

**A review of the Energy Efficiency
Commitment to the end of the second year**

**A report for the Secretary of State for
Environment, Food and Rural Affairs**

July 2004 178/04

Summary

By the end of the second year of the Energy Efficiency Commitment (the EEC) suppliers had met more than three quarters of the overall 62 TWh energy efficiency target. With roughly two thirds of the energy savings achieved so far coming in the second year, suppliers' energy efficiency activity has seen a sustained acceleration. Evidence from suppliers suggests that this growth in activity has continued into the first quarter of the third year. Consequently, there is now only a little activity required to meet the overall EEC target and the suppliers are concentrating on ramping up their activity for EEC 2, post 2005.

The majority of the energy savings achieved to the end of the second year came from the non-Priority Group. However, because of the high level of activity to date the suppliers are on track to meet at least half of the overall energy saving target in the Priority Group. If the split in the energy savings remains constant to the end of the current EEC programme, as it has broadly so far, then suppliers will have considerable non-Priority energy savings to carry forward to the second EEC programme.

The EEC programme, which began in April 2002, requires suppliers to achieve improvements in domestic energy efficiency by the end of March 2005. It is the Government's key energy efficiency policy for existing households and Defra expects it to curb domestic carbon dioxide emissions by 1% per annum. The EEC also has an important role in alleviating fuel poverty through targeting at least half of the energy savings on a Priority Group – consumers on income-related benefits and tax credits. Ofgem is required to administer the programme and check that each supplier meets its energy saving target.

EEC supplier activity is accredited on an ex-ante basis because of the large number of measures involved. Energy savings are derived from models that draw on the best available information and these are regularly refined. Supplier accreditation also includes the savings that consumers make in increased warmth, this is to recognise the benefit comfort gains bring to the Priority Group.

The level of the achieved energy savings varied considerably amongst the suppliers to the end of the second year. However, this is dependent on many factors, not least whether the company was a new entrant in the second year. Of the incumbent suppliers all have achieved more than two thirds of their energy saving target.

The majority of the suppliers' energy efficiency activity to date has been through the delivery of insulation to consumers, with the largest energy savings coming from the installation of cavity wall insulation. Just over 20% of suppliers' activity has come from the delivery of low energy lamps: it is anticipated that over the course of the EEC more than 25 million lamps will be delivered to consumers. The remainder of the energy savings are expected to be split between the installation of heating and appliance measures.

It is not possible to say with any certainty the number of consumers that will actually benefit from the EEC, although restrictions on the number of CFLs suppliers are permitted to distribute enable broad estimates to be made. Of the Priority Group, 8.8 million low-income households, roughly 5 million are expected to benefit from the EEC. The number benefiting in the non-Priority Group is expected to be broadly similar although the number of households benefiting from appliance schemes and lighting schemes is expected to be broadly similar.

This report fulfils Ofgem's second year reporting duties to the Secretary of State for Environment, Food and Rural Affairs under the Energy Efficiency Obligations Order 2001. In addition to reporting on each supplier's performance, as required, Ofgem has included extra analysis that we consider will help inform some of the issues raised in Defra's consultation document on the EEC post 2005.

Table of contents

1. Introduction.....	1
Ofgem’s role under the Energy Efficiency Commitment	1
Administration of the EEC.....	2
Key features of the EEC.....	4
The annual review.....	5
2. Progress to the end of the second year	7
Progress in the first year (April 2002 to March 2003)	7
Progress in the second year (April 2003 to March 2004)	7
The Priority Group	9
The effect of Priority Group savings on progress towards the target	11
Expectation for progress in the third year	11
Measures delivered	12
3. Each supplier’s progress in the second year	15
Targets	16
Atlantic Electric and Gas.....	18
British Gas	20
Cambridge Gas	22
Dee Valley Group	24
EDF Energy	24
npower	26
Powergen.....	29
ScottishPower.....	32
Scottish and Southern Energy.....	34
TXU Energi.....	37
4. Comparison with Defra’s target-setting illustrative mix	40

Insulation	40
Lighting.....	42
Appliances	43
Heating.....	43
Innovative measures.....	44
The fuel mix.....	45
Social housing providers.....	47
Energy Services	47
5. Consumers benefiting from the EEC.....	49
Delivering the EEC target.....	49
Households expected to benefit from the EEC.....	51
Households not likely to benefit from the EEC	59
6. Emerging Issues.....	61
Appendix 1 Glossary of terms.....	65

1. Introduction

- 1.1. The Energy Efficiency Commitment 2002-2005 (the EEC) requires suppliers to achieve a target improvement in domestic energy efficiency. It forms part of the Government's Climate Change Programme¹ as it is aimed primarily at reducing carbon emissions from households through improved energy efficiency. In addition, the EEC is highlighted in the Fuel Poverty Strategy² as improvements in energy efficiency have an important role to play in the alleviation of fuel poverty. The Government's Energy White Paper³ and Energy Efficiency Plan for Action⁴ further recognised the importance of domestic energy efficiency stating that the Government proposed to extend the EEC at broadly double the current level of activity post 2005. Defra's consultation on its proposals for the second EEC closes on 13 August.
- 1.2. The overall target set by Defra for the current EEC programme is 62 TWh over three years and is expected to curb carbon dioxide emissions from households by 1%. To ensure that those on low-incomes can gain from the measures promoted by suppliers, at least 50% of the energy savings have to be achieved from households in the Priority Group. The Priority Group is defined as those households receiving certain income related benefits and tax credits. The EEC is an additional programme to the Government's Warm Front Programme, which aims to provide heating and other energy efficiency measures to low income households.
- 1.3. The legal basis of the EEC is provided for in the Electricity Act 1989 and the Gas Act 1986. The Secretary of State has the power to set the overall target and policy framework, while the Gas and Electricity Markets Authority, Ofgem, is required to administer the programme. The legal basis of the EEC is given in the Energy Efficiency Obligations Order 2001⁵.

Ofgem's role under the Energy Efficiency Commitment

¹ Climate Change the UK Programme, November 2000, DETR

² The UK Fuel Poverty Strategy, November 2001, DEFRA and DTI

³ Our Energy Future – Creating a Low Carbon Economy, 2003, DTI

⁴ A review of the Energy Efficiency Commitment to the end of the second year

A report for the Secretary of State for Environment, Food and Rural Affairs

- 1.4. The Electricity and Gas (Energy Efficiency Obligations) Order 2001 sets out Ofgem's remit to administer the EEC. This includes:
- determining the energy efficiency targets for each gas or electricity supplier on whom obligations are imposed, and adjusting these targets each year of the EEC,
 - determining whether a proposed activity is considered to be a qualifying action,
 - determining any improvements in energy efficiency to be attributed to a qualifying action,
 - providing written agreement where appropriate to a supplier regarding the trade of energy savings to another supplier,
 - providing written agreement where appropriate to a supplier regarding trading all or part of their target to another supplier.
 - reporting to the Secretary of State for the Environment, Food and Rural Affairs, each year of the programme.

Administration of the EEC

- 1.5. All licensed supplier groups with at least 15,000 gas or electricity domestic consumers are subject to a target. Defra has set the overall EEC target and it is Ofgem's role to apportion this to suppliers in relation to their domestic consumer numbers. The formula for target setting, which is provided in the Order, sets progressively higher targets for suppliers with larger consumer numbers to take into account the economies of scale that they are expected to achieve.
- 1.6. The initial targets were set in January 2002 based upon each supplier's consumer numbers on 31 December 2001. These targets were revised in January 2003 and were finalised in January 2004. Eleven suppliers were set a target in January 2002 and there has been one new entrant to the programme in January 2003 (and two new entrants in 2004 with a target to meet from 1 April 2004).

⁴ Energy Efficiency The Government's Plan for Action, 2004, Defra

⁵ The Electricity and Gas (Energy Efficiency Obligations) Order 2001, December 2001, No. 4011, HMSO.

A review of the Energy Efficiency Commitment to the end of the second year

A report for the Secretary of State for Environment, Food and Rural Affairs

- 1.7. As administrator, Ofgem has put in place procedures to assess suppliers' proposals and to oversee their progress and compliance against their targets. Suppliers meet their targets by setting up schemes to promote and deliver energy efficiency measures. Scheme proposals are submitted to Ofgem to determine whether the scheme is a qualifying action or not and what improvement in energy efficiency is to be attributed to it. These proposals detail the measures suppliers are planning to offer, how they will be promoted and who can benefit from the scheme. Suppliers must demonstrate how they are going to monitor whether the recipients of the scheme are in the Priority Group. Ofgem has developed an EEC Scheme Spreadsheet that details the energy savings attributable to standard energy efficiency measures. Suppliers are accredited with energy savings for their schemes on an ex-ante basis. Where possible, the energy savings attributed to measures correspond to Defra's target setting model. The level of energy savings has been taken from recognised sources such as the Building Research Establishment and the Energy Saving Trust. Ofgem has also appointed technical advisory agents to assist it in its role as administrator. The EEC Scheme Spreadsheet has been further developed as suppliers have submitted schemes involving new or innovative measures.
- 1.8. Procedures are in place to monitor delivery and to oversee each supplier's progress against its target. Suppliers submit information to Ofgem each quarter, detailing the energy savings they have achieved. This information is used to compile Ofgem's quarterly EEC Update report which is available on our website at www.ofgem.gov.uk.
- 1.9. As well as monitoring each supplier's overall progress, Ofgem will audit a selection of individual schemes over the course of the programme. Ofgem has appointed an independent auditor for this role and the first round of audits took place in the summer of 2003. These audits confirmed that the suppliers had the correct procedures in place to report accurately on their schemes, but that there was to date a slight shortfall in the monitoring of activity. Suppliers have confirmed that they are aware that this monitoring is required to complete their targets and that any shortfall would be made up.
- 1.10. These audits will confirm whether the supplier's delivery conforms to its scheme submission and that the necessary procedures are in place for monitoring and

reporting. Ofgem will not be auditing the actual energy savings achieved from the measures employed by the suppliers.

- 1.11. Suppliers are also required to report on each scheme once it has been completed, confirming how they promoted the scheme and the exact types and numbers of measures that were installed. This information will be used to determine whether each supplier's work is qualifying action. Ofgem commissioned a database to be built at the start of the EEC. This enables all the information on suppliers' schemes and progress to be stored and reported upon.
- 1.12. In July 2004 the NAO published a report on Ofgem's energy efficiency work in relation to the EEC⁶. In the report it commented that Ofgem had played the role of administrator effectively and had strengthened the administrative arrangements over EESoP 3.

Key features of the EEC

- 1.13. The key features of the current EEC programme are as follows:
 - The savings suppliers are accredited with are derived on an ex-ante basis rather than an ex-post basis.
 - At least 50% of the total energy savings must be met within the Priority Group, ie those households receiving certain income related benefits or tax credits.
 - The overall target is fuel-standardised, lifetime discounted. Suppliers can achieve savings in homes heated by gas, electricity, coal, oil or LPG.
 - Suppliers have flexibility over the types of measures that they use to meet their targets.
 - Suppliers are not required to spend a fixed amount of money and consequently Ofgem does not collect suppliers' cost data.
 - The target included business as usual energy efficiency activity. As a result, suppliers are allowed to tie in with existing programmes but every scheme

must demonstrate that measures are being installed which are additional to the business as usual activity.

- The target has been derived assuming that suppliers will lever in funding from third parties such as Social Housing Providers (SHPs).
- Suppliers can trade their obligation or energy savings with other suppliers.
- There is an incentive (in terms of an uplift in savings) for suppliers to deliver schemes as an energy service package. The energy service savings eligible for uplift is limited to 10% of each supplier's target.
- There is an incentive (in terms of an uplift in savings) for suppliers to deliver appliance schemes.
- Those suppliers who exceeded their Energy Efficiency Standard of Performance 3 (EESoP) targets are able to carry over these energy savings into the EEC. The amount that can be carried over is limited to 10% of each supplier's EEC target.
- Suppliers are obliged to meet their targets by 31 March 2005.

The annual review

1.14. Ofgem is required to report to the Secretary of State for Environment, Food and Rural Affairs at the end of each year of the EEC. Chapter 3 fulfils these reporting requirements for the period 1 April 2003 – 31 March 2004, providing details on:

- the progress towards the achievement of the suppliers' targets over the second year of the programme;
- the schemes completed;
- proposed activity;
- the proportion of energy savings achieved in the Priority Group.

⁶ Social Action Plan and Household Energy Efficiency, July 2004, HC 878, July 2004.
A review of the Energy Efficiency Commitment to the end of the second year
A report for the Secretary of State for Environment, Food and Rural Affairs

- 1.15. Given Defra's consultation on EEC 2 post 2005⁷ Ofgem has provided further analysis within this report on some of the areas where comments have been sought. Suppliers' overall progress to the end of the second year is set out in Chapter 2. Chapter 4 compares the illustrative mix of measures in Defra's target-setting model against the measures which suppliers are actually proposing to deliver. Chapter 5 looks at the consumers who are likely to benefit from the EEC.
- 1.16. Chapter 6 looks at the issues which have emerged in the second year, identifying how they may affect the delivery of the EEC or how they may influence the development of future EEC programmes. A glossary of terms is provided in Appendix 1.

⁷ The Energy Efficiency Commitment from April 2005, 2004, Defra.
A review of the Energy Efficiency Commitment to the end of the second year
A report for the Secretary of State for Environment, Food and Rural Affairs

2. Progress to the end of the second year

- 2.1. This chapter outlines suppliers' progress against the overall EEC target during the first two years of the programme (April 2002 to March 2004), focussing specifically upon the energy savings achieved by suppliers in the second year (April 2003 to March 2004). To give context to the discussion, suppliers' progress in the first year of the EEC (April 2002 to March 2003), which was outlined in the first EEC Annual Review⁸, is briefly summarised.
- 2.2. This chapter discusses the main measures installed, provided or promoted by the suppliers and outlines the progress suppliers have made towards meeting at least half of the overall energy efficiency target in the Priority Group.
- 2.3. All figures included within this review are in relation to the final EEC targets set in 2004.

Progress in the first year (April 2002 to March 2003)

- 2.4. In the first year of the EEC, suppliers achieved 17.2 TWh of energy savings, representing 28% of the overall target of 62 TWh. Roughly 60% of the achieved savings were from insulation measures, with a further 20% from lighting measures and the remainder split between appliances and heating. Suppliers' initial activity was more focused towards non-Priority Group households with 45% of the achieved energy savings relating to the Priority Group during the first year.

Progress in the second year (April 2003 to March 2004)

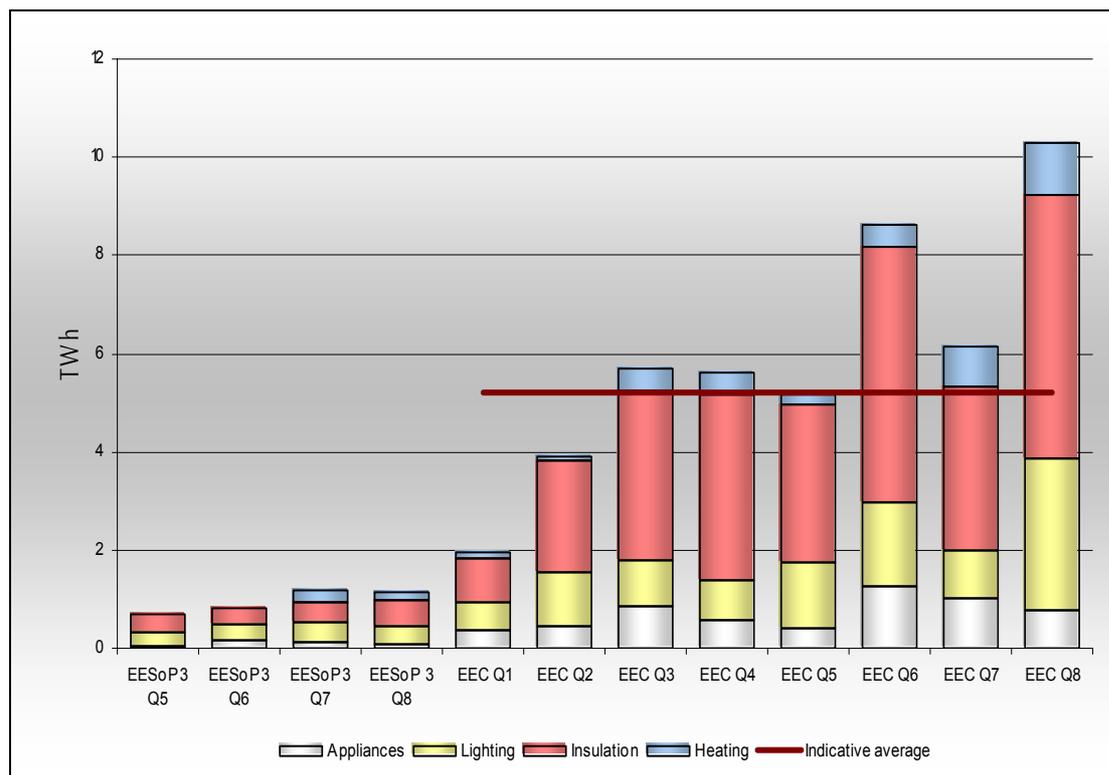
- 2.5. By the end of the second year of the EEC, suppliers had installed or provided energy efficiency measures which would result in an energy saving of 47.4 TWh or 77% of the overall target. Of this total, 30.2 TWh has been achieved within the second year of the programme; almost a doubling in activity compared to year one. Overall, 14.6 TWh of the target remains to be met during the last year of the EEC.

⁸ "A review of the first year of the Energy Efficiency Commitment – A report for the Secretary of State for Environment, Food and Rural Affairs" 78/03, Ofgem, July 2003

A review of the Energy Efficiency Commitment to the end of the second year
A report for the Secretary of State for Environment, Food and Rural Affairs

2.6. The EEC follows on from the Energy Efficiency Standards of Performance (EESoP) programme, the third tranche of which ran from April 2000 to March 2002. Figure 2.1 charts the energy savings achieved on a quarter-by-quarter basis for the last year of the EESoP 3 programme and the first two years of the EEC.

Figure 2.1: Achieved energy savings on a quarter by quarter basis for the last year of the EESoP 3 programme and the first two years of the EEC



2.7. To reach the overall target of 62 TWh, suppliers would have to provide on average just under 5.2 TWh of energy efficiency measures for each quarter of the EEC. This average is represented by the horizontal line in Figure 2.1. Aside from the initial two quarters of the EEC where the suppliers were scaling up their level of activity from the previous EESoP 3 programme, the suppliers have consistently managed to achieve the indicative average required. Quarters six (July to September 2003) and eight (January to March 2004) considerably exceed this level of energy savings.

2.8. The achieved data presented in this report comes from the quarterly reports submitted by suppliers. These do not detail the exact measures the supplier has

helped to install but the energy savings the supplier has achieved to date by measure type. Once a supplier has undertaken the activity outlined in its scheme proposal, it submits a scheme completion report to Ofgem outlining the measures provided and the resulting energy savings. During the second year of the EEC, Ofgem approved one completion report which covered the whole of Cambridge Gas' EEC target, which equates to less than 1% of the overall EEC target. In addition, as many suppliers have set up large, generic schemes which will operate until the end of the EEC, a supplier also has the option of periodically banking the delivery of its schemes. This is done by submitting a progress report to Ofgem which covers the completed activity of part of a scheme. Three suppliers submitted progress reports during the second year of the programme. The approved energy savings total is just under 5TWh, or 8% of the overall target.

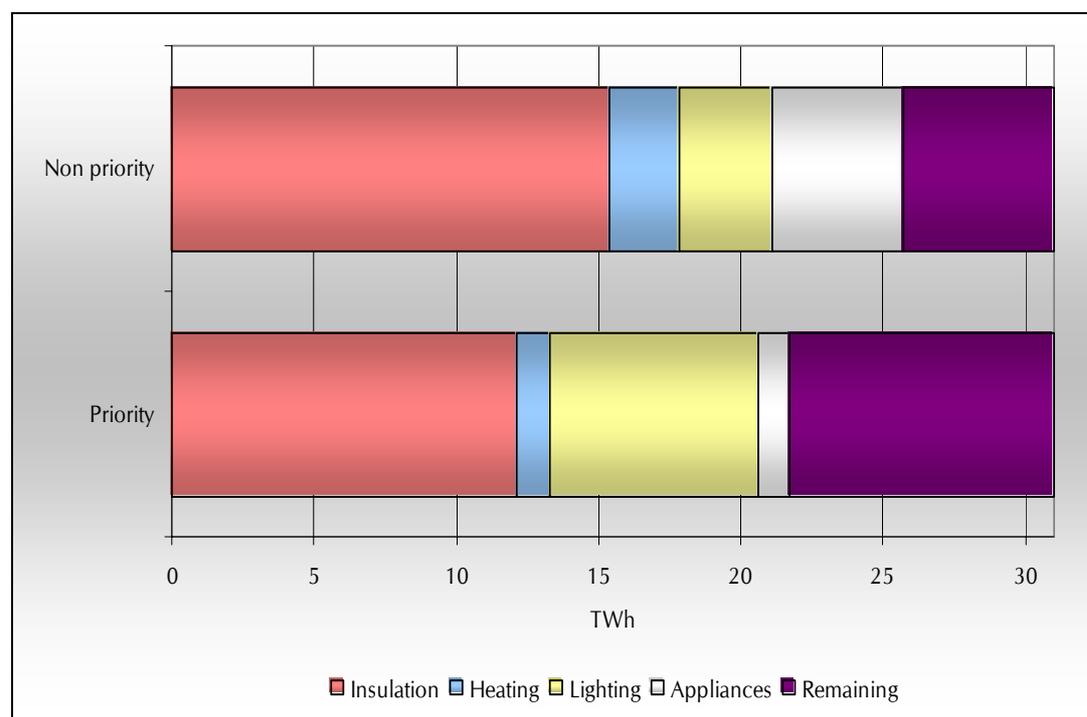
The Priority Group

- 2.9. Of the total energy savings achieved, 21.7 TWh or 46% results from measures installed in, or provided to, Priority Group households. The remaining 25.7 TWh or 54% results from measures provided to other households. Figure 2.2 shows the breakdown of the energy savings achieved during the first and second years of the programme, distinguishing between Priority and non-Priority Group households. The Figure shows that, although there has been an almost doubling of activity between the first and second years of the EEC, the proportion of the savings arising from measures provided to Priority Group households has remained consistent over the two years.
- 2.10. By the end of the EEC, at least 31 TWh or 50% of the overall target must be achieved in relation to Priority Group consumers in order for the suppliers to fulfil the overall obligation. Figure 2.3 shows the total energy savings achieved in the Priority and non-Priority groups and the energy savings that will need to be achieved in the final year of the programme.

Figure 2.2: Energy savings (TWh) achieved during the first and second year of the EEC

Measure	Energy savings achieved in the first year of the EEC (TWh)			Energy savings achieved in the second year of the EEC (TWh)		
	Priority Group	Non-Priority Group	Total	Priority Group	Non-Priority Group	Total
Insulation	5.0	5.3	10.4	7.1	10.0	17.1
Heating	0.2	1.0	1.1	1.0	1.5	2.5
Lighting	2.6	0.8	3.4	4.7	2.4	7.1
Appliances	0.2	2.0	2.2	0.9	2.6	3.5
Total	8.0	9.2	17.2	13.7	16.5	30.2

Figure 2.3: The energy savings (TWh) achieved in the first two years of the EEC and the energy savings required to meet the overall target



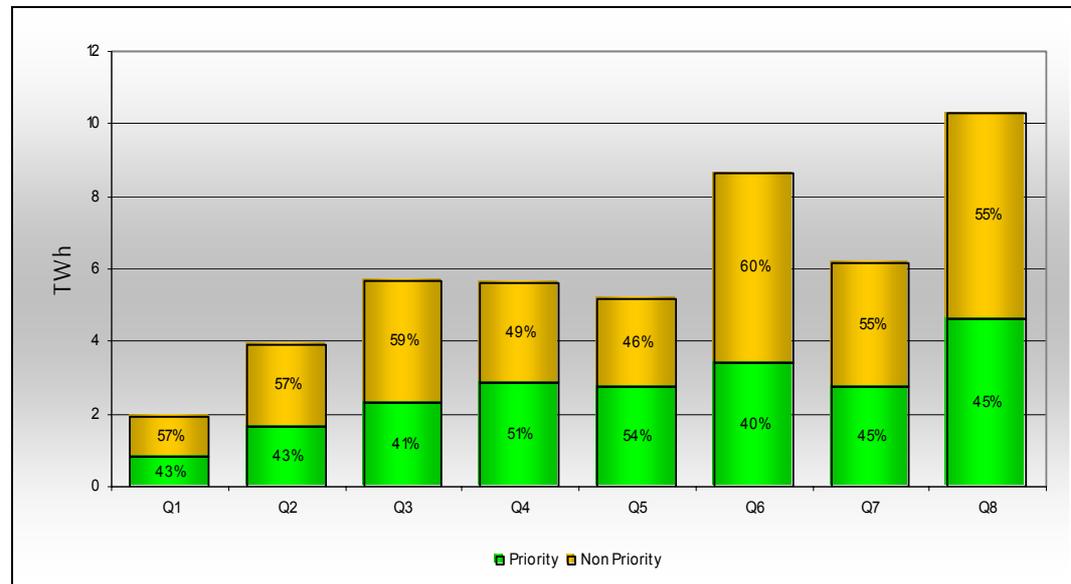
The effect of Priority Group savings on progress towards the target

- 2.11. In order for energy savings to be classed as qualifying for the purpose of meeting a supplier's target, at least 50% of a supplier's target must be met by savings achieved in relation to Priority Group households. As the proportion of Priority Group savings is currently below 50%, not all of the energy savings achieved would be considered as qualifying. Taking this into consideration, the total activity carried out across all suppliers over the first two years of the EEC which qualifies towards the target is 43.4 TWh, or 70% of the overall target. As the EEC is a three-year programme, suppliers should be achieving in the region two thirds of the target (67%) after two years of activity.
- 2.12. However, the percentage of Priority Group savings is not consistent across all suppliers and some suppliers are a long way below the 50:50 split required while others are above it. Calculating qualifying action on a supplier-by-supplier basis reduces the total to 42.7 TWh or 69% of the target. This is still higher than the indicative rate required to meet the target, but suggests that some suppliers are finding it more difficult to get the balance between the Priority Group and non-Priority Group work. Further details on the progress of each supplier towards their Priority Group target is outlined in Chapter 3.

Expectation for progress in the third year

- 2.13. While suppliers are on track to meet the Priority Group target of 31 TWh and the overall target of 62 TWh, if they maintain the current split in activity to the end of the programme there will be a considerable excess of non-Priority Group energy savings to be carried forward.

Figure 2.4: Energy savings (TWh) achieved in relation to the Priority and non-Priority Groups for each quarter of the EEC



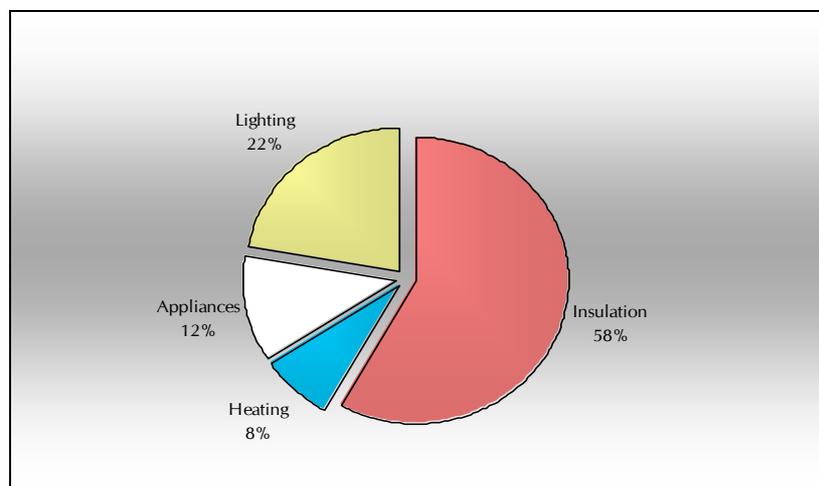
2.14. As can be seen in Figure 2.3, 66% of the remainder of the overall EEC target falls in the Priority Group. Figure 2.4 shows that the suppliers have not historically managed to achieve this split in Priority Group savings, however, the absolute level of Priority Group savings required on a quarterly basis has been achieved in the past six quarters of the EEC. Within Defra’s consultation for the EEC 2005-2008⁹, it is proposed that suppliers will be able to carry over any excess energy savings resulting from activity under the current programme to count towards their EEC 2005-2008 targets. For this reason, and because it is proposed that the suppliers’ targets will be twice as large, it is likely that suppliers will continue to operate at a high level of activity to ensure that the required Priority Group savings are achieved and then use any excess non-Priority Group savings to carry over to their future energy efficiency targets.

Measures delivered

2.15. Suppliers’ activity can be broken down into four broad categories of measure: lighting, insulation, heating and appliances. Figure 2.5 and the accompanying table shows how the delivered energy savings are attributed to the four main measure types.

⁹ “The Energy Efficiency Commitment from April 2005. Consultation proposals”, Defra, May 2004
 A review of the Energy Efficiency Commitment to the end of the second year
 A report for the Secretary of State for Environment, Food and Rural Affairs

Figure 2.5: The proportion of the total achieved energy savings resulting from each of the main measure types, with a tabular breakdown for the first and second years of the EEC



Measure	Percentage of achieved energy savings	
	EEC Year 1	EEC Year 2
Insulation	60	57
Lighting	20	23
Appliances	13	12
Heating	7	8

2.16. There has been very little difference in the respective proportions for the first two years of the programme. Insulation currently accounts for 58% of the energy savings with a further 22% due to low energy lighting. Appliance schemes, despite involving large numbers of measures, continue to make up only 12% of the total delivered energy savings because of the relatively low energy saving per appliance. Heating measures account for the remaining 8% of energy savings.

2.17. Figure 2.1 shows the energy savings resulting from both appliances and heating measures fluctuating on a seasonal basis. The energy savings, and hence the number of measures delivered, are notably higher during the winter months (October through to March). For appliances, this could be related to the pre and post Christmas promotion of appliances whereas the increase in heating measures could reflect the increased demands upon heating systems during the colder months and the higher number of boiler failures.

2.18. Supplier data shows no clear seasonal trend for energy savings attributed to either insulation or lighting measures. Any possible seasonal trend will be distorted by suppliers interacting with the Warm Front, Welsh HEES and Warm Deal

programmes. This involves suppliers purchasing measures from the government programmes and the funds from the sale being used to install further energy efficiency improvements. Suppliers class the purchase date as the date when the associated energy savings are achieved. Social housing providers also account for a large proportion of insulation work. In this case the activity reflects the project partners schedule for improvement rather than consumer demand.

3. Each supplier's progress in the second year

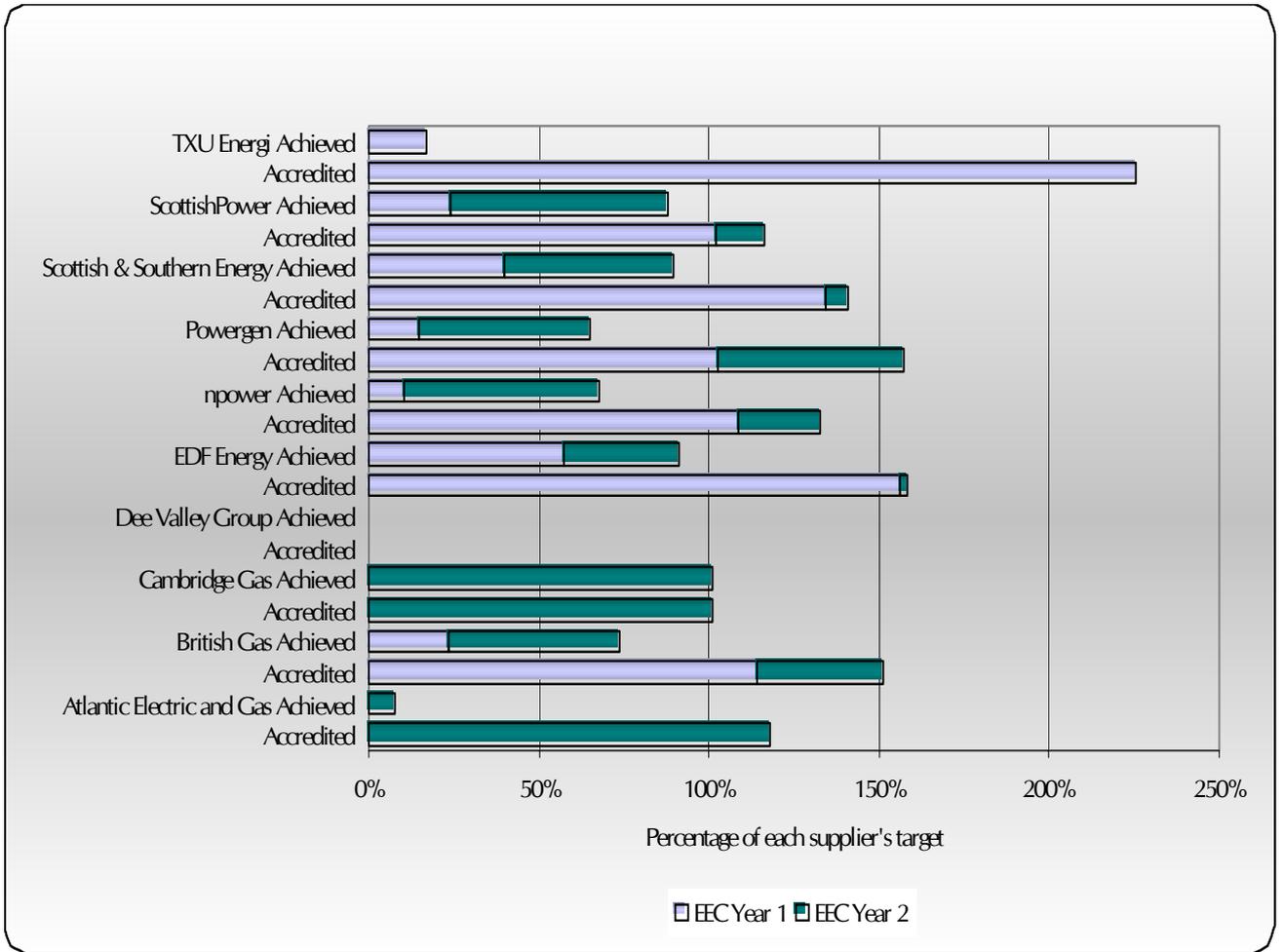
- 3.1. This chapter documents in alphabetical order the progress made by each obligated supplier during the second year of the EEC (1 April 2003 – 31 March 2004). For each supplier that was eligible for a target in January 2003, information is given on:
- the type of measures that the supplier proposes to deliver over the three years of the programme,
 - the progress made towards its target during the second year of the programme,
 - the combined progress made towards its target during the first and second years of the programme, and
 - the proportion of the energy savings that have been delivered to Priority Group households during the first and second years of the programme.
- 3.2. The initial EEC targets were set in early 2002 by dividing the overall target of 62 TWh between eligible suppliers in proportion to their domestic consumer numbers. At this stage, Amerada, British Gas, Cambridge Gas, Dee Valley Group, LE Group, npower, Powergen, ScottishPower, Scottish and Southern Energy, Seeboard Energy and TXU Energi were all set an EEC target. These targets were revised in 2003 and the final targets were set in January 2004. In addition to the supply companies that were originally obligated, there have been three new entrants to the programme - Atlantic Electric and Gas in 2003, and Telecom Plus and Opus Energy in 2004. Merger and acquisition activity has seen Amerada initially taken over by TXU Energi and then by Powergen. Seeboard Energy was taken over by LE Group – which has now been rebranded EDF Energy.
- 3.3. The information presented in this chapter is based upon suppliers' scheme proposals which have been accredited by Ofgem as qualifying under the Order. Quarterly reports returned by the suppliers have been used to detail the actual delivery of these accredited schemes. This chapter also highlights the schemes completed by suppliers during the second year of the EEC.

Targets

- 3.4. Each supplier is set a separate gas and electricity target, according to the number of consumers on each licence. For the purpose of this report these targets have been combined to show one target for each supplier. Suppliers' indicative targets were set in January 2002. These targets were then revised in 2003 and were finalised in January 2004, based on each supplier's average number of domestic consumers over the three years of the programme.
- 3.5. Although this chapter focuses on suppliers' activity during the first two years of the EEC, this progress is compared against each supplier's final EEC target as set in January 2004.
- 3.6. Figure 3.1 provides an overview of the energy savings proposed by suppliers and those energy savings achieved for each of the obligated suppliers. It also shows the energy savings as a percentage of each supplier's final target set in January 2004. The blue portion of each bar (on the left) indicates energy savings accredited or achieved during the first year of the EEC and the green portion (on the right) relates to the second year. It can be seen that many suppliers have sufficient schemes accredited to exceed their targets. This is because suppliers tend to set up a range of different schemes to give them flexibility in meeting their targets. It is also difficult to accurately predict the success of a proposed scheme as it is very much dependant on consumer uptake.
- 3.7. This chapter fulfils Ofgem's reporting duties to the Secretary of State under the Electricity and Gas (Energy Efficiency Obligations) Order 2001¹⁰.

¹⁰ The Electricity and Gas (Energy Efficiency Obligations) Order 2001, December 2001, No 4011, HMSO.
A review of the Energy Efficiency Commitment to the end of the second year
A report for the Secretary of State for Environment, Food and Rural Affairs

Figure 3.1: Overall progress towards target



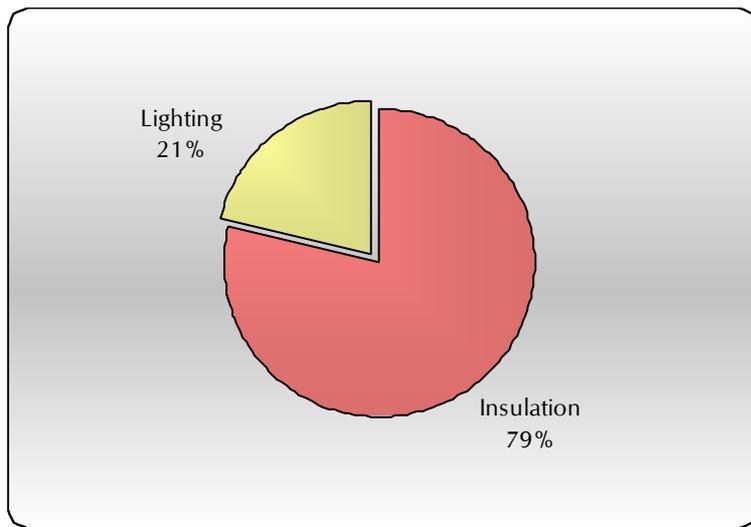
Atlantic Electric and Gas

- 3.8. Atlantic Electric and Gas was a new entrant in the second year of the EEC and was active throughout this year. However, in April 2004, Atlantic Electric and Gas went into administration and has now ceased trading. Because the EEC target is a relevant requirement on each supplier's licence, Atlantic Electric and Gas still has an energy saving target to meet under the EEC.

Proposed activity

- 3.9. Figure 3.2 shows the total proposed savings broken down by measure type for the second year of the EEC when Atlantic Electric and Gas entered the programme.

Figure 3.2: Atlantic Electric and Gas proposed energy savings at 31 March 2004

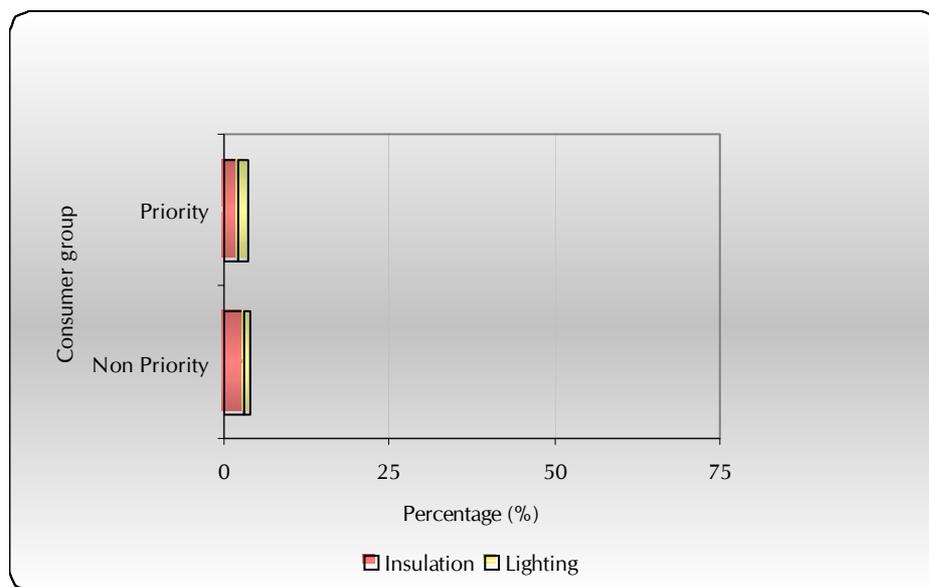


- 3.10. Atlantic Electric and Gas had five scheme proposals accredited by Ofgem in the second year of the EEC with total energy savings that account for 118% of its final target. This is predominantly from insulation measures, with no savings proposed for heating or appliances. The proposed lighting savings account for more than 20% of Atlantic Electric and Gas' target.

Progress during the first two years

- 3.11. Figure 3.3 shows a full breakdown of the achieved energy savings, by measure type, as a percentage of the final Atlantic target.

Figure 3.3: Energy savings achieved by Atlantic Electric and Gas as a percentage of its final target



- 3.12. Atlantic Electric and Gas achieved just under 8% of its target in the second year of the EEC. Over 5 percentage points (pp) of the achieved savings are from insulation measures with the remainder resulting from the promotion of lighting.

Efforts to target the Priority Group

- 3.13. Of Atlantic Electric and Gas' total achievement towards its target, Priority and non-Priority Group savings are split evenly. The majority of the achieved energy savings in both the Priority and non-Priority Groups have come from insulation measures with the remainder coming from lighting.

Completed activity

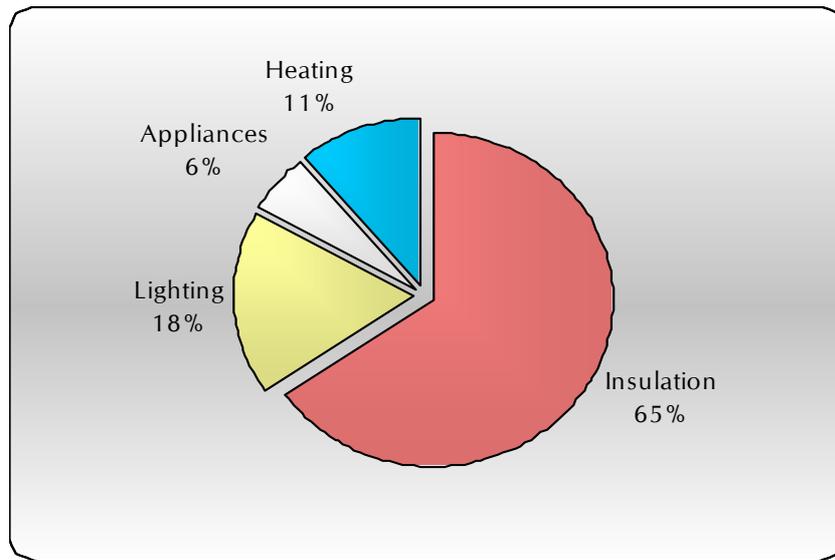
- 3.14. All suppliers are required to monitor and formally report upon their achieved activity. Atlantic Electric and Gas has not yet submitted any such reports or completed any of its schemes.

British Gas

Proposed activity

3.15. Figure 3.4 shows the total proposed savings broken down by measure type for the first two years of the EEC. The accompanying table provides a breakdown of the proposed savings for Year 1 and Year 2 of the EEC.

Figure 3.4: British Gas proposed energy savings at 31 March 2004



Measure	Percentage of proposed energy savings	
	EEC Year 1	EEC Year 2
Insulation	46.8	18.5
Lighting	12.3	5.3
Appliances	5.7	0.1
Heating	10.0	1.2
Total	74.9	25.1

3.16. British Gas had ten scheme proposals accredited by Ofgem in the second year of the EEC – which have brought the total number of schemes for achieving its EEC target to 22. The scheme proposals accredited in Year 2 account for 37% of the British Gas target. Combined with the accredited scheme proposals from Year 1, British Gas has proposed savings which equate to 148% of its final target.

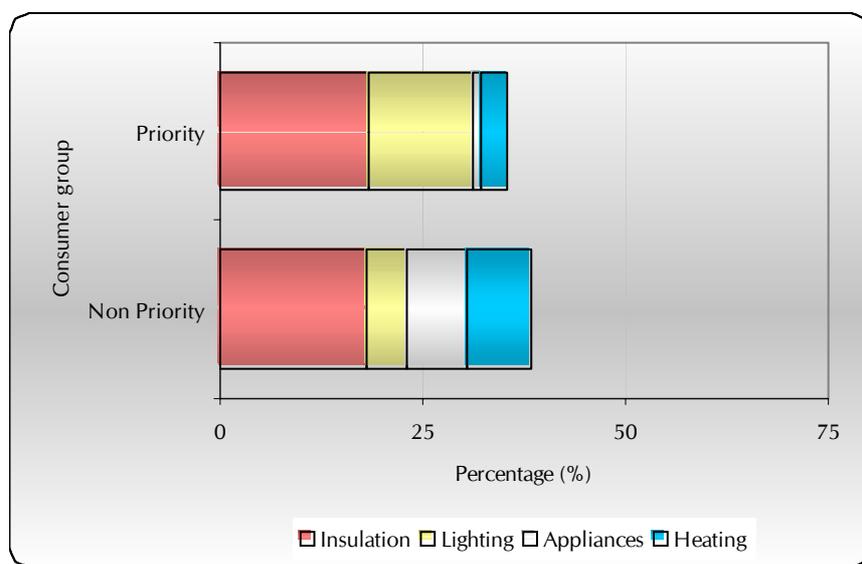
3.17. British Gas proposes to achieve over half of its target by installing insulation measures. However, all the other measure types are also represented with 11% and

18% of savings proposed to be achieved with heating and lighting measures respectively. Energy savings achieved from appliances are proposed to make up 6% of British Gas' target.

Progress during the first two years

3.18. Figure 3.5 shows a full breakdown of the achieved energy savings, by measure type, as a percentage of the final British Gas target.

Figure 3.5: Energy savings achieved by British Gas as a percentage of its final target



3.19. At the end of the first two years of the EEC, British Gas has achieved over 73% of its final target. As proposed by British Gas, the majority of energy savings have been achieved with insulation measures: 36pp. Lighting contributes 18pp to the achieved savings. The energy savings from appliance and heating contribute 8pp and 11pp respectively.

Efforts to target the Priority Group

3.20. Nearly half of British Gas' energy savings achieved in the first two years have been in the Priority Group households. The energy savings achieved from insulation measures are split evenly between the Priority and the non-Priority Groups. More than twice as many energy savings from lighting have been achieved in relation to Priority consumers compared to other households. Conversely, the energy savings delivered through heating measures for the Priority Group are one third of those

achieved in the non-Priority Group. Of the energy savings from appliances only 10% have been achieved in relation to Priority consumers.

Completed activity

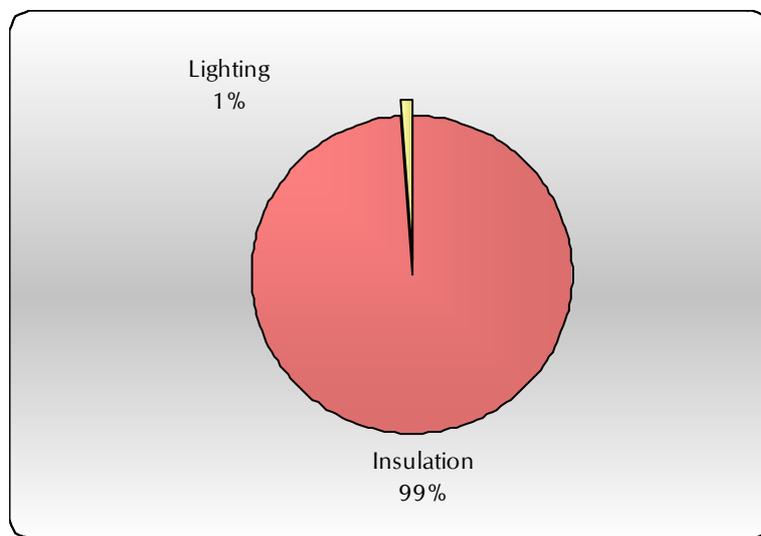
3.21. All suppliers are required to monitor and formally report upon their achieved activity. British Gas has not yet completed any schemes in full but has submitted a number of progress reports. Ofgem has approved completed energy savings equating to 3% of British Gas' target.

Cambridge Gas

Proposed activity

3.22. Figure 3.6 shows the total proposed savings broken down by measure type for the first two years of the EEC. The accompanying table provides a breakdown of the proposed savings for Year 1 and Year 2 of the EEC.

Figure 3.6: Cambridge Gas proposed energy savings at 31 March 2004



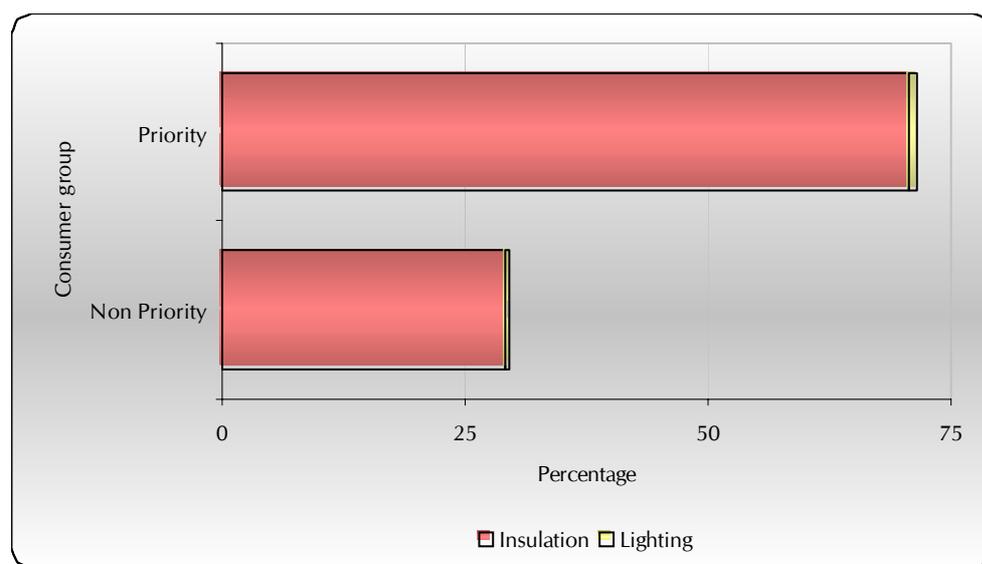
Measure	Percentage of proposed energy savings	
	EEC Year 1	EEC Year 2
Insulation	0	98.9
Lighting	0	1.1
Appliances	0	0
Heating	0	0
Total	0	100.0

- 3.23. In 2002, Cambridge Gas sold its domestic consumers and retained its supply licence. It had one scheme proposal accredited by Ofgem in the second year of the EEC. Cambridge Gas ensured compliance with its target from this scheme.
- 3.24. The majority of Cambridge Gas' proposed energy savings are from insulation measures with the remaining 1% of proposed energy savings from lighting measures. No activity was proposed for heating or appliance measures.

Progress during the first two years

- 3.25. Figure 3.7 shows a full breakdown of the achieved energy savings, by measure type, as a percentage of the final Cambridge Gas target.

Figure 3.7: Energy savings achieved by Cambridge Gas as a percentage of its final target



- 3.26. Cambridge Gas achieved its final EEC target with the completion of its single scheme in the second year of the EEC. Slightly over 100% of the target has been achieved with 99% of the achieved energy savings coming from insulation and the remainder being met by energy efficient lighting.

Efforts to target the Priority Group

A review of the Energy Efficiency Commitment to the end of the second year
A report for the Secretary of State for Environment, Food and Rural Affairs

- 3.27. To ensure compliance with its EEC target, Cambridge Gas achieved more than 70% of energy savings in relation to the Priority Group. Of the energy savings achieved for the Priority Group almost all were from installing insulation. The energy savings from lighting made up only a small fraction of both the Priority and non-Priority Groups' achieved savings.

Completed activity

- 3.28. Cambridge Gas has completed its one EEC scheme and has met its target under the EEC. No further activity is required of Cambridge Gas during the EEC.

Dee Valley Group

- 3.29. Dee Valley Group has not set up any schemes during the first two years of the EEC. In 2002 it sold its domestic consumers, but continues to retain its supply licence. Ofgem has been liaising with Dee Valley Group regarding the ways in which it can meet its target.

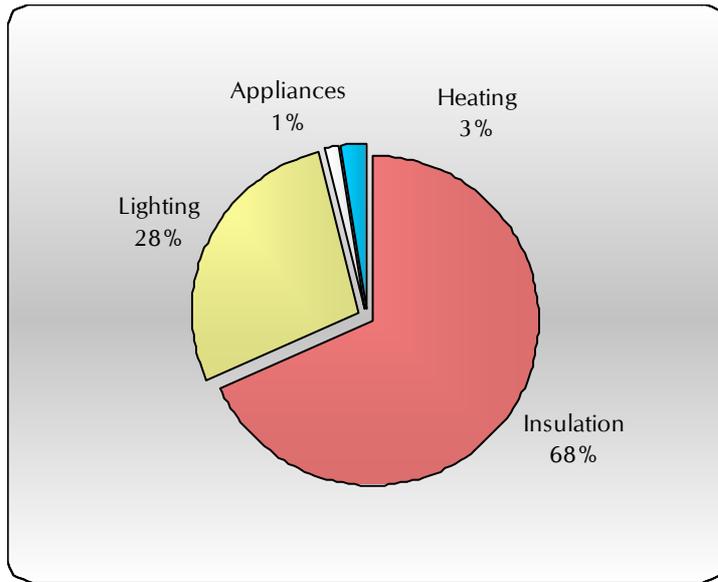
EDF Energy

- 3.30. At the start of the EEC, separate targets were set for LE Group and Seeboard Energy. In 2002, LE Group purchased Seeboard Energy's supply licence and consumers. During the second year of the EEC, the company re-branded as EDF Energy. The final EDF Energy target incorporates the targets for LE Group and Seeboard Energy.

Proposed activity

- 3.31. Figure 3.8 shows the total proposed savings broken down by measure type for the first two years of the EEC. The accompanying table provides a breakdown of the proposed savings for Year 1 and Year 2 of the EEC.

Figure 3.8: EDF proposed energy savings at 31 March 2004



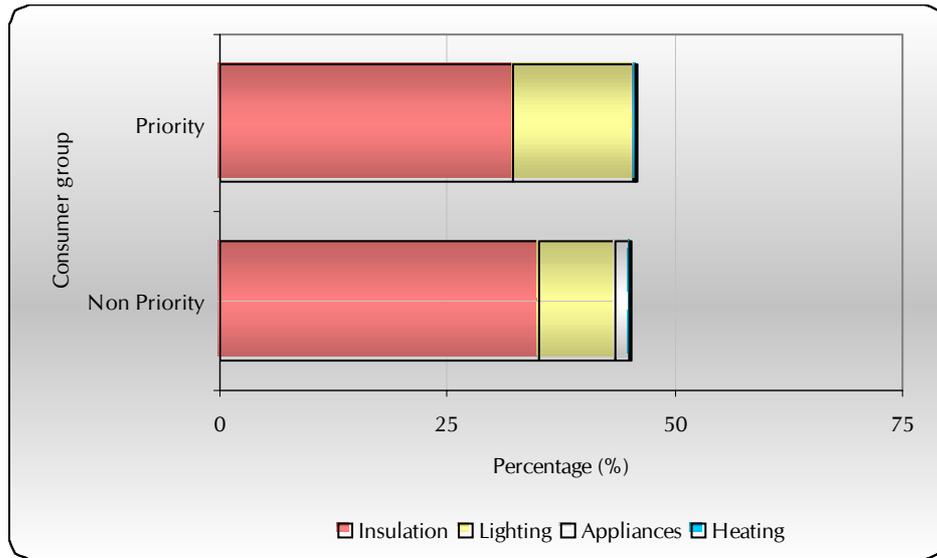
Measure	Percentage of proposed energy savings	
	EEC Year 1	EEC Year 2
Insulation	68.2	0.1
Lighting	26.8	1.1
Appliances	1.2	0
Heating	2.6	0
Total	98.8	1.2

3.32. EDF Energy had two schemes accredited by Ofgem during the second year of the EEC, bringing its total number of schemes proposed to 24. These schemes equate to 158% of EDF Energy's target. Almost 70% of the total proposed energy savings are expected to be from insulation measures. The remainder largely consists of lighting measures with small amounts from heating and appliances.

Progress during the first two years

3.33. Figure 3.9 shows a full breakdown of the achieved energy savings, by measure type, as a percentage of the final EDF Energy target.

Figure 3.9: Energy savings achieved by EDF Energy as a percentage of its final target



3.34. By the end of the second year of the EEC, EDF Energy had achieved 91% of its final target. Insulation dominates, accounting for 67pp, with lighting measures contributing 22pp to the target. As proposed in EDF’s scheme submissions, only a small percentage of achieved savings have come from heating measures and appliances.

Efforts to target the Priority Group

3.35. The energy savings achieved are evenly split between the Priority and the non-Priority Groups. Broken down by measure type, the energy savings from insulation are roughly equal in each consumer group. Following the trend across most suppliers, the majority of the lighting energy savings result from lamps provided to Priority Group households. The small contribution from heating measures is split evenly between each consumer group. The small number of appliances promoted have been mainly taken up by non-Priority Group households.

Completed activity

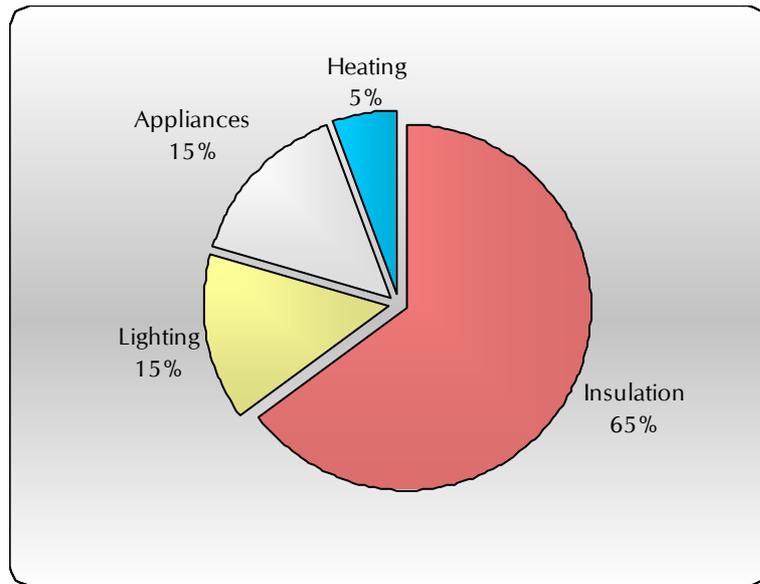
3.36. All suppliers are required to monitor and formally report upon their achieved activity. EDF Energy has not yet submitted any such reports or completed any of its schemes.

npower

Proposed activity

3.37. npower has 20 scheme proposals accredited by Ofgem, six of which were accredited during the second year of the EEC. The total proposed energy savings account for 132% of npower's final target.

Figure 3.10: npower proposed energy savings at 31 March 2004



Measure	Percentage of proposed energy savings	
	EEC Year 1	EEC Year 2
Insulation	60.8	4.0
Lighting	14.7	0.0
Appliances	2.1	12.9
Heating	4.3	1.1
Total	81.9	18.1

3.38. More than 50% of the energy savings proposed are to be achieved through insulation measures, with appliances and lighting measures each accounting for 15% of the overall savings accredited. Figure 3.10 shows the total proposed savings broken down by measure type for the first two years of the EEC. The accompanying table provides a breakdown of the proposed savings for Year 1 and Year 2 of the EEC.

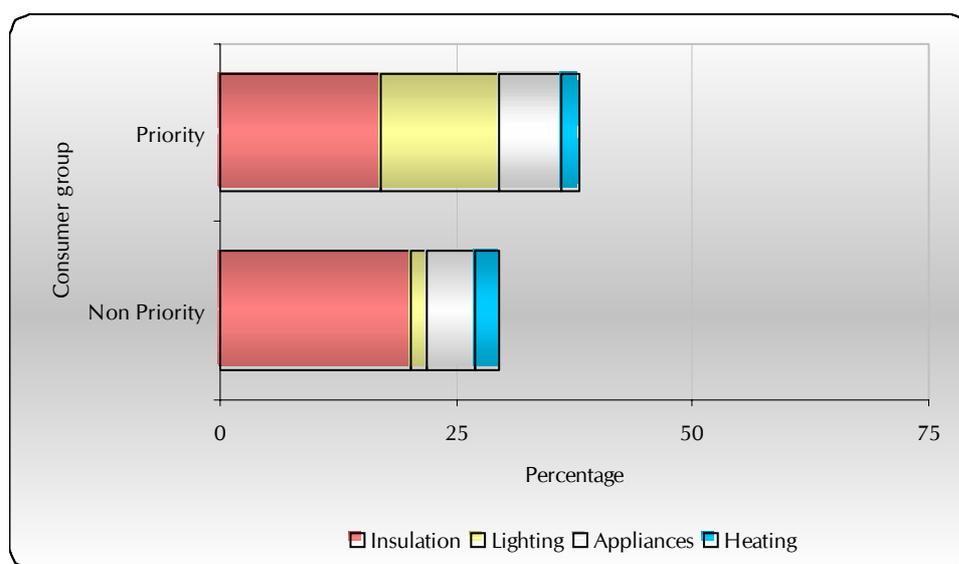
3.39. npower significantly increased the savings it proposed to achieve with appliances between the first two years of the EEC. At the end of the first year, the proportion of

proposed savings from appliances was 2% compared with 15% by the end of the second year.

Progress during the first two years

3.40. Figure 3.11 shows a full breakdown of the achieved energy savings, by measure type, as a percentage of the final npower target.

Figure 3.11: Energy savings achieved by npower as a percentage of its final target



3.41. npower's EEC activity saw a rapid acceleration in the second year. To date, 68% of its final target has been achieved, with 37pp relating to insulation. The contribution from lighting and appliances is broadly similar, at 14pp and 12pp respectively. The remainder of the energy savings have resulted from the installation of heating measures.

Efforts to target the Priority Group

3.42. npower is the only active supplier delivering more energy savings within the Priority Group than in non-Priority Group. The majority of lighting energy savings have been achieved in the Priority Group. npower is the only supplier to deliver more appliances to Priority consumers than to other households. The distribution of energy savings from heating measures is evenly split between both consumer groups.

Completed activity

- 3.43. All suppliers are required to monitor and formally report upon their achieved activity. npower has not yet submitted any such reports or completed any of its schemes.

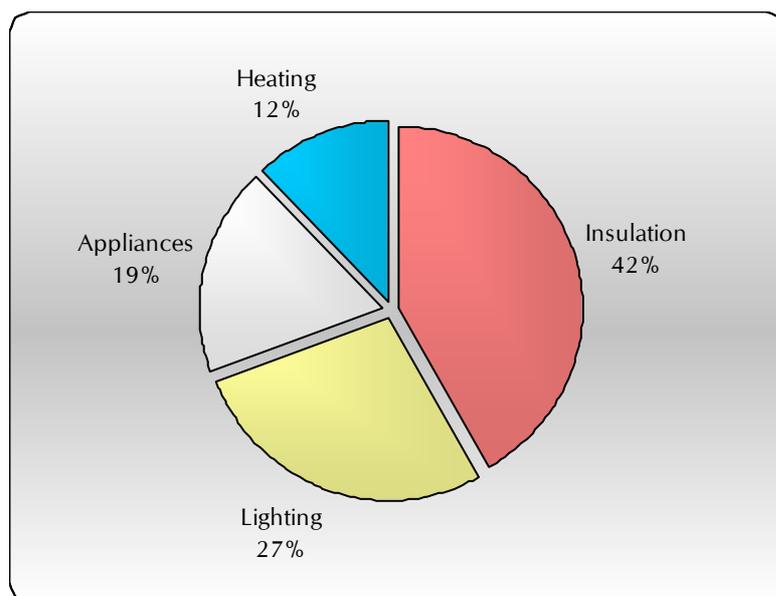
Powergen

- 3.44. At the start of the EEC, separate targets were set for Powergen, Amerada and TXU Energi. In October 2002, Powergen purchased Amerada's supply licence and consumers and TXU Energi's consumers but not its supply licence. The final Powergen target is a combination of the targets for Powergen and Amerada.
- 3.45. Powergen's purchase of the TXU Energi consumers without the relevant licence has prompted a number of regulatory issues, one of which relates to the EEC. Until these issues are resolved it is not possible to apportion energy savings between the two organisations from the TXU Energi schemes that were carried out by Powergen. Consequently, Powergen's progress reported here may be understated.

Proposed activity

- 3.46. Figure 3.12 shows the total proposed savings broken down by measure type for the first two years of the EEC. The accompanying table provides a breakdown of the proposed savings for Year 1 and Year 2 of the EEC.
- 3.47. Powergen had ten scheme proposals accredited by Ofgem in the second year of the EEC – these proposals have brought its total number of schemes to 18. The scheme proposals accredited in Year 2 account for 55% of the Powergen target. Combined with those from Year 1, Powergen has proposed savings of 147% of its target.

Figure 3.12: Powergen proposed energy savings at 31 March 2004



Measure	Percentage of proposed energy savings	
	EEC Year 1	EEC Year 2
Insulation	41.5	0.4
Lighting	15.4	12.1
Appliances	0.0	18.5
Heating	5.8	6.3
Total	62.7	37.3

3.48. Powergen proposes to achieve just over 40% of its target by installing insulation measures. After the second year of the EEC, all the measure types are well represented with more than a quarter of the proposed savings coming from lighting measures. Appliances and heating measures are proposed to contribute 19% and 12% respectively.

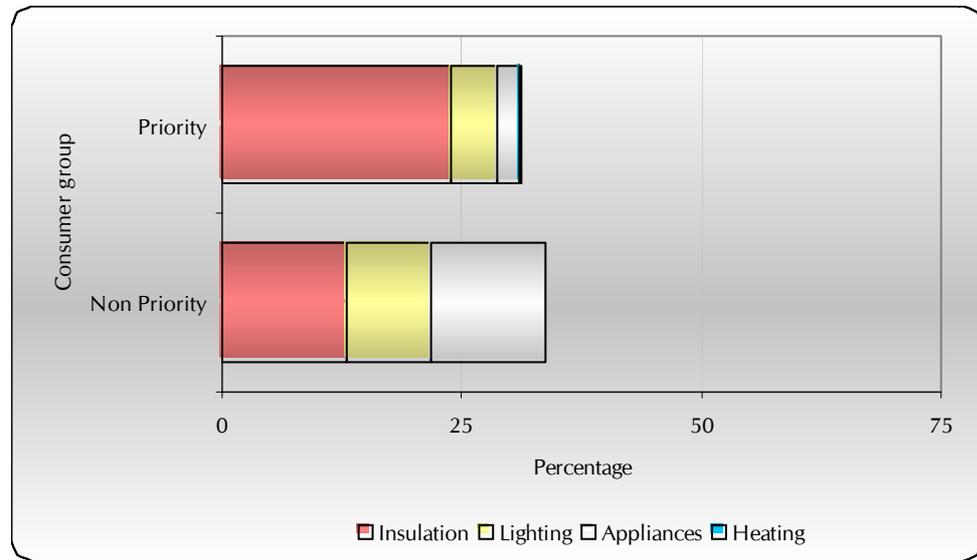
3.49. In the first year of the EEC, none of Powergen’s proposals included A-rated appliances. By the end of the second year, appliances now account for 19% of the overall proposed energy savings. There was a less dramatic rise in the proportion of energy savings from heating measures – 6% at the end of the first year to 12% at the end of the second year.

Progress during the first two years

A review of the Energy Efficiency Commitment to the end of the second year
A report for the Secretary of State for Environment, Food and Rural Affairs

3.50. Figure 3.13 shows a full breakdown of the achieved energy savings, by measure type, as a percentage of the final Powergen target.

Figure 3.13: Energy savings achieved by Powergen as a percentage of its final target



3.51. At the end of the first two years of the EEC, Powergen has achieved 65% of its final target. As proposed by Powergen in its accredited schemes, the majority of energy savings, 37pp, have been achieved using insulation measures. The contribution from lighting and appliances is similar at 14pp each. The remainder of the achieved savings result from heating measures, accounting for less than 1pp.

Efforts to target the Priority Group

3.52. Of the target achieved, just under half has been delivered to Priority Group households, although the majority of the insulation measures installed have been delivered to Priority Group consumers. Powergen is the only supplier to deliver more energy efficient lamps to non-Priority Group consumers than to Priority Group consumers. The energy savings achieved indicate that they have provided or sold at least twice as many lamps to non-Priority households than to Priority households.

3.53. One fifth of the appliances have been delivered to Priority Group consumers. This group has also benefited from twice the amount of heating energy savings than non-Priority Group, although the overall energy savings from heating measures are small.

Completed activity

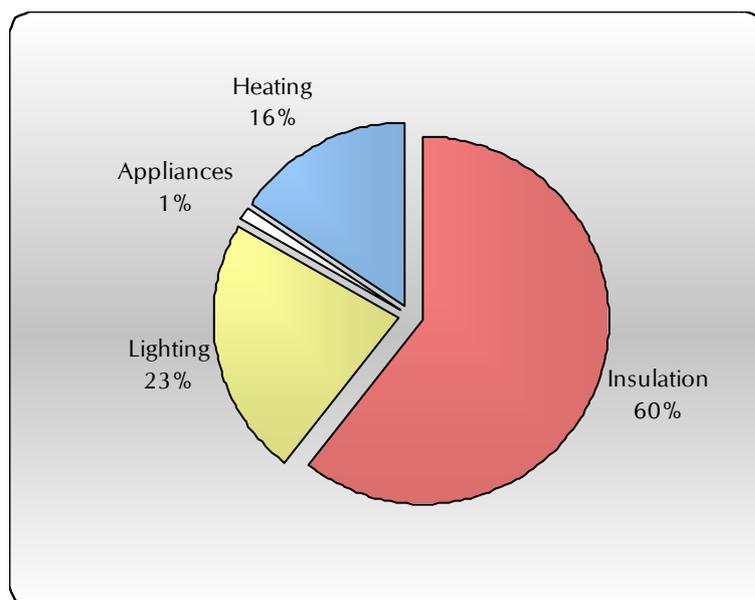
- 3.54. All suppliers are required to monitor and formally report upon their achieved activity. Powergen has not yet completed any scheme in full but has submitted one progress report. This has been approved by Ofgem and accounts for 3.6% of Powergen's final target.

ScottishPower

Proposed activity

- 3.55. Figure 3.14 shows the total proposed savings broken down by measure type for the first two years of the EEC. The accompanying table provides a breakdown of the proposed savings for Year 1 and Year 2 of the EEC.
- 3.56. ScottishPower has nine scheme proposals accredited by Ofgem, more than half of which were submitted during the second year of the EEC. 60% of the proposed activity is expected to come from insulation measures with just under a quarter resulting from lighting measures. A further 16% of the energy savings is expected from heating measures, with the remaining 1% expected from appliances
- 3.57. ScottishPower demonstrated an increase in the proportion of savings they proposed to achieve with insulation measures between the first and second years of the EEC.

Figure 3.14: ScottishPower proposed energy savings at 31 March 2004



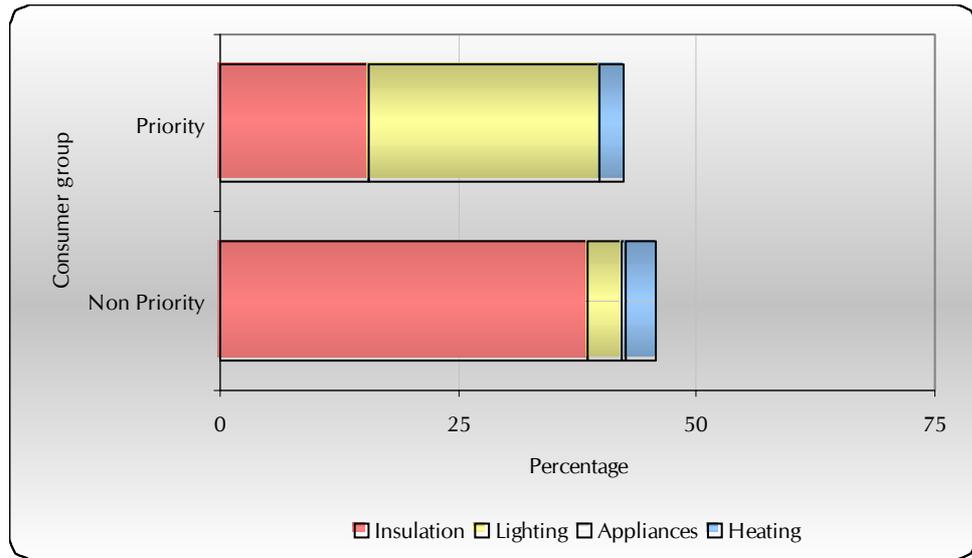
Measure	Percentage of proposed energy savings	
	EEC Year 1	EEC Year 2
Insulation	49.7	10.9
Lighting	22.7	0.0
Appliances	0.1	1.2
Heating	15.5	0.1
Total	87.9	12.1

Progress during the first two years

- 3.58. Figure 3.15 shows a full breakdown of the achieved energy savings, by measure type, as a percentage of the final ScottishPower target.
- 3.59. At the end of the first two years of the EEC, ScottishPower has achieved 88% of its final target. As proposed by ScottishPower in its accredited schemes, the majority of energy savings, 54pp, have been achieved using insulation measures. This is followed by 28pp of the achieved savings contributed by lighting measures. The remainder of the achieved savings are from heating measures, 5pp, and appliances, 1pp.

Figure 3.15: Energy savings achieved by ScottishPower as a percentage of its final target

A review of the Energy Efficiency Commitment to the end of the second year
A report for the Secretary of State for Environment, Food and Rural Affairs



Efforts to target the Priority Group

3.60. Of the target met, just under half has been achieved in relation to the Priority Group. Insulation measures make up the majority of the activity in the non-Priority Group while lighting makes up the majority in the Priority Group. The energy savings from heating measures have an equal split between the Priority Group and non-Priority Group.

Completed activity

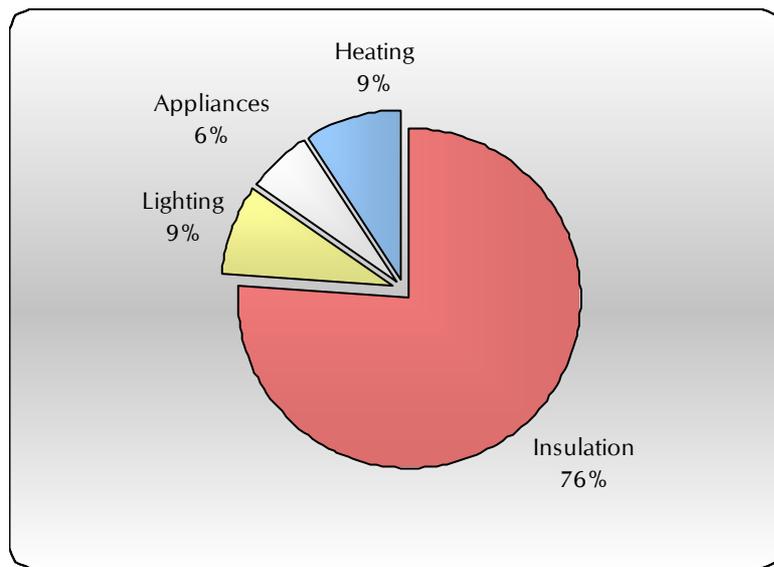
3.61. All suppliers are required to monitor and formally report upon their achieved activity. ScottishPower has not yet submitted any such reports or completed any of its schemes.

Scottish and Southern Energy

Proposed activity

3.62. Figure 3.16 shows the total proposed savings broken down by measure type for the first two years of the EEC. The accompanying table provides a breakdown of the proposed savings for Year 1 and Year 2 of the EEC.

Figure 3.16: Scottish and Southern Energy proposed energy savings at 31 March 2004



Measure	Percentage of proposed energy savings	
	EEC Year 1	EEC Year 2
Insulation	71.1	5.0
Lighting	8.6	0.1
Appliances	6.0	0.0
Heating	9.1	0.0
Total	94.9	5.1

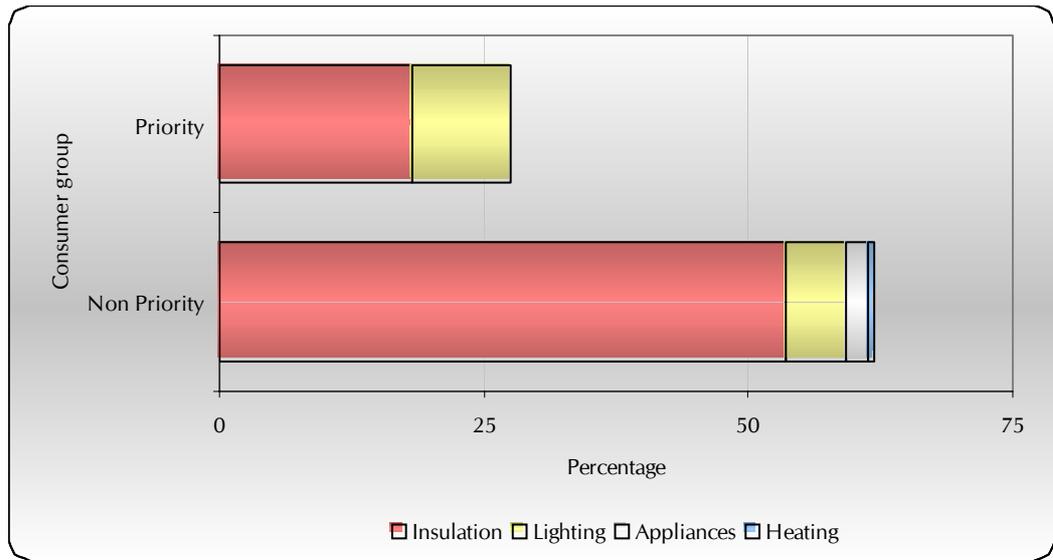
3.63. Scottish and Southern Energy has 15 scheme proposals approved by Ofgem with total energy savings that account for 122% of its final target. Of these, three schemes accounting for 6.2% of its target were approved by Ofgem during the second year of the EEC.

3.64. Over three quarters of the proposed energy savings is expected to result from insulation measures. The energy savings expected from the other three measure types are fairly evenly split.

Progress during the first two years

3.65. Figure 3.17 shows a full breakdown of the achieved energy savings, by measure type, as a percentage of the final Scottish and Southern Energy target.

Figure 3.17: Energy savings achieved by Scottish and Southern Energy as a percentage of its final target



3.66. At the end of the first two years of the EEC, Scottish and Southern Energy has achieved 89% of its final target. As proposed by Scottish and Southern Energy in its accredited schemes, the vast majority of energy savings, 72pp, have been achieved using insulation measures. The contribution from lighting measures and appliances are 15pp and 2pp respectively.

Efforts to target the Priority Group

3.67. Scottish and Southern Energy has achieved substantially more than half of its target in the non-Priority Group mainly through the provision of insulation measures. The provision of lighting is more evenly distributed between the Priority Group and the non-Priority Group. It is important to note that each supplier must meet at least half of its energy saving target in the Priority Group to ensure compliance.

Completed activity

- 3.68. All suppliers are required to monitor and formally report upon their achieved activity. Scottish and Southern Energy has not yet completed a scheme in full but has submitted a number of progress reports. Ofgem has approved completed energy savings equating to 7% of Scottish and Southern Energy's final target.

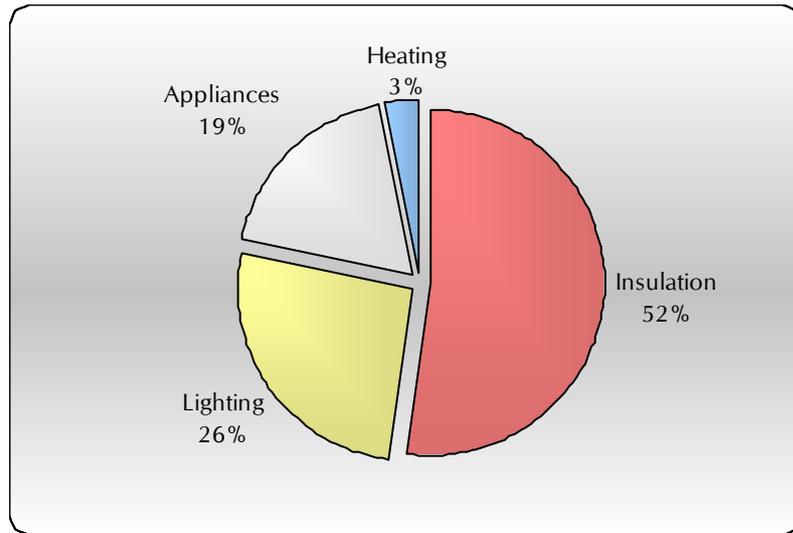
TXU Energi

- 3.69. TXU Energi's consumers were purchased by Powergen in October 2002. Its supply licences are now with the administrator and the company has ceased trading. Powergen has volunteered to make up the difference in total energy savings but not to meet the requirement that at least half of the TXU Energi savings need to come from the Priority Group. To ensure compliance, 50% of TXU Energi's target must be achieved in relation to the Priority Group. This section demonstrates TXU Energi's activity to date.

Proposed activity

- 3.70. Figure 3.18 shows the total proposed savings broken down by measure type for the first two years of the EEC. The accompanying figure provides a breakdown of the proposed savings for Year 1 and Year 2 of the EEC.

Figure 3.18: TXU Energi proposed energy savings at 31 March 2004



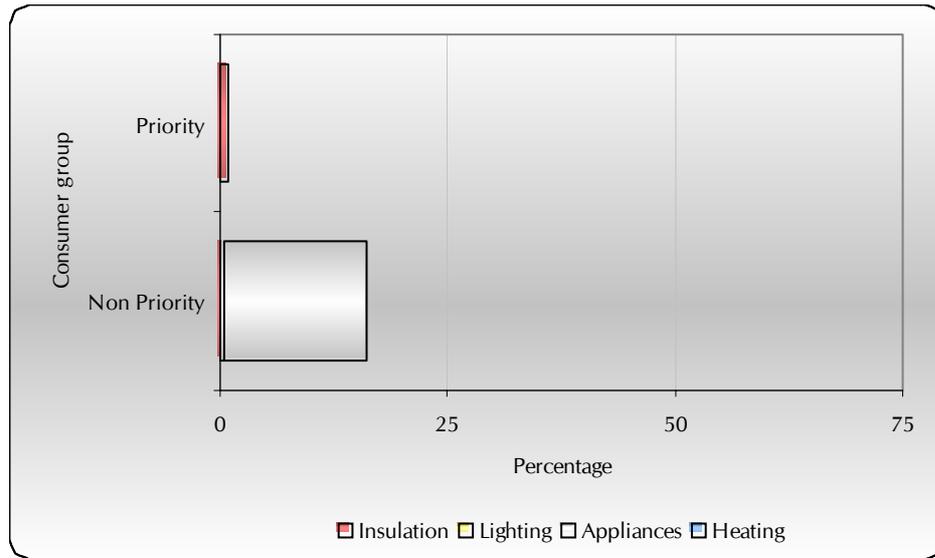
Measure	Percentage of proposed energy savings	
	EEC Year 1	EEC Year 2
Insulation	52.2	0
Lighting	26.1	0
Appliances	18.7	0
Heating	2.9	0
Total	100.0	0.0

3.71. TXU Energi had eight scheme proposals accredited by Ofgem in the first year of the EEC. TXU Energi's final target takes into account the fact that it was not supplying any domestic consumers in the second two years of the EEC. Therefore, the schemes proposed during the first year were expected to contribute to a larger energy saving target and account for 226% of TXU Energi's final target.

Progress during the first two years

3.72. Figure 3.19 shows a full breakdown of the achieved energy savings, by measure type, as a percentage of the final TXU Energi target.

Figure 3.19: Energy savings achieved by TXU Energi as a percentage of its final target



3.73. In the first six months of the EEC, TXU Energi has achieved 17% of its final target. The majority of energy savings result from appliances, with the remainder of the achieved savings attributed to insulation measures. TXU Energi is the only supplier for which insulation savings do not account for the majority of the achieved savings to date.

Efforts to target the Priority Group

3.74. Of the 17% of the target achieved, just 1pp has been delivered to Priority Group customers and this was entirely from insulation measures. The remainder is made up primarily from appliances to the Priority Group, with a small amount from insulation.

Completed activity

3.75. All suppliers are required to monitor and formally report upon their achieved activity. TXU Energi has not yet submitted any such reports or completed any of its schemes.

4. Comparison with Defra's target-setting

illustrative mix

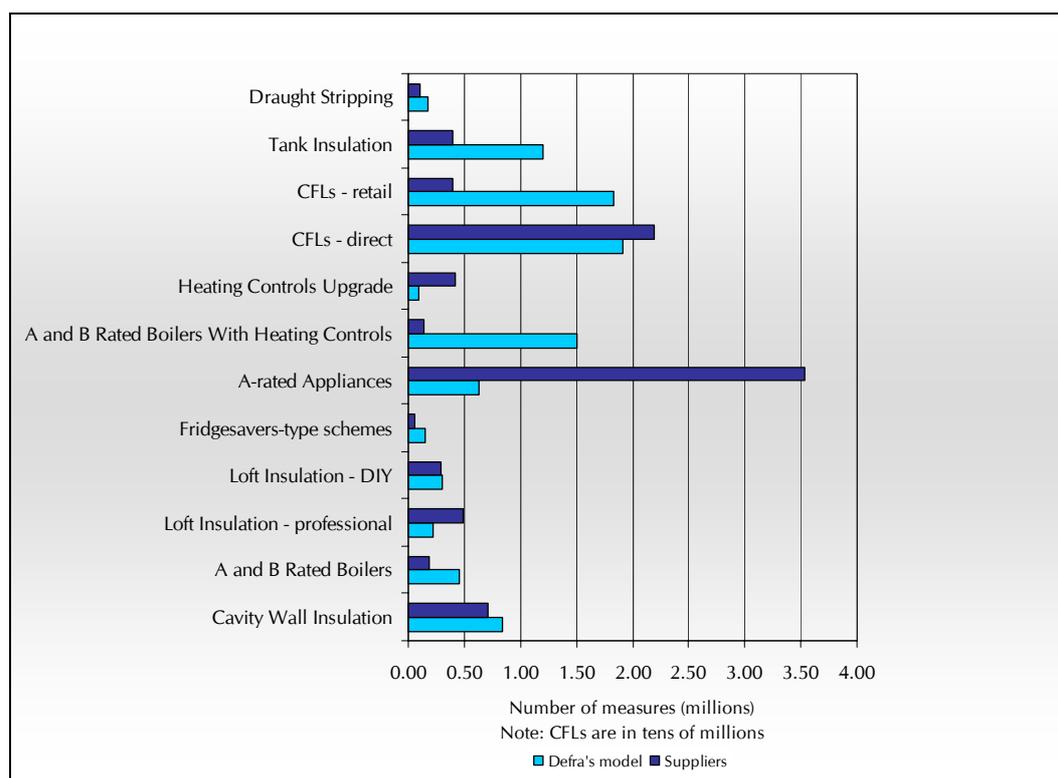
- 4.1. To derive the overall target for the EEC Defra developed a bottom-up model to illustrate the types and numbers of measures that they estimated could be delivered for a cost of £3.60 for each domestic gas and electricity consumer per annum. This chapter compares Defra's illustrative mix against the suppliers' scheme proposals. Supplier activity was not expected to be identical to the indicative mix of measures in Defra's macro target-setting model. In addition, imposing an energy saving target on suppliers rather than a technology specific target encourages them to innovate: it was expected that the suppliers would use technologies to meet their targets that did not feature in the target-setting model. At this stage, at the end of the second year, it is not possible to provide with any certainty the exact numbers of measures that will be delivered by suppliers over the whole of the EEC as the suppliers' final completion reports are only due by the end of April 2005. The data presented in this chapter are derived from the scheme submissions and quarterly progress reports presented to Ofgem up to the end of the second year.
- 4.2. It is important to note that the information that is presented in the chapter is Ofgem's current best estimate of the supplier activity that will be required to meet the overall target. Changes to the target setting methodology for the EEC post 2005 will encourage suppliers to carry over specific measures to the EEC 2, while others will be worth more to the suppliers for meeting their current EEC targets. Until the SI for the EEC post 2005 is made it is not possible to say what these will be. The data presented in this chapter are therefore broad indicators of the activity that has occurred to date that have been scaled up in line with the target.

Insulation

- 4.3. Figure 4.1 shows that our estimate for the amount of cavity wall insulation that suppliers will need to meet their targets is slightly lower than that estimated in the model. Suppliers have shown a large interest in developing schemes offering cavity wall insulation because it provides large and cost effective energy savings. The greater share of the cavity wall insulation work is expected to be carried out in

Priority Group homes through working with social housing providers (SHPs) and interaction with the Warm Front programme. Supplier cavity wall insulation schemes to the non-Priority Group are primarily direct sales or sales through Energy Efficiency Advice Centres.

Figure 4.1 Comparison of Defra's illustrative mix with an estimate of proposed measures



4.4. The suppliers' schemes suggest that they will carry out more loft insulation than anticipated by Defra in its illustrative mix. Loft insulation tends to be incorporated into the supplier cavity wall insulation schemes and much of this work is being delivered as part of large insulation programmes that the suppliers have set up. As with cavity wall insulation more than half of the loft insulation measures are expected to go to the Priority Group.

4.5. Although not apparent in the illustrative mix of measures, the working assumption that the model used was that roughly half of all loft insulation would be installed in roof spaces with no pre-existing insulation. Suppliers' schemes, however, suggest that roughly 10% of all professional installations will be in roof spaces with no pre-existing loft insulation. The majority of the potential work available therefore involves 'loft top-up' and this is accounted for in accreditation.

- 4.6. DIY loft insulation is broadly in line with the target-setting model. Some suppliers have set up successful retail schemes that have led to a large increase in the sales of loft insulation. This measure is amongst the most cost effective for the suppliers and hence suppliers have explored a number of different routes to market, including mail order schemes. Almost all of the energy savings delivered through retail outlets will be to the non-Priority Group.
- 4.7. It appears likely that hot water tank insulation will be installed in considerably fewer homes than expected by Defra's illustrative mix. Suppliers tend to install tank jackets where possible when delivering other insulation measures. It is cost effective and suppliers are looking to employ this measure in their schemes. It is notable that this is a very mature energy efficiency measure that is now pre installed on all new hot water systems sold and is not necessary for 'combi' boilers as they provide instantaneous hot water.
- 4.8. Some suppliers have expressed an interest in installing other insulation measures in consumers' homes. Some have installed reflective panels behind consumers' radiators while others have used alternative insulation materials in loft spaces at the consumer's request. There has been only a limited amount of interest in solid wall insulation, with these properties tending to form part of a bigger programme of insulation with SHPs.

Lighting

- 4.9. Suppliers are expected to deliver slightly more CFLs through the mail than anticipated in the illustrative mix. Roughly 60% of the lamps delivered this way are anticipated to be delivered to the Priority Group for free. Most of the suppliers have also set up mail order CFL schemes where consumers purchase CFLs at a reduced price to those sold by retailers. Where a supplier is selling lamps to the consumer Ofgem requires suppliers to offer a choice of lamps up to a maximum of six; where a supplier is giving out lamps for free suppliers are limited to sending out four per household. Because the energy savings are accredited on a lamp by lamp basis most of the lamps delivered through the EEC are 100 watt equivalent, as these offer the greatest energy saving for the supplier investment.

4.10. With respect to retail CFL schemes, suppliers are not reaching anything like the anticipated level of activity in retail lamp schemes. Suppliers have set up agreements with the major retailers to discount existing lines of CFLs as well as introducing CFLs into a number of new outlets. Suppliers continue to show an interest in this measure, but these schemes are unlikely to reach the level shown in the indicative mix.

Appliances

4.11. Some suppliers continue to run very successful retail appliance schemes offering A-rated cold and wet appliances. These schemes are going a long way to transform the sales in these outlets by providing the consumer with an incentive to purchase an A-rated model or to trade in an old inefficient appliance for a more energy efficient model. Roughly 90% of the energy savings delivered this way are to consumers in the non-Priority Group.

4.12. Fridgesaver-type activity involves the suppliers replacing damaged cold appliances in Priority Group households with an A-rated model for around £25. Initially suppliers were finding it difficult to make these schemes as cost effective compared to insulation type schemes, but through their arrangements with retailers some suppliers have set up new fridgesaver-type schemes. This has helped address the imbalance between consumer demand and the level of activity by the suppliers in the first year of the EEC. These suppliers have seen some success in these schemes which have helped redress the balance of retail appliance schemes.

4.13. Supplier appliance activity is rewarded with a 60% uplift. As highlighted in Chapter 2 the energy savings from supplier appliance schemes represent roughly 12% of the activity to date. If this level of activity is maintained to the end of the EEC then nearly 7.5 TWh of the overall target will be achieved through appliance schemes and more than 2.5 TWh will be lost as a result of the uplift. This would reduce the anticipated carbon savings from the scheme by more than 4%.

Heating

4.14. The overall number of boilers delivered by the suppliers is expected to be around 360,000, with a slightly higher number of controls packages available. Boiler

activity tends to be focused on suppliers that already have a direct link with an installation business or with suppliers running heating schemes with SHPs. Work on providing boiler replacements is expected to be evenly split between the Priority and the non-Priority Groups. Boiler replacements with heating controls upgrades are expected to be more focused on the non-Priority Group consumers.

- 4.15. The majority of heating measures will come from heating controls and condensing boilers. However, some suppliers have also expressed some interest in other heating activity.
- 4.16. In Defra's consultation paper of August 2001 it was suggested that fuel switching schemes would be accreditable under the EEC. Some suppliers have shown some interest in carrying out these schemes as the energy savings are high because the fuel standardisation factors are based on the carbon content of each of the fuels. The cost of delivering energy efficiency measures through this route is high and as a consequence Ofgem has liaised closely with the suppliers on the mechanisms by which fuel-switching schemes are to be undertaken. Some suppliers have shown that they are able to make these schemes work. At the end of 2003 suppliers provided detailed reports on their fuel switching activity, these suggested that more than 10,000 measures had been installed.
- 4.17. Some suppliers have also expressed some interest in community-scale CHP and district heating. In these schemes the suppliers support the development of a CHP unit to provide heat and electricity for a number of homes. While these schemes do lead to energy savings their development can be very time consuming because of infrastructure required which conflicts with specific deadline suppliers are required to meet their targets by. As a consequence suppliers have tended to look for other forms of energy savings.

Innovative measures

- 4.18. The measures mentioned in the section above, although not mentioned in the illustrative mix, are not innovative in the sense of using new technologies. However, some suppliers have also been looking to use innovative solutions to meet part of their energy saving target and have worked with developers to bring new

energy efficiency products to the market. Ofgem has been pleased to work with the suppliers to calculate the energy savings from these technologies.

- 4.19. Several suppliers are using ground source heat pumps to use warmth from the ground to provide a source of heat. The scale of the suppliers' work varies considerably from a handful of homes to a scheme involving up to a thousand homes. The largest energy saving from these schemes comes when the units are employed in areas that are not connected to the gas grid because of the fuel standardisation coefficients used to accredit energy savings from suppliers' schemes. Given the very low level of take up of this technology in Great Britain it can be seen that the broad energy saving target imposed on the suppliers gives flexibility to introduce new heating solutions.
- 4.20. At the other end of the scale of energy consumption, some suppliers have considered working with the manufacturers of consumer electronics to make their products more energy efficient. While these products do not consume much electricity individually they are used by a great number of households. Their combined consumption, when in use and when left on standby, has the potential to undermine the effect of the improvements in energy efficiency achieved elsewhere.
- 4.21. The other innovative measure that the suppliers are looking to employ, on a very small scale, is solar thermal water heating. Like the other innovative measures it is costly and suppliers are looking to market this to consumers who are able to pay for the measure.
- 4.22. Suppliers have expressed an interest in the development of domestic combined heat and power (DCHP). Ofgem will work with suppliers to ensure that an appropriate energy saving can be accredited to this measure, although to date only one manufacturer has a product in the market. To help with this work Ofgem is a member of the Carbon Trust's small-scale CHP field trial advisory panel.

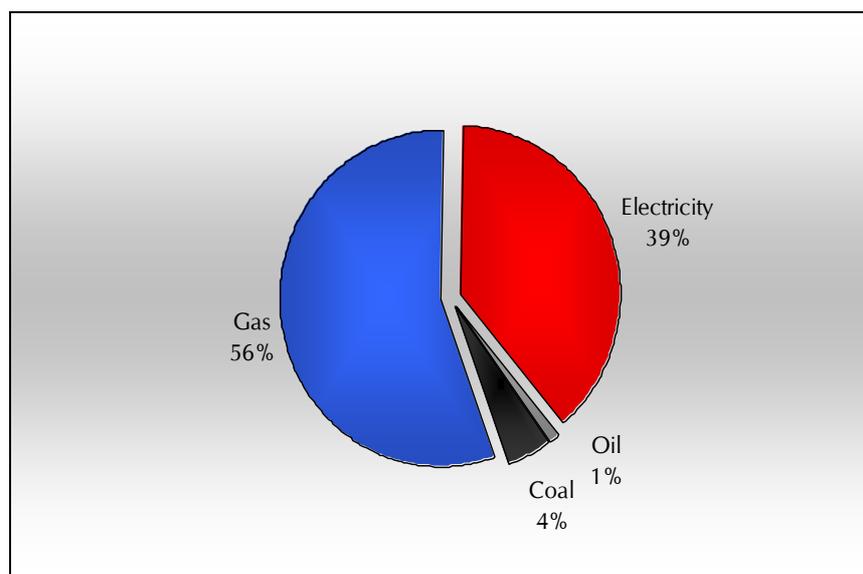
The fuel mix

- 4.23. The use of fuel standardisation factors, based on the carbon content of the fuels, in setting the overall EEC target, has given the suppliers an incentive to target consumers' homes that use the more carbon intensive fuels. For instance, the cost of

insulating an electrically-heated as opposed to a gas-heated home with cavity wall insulation is broadly similar. However, the energy savings suppliers are accredited with are almost twice as large. This has encouraged suppliers to target homes that use the more carbon intensive fuels.

4.24. Figure 4.2 shows the anticipated energy expected breakdown by fuel type. The overall electricity savings from the EEC are anticipated to be higher than those outlined in the illustrative mix. This higher than expected activity results from, as noted above, higher levels of insulation activity, and also much higher sales of appliances through retail outlets. The energy saving predicted from CFLs also exceeds that in the illustrative mix. However, as noted above, the number of CFLs expected to be delivered is actually lower, reflecting the dominance of the 100-watt equivalent lamps in the suppliers' schemes, as opposed to the mix of wattages in Defra's target setting model.

Figure 4.2: Anticipated energy savings by fuel type



4.25. Energy savings from gas-heated homes are expected to be broadly similar to the illustrative mix of measures. Higher energy savings from insulation are expected to balance the lower than expected savings from heating measures.

4.26. The energy savings from insulation in the other fuels is lower than that anticipated in the illustrative mix. This might reflect the suppliers' historical and continuing links

to electricity consumers over the other fuels that were introduced into the EEC, such as coal, oil and LPG. It might also reflect the fact that suppliers are concentrating their activity in urban areas that are more likely to be connected to the gas grid.

Social housing providers

4.27. Many suppliers have partnered with social housing providers, predominantly to offer insulation. Suppliers are able to claim all the energy savings from their work with Local Authorities and Housing Associations providing they can clearly demonstrate that their contribution is 'additional'. This enables the suppliers to target large numbers of properties and lever-in additional funds from their partners. It also means that it is a cost-effective way to target the Priority Group. The importance of this delivery route is clear, partnering with SHPs has delivered to date:

- More than half of all insulation work targeted at the Priority Group and more than 80% when the Warm Front measures are excluded,
- around 20% of all lighting measures,
- more than three quarters of all heating measures delivered to the Priority Group.

4.28. Some suppliers have also set up independent initiatives which target households in deprived areas. Suppliers offer energy efficiency solutions to all households in the area working with local agencies. Through these schemes and the Government sponsored Warm Zones it can be seen that suppliers are aiming to target those in the Priority Group.

Energy Services

4.29. An energy service offering in the EEC is defined as an activity that includes:

- two measures, one of which must be insulation to the loft or the walls, an improvement to the primary heating system such as a boiler or CHP,
- an assessment of the premises,
- relevant advice to the consumer,
- an offer to the consumer for the option of deferring payments for the measures.

- 4.30. If these criteria are met, the scheme will be accredited with an additional 50% of the energy savings. The energy savings eligible for uplift cannot make up more than 10% of each supplier's overall target. As a consequence, the maximum effect this activity could ever have on the overall target is a loss of 5% of the energy savings and a similar amount of carbon savings.
- 4.31. Information we have from the suppliers has shown that there is some interest in energy service activity that meets the criteria for the uplift. Of the suppliers with an EEC target three have submitted schemes that would take them over the 10% threshold if take-up is as forecast. However, all the remaining suppliers have now indicated that they intend to carry out some energy service activity.
- 4.32. To date 6% of the energy savings including the uplift, and 4% without, have been achieved by the suppliers' through energy service activity. If this proportion of activity is maintained until the end of the EEC programme then roughly 2% of the energy savings will be lost as a result of the uplift. Ofgem will closely monitor supplier activity to see if the Energy Service¹¹ trial accelerates activity in this area.

¹¹ Testing domestic consumer take-up of energy services: direction to initiate trial suspension of 28 day rule, 2004, Ofgem.

A review of the Energy Efficiency Commitment to the end of the second year
A report for the Secretary of State for Environment, Food and Rural Affairs

5. Consumers benefiting from the EEC

- 5.1. This chapter discusses the expected distribution of energy efficiency measures installed to meet the EEC target and the associated distribution of the financial benefits. Whilst it is anticipated that all households will be paying for the programme, not all will receive measures.
- 5.2. When setting the overall target for the EEC, Defra assumed a cost of £3.60 per fuel, per consumer, per annum. This equates to around £10.80 for consumers not connected to the gas grid over the three years of the programme, £21.60 for gas and electricity consumers. Suppliers are not legally obliged to collect this amount from their domestic consumers because they are obligated to meet an energy saving target, not an expenditure target. However, it is reasonable to assume that most if not all the costs will be passed through into domestic tariffs. Suppliers have complete flexibility over the measures they install. For the purpose of the analysis, and in the absence of any better information, it will be assumed that the cost of the EEC to each household is in line with Defra's assumptions.
- 5.3. This chapter outlines the main ways in which suppliers are installing, providing and promoting energy efficiency measures to households. The remainder of the chapter focuses on the households which are most likely to benefit from EEC measures, and those which are least likely to do so.

Delivering the EEC target

- 5.4. In order to meet their EEC targets, suppliers are delivering energy efficiency measures in several different ways depending on the type of consumer they wish to target and the specific measures they are promoting.
- 5.5. The suppliers' main route to targeting the Priority Group is by forming partnerships with social housing providers' (SHP) eg, local authorities and housing associations, to extend the SHPs programme of installing major insulation and energy efficient heating measures. These partnerships are beneficial to suppliers as they can identify large numbers of properties where multiple measures can be installed. Data from the suppliers' schemes has shown that around 70% of SHP tenants are in the Priority Group. In addition, suppliers may also partner with charitable organisations which

have a high proportion of members in the Priority Group, particularly to distribute free CFLs to the charity's members.

- 5.6. Suppliers are also interacting with other government programmes ie, Warm Front, Warm Deal and Welsh HEES, to purchase energy efficiency measures that have already been installed. The funds from the sale of the measures are then used to install further similar measures. For example, for each cavity wall insulation purchased further insulation work will be carried out by the Warm Front scheme managers. All Warm Front eligible households will also be Priority Group eligible.
- 5.7. To target the non-Priority Group, suppliers offer discounted energy efficiency measures eg, loft insulation, cavity wall insulation and low energy lamps to home owners. Such offers are sometimes publicised on suppliers' websites or included with account statements as 'bill inserts'. The offer to the householder may be extended also to include finance options and personalised energy efficiency advice as an energy services package. This is incentivised with an uplift in energy savings if more than one measure is delivered in this way, one of which must be a major insulation or heating measure. While this route may include a very low proportion of Priority Group householders, the majority of the cost of the measure will be contributed by the householder.
- 5.8. In addition, suppliers are partnering with retailers such as supermarket chains and DIY stores to promote self-installation measures including CFLs, DIY loft insulation and energy efficient appliances. Supplier data suggests around 90% of the energy savings sold are purchased by non-Priority households.
- 5.9. Some suppliers are also focusing their activity on a specific geographical area as opposed to either the Priority or non-Priority consumer groups. This approach can involve targeting home owners on a house-by-house basis to offer discounted measures to non-Priority households and free measures to those in the Priority Group. Alternatively, as in the case of Warm Zones, the supplier may act as one of several funding partners to provide free measures to Priority Group consumers in a certain area.

Households expected to benefit from the EEC

The Priority Group

- 5.10. The Priority Group includes consumers in receipt of certain income-related benefits and tax credits and also those that receive the new pension credit. Of the 25 million households in Great Britain, Defra estimate that 8.8 million households are in the Priority Group.
- 5.11. Figure 5.1 outlines the number of measures anticipated to be installed or provided to Priority Group households during the three year timeframe of the EEC. The four columns on the right of the figure list the number of measures which are expected to be provided at no cost to the consumer, either being fully funded by the supplier or part funded by a supplier and part funded by another third party eg, a SHP.
- 5.12. From the Figure it can be seen that roughly 410,000 households will benefit from cavity wall insulation and 310,000 will benefit from professionally-installed loft insulation; with around 11% of these involving the insulation of an empty loft and the remainder involving a top-up from the existing level of insulation. It is not clear from the data provided by the suppliers whether households will be receiving more than one major insulation measure. However, Figure 5.1 shows that 195,700 (63%) of the professionally-installed loft insulation installations and 261,000 (64%) of the cavity wall insulation installations are provided free of charge to the consumer, with the cost being met in part by a supplier and the remainder by a third party. In the case of Priority Group measures, the third party is likely to always be a SHP whereby the supplier integrates with an existing energy efficiency improvement programme of works to extend the scope of the works to more households or in terms of additional measures.
- 5.13. The estimated number of loft and cavity wall insulation measures which will be fully funded by a supplier account for 13% of the total Priority Group loft and cavity wall insulation jobs. These measures are likely to be installed through supplier projects which fully fund energy efficiency measures in owner-occupier properties. The number of owner-occupier installations is much lower than in social housing projects not only because it involves a greater financial input from the supplier, but

because it is also much harder to identify and contact large numbers of householders who do not already have their loft and cavities filled.

Figure 5.1: The indicative number of measures likely to be installed in or provided to Priority Group households during the EEC by cost contribution.

Measure	Total number of measures expected to be installed during the EEC	Number of measures provided at a cost to the consumer	Number of measures provided at no cost to the consumer			
			Part supplier funded and part third party funded	Purchased from Warm Front, Welsh HEES and Warm Deal	Fully funded by the supplier	TOTAL
Loft insulation (empty loft)	34,200	1,100	6,700	20,300	6,100	33,100
Loft insulation (top up)	277,000	16,000	189,000	36,900	35,000	261,000
DIY loft insulation	53,400	53,400	-	-	-	-
Cavity wall insulation	411,000	23,000	261,000	75,700	51,900	388,000
Other Insulation	318,000	31,000	199,000	64,000	24,000	287,000
Replacement boilers	79,200	4,300	35,700	38,400	800	74,900
Replacement boilers with heating controls	34,700	-	34,700	-	-	34,700
Heating controls upgrade only	18,200	11,140	5,240	1,800	-	7,060
Fuel switching	12,600	5,800	6,800	-	-	6,800
Other heating	1,800	300	1,500	-	-	1,500
CFLs (direct)	17,500,000	1,100,000	2,980,000	56,700	13,400,000	16,400,000
CFLs (retail)	285,000	285,000	-	-	-	-
Cold & wet appliances	916,000	916,000	-	-	-	-

5.14. A similar number of top-up loft and cavity wall insulations are expected to be purchased from the Warm Front, Welsh HEES and Warm Deal programmes.

However, over 20,000 empty loft insulations are anticipated to be purchased from the government programmes, which equates to nearly 60% of the total insulation installations in empty lofts.

- 5.15. In terms of the number of Priority Group households which will benefit from a major insulation measure, suppliers' work with SHPs will involve insulating both the loft and cavity wall in a considerable number of properties. This could also be true of owner-occupier work, as it is expected that a supplier would be keen to undertake both measures if possible and the householder is unlikely to refuse if the improvement is for free. Therefore, it should not be assumed that the number of cavity wall and loft insulation measures can be summed to give the total Priority Group households benefiting. Overall, it is likely that around 500,000 Priority Group households will benefit from such measures under the EEC.
- 5.16. It is estimated that over 300,000 minor insulation measures, including hot water tank jackets, draught-proofing and radiator panels will be installed over the three years of the EEC. These measures are also likely to be installed with a major insulation measure, being highlighted as appropriate in the original property survey for the loft or cavity wall insulation measure.
- 5.17. In terms of heating measures, over 110,000 Priority Group households are anticipated to benefit from a SEDBUK A or B rated boiler replacement. A further 12,600 properties are envisaged to have the existing mode of heating replaced with a full gas central heating system, although a condensing boiler may not necessarily be installed in these cases. As the majority of fuel switches involve the switch from electric or coal heating to a gas central heating system, the comfort and energy savings benefits to the householder are large. The heating measures for the Priority Group are dominated by work undertaken in partnership with SHPs – around 61% are estimated to be part funded by a supplier and part funded by a SHP - where the housing provider was due to install a lower efficiency boiler (eg, D rated) or switch to electric heating.
- 5.18. The 1,800 other heating measures included within Figure 5.1 include heat recovery ventilation units, solar water heating and ground source heat pumps. The vast majority of these will be provided at no cost to the consumer through SHP partnership activity. However, due to the more specialist nature of these measures, it

is probably less likely that they will be provided in conjunction with a major insulation measure.

- 5.19. Of all of the measures, CFLs are distributed most widely to the Priority Group and it is anticipated that over 93% of these will be fully funded by the supplier. To maximise the possibility that the household will use the CFLs, and that an energy saving will be achieved, suppliers are able to provide a maximum of four free CFLs to each household. In the majority of cases, suppliers are providing the maximum of four lamps and this suggests that almost 4.4 million Priority Group households will benefit from CFLs – half of the total estimated Priority Group. However, whilst suppliers have to cross check the recipients of their own CFL schemes to ensure that the limit of 4 is adhered to, they cannot cross check the recipients of other suppliers' schemes. Therefore, it is possible that a householder could receive multiple packs of lamps which have been funded by different suppliers.
- 5.20. The anticipated number of free CFLs that will be given to Priority Group households is over three times greater than the number anticipated to be distributed to non-Priority Group households. As non-Priority Group households are more likely to be able to contribute towards the cost of a measure than Priority Group households, installing insulation measures in non-Priority Group households will be a more cost-effective way for a supplier to achieve energy savings than by providing free CFLs. This explains the large variation between the number of CFLs provided to Priority and non-Priority Group consumers.
- 5.21. Suppliers' retail schemes, including CFLs, DIY loft insulation and A-rated cold and wet appliances, are not targeted to the Priority Group. Consequently, the overall number of measures is much lower than anticipated for the non-Priority Group. Of the 870,000 cold and wet appliances included within figure 5.1, the majority will be delivered through suppliers' "fridgesaver" schemes as opposed to being purchased within retail stores. These schemes replace old and particularly inefficient cold appliances owned by Priority Group households with an A rated model.
- 5.22. In summary, it is estimated that 500,000 Priority Group households will benefit from a major insulation measure and over 120,000 from a major heating measure. Over 300,000 households will benefit from minor insulation measures and around 870,000 from an A-rated appliance. Free CFLs could be distributed to up to 4.4

million Priority Group households although it is highly likely that some householders will receive lamps through multiple routes, quite possibly with other energy efficiency measures. Taking this into account, it suggests that around 5 million Priority Group households will benefit from at least one energy efficiency measure under the EEC. The benefit from these measures will more than outweigh the cost of the programme.

Non-Priority measures

- 5.23. Based on the assumption that there are 8.8 million Priority Group households, the remaining 16.2 million households will be non-Priority. Figure 5.2 estimates the number of measures that will be installed or provided to non-Priority households during the three years of the EEC and shows the numbers of these which are expected not to require a cost contribution from the householder.
- 5.24. From the Figure it can be seen that roughly 330,000 non-Priority Group homes will benefit from cavity wall insulation and 200,000 from the professional installation of loft insulation. In comparison to Priority Group insulation measures, a much lower proportion (42%) are expected to be delivered in conjunction with SHPs reflecting the greater probability that social housing tenants will be in receipt of income related benefits or tax credits. Evidence from the suppliers' EEC activity so far shows that the majority of non-Priority insulation work is resulting from the direct promotion of discounted measures to the householder.
- 5.25. In terms of the number of non-Priority households which will benefit from a major insulation measure, it is not clear whether consumers will benefit from multiple major insulation measures. Work with SHPs may involve insulating both the loft and cavity wall in a considerable number of properties. Whether this trend is also reflected in owner-occupier projects which require a contribution towards the cost of the installed measure will be heavily dependant upon the structure of the offer from the supplier and the consumer's ability and desire to pay. Suppliers' current offers and property survey forms certainly suggest that consumers are being offered both measures if it is appropriate. Overall, it is likely that around 400,000 non-Priority households would benefit from professionally-installed insulation measures.

Figure 5.2: The indicative number of measures likely to be installed in or provided to non-Priority Group households during the EEC by cost contribution.

Measure	Total number of measures expected to be installed during the EEC	Number of measures provided at a cost to the consumer	Number of measures provided at no cost to the consumer		
			Part supplier funding and part third party funding	Fully funded by the supplier	TOTAL
Loft insulation (virgin)	18,300	12,700	5,600	-	5,600
Loft insulation (top up)	185,000	99,800	85,200	-	85,200
DIY loft insulation	402,000	402,000	-	-	-
Cavity wall insulation	333,000	197,000	136,000	-	136,000
Other Insulation	447,000	359,200	86,700	1,000	87,800
Replacement Boilers	126,000	106,000	18,200	-	20,000
Replacement boilers with heating controls	125,000	124,700	300	-	300
Heating controls upgrade only	122,000	120,500	1,500	-	1,500
Fuel switching	7,000	3,500	3,500	-	3,500
Other heating	2,900	2,100	800	-	800
CFLs (direct)	9,170,000	5,150,000	1,780,000	2,240,000	4,020,000
CFLs (retail)	4,140,000	4,140,000	-	-	-
Cold & wet appliances	4,240,000	4,240,000	-	-	-

5.26. Because consumers in the Priority Group tend to receive EEC measures for free, there is little incentive for them to purchase and install loft insulation themselves ie, from a DIY store. A number of suppliers have formed alliances with retail outlets to promote DIY loft insulation products and indications are that around 90% of the purchases made will be by non-Priority Group consumers. Figure 5.2 shows that over 400,000 such installations are expected, based upon 40m² being the average area of loft insulated. This number of insulations is likely to be additive to the 400,000 households benefiting from professionally installed insulation measures due to the different delivery route.

- 5.27. Other insulation measures delivered to the non-Priority Group will include hot water tank jackets, radiator panels and internal and external wall insulation for solid wall properties. Almost 450,000 measures are expected to be installed during the three years. However, particularly in the case of radiator panels, multiple measures will be installed in each property. The 1,000 minor insulation measures which are anticipated to be delivered at no cost to the consumer are most probably hot water tank jackets offered as part of an energy services package.
- 5.28. Figure 5.2 suggests that the EEC will lead to considerably more condensing boilers being installed in non-Priority Group homes than in Priority Group homes. This reflects the fact that some of the large supply companies are linked to major installation businesses. The easiest way to market A or B-rated boilers is direct to the consumer when they are looking to replace a boiler which has broken down – a distress purchase. Over 250,000 condensing boilers are expected to be installed in non-Priority households during the course of the EEC. In addition, there are expected to be a further 122,000 heating control upgrades which will not involve a boiler replacement. This figure does not represent the number of individual heating controls anticipated to be installed, but the number of households which will receive a package of heating controls eg, a programmer, a hot water tank thermostat and a delayed start thermostat. Where a supplier is installing Thermostatic Radiator Valves (TRVs) in a home, between four and six will be installed
- 5.29. The switching of coal and electric systems to gas central heating is less popular in the non-Priority Group due to the difficulties in identifying appropriate properties in the owner-occupier sector and the higher cost contribution which will be required from the householder. This point is further reinforced by the fact that half of the switches will be undertaken in conjunction with SHPs.
- 5.30. As in the Priority Group, CFLs are the most numerous of measures. Over 13.3 million are expected to be delivered overall, of which 4 million will be purchased by consumers through promotions in retail stores. The other 9 million will either be consumer purchases through mail-order offers or provided free to households, perhaps as part of an energy services package. It is very difficult to estimate the number of non-Priority Group households which will benefit from CFLs. To maximise the possibility that the household will use the CFLs that they purchase or are given, suppliers should limit mail-order offers to six per household and four

lamps when they are provided for free. This suggests that around 3 million non-Priority households will benefit from CFLs as part of the EEC.

- 5.31. The majority of A rated appliances promoted as part of the suppliers' EEC activity will be sold through retail outlets. Estimates from the suppliers' schemes suggest that over 4 million appliances will be purchased either through an "incentive" promotion whereby the consumer is incentivised to purchase a more efficient appliance or through a "trade-in" appliance scheme whereby the consumer receives a greater discount if they trade-in their current appliance for an A rated model. When considering that some householders may purchase more than one appliance eg, a fridge-freezer and a washing machine, it is estimated that around 3 million householders will benefit from at least one A rated appliance.
- 5.32. In summary, it is estimated that 400,000 non-Priority Group households will benefit from a professionally-installed insulation measure and a further 400,000 from DIY loft insulation. Around 100,000 households are likely to benefit from minor insulation measures and around 250,000 condensing boilers are expected to be installed. CFLs could be purchased by or provided to up to 3 million households with a further 3 million households purchasing at least one A rated appliance. This suggests between 5 or 6 million non-Priority Group households will benefit from an energy efficiency measure during the three years of the programme. These measures will more than offset the additional cost of the EEC.

Cost savings of the EEC

- 5.33. Figure 5.3 shows the annual average amount of money saved by the installation of different energy efficiency measures within Priority and non-Priority Group properties. The difference in the figures between Priority and non-Priority households is due to the larger property sizes, and hence heating demands, of non-Priority Group households and the larger amount of the improvement in energy efficiency which is taken as comfort as opposed to a financial saving.

Figure 5.3: The annual financial savings for different energy efficiency measures

Measure	Average annual saving (£)	
	non-Priority Group households	Priority Group households
Cavity wall insulation	58	35
Draught proofing	7	5
Fuel switching	405	450
Loft insulation (virgin)	92	56
Loft insulation (top up)	23	14
Replacement boiler	39	35
Single CFL	3	6
A-rated appliance	13	13

The improvement in energy efficiency which will be taken as an improvement (ie, heating more of the property or heating to a higher temperature) has been factored into the financial savings. A comfort factor of 15% has been applied for insulation measures installed in non-Priority households and 45% in Priority households. A comfort factor of 5% has been used for all heating measures and 7.5% for CFLs. The figures are based upon a gas price of 1.4p/kWh and an electricity price of 6.62p/kWh. For CFLs, an annual average usage of 1,250 is assumed for Priority Group households and 650 hours for non-Priority Group households.

- 5.34. The main point to note is that all of the energy efficiency measures, apart from draught proofing in Priority Group households and a single CFL, will save a dual-fuel household more money on their annual fuel bill than Defra's assumed cost of the EEC per consumer. As draught-proofing is likely to be installed only in conjunction with a major insulation measure and a householder is likely to purchase or receive around four CFLs, the households receiving these measures will also save more money on an annual basis than the cost of the EEC.
- 5.35. It is important to emphasise that the annual savings listed in Figure 5.3 represent the annual saving over the lifetime of the measure. The householder will continue to benefit from the energy efficiency improvement in the years after the EEC programme.

Households not likely to benefit from the EEC

- 5.36. As noted above, there are difficulties in estimating the number of Priority and non-Priority Group households which will benefit from the EEC as the likelihood of a household benefiting from multiple measures cannot be quantified. Best estimates

are that 5 million Priority households and between 5 and 6 million non-Priority Group households will receive at least one measure.

- 5.37. This represents 57% of the Priority Group households and 34% of the non-Priority Group households. Conversely, it suggests that 43% of the 8.8 million Priority Group households and 66% of the 16.2 million other households in Great Britain will not benefit from the EEC.
- 5.38. Suppliers are looking to carry out the majority of their Priority Group activity with SHPs. Priority Group householders who are owner-occupiers or who are living in private rented accommodation are less likely to receive any measures from the EEC. However, they could be eligible for free measures through the Warm Front, Welsh HEES and Warm Deal programmes.
- 5.39. It is clear from the data that the main measure suppliers are installing cavity wall insulation. Consequently, any consumer living in a solid wall property will be at a disadvantage although there may be scope for them to receive an alternative major measure such as loft insulation or a condensing boiler.
- 5.40. Other groups that will be excluded from receiving some measures will be those off the gas grid. Clearly these consumers will not be able to receive condensing gas boilers, although the installation of major insulation measures may be possible. Consumers that do not have access to the gas grid and live in a solid wall property are heavily disadvantaged. Consumers who are least likely to benefit from a major measure are those that live in blocks of flats where neither the cavity nor the loft can be filled and it is not possible to install a condensing boiler. All of the above having been said, all householders can benefit from measures in the EEC which could more than offset their indicative cost contribution. However, it is also the case that many households will not receive measures, and will therefore be worse off as a result of the EEC.

6. Emerging Issues

- 6.1. In view of the important decisions being taken this year on the design of the future programme it is important to learn as much as possible from the experience of the current EEC programme. This section outlines some of the key themes emerging at the end of the second year of the programme.

Achieving the target

- 6.2. Suppliers have accelerated their level of activity in the second year of the programme. Their overall level of activity is now higher than the average installation rate required to meet the target. At the end of the first year of the EEC suppliers were delivering savings at just below this indicative average. Almost all of the activity above the required installation rate is in the non-Priority Group but the suppliers are on track to meet their target of achieving at least half of their energy saving targets in the Priority Group.
- 6.3. Supplier reports showed varying levels of activity over the second year on a quarter-by-quarter basis. This almost certainly reflects the reporting cycle the suppliers have with their project partners. The important trend to note is that the rolling average of energy savings achieved by the suppliers has increased over the two years of the current EEC programme and, based on the data provided in the first quarter of the third year, has continued to increase. A comparison of the rolling average of supplier activity with the EEC 2 target setting methodology suggests that, at the end of the second year, the suppliers are installing measures at roughly 60% of the average rate which will be required to meet the target being proposed for the EEC post 2005. This implies that the suppliers are already gearing up their activity to meet the larger target anticipated in the EEC post 2005.

Suppliers' performance

- 6.4. The gap in the savings achieved by the suppliers widened from 10-56% in the first year to 5-100% in the second year. This excludes suppliers who have not contributed at all to meeting their targets. This variation not only reflects the differing strategies employed by the suppliers but changes in the supply market.

There was one new entrant into the EEC in the second year and one obligated company moved away from the supply market within the first year of the EEC but ensured that it met its target before exiting. Of the incumbent suppliers, suppliers that existed at the time of privatisation, the variation in achieved savings is from 65-90%, a narrowing of the gap from the first year.

- 6.5. Ofgem's review of the first year of the EEC noted that the variation in the incumbent suppliers' performance was in part dependent on integration with the Warm Front programme and the level of activity proposed with SHPs. In the second year those suppliers that are more dependent on working with SHPs have seen their activity pick up as these schemes with longer lead times have begun to pick up and those suppliers with lower activity achieved to the end of the first year have bridged the gap in the second year.

Targeting the Priority Group

- 6.6. Energy savings from the measures purchased by the suppliers from the Warm Front programme increased sharply in the second year. As a consequence, even though overall activity by the suppliers almost doubled in the second year, the activity in the Priority Group excluding measures purchased from the Warm Front programme has only increased by 25%. This emphasises the reliance of some suppliers on interacting with the Warm Front programme to meet their targets.

Lighting

- 6.7. Suppliers have increased their promotions of 100 watt-equivalent lamps in their schemes in the second year of the EEC. Most of these lamps have been distributed for free with the majority going to the Priority Group. Where suppliers are looking to sell lamps to consumers Ofgem has required that a range of wattages be offered; however, even where lamps are being sold, it is notable that the marketing encourages consumers to take up 100 watt equivalent lamps. If all these lamps are replacing 100 watt GLS lamps then the actual energy saving that the suppliers are being accredited with is being realised. If these CFLs are not replacing a GLS of an equivalent wattage then some of the energy saving that the suppliers are being accredited with is being compromised. The proposal to accredit only one type of energy saving for any CFL under the EEC (2005-08) should help overcome this issue.

6.8. Throughout the energy efficiency programmes there has been some concern that the suppliers have been sending out too many lamps to consumers and that some of these lamps are not being used. Ofgem has put in place a restriction on the numbers of lamps that can be sent to each householder by each supplier. This should ensure that the energy savings from the lamps are realised and more consumers can benefit from these measures. Our estimates suggest that more than 4 million households in the Priority Group will benefit from the EEC, primarily as a result of CFL schemes.

Market issues

6.9. Figure 6.1 outlines the suppliers who were set a target in 2002, 2003 and 2004. During the course of the second year of the EEC merger and acquisition activity slowed, and Atlantic Electric and Gas was the only new entrant to the EEC. In the third year of the EEC, Opus Energy and Telecom Plus were each set a target. In addition, at the beginning of the third year of the EEC Atlantic went into administration. The figure below outlines the organisations that were set targets in the first year and the changes that occurred at the beginning of the second year. Supply companies that have sold their consumers, but not their licences during the course of the EEC continue to be legally obliged to meet their energy efficiency target.

Figure 6.1: Suppliers who were set a target in 2002, 2003 and 2004

Suppliers set an initial target in 2002	Suppliers set a revised target in 2003	Suppliers set a final target in 2004
Amerada	-	-
-	Atlantic Electric and Gas	Atlantic Electric and Gas
British Gas	British Gas	British Gas
Cambridge Gas	Cambridge Gas	Cambridge Gas
Dee Valley Group	Dee Valley Group	Dee Valley Group
LE Group	LE Group (including the Seeboard Energy supply licence, rebranded to EDF Energy)	LE Group (including the Seeboard Energy supply licence, rebranded to EDF Energy)
npower	npower	npower
-	-	Opus Energy
Powergen	Powergen (including the Amerada supply licence)	Powergen (including the Amerada supply licence)
Scottish and Southern Energy	Scottish and Southern Energy	Scottish and Southern Energy
ScottishPower	ScottishPower	ScottishPower
Seeboard Energy	-	-
-	-	Telecom Plus
TXU	TXU	TXU

A review of the Energy Efficiency Commitment to the end of the second year
A report for the Secretary of State for Environment, Food and Rural Affairs

Other issues

- 6.10. Only the energy efficiency activity that the suppliers engage in under the EEC programme is reported on in this document. Almost all loft or cavity wall insulation measures are installed either through the EEC or through the Government's and the Devolved Administrations' fuel poverty schemes. However, with respect to the numbers of boilers being installed, evidence from the EST compared with the supplier schemes suggests that there is a large number of condensing gas boilers being installed outside the EEC. This is likely to be a response by independent installers to the anticipated change in the Building Regulations from April 2005.
- 6.11. Ofgem will continue to work closely with the suppliers in assessing their schemes, overseeing their progress and working with them to ensure that their completion reports demonstrate compliance with the legislation. It will continue to urge suppliers to bank their activity throughout the final year of the programme to prevent excessive reporting activity for both the suppliers and Ofgem in the final Quarter. Ofgem will also use the information collected through its role as administrator to help inform future energy efficiency policy and to inform our consultation on the administration procedures for the EEC (2005-08) which will be published later in the summer. Ofgem remains committed to working closely with Defra and to contributing constructively to the development of the EEC 2 post 2005.

Appendix 1 Glossary of terms

- 1.1 Additionality – Defra’s target setting model included measures which are considered business as usual. To ensure that a supplier’s scheme leads to an improvement in energy efficiency suppliers must demonstrate that each scheme includes measures which would not have been installed anyway. This is termed additionality.
- 1.2 BREDEM - Building Research Establishment Domestic Energy Model.
- 1.3 CFLs - Compact fluorescent lamps (energy efficient light bulbs).
- 1.4 CHP - Combined Heat and Power.
- 1.5 dCHP - Domestic Combined Heat and Power.
- 1.6 Defra - Department for Environment, Food and Rural Affairs.
- 1.7 EEC - Energy Efficiency Commitment.
- 1.8 EEC Order – the legislation for the EEC is set out in the Electricity and Gas (Energy Efficiency Obligations) Order 2001. This was amended by the Electricity and Gas (Energy Efficiency Obligations) (Amendment) Order 2003.
- 1.9 Fuel-standardised energy savings – energy savings that have been adjusted according to the carbon concentration of each fuel. These coefficients are set out in the EEC Order and are as follows: coal 0.56, electricity 0.80, gas 0.35, LPG 0.43 and oil 0.46.
- 1.10 GLS - General Lighting Service bulb.
- 1.11 GWh - Giga watt hour (1 million kilo watt hours).
- 1.12 Illustrative mix - Defra’s illustrative mix of measures is presented on its website and states that it represents a balanced selection of measures generally regarded as cost effective. In meeting their EEC obligation suppliers are free to choose their own mix of measures or include other measures, subject to approval by Ofgem.
- 1.13 Lifetime discounted - The projected energy savings for measures (as set out in Defra’s illustrative mix) will be discounted over the lifetime of that measure at the standard Treasury discount rate of 3.5% per year.

- 1.14 LPG - Liquid petroleum gas.
- 1.15 The Order - The Electricity and Gas (Energy Efficiency Obligations) Order 2001 Statutory Instrument number 4011.
- 1.16 Priority Group - defined in the EEC Order as those household receiving one of the follow benefits: 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.
- 1.17 SHP - Social Housing Provider- a Local Authority or a Registered Social Landlord.
- 1.18 Supplier activity - energy efficiency work undertaken by suppliers to meet their energy efficiency targets.
- 1.19 Target setting model - Defra's assumptions and the calculations used in setting the overall EEC target, as set out in Annex 1 of their consultation document.
- 1.20 TWh - Terra Watt hours (1,000 GWh).