cost effective and simple way of delivering energy savings - a 20 watt bulb produces about the same amount of light as a 100 watt traditional bulb, but uses one fifth of the energy. Under the third Standards programme, suppliers provided over seven million energy efficient light bulbs and Ofgem has estimated that a further 25 million will be distributed under the EEC. Between 1994 and 2003, the unit cost to the supplier fell by over 60 per cent to £2.70. The price to the consumer has also reduced markedly: a single non-subsidised bulb now costs around £6.50, while two supplier-subsidised bulbs are available through a high street retailer for £5.

3.26 The third Standards programme and the EEC included energy savings targets for both gas and electricity. This offers suppliers the potential to install condensing boilers (a more efficient type of boiler)⁴² and under the Standards programme more than 58,000 condensing boilers have been installed. As at June 2004, the market share of condensing boilers stood at 20 per cent, up

13 The penetration of A to D rated cold appliances, 1996 - 2003



Source: Ofgem and the Energy Saving Trust

39 Fridges, freezers and fridge-freezers.

40 Manufacturers must display rating labels on all new domestic fridges, freezers and fridge-freezers, washing machines, tumble dryers, combined washer-dryers, dishwashers and light bulbs for sale.

41 Under the EEC suppliers also receive an enhancement (a 60 per cent uplift) for the installation of A-rated appliances. Due to the relatively low cost-effectiveness of appliances as an energy saving measure, Defra did not impose a limit on the maximum savings available from this uplift.

42 A typical condensing boiler converts more than 88 per cent of the fuel it uses into heat, compared to 78 per cent for a typical new conventional boiler.

from four per cent in 2000. This falls short of the position in some European countries - in the Netherlands they account for 75 per cent of the market.

- 3.27 Under the EEC suppliers can offer customers energy services packages.⁴³ When they do so, they receive an uplift in the level of energy saving accredited. While this helps transform the market, the uplift enables suppliers to reach their target more quickly. Defra have placed a cap on the amount of energy savings that suppliers can accumulate from energy services packages, but no limit was placed on the provision of energy efficient appliances. The Energy White Paper noted that suppliers have little incentive to offer energy service packages if customers can switch at 28 days notice.⁴⁴ Ofgem has announced a trial to test whether waiving the 28 day notice rule for energy service packages would significantly increase uptake.

The challenges facing future energy efficiency programmes

- 3.28 The Government's Energy Efficiency Action Plan noted that 4.2 of the 12.1 million tonnes of emissions reductions expected by 2010 should come from households. Defra has estimated that the EEC will save about 0.4 million tonnes of carbon per year by the end of the three year programme and the Action Plan indicates that carbon savings will increase to 0.7 million tonnes for two separate three-year tranches post-2005. This increase in activity will create a series of challenges:

- increasing consumer demand for energy efficiency measures;
- increasing the capacity of the market to deliver certain energy efficiency measures; and
- encouraging suppliers to invest in innovative solutions.

Consumer demand

- 3.29 Outside the social housing sector, the take-up of energy efficiency measures depends on individual consumer demand. Independent research in 2003 examined levels of energy efficiency awareness and behaviour amongst the UK population.⁴⁵ It found that only one third of respondents made any attempt to reduce their energy consumption in the previous year, and that a third of those did so to increase levels of comfort. This is supported by our survey of suppliers - each observed that take-up rates for 'mailshot' energy efficiency offers are very low and that one of the main challenges going forward will be encouraging customers to install energy saving measures.

- 3.30 Several factors may explain the lack of consumer interest: for wealthier households, fuel bills are a small percentage of total expenditure; the suppliers we consulted told us that people prefer to spend money on visible items, such as double glazing, but this offers less improvement in energy efficiency than other measures; and for some consumers, the level of subsidy offered is insufficient. Defra plans to work with other stakeholders to consider the development of an overarching campaign on climate change.

- 3.31 Some energy efficiency measures such as cavity wall insulation, loft insulation and pipe lagging, once installed, are the fabric of the property and either difficult, or impossible, to remove. This has the benefit that once the property is improved, it will be more energy efficient for the rest of its life. If the occupier of an untreated property, however, does not plan to stay there longer than the payback period of the improvement, they are unlikely to install any measures. In the private rented sector, the tenant, who pays for energy consumption, will receive little long term benefit from any capital expenditure, and the landlord will similarly receive little benefit from the investment.

⁴³ Energy services refers to the provision by energy companies of services that deliver to customers the end-service they are seeking from the energy industry (e.g. warmth, lighting) rather than purely energy. An energy services package within the EEC includes: two measures, one of which must be insulation or an improvement to the primary heating system; an assessment of the energy efficiency characteristics of the premises; relevant energy efficiency advice to the customer; and an offer to the customer of the option of deferring payment for the measures.

⁴⁴ Under standard licence conditions, all customer contracts must allow the customer to terminate the contract upon giving 28 days notice.

⁴⁵ The Powergen Energy Monitor 2003 - independent research conducted by the University of East Anglia on behalf of Powergen.

Market capacity

- 3.32 There is a risk that there will be a shortage of capacity in the insulation industry. The Energy Efficiency Partnership for Homes estimates that, excluding newly built houses, there will be 185,000 cavity walls filled in 2002-03 under the EEC. It estimates that, by 2004-05, there will be spare capacity in the manufacture of cavity wall insulation of five to 10 per cent and that suppliers will be able to complete some 300,000 installations each year. Although the industry has the capacity to treat 600,000 houses per annum, demand is concentrated in the October to March period. Defra's illustrative mix of measures for installation under the EEC suggests that between 2002 and 2005 the EEC could be responsible for filling 840,000 cavity walls. But the White Paper indicates that between 2005 and 2010 some 4.5 million cavity walls need to be filled - a more than threefold increase.
- 3.33 The insulation industry is confident that it can expand production and installation capacity to meet projections, albeit subject to receiving early confirmation from Defra on the scale of any future programme.

Innovative solutions

- 3.34 Insulating the walls of a property is the most effective way of reducing heat loss. The cheapest way of achieving this is by installing cavity wall insulation at an average cost of £320. There are, however, six million dwellings in the UK without cavity walls and the cost of insulating the walls of these dwellings is in the region of £3,000-£4,000 each. In a supply side scheme like the EEC, and in the absence of any specific incentives, it is not cost effective for suppliers to make this investment. Consequently, those living in 'hard to treat'⁴⁶ homes, some of whom are in fuel poverty, will be paying as much as other consumers for the EEC through their energy bills, but receiving less benefit.

- 3.35 Modern dwellings are built to a higher energy efficiency standard than older properties. But the rate of replenishment of the housing stock cannot be relied upon to meet the targets for reducing carbon emissions. Between 1996 and 2001 some 900,000 new dwellings were built or converted, and only 100,000 demolished. Housing is therefore gradually becoming more energy efficient, but the new properties are an expansion, not a replacement, of the existing housing stock. Achieving the long term carbon reduction target is dependent on all homes, including those that are 'hard to treat', being insulated.
- 3.36 Existing measures, predominantly insulation and low energy light bulbs, will not by themselves deliver the savings required to achieve the Government's carbon reduction targets beyond 2010. Meeting longer term targets is likely to depend on the improvement of current technologies, such as those involved in insulating solid wall properties, and the application of potential new technologies, such as ground source heat pumps.
- 3.37 Under the third Standards programme, suppliers were able to invest 0.25 per cent of their programme expenditure on research and development of future technological solutions. This allowance was discontinued under the EEC, with the result that suppliers may have cut back on their research and development expenditure. However, suppliers may innovate to achieve a first mover advantage and some suppliers have brought forward new technologies in the EEC.

⁴⁶ Homes that for a variety of reasons cannot accommodate staple energy efficiency measures. They may include: homes that are off the gas network; homes with solid walls; homes with no loft space; homes in a state of disrepair; high-rise blocks; and any other homes where for technical or practical reasons these staple energy efficiency measures cannot be fitted.

Appendix 1

Study methodology

The key elements of our study methodology are set out below.

Review of progress on Ofgem's Social Action Plan

We examined Ofgem's records and analysed data collected by Ofgem from gas and electricity suppliers to assess the progress and outcome of Ofgem's Social Action Plan initiatives.

Analysis of energy efficiency schemes

We analysed outturn data for the third Energy Efficiency Standard of Performance and the Energy Efficiency Commitment (up to 31 March 2004) to establish whether suppliers have been meeting their energy savings targets.

Consultancy assistance

We commissioned economic consultants, Oxera, to review and analyse the design and operation of the Energy Efficiency Commitment. Oxera covered five topics:

- the potential level of unnecessary subsidy;
- transparency of suppliers' costs, customers' costs and actual savings delivered;
- the relationship between estimated energy savings and the levels actually achieved;
- the scope for incentives for suppliers and customers; and
- the implications of the programme encompassing a social objective.

Survey of gas and electricity suppliers

We sent a questionnaire to the seven largest gas and electricity suppliers (those with a customer base of more than 15,000) and visited each of the companies to discuss aspects of their responses in greater detail.

Expert Panel

We set up an expert advisory panel to provide advice and guidance on the scope of our study, study methods, findings and conclusions. Membership of the Panel comprised:

Walter French - Energy Efficiency Manager, Scottish Power

Gretel Jones - Age Concern

Dr Eoin Lees - Sustainable Energy Consultant and former Chief Executive of the Energy Saving Trust

Professor David Pearce OBE - University College London

Professor Catherine Wadhams - Centre for Competition and Regulation, University of East Anglia

Appendix 2

Ofgem's Social Action Plan work programme, March 2000

Licence Modifications and new Codes of Practice designed to:

- increase access to payment facilities for customers paying frequently by cash;
- improve service and information for pre-payment meter customers;
- provide guidance to ensure that acceptable debt payment levels are adopted for customers in difficulty;
- improve provision and promotion of energy efficiency advice; and
- improve provision and promotion of special services for customers who are elderly or disabled or chronically sick.

Broader structural changes to:

- place downward pressure on prices through price controls and by increased competition in generation;
- improve access to the competitive market for customers in debt;
- encourage the provision of comparable pricing information;
- consider with Government Departments the operation of Fuel Direct;
- monitor progress through market research, competitive market reviews and improved scrutiny of suppliers' performance against Codes of Practice;
- monitor the development of new tariff options including low user tariffs; and
- expand the Energy Efficiency Standards of Performance programme and its targeting towards disadvantaged customers.

Encouragement of research and pilot projects to be undertaken by the industry in collaboration with other parties on:

- the extent of rationing and self-disconnection;
- promotion of switching from pre-payment meters to other payment methods;
- the scope for improving debt management;
- investigation of different forms of budgeting using pre-payment meters;
- access to financial services for disadvantaged consumers;
- improved provision of energy efficiency advice; and
- better identification and help to vulnerable consumers.

Monitoring and evaluating progress:

- through the establishment of a Review Group; and
- regular reporting by suppliers against 12 key indicators.

Appendix 3

Details of the Energy Efficiency Standards of Performance (the Standards) and Energy Efficiency Commitment (the EEC) programmes

- 1 In April 2000, under the third Standard, all gas and electricity suppliers with more than 50,000 domestic customers were given energy savings targets. Ofgem was responsible for setting the scheme and appointed the Energy Saving Trust to oversee it, for example, how targets should be set, approval of suppliers' proposals and monitoring progress.
- 2 The 11 TWh target for the third Standard was based on the energy savings that might be generated by suppliers spending a notional £1.20 per customer, per fuel, per year and was set using the following five step process:
 - a **Calculate the notional budget available to the programme:** multiply the notional spend per customer (£1.20 per fuel per year) by the number of customers subject to the licence conditions (about 45 million), which gives a notional scheme budget of £110 million over two years.
 - b **Decide upon a theoretical mix of measures for the programme:** this is based upon the potential capacity for installing measures in homes and a desire to transform particular markets; for example, the theoretical mix of measures for electricity savings was 57 per cent lighting, 25 per cent insulation, 14 per cent appliances, 2 per cent heating, and 2 per cent 'other'.
 - c **Calculate the number of measures that can be installed with the available budget:** using the estimated cost of these measures, calculate the number of each type that can be installed given the budget identified in (a) and the measure mix in (b).
 - d **Calculate the discounted lifetime energy savings of the programme in TWh, which is the target:** given the expected number of measures to be installed, as calculated in (c), calculate the savings expected from the programme using:
 - information from the Building Research Establishment for insulation and heating measures;
 - information from the Energy Saving Trust on lighting patterns; and
 - research by the Environmental Change Institute in Oxford for appliance energy savings.
 - e **Allocate the target calculated in (d) across each supplier:** divide the estimated savings calculated in (d) amongst all qualifying suppliers (with more than 50,000 customers) based on their share of the customer numbers in (a). There was also a factor to account for company size so the target was progressive and proportionately higher per customer for larger companies.
- 3 There are several factors which affect the calculation of the overall target:
 - suppliers were obliged to direct two thirds of total expenditure at the 'disadvantaged' group. This group takes relatively more savings in comfort, which results in a lower level of energy saving from a measure installed in their house compared with a non-disadvantaged household. This is taken into account in step (d) above.
 - the achievable target was reduced further by suppliers' entitlement to spend up to 0.5 per cent of their budget on monitoring the scheme, and 0.25 per cent on research and development.
- 4 In April 2002, under the Energy Efficiency Commitment (the EEC), all gas and electricity suppliers with at least 15,000 domestic customers were given energy savings targets. The Department for Environment, Food and Rural Affairs (Defra) is responsible for policy aspects of the EEC and Ofgem's role is to administer the programme, approve suppliers' proposals and monitor progress, drawing on technical advice from the Energy Saving Trust and the Building Research Establishment.

- 5 The overall energy efficiency improvement target for the EEC is based on several factors, including the rate of progress needed to meet the Government's climate change commitments beyond 'business as usual' (BAU) assumptions, the mix and cost of energy efficiency measures that are likely to be installed by suppliers, BAU levels of activity and the cost to customers in the form of higher bills. Each supplier's individual target is based on the number of customers it serves. Differences from the third Standard target include:
- suppliers are required to achieve 50 per cent of their target energy efficiency improvements from the 'priority' group (similar to the 'disadvantaged' group under the third Standard), which Defra estimates will cause suppliers to direct 62 per cent of expenditure toward this group;
 - the comfort factor associated with certain types of measure has been reduced, and an allowance is no longer made for research and development or for monitoring;
 - the target was based on the total improvement from a measure, including benefits taken as higher comfort; and
 - the targets were fuel standardised (adjusted according to the carbon content of each fuel).
- 6 Key similarities and differences between the EEC and the third Energy Efficiency Standard of Performance, in addition to those shown in Figure 10 (page 24), are set out in the table below:

A comparison of the Energy Efficiency Commitment and third Energy Efficiency Standard of Performance

Similarities	Differences
The concept of the programme	Recorded savings differ: the EEC records the entire benefit of the installed measure, whereas the Standard records a supplier's share of the saving related to their contribution to the cost of the measure. In the Standard, separate targets were set for electricity and gas suppliers.
The target setting process	Within the EEC energy savings are adjusted according to the carbon concentration of each fuel, a process known as 'fuel standardisation' or 'carbon weighting'.
The use of the Building Research Establishment's BREDEM model for technical data	Definitions of the disadvantaged and priority groups.
The use of discounted lifetime savings (with discount factors and lifetimes of measures which were updated between each phase of the Standards)	The comfort factors used in the schemes were slightly different - for the priority group 45 per cent comfort was assumed for the EEC, compared to 50 per cent for the Standard.
	The assumed costs of measures (to take into account price changes between programmes)
	Uplifts for energy services packages and appliances
	Under the EEC, legislation allows Ofgem to fine suppliers for missing their targets
	Under the EEC, suppliers can purchase energy savings from each other
	The third Standard applied to all energy suppliers with more than 50,000 customers; the EEC applies to all suppliers with more than 15,000 customers.