

# A review of the fourth year of the Carbon Emissions Reduction Target

## Annual Report

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### Overview

This document details the suppliers' progress on the Carbon Emissions Reduction Target (CERT) 2008-2012.

CERT requires certain gas and electricity suppliers to meet a carbon emissions reduction obligation by promoting the uptake of energy efficiency measures in domestic properties in Great Britain.

Ofgem has a legal requirement to report annually to the Secretary of State for Energy and Climate Change on the CERT programme.

Suppliers are required to achieve an overall target of 293 million lifetime tonnes of carbon dioxide (Mt CO<sub>2</sub>) by 31 December 2012. With nine months of the programme remaining, their activity shows good progress overall, but that they have to increase the rate of delivery for the Super Priority Group and Insulation Obligations if they are to demonstrate compliance.

## Context

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The government has a range of policies to reduce the UK's greenhouse gas emissions by 80% by 2050. Around a quarter of current emissions result from the energy used to heat and power our homes. The Carbon Emissions Reduction Target 2008-12 (CERT) requires licensed gas and electricity suppliers to meet a carbon emissions reduction obligation. It is the main legislative driver for improving the energy efficiency of existing households in Great Britain. The Department of Energy and Climate Change (DECC) set the overall target for CERT. Ofgem administers the programme, determining the carbon emissions reduction obligation for each supplier and monitoring compliance.

On the 31 December 2012, the CERT scheme will close and will be superseded by the ECO and the Green Deal.

This report sets out the suppliers' performance during the first four years of CERT. It fulfils Ofgem's reporting duties to the Secretary of State under The Order.

## Associated documents

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- The Electricity and Gas (Carbon Emissions Reduction) Order 2008, Statutory Instrument 2008 No. 188
- Explanatory Memorandum to the Electricity and Gas (Carbon Emissions Reduction) Order 2008, 2008 No.188
- The Electricity and Gas (Carbon Emissions Reduction) (Amendment) Order 2009, Statutory Instrument 2009 No. 1904
- Explanatory Memorandum to the Electricity and Gas (Carbon Emissions Reduction) (Amendment) Order 2009, 2009 No. 1904
- The Electricity and Gas (Carbon Emissions Reduction) (Amendment) Order 2010, Statutory Instrument 2010 No. 1958
- Explanatory Memorandum to the Electricity and Gas (Carbon Emissions Reduction) (Amendment) Order 2010, 2010 No. 1958
- The Electricity and Gas (Carbon Emissions and Community Energy Saving) (Amendment) Order 2011, Statutory Instrument 2011 No. 3062
- Explanatory Memorandum to the Electricity and Gas (Carbon Emissions Reduction) (Amendment) Order 2011, 2011 No. 3062
- A review of the first year of Carbon Emissions Reduction Target, 1 August 2009



## A review of the fourth year of the Carbon Emissions Reduction Target

- A review of the second year of Carbon Emissions Reduction Target, 2 August 2010
- A review of the third year of Carbon Emissions Reduction Target, 25 August 2011
- Carbon Emissions Reduction Target (CERT) 2008-11 Supplier Guidance V3, February 2011.

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## Executive Summary

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This report fulfils Ofgem's reporting duties to the Secretary of State for Energy and Climate Change under the Electricity and Gas (Carbon Emissions Reduction) Order 2008 (as amended). The report contains information on progress towards the overall CER Target, together with information on each supplier's progress towards complying with its carbon emissions reduction obligation, Insulation Obligation, Priority Group Obligation, and Super Priority Group Obligation, as required.

The licensees belonging to six supplier groups were set an obligation under the CERT 2008-12: British Gas, EDF Energy, E.ON, npower, Scottish Power and Scottish and Southern Energy (SSE)<sup>1</sup>. Suppliers meet their obligations by setting up schemes to promote and deliver energy efficiency measures to domestic customers. At 31 March 2012, Ofgem had received 232 scheme submission notifications from obligated suppliers of which 220 had been formally approved. Outlined below are the key findings of the report.

### Overall CERT Progress

#### Overall CERT progress including EEC2 carryover

- At the end of the fourth year of CERT the suppliers combined had achieved 241.8 Mt CO<sub>2</sub> or 82.5% of the overall target of 293 Mt CO<sub>2</sub> (not accounting for innovation uplifts<sup>2</sup>).
- Priority Group carbon savings (including Super Priority Group) accounted for 42.8% of total carbon savings to date, against a target of 40%.
- 5.0 Mt CO<sub>2</sub> of carbon savings has been achieved towards the Super Priority Group Obligation of 16.2 Mt CO<sub>2</sub> (30.9% of the obligation).
- 39.7 Mt CO<sub>2</sub> has been achieved towards the Insulation Obligation of 73.4 Mt CO<sub>2</sub> (54.1%).
- Insulation activity<sup>3</sup> accounted for 64.0% of carbon savings.
- Lighting activity accounted for 21.4% of carbon savings.
- Microgeneration, heating, behaviour and appliance measures made up 14.6% of carbon savings achieved.
- 5.1 million professionally installed insulation measures have been reported.

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<sup>1</sup> Individual licences for each supplier group can be found in Appendix 1

<sup>2</sup> Carbon savings associated with certain types of activity are eligible for uplifts under the Order. These are applied at the end of the programme.

<sup>3</sup> All eligible insulation measures, including all DIY and professionally installed insulation since the start of the programme.

### **Key findings**

- In the fourth year of the scheme, activity levels have slowed. Approximately 44.5 Mt CO<sub>2</sub> were achieved, compared to 55.2 Mt CO<sub>2</sub>, 56.4 Mt CO<sub>2</sub> and 47.8 Mt CO<sub>2</sub> in Years 1-3 respectively. Therefore, in the final nine months of CERT, 51.2 Mt CO<sub>2</sub> will need to be delivered in order for suppliers to meet their overall target.
- Whilst the activity level in Year 4 is below that seen in previous years, the mix of measures promoted in Year 4 reflects the 2010 legislative amendment to the Order which prevented Compact Fluorescent Lamps (CFLs) from being approved as qualifying action by the Authority after April 2011, and the introduction of the Insulation Obligation and Super Priority Group Obligation.
- Whilst some progress has been made towards the Insulation and Super Priority Group Obligations, suppliers will need to significantly increase the rate of professionally installed insulation measures and more than double the present rate of activity in the Super Priority Group in order to meet their obligations.

## 1. Introduction

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- 1.1. The Carbon Emissions Reduction Target 2008-12 requires gas and electricity suppliers to achieve targets for a reduction in carbon emissions generated by the domestic sector.
- 1.2. In July 2009 and July 2010, the government introduced legislation to restructure and extend CERT to December 2012. Suppliers are required to achieve a revised overall target of 293 Mt CO<sub>2</sub> with at least 40% of the target to be met in relation to Priority Group consumers, who are defined as those in receipt of certain income-related benefits, or those over 70 years of age. CERT therefore also contributes towards alleviating fuel poverty.
- 1.3. The CERT legislation also introduced a Super Priority Group (SPG) and Insulation Obligation. These obligations are 16.2 Mt CO<sub>2</sub> and 73.4 Mt CO<sub>2</sub> respectively. The overall obligation, and sub-obligations, are set by DECC. Ofgem determines the individual obligations of qualifying energy companies and administers the programme.
- 1.4. Following the amendment Order of July 2010, Ofgem published an updated Supplier Guidance document (version 3) which set out how Ofgem will administer the scheme, including the administration of the Insulation Obligation and Super Priority Group Obligation.
- 1.5. In December 2011, following a consultation by DECC, the threshold for mandatory participation in CERT increased from 50,000 to 250,000 customers (individually, or within a group of companies) for the remaining period of the programme. There has been no change in the supplier groups whose licensees are obligated under the Order. Those obligated are: British Gas, EDF Energy, EON, npower, Scottish Power and Scottish and Southern Energy (SSE).
- 1.6. The 2010 amendment Order prevented further direct lighting activity from being approved as qualifying actions from 1 January 2010 and retail lighting activity (excluding LEDs) from 1 April 2011. Between January 2011 and March 2011, suppliers conducted a monitoring exercise to establish the extent of installation of CFLs by householders. It was determined that 89% of CFLs delivered in this period would be installed before the end of the programme. CFL carbon savings reported since April 2011 are due to some suppliers receiving improved CFL sales figures from Year 3, and the continuing sales of other lighting measures (e.g. halogen bulbs and LEDs).
- 1.7. Suppliers provide quarterly reporting data to Ofgem on the carbon savings and number of measures (on main measure types) that have been achieved to date from approved schemes (note this excludes savings from unapproved schemes). Ofgem undertakes checks on the data supplied and liaises with the suppliers over unexpected data points or trends. Before the data is published in the annual report, suppliers re-submit their quarterly report data and Ofgem undertakes an end of year reconciliation exercise. Where numbers provided in the tables do not exactly match those cited in the text, or numbers in tables do not sum to the totals, it is due to rounding.



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- 1.8. Should any obligated supplier fail to meet its CERT obligation, Ofgem would consider enforcement action at the appropriate time. Ofgem has powers, which include imposing significant financial penalties of up to 10% of an obligated party's annual turnover, which it could impose following an investigation.
- 1.9. For each year of the CERT programme, Ofgem is required to provide a report to the Secretary of State. Chapters 2 and 3 respectively detail each supplier group's overall progress towards the target, and their individual progress towards their obligation and sub-obligations. Chapter 4 covers the measures delivered under CERT. This chapter also considers the percentage of the overall target which has been met by all suppliers through the promotion of demonstration actions, behavioural measures and market transformation activity. Chapter 5 focuses on our analysis of the programme so far.



## 2. Overall progress to the end of the fourth year

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### Chapter Summary

This chapter outlines the suppliers' combined progress against the overall target of 293 Mt CO<sub>2</sub> during the first four years of CERT, focusing on carbon savings achieved. This chapter also presents the progress suppliers have made towards achieving the Insulation, Priority Group and Super Priority Group Obligations.

The information presented in this chapter is based on suppliers' approved scheme submissions and quarterly report returns.

This chapter fulfils Ofgem's reporting duties to the Secretary of State on overall progress towards the CER Target.

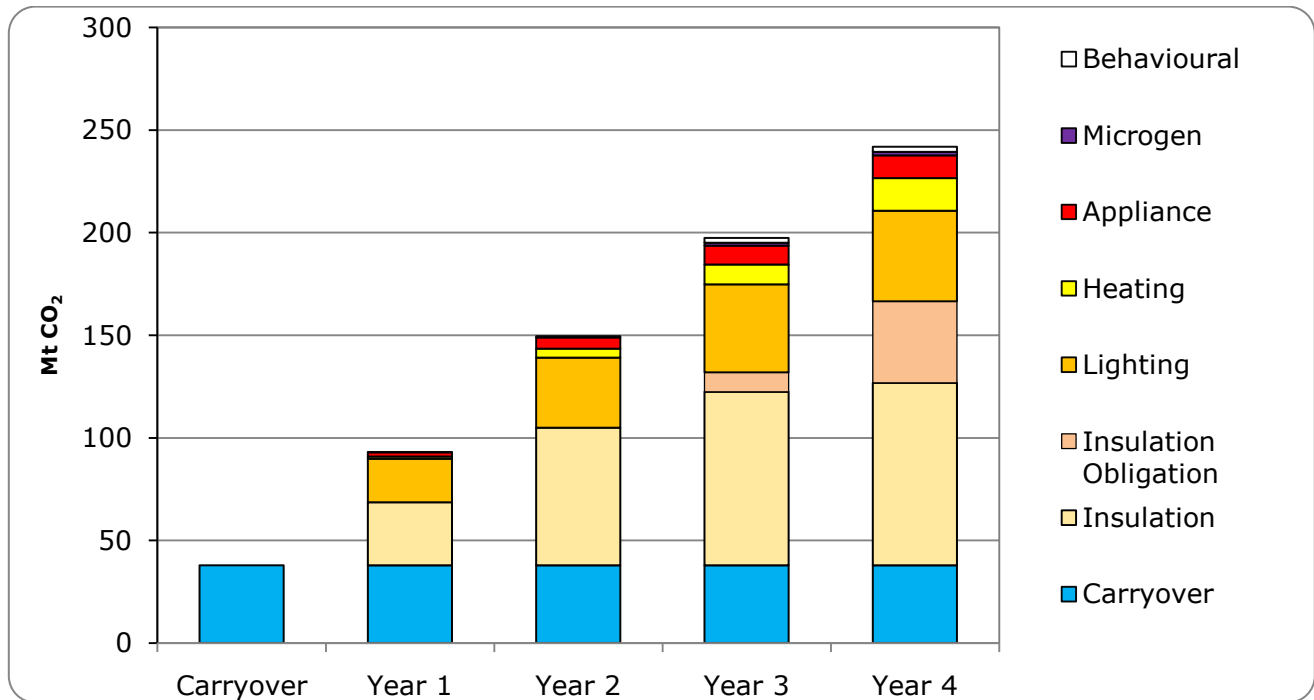
### Measures carried forward from EEC2

- 2.1. As reported in previous CERT annual reports, suppliers carried over carbon savings from the Energy Efficiency Commitment 2 (EEC2) into CERT of 37.8 Mt CO<sub>2</sub>. This accounts for 13% of the revised overall CER Target of 293 Mt CO<sub>2</sub>.

### Progress to the end of the fourth year

- 2.2. By the end of the fourth year, suppliers had delivered measures resulting in approximately 241.8 Mt CO<sub>2</sub> (including EEC2 carryover). This equates to 82.5% of the overall target of 293 Mt CO<sub>2</sub>.
- 2.3. Of the 241.8 Mt CO<sub>2</sub>, around 44.5 Mt CO<sub>2</sub> were achieved in the fourth year of the programme. This equates to 3.7 Mt CO<sub>2</sub> being achieved each month in Year 4. This run-rate is below the average level required to meet the overall target, which was around 5.1 Mt CO<sub>2</sub> per month since the beginning of the programme. In order to meet the target of 293 Mt CO<sub>2</sub> by 31 December 2012, suppliers will therefore need to increase their activity levels and achieve carbon savings at an average rate of 5.7 Mt CO<sub>2</sub> per month.

Figure 2.1. Carbon savings achieved to the end of the fourth year



## Measures delivered

- 2.4. Supplier activity can be broken down into seven main measure types: insulation<sup>4</sup>, insulation obligation, lighting, heating, microgeneration, behavioural and appliances. Carryover indicates eligible actions that were achieved in excess of the suppliers' obligations under the Energy Efficiency Commitment 2005-2008 (EEC2).
- 2.5. Figure 2.1 shows the cumulative carbon savings achieved year-on-year in the first four years of CERT, broken down by main measure type. Carbon savings from insulation measures have been sub-divided to split out savings that count towards the Insulation Obligation. There has been a relatively steady progression towards the overall CER target from the beginning of the programme, though the rate of delivery has slowed by 7% from Year 3 to Year 4.
- 2.6. Cumulatively from the beginning of the programme, insulation (including Insulation Obligation activity) accounts for 64.0% of total carbon savings (including carryover savings from EEC2). Lighting measures contributed the second highest savings, with 21.4%, heating equated to 8.3% and all other measures combined totalled 6.3%.

<sup>4</sup> All eligible insulation measures, including non-professionally installed measures such as DIY loft insulation



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- 2.7. In Year 4, insulation<sup>5</sup> delivery increased by 28% from Year 3 but remains lower than Year 2 levels. Year 2 contained a significant amount of DIY insulation; however, Year 4 does not (as DIY measures do count towards the Insulation Obligation). As in previous years, insulation continues to provide the largest contribution to overall savings, with the majority (87%) of insulation savings in Year 4 being eligible to be counted under the Insulation Obligation. The remaining 13% was primarily delivery through DIY loft insulation. The rate of delivery of microgeneration, behavioural, appliance and lighting measures decreased by varying degrees from Year 3 to Year 4. Conversely, the rate of delivery of heating measures has continued to grow within the CERT programme, increasing by 18% from Year 3 and contributing significantly to the overall carbon savings for Year 4.
- 2.8. Figure 2.2 shows how the delivered carbon savings are attributed to these main types, with a separate segment for the carbon savings carried over from EEC2. Table 2.1 presents these carbon savings as percentages, split between the first, second, third and fourth years of CERT, as well as showing carryover from EEC2.
- 2.9. In the first three years of the programme, insulation and lighting measures contributed the highest proportion of savings. This changed in Year 4, during which insulation and heating measures provided the highest proportion (59.8%). This is largely because, since April 2011, Compact Fluorescent Lamps (CFLs) have not been eligible for approval as qualifying action by the Authority under CERT.

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<sup>5</sup> Cavity wall insulation, professionally installed and DIY loft insulation and solid wall insulation.

Figure 2.2. Achieved carbon savings by measure type

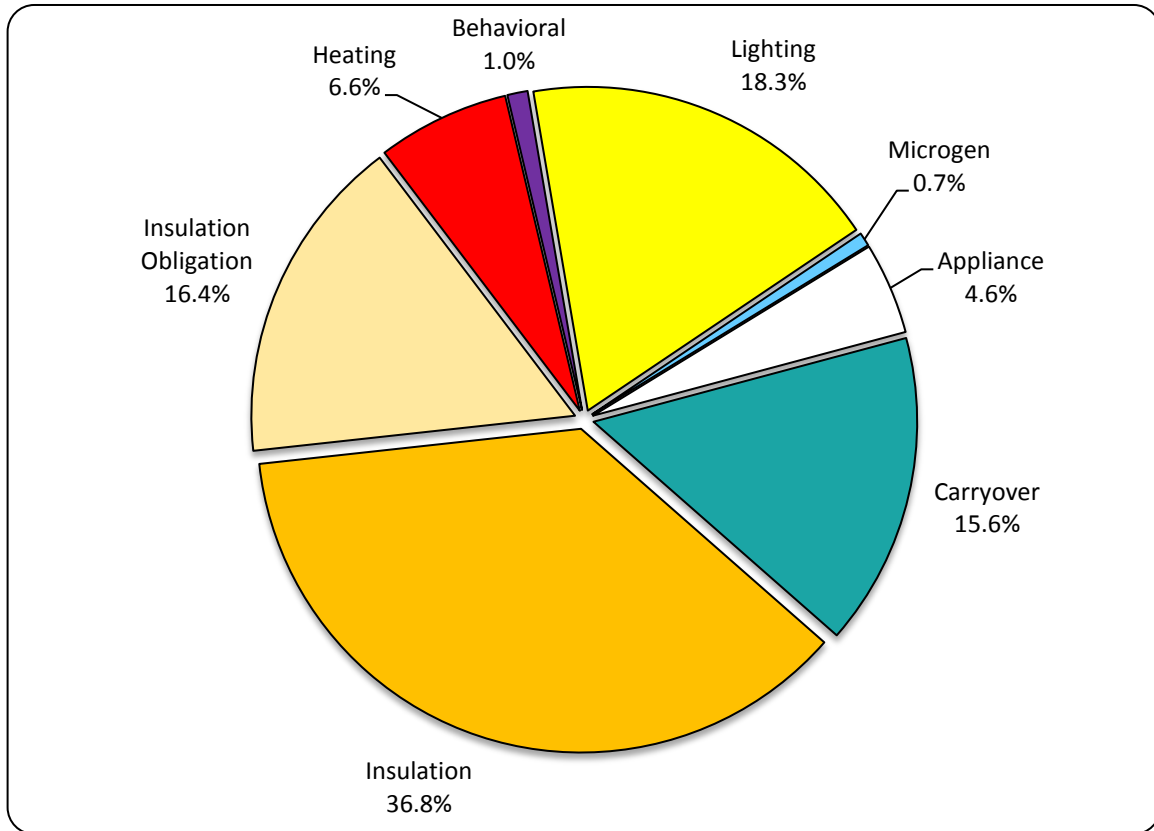


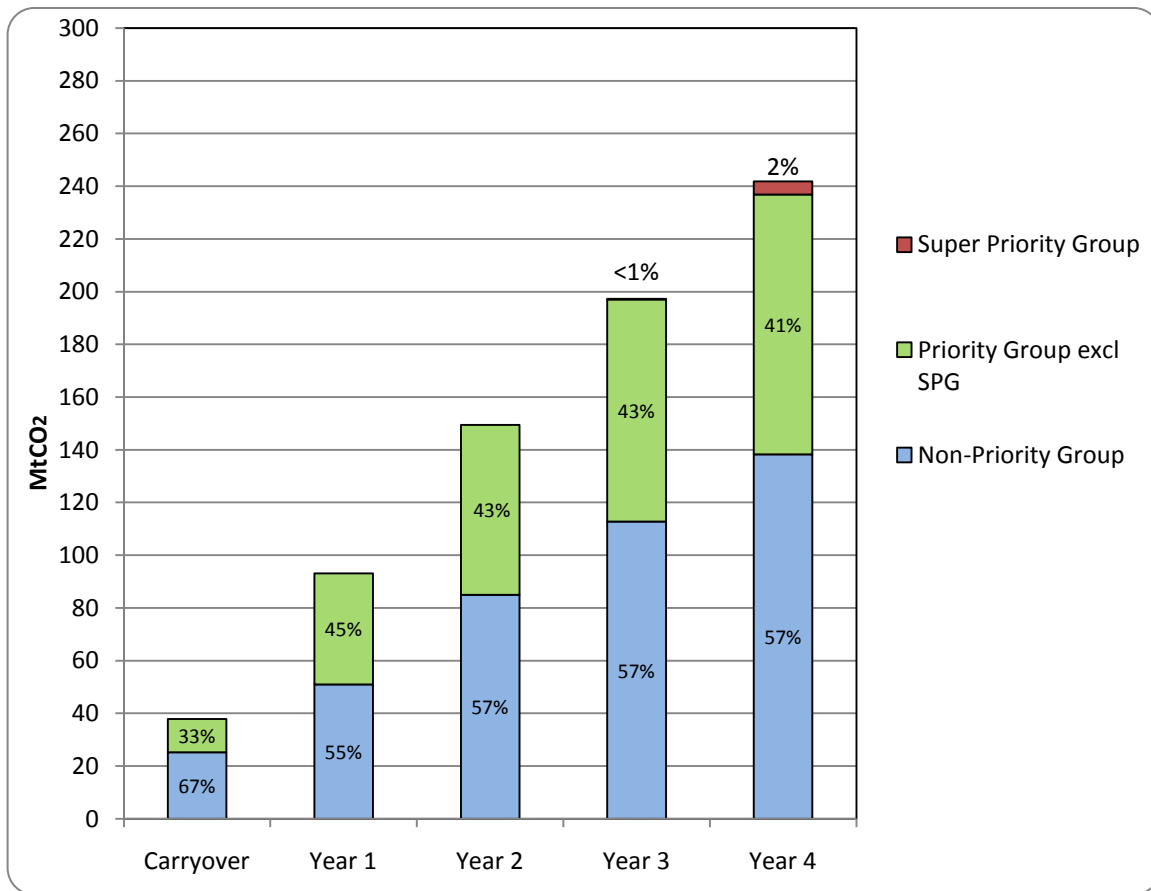
Table 2.1. Carbon savings by measure type and year as a percentage of total carbon savings achieved

Measure	Carryover	CERT Year 1	CERT Year 2	CERT Year 3	CERT Year 4
Insulation (including insulation obligation)	10.7%	12.7%	15.0%	11.1%	14.3%
Heating	1.7%	0.5%	1.3%	2.2%	2.6%
Lighting	3.1%	8.8%	5.4%	3.3%	0.8%
Appliance	<0.1%	0.8%	1.4%	1.6%	0.8%
Microgen	<0.1%	0.1%	0.2%	0.4%	<0.1%
Behavioural	0.0%	0.0%	0.0%	0.9%	0.1%

## The Priority Group and Super Priority Group

- 2.10. The Priority Group includes those aged 70 and over and those on a wider set of qualifying benefits. The Super Priority Group represents a sub-set of the Priority Group. It includes those on certain qualifying benefits, including households in receipt of child tax credits with an income under £16,190. Unless otherwise stated, the figures presented below as Priority Group include savings achieved towards the Super Priority Group.
- 2.11. Suppliers have achieved a combined total of 5.0 Mt CO<sub>2</sub> towards their Super Priority Group Obligation of 16.2 Mt CO<sub>2</sub> (30.9%). This represents just over 2% of total savings achieved under CERT (including EEC2 carryover). Suppliers will have to significantly increase their activity towards the Super Priority Group in order to achieve the 11.2 Mt CO<sub>2</sub> required in the final nine months of CERT to comply with their obligation.
- 2.12. Of the total carbon savings achieved by end of the fourth year of CERT (including EEC2 carryover), 42.8% resulted from measures installed in, or provided to, Priority Group households. This equates to around 103.6 Mt CO<sub>2</sub>. This is above the minimum 40% required by the legislation and indicates that the suppliers are on course to meet their overall Priority Group Obligation. The remaining 57.2% of savings achieved resulted from measures promoted to non-Priority Group households.

Figure 2.3. Achieved carbon savings by consumer type, split by Priority Group, Super Priority Group and non-Priority Group



2.13. Figure 2.3 shows the breakdown of carbon savings achieved in Years 1-4 of CERT and those carried over from EEC2, split by non-Priority Group, Priority Group and Super Priority Group. By the end of the fourth year of CERT, carbon savings achieved in the Priority Group and Super Priority Group (including EEC2 carryover) accounted for 40.8% and just over 2% respectively of the carbon savings achieved to date. The split between carbon savings delivered in the Priority Group and the non-Priority Group has remained the same as in Year 3, with non-Priority Group activity standing at 57.2%.

2.14. Figure 2.4 shows the proportion of carbon savings achieved at the end of the fourth year of CERT, by measure type, and split between Priority Group, Super Priority Group and non-Priority Group. Table 2.2 shows these carbon savings as percentages. Figure 2.4 shows that insulation carbon savings are fairly evenly split between the Priority Group and non-Priority Groups. Higher levels of lighting, heating and appliance activity were achieved in the non-Priority Group compared to the Priority Group. The vast majority of Super Priority Group carbon savings have been achieved through insulation activity with a small amount achieved through heating measures. Up to the end of Year 4 of CERT, no other measures have been delivered to the Super Priority

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Group in significant numbers. Suppliers have to date shown limited uptake of the opportunity to utilise secondary SPG measures, which can be claimed alongside the installation of a prescribed measure, as defined in the Order.

Figure 2.4. Achieved carbon savings by measure type and consumer type

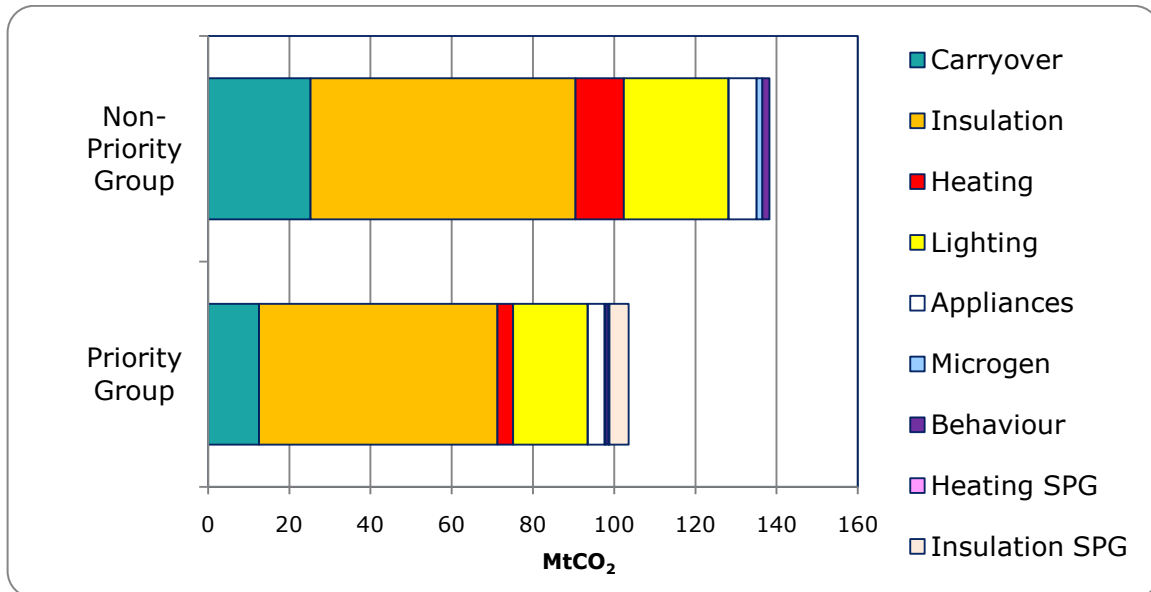


Table 2.2. Carbon savings in the Priority Group, Super Priority Group and non-Priority Group as a percentage of total carbon savings achieved

	EEC2 Carryover	Insulation	Lighting	Appliances	Heating	Microgen	Behavioural	Total
Non-Priority Group	10.4%	27.0%	10.7%	2.9%	4.9%	0.6%	0.7%	57.2%
Priority Group	5.2%	24.3%	7.6%	1.7%	1.6%	0.1%	0.3%	40.8%
Super Priority Group	0.0%	2.0%	0.0%	0.0%	<0.1%	0.0%	0.0%	2.0%

## 3. Each supplier's progress

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### Chapter Summary

This chapter presents each supplier's progress to the end of the fourth year of CERT. The information presented is based on the suppliers' schemes and their quarterly report returns.

This chapter fulfils Ofgem's reporting duties to the Secretary of State to provide information on:

- each supplier's progress towards its overall CERT obligation by the end of the fourth year of CERT
- the proportion of carbon savings delivered to the Priority Group, Super Priority Group and Insulation Obligation by the end of the fourth year of CERT

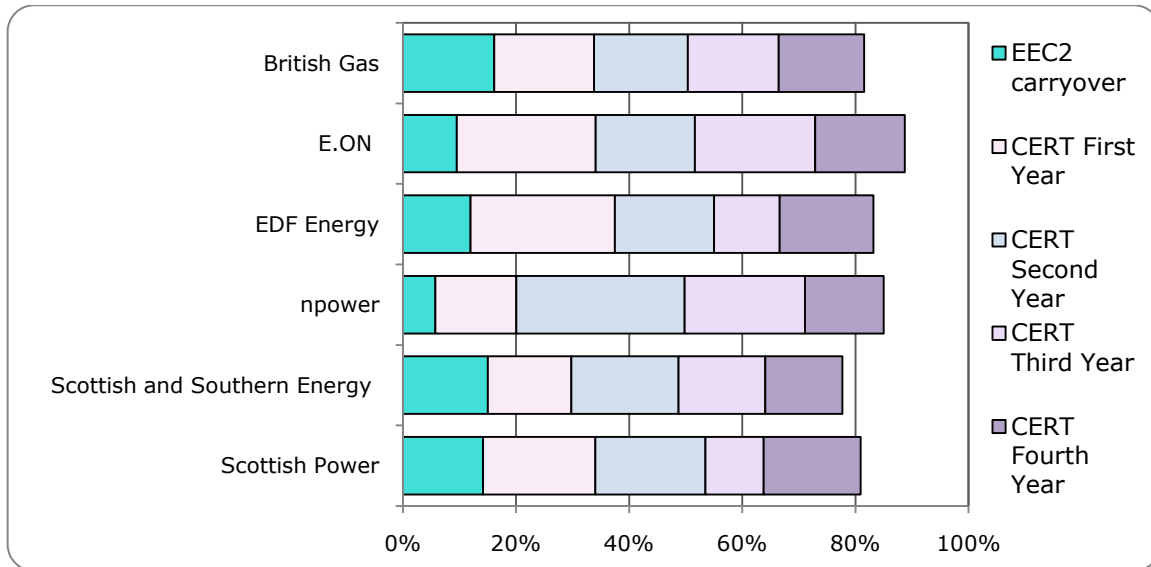
### Suppliers' Progress

- 3.1. In 2008, 2009, 2010 and 2011, six suppliers were set a carbon emissions reduction obligation according to the number of customers on their domestic licences. A list of these obligated licensees is shown in Appendix 1. Ofgem last set obligations for the CERT programme in February 2012. The achieved carbon savings detailed in this chapter have been compared against this final set of obligations.
- 3.2. The suppliers meet their obligations by setting up schemes to promote and deliver reductions in domestic carbon emissions. Suppliers have some flexibility in choosing the measure types that they promote to consumers. Based on a published set of guidelines, Ofgem assesses whether suppliers' proposals meet the requirements of the legislation and promote a reduction in carbon dioxide emissions.
- 3.3. As part of Ofgem's administrative duties, it also monitors each supplier's progress and compliance against their obligation. Ofgem determines for each scheme whether the activity can be considered a qualifying action under the Order, i.e. whether it achieves improvements in energy efficiency and reduces energy consumption. All qualifying actions must be completed by 31 December 2012 with completion reports, and final notifications of completed action, submitted to Ofgem by 31 January 2013.
- 3.4. Figure 3.1 provides a summary of the achieved carbon savings for each supplier as a percentage of each supplier group's total carbon emissions reduction obligation. The achieved carbon savings for each supplier is comprised of carbon savings carried forward from EEC2 and the carbon savings achieved in the first, second, third and fourth years of CERT.



3.5. It can be seen in Figure 3.1 that each supplier has achieved between 75-90% of their overall CERT obligations, with E.ON the closest to meeting its obligation, having achieved 88.7%.

Figure 3.1. Each supplier’s achieved carbon emissions savings as percentages of each supplier’s total carbon emissions reduction obligation



### British Gas

3.6. As presented in Figure 3.1, British Gas had achieved 81.5% of its obligation by the end of the fourth year of CERT. British Gas achieved 16.1% of its obligation with carbon savings from EEC2 carryover, with just over half being achieved in the first three years of CERT. In this fourth year of CERT, British Gas has achieved an additional 15.1% of its obligation.

3.7. By the end of the fourth year of CERT, British Gas had 44 scheme proposals approved by Ofgem. Of the 44 schemes, four schemes included elements of Insulation Obligation and Super Priority Group.

### Achieved Carbon Savings

Figure 3.2. British Gas – achieved carbon savings by measure type

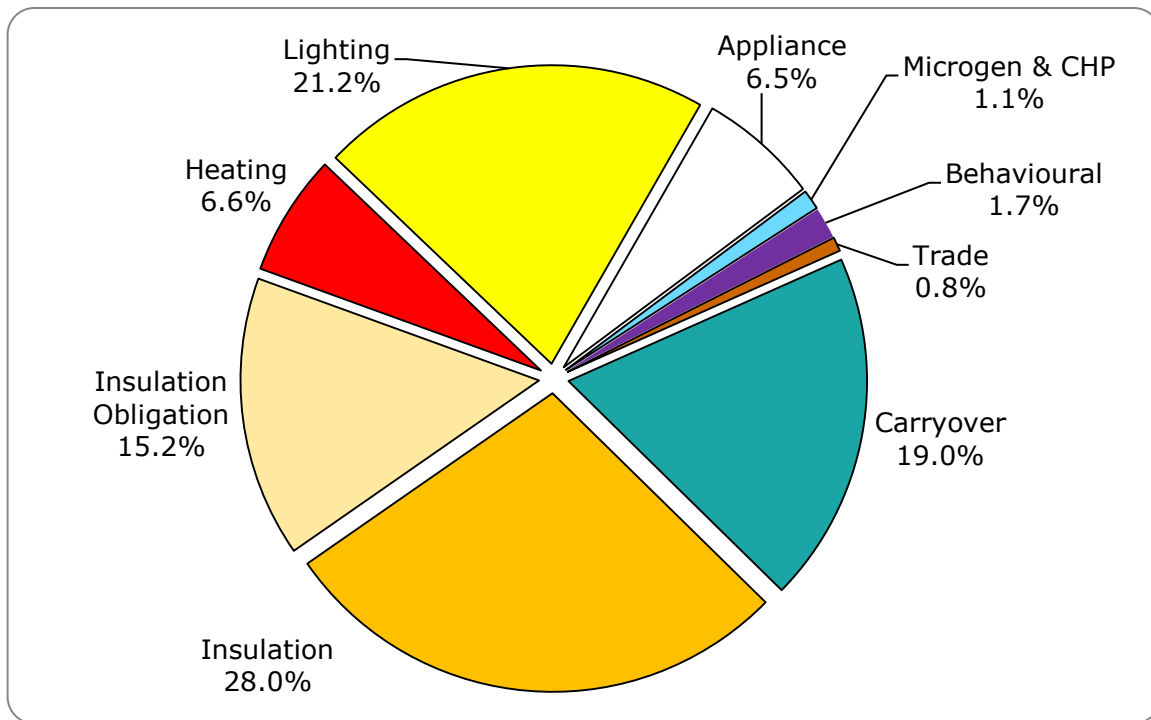


Table 3.1. British Gas – achieved carbon savings as a percentage of its obligation

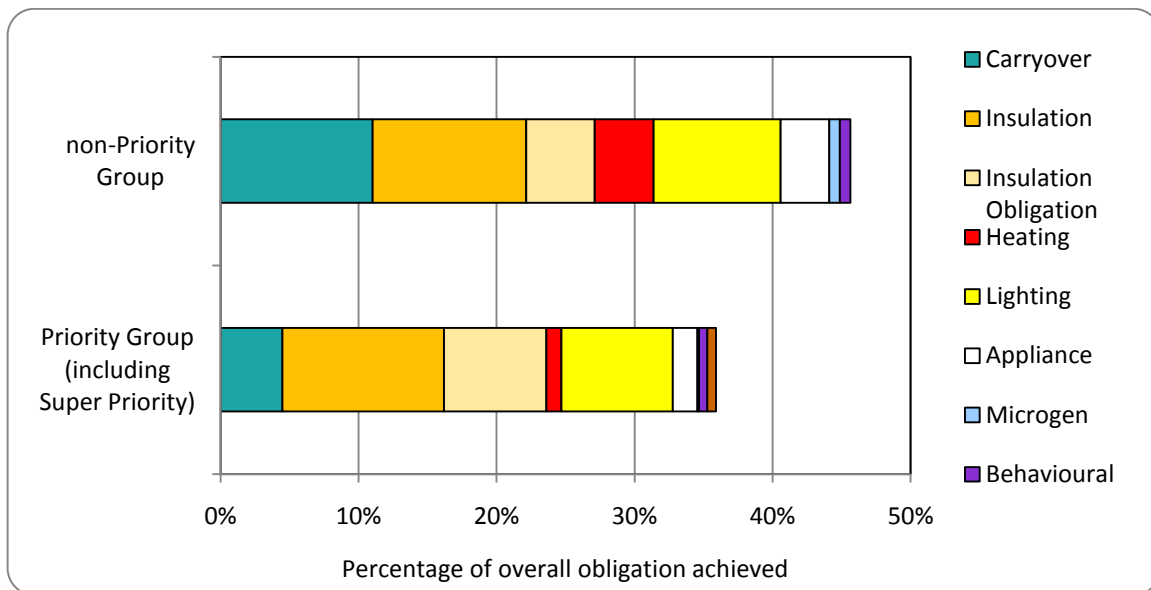
Measure	Carryover	CERT Year 1	CERT Year 2	CERT Year 3	CERT Year 4
Insulation	12.3%	7.1%	9.0%	3.8%	2.2%
Insulation Obligation	0.0%	0.0%	0.0%	2.0%	10.4%
Heating	2.6%	0.5%	0.7%	2.4%	1.8%
Lighting	1.2%	9.0%	4.8%	3.7%	0.4%
Appliance	<0.1%	1.0%	1.7%	2.6%	0.1%
Microgen	0.0%	0.1%	0.3%	0.4%	0.1%
Behavioural	0.0%	0.0%	0.0%	1.2%	0.1%

3.8. As presented in Figure 3.2, British Gas has delivered 43.2% of its carbon savings through insulation measures, in the first four years of CERT. Within the 43.2%, just over a third has been achieved towards the Insulation Obligation.

- 3.9. The split of insulation carbon savings is mainly between professional loft insulation, DIY loft insulation and cavity wall insulation. Solid wall insulation measures were also promoted but at a low level. Carbon savings from insulation have been achieved through a number of delivery routes including in partnership with social housing providers, direct targeting of the owner occupier sector and through retail.
- 3.10. Carbon savings from lighting measures accounted for 21.2% of British Gas' carbon savings in the first four years of CERT. In previous years, lighting had represented a higher percentage, but has fallen as insulation measures have increased. The majority of lighting activity took place in the first three years of CERT. Carbon savings for lighting also fell in the fourth year of CERT because of the results of the CFL monitoring exercise.
- 3.11. By the end of the fourth year of CERT, British Gas again achieved the highest amount of carbon savings through appliances out of all suppliers (6.5% of British Gas' total savings). Appliance carbon savings were achieved through a number of manufacturer and retail partnerships; high volumes of brown and white goods have been promoted through these routes.
- 3.12. Heating, microgeneration and behavioural measures account for 9.4% of British Gas' achieved carbon savings. These carbon savings have been achieved through the switching of households to lower carbon intensive fuels, promotion of microgeneration such as heat pumps, as well as promotion of Real Time Displays and home energy advice packages. British Gas is the only supplier to have promoted home energy advice packages in CERT.

### Targeting the Priority Group and Super Priority Group

Figure 3.3. British Gas – achieved carbon savings by consumer type as a percentage of its obligation





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- 3.13. As presented in Figure 3.3, of the 81.5% British Gas has achieved towards its carbon emissions reduction obligation, just over a third was achieved in the Priority Group. By the end of the fourth year of CERT, British Gas has achieved 89.8% of its Priority Group Obligation and 20% of its Super Priority Group Obligation.
- 3.14. As shown in Figure 3.3, roughly a fifth of British Gas's activity to date has been met through the delivery of insulation towards the Priority Group Obligation (this includes activity towards the Super Priority Group Obligation). Within this, around a third of this activity also counted towards their Insulation Obligation.
- 3.15. Similar amounts of carbon savings from lighting were also delivered to both groups, however, higher levels of carbon savings from appliances and heating were delivered to the non-Priority Group.
- 3.16. During the first, third and fourth years of CERT, British Gas traded a small share of their achieved carbon savings to other suppliers. A small share of carbon savings were also purchased from another supplier in the third year of CERT (marked as 'trade' in Figure 3.2 and 3.3).

### **EDF Energy**

- 3.17. As presented in Figure 3.1, EDF Energy had met 83.2% of its obligation by the end of the fourth year of CERT. EDF Energy had achieved 54.6% of its obligation in the first three years of CERT and a further 16.6% by the end of the fourth year, with the remaining 12% from EEC2 carry over. EDF Energy achieved the third lowest proportion of its overall obligation in the fourth year of CERT.
- 3.18. By the end of the fourth year of CERT, EDF Energy had 26 scheme proposals approved by Ofgem. Of the 26 schemes, four schemes included elements of Insulation Obligation and Super Priority Group.

### Achieved Carbon Savings

Figure 3.4. EDF Energy – achieved carbon savings by measure type

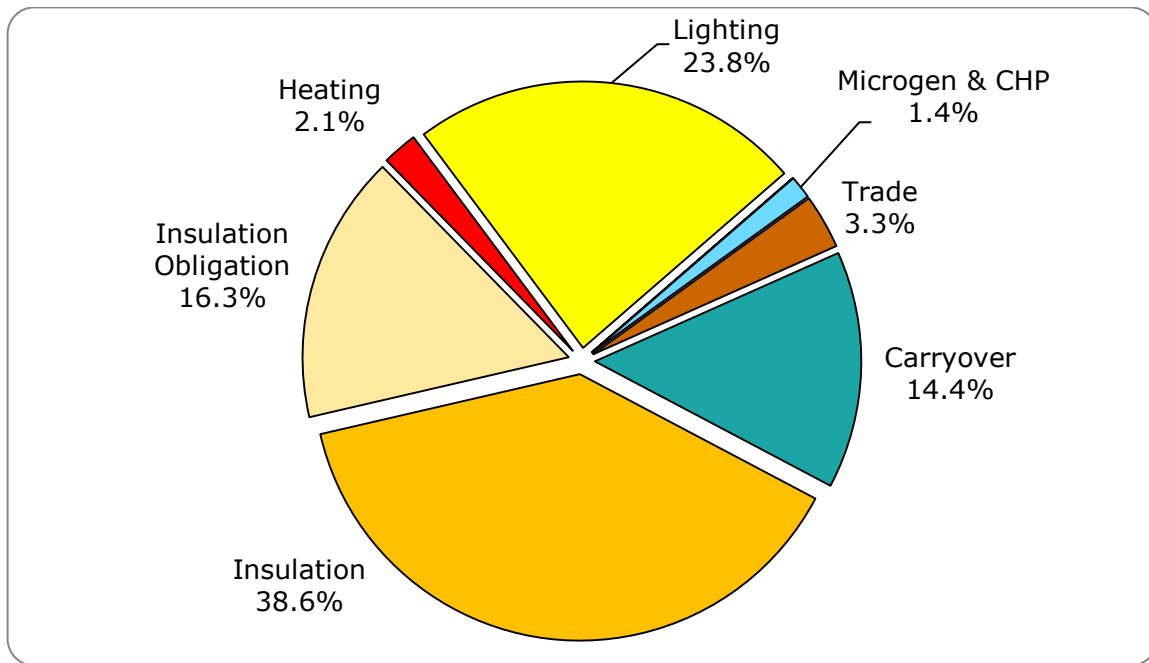


Table 3.2. EDF Energy – achieved carbon savings as a percentage of its obligation

Measure	Carryover	CERT Year 1	CERT Year 2	CERT Year 3	CERT Year 4
Insulation	10.0%	13.7%	10.4%	7.5%	3.1%
Insulation Obligation	0.0%	0.0%	0.0%	1.8%	11.7%
Heating	0.0%	0.0%	0.5%	0.3%	1.0%
Lighting	2.0%	11.7%	6.3%	1.4%	0.6%
Appliance	0.0%	0.0%	0.0%	0.0%	0.0%
Microgen	0.0%	0.1%	0.3%	0.5%	0.2%
Behavioural	0.0%	0.0%	0.0%	0.0%	0.0%

3.19. As shown in Figure 3.4, over half of EDF Energy’s carbon savings were delivered through insulation in the first four years of CERT. Within the 54.9%, just under a third was achieved towards their Insulation Obligation. Carbon savings from insulation were split mainly between loft and cavity wall insulation, with loft insulation having a higher proportion. A very small proportion of solid wall insulation measures were installed. Carbon savings



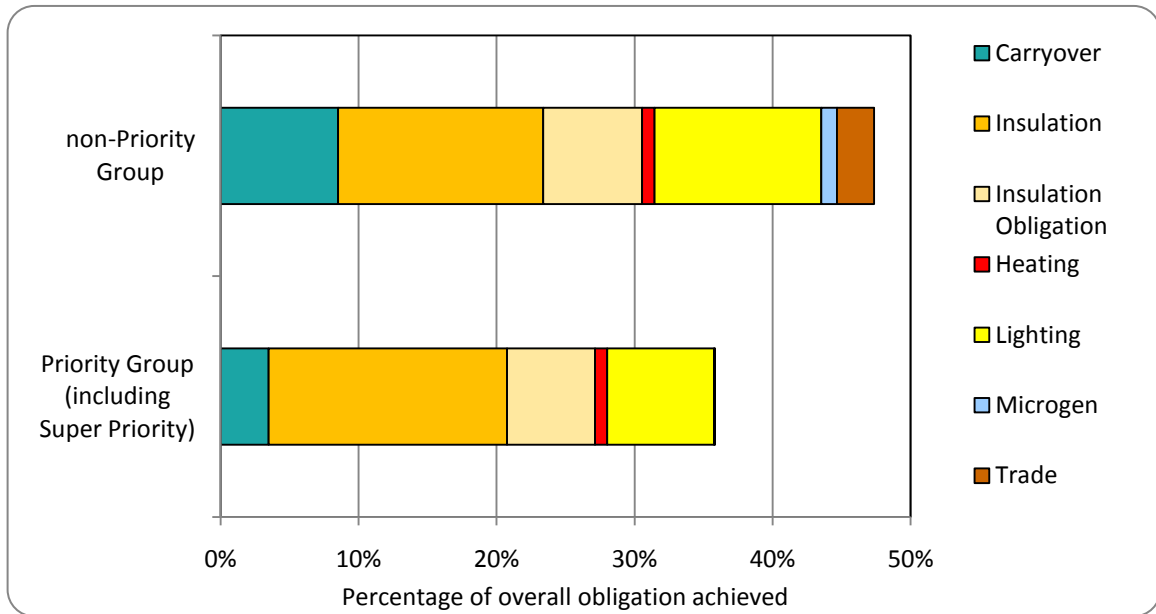
## A review of the fourth year of the Carbon Emissions Reduction Target

from insulation were mainly achieved through targeting the owner-occupier sector as well as through partnerships with social housing providers.

- 3.20. A proportion of insulation carbon savings are from DIY loft insulation. These carbon savings were achieved in the third year of CERT after EDF Energy set up a relationship with a retailer.
- 3.21. By the end of the fourth year of CERT, nearly a quarter of carbon savings achieved had been met through lighting activity. EDF Energy has achieved the highest overall proportion of carbon savings from lighting activity out of all the suppliers. Lighting carbon savings were achieved through a number of promotions with leading retailers, giveaways to their own customer base and in partnership with social housing providers and charities.
- 3.22. A very small proportion of carbon savings were met through heating and microgeneration by the end of the fourth year of CERT. Carbon savings for heating were achieved through partnership with social housing providers and microgeneration was delivered through installations of ground source heat pumps in private households.

### Targeting the Priority Group and Super Priority Group

Figure 3.5. EDF Energy – achieved carbon savings by consumer type as a percentage of its obligation



- 3.23. As shown in Figure 3.5, of the 83.2% that EDF Energy had achieved towards its carbon emissions reduction obligation by the end of the fourth year, two fifths counted towards their Priority Group obligation. EDF Energy has achieved 89.6% of its Priority Group obligation and 21.3% of its Super Priority Group obligation.

- 3.24. As shown in Figure 3.5, just under half of the Priority Group Obligation activity (including Super Priority Group) achieved to date has been met through insulation measures (including Insulation Obligation).
- 3.25. The delivery of lighting measures to non-Priority Group consumers accounted for 12.1% of EDF Energy's overall obligation. Heating and microgeneration made up a very small proportion of the overall carbon savings of less than 3%. EDF Energy had not achieved any carbon savings through appliances or behavioural measures by the end of fourth year of CERT.

### E.ON

- 3.26. By the end of the fourth year of CERT, E.ON had achieved 88.7% of its overall obligation. Just over 9.4% of its total obligation had been met through EEC2 carryover and 63.4% of its obligation has been delivered through activity in the first three years of CERT. E.ON achieved 15.9% of its obligation in the fourth year of CERT.
- 3.27. E.ON had 56 scheme proposals approved by Ofgem by the end of the third year of CERT, the highest number of all the suppliers. Of the 56 schemes, ten schemes included elements of Insulation Obligation and Super Priority Group.

### Achieved Carbon Savings

Figure 3.6. – E.ON – achieved carbon savings by measure type

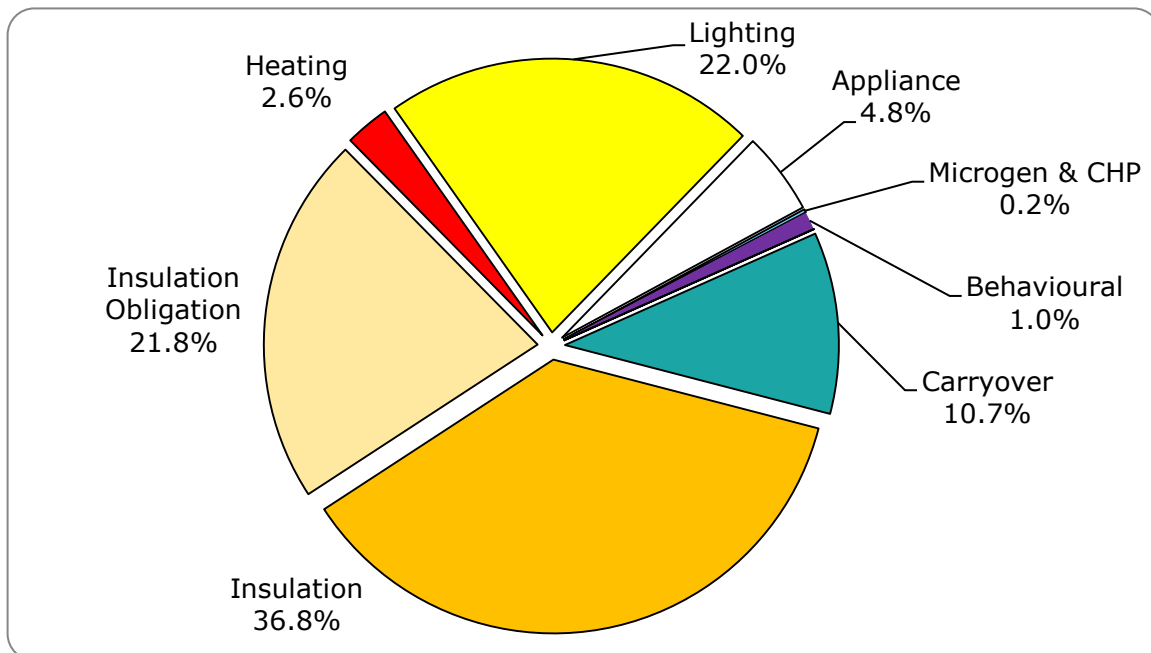


Table 3.3. – achieved carbon savings as a percentage of its obligation

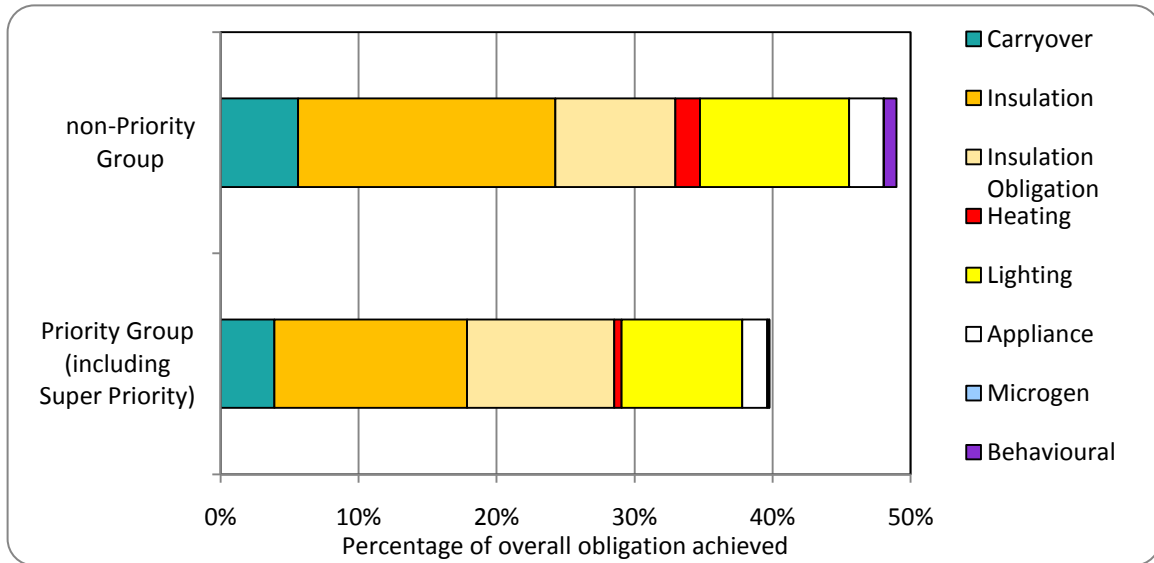
Measure	Carryover	CERT Year 1	CERT Year 2	CERT Year 3	CERT Year 4
Insulation	0.3%	12.3%	10.5%	7.1%	2.7%
Insulation Obligation	0.0%	0.0%	0.0%	8.3%	11.0%
Heating	0.5%	0.1%	0.2%	1.2%	1.0%
Lighting	8.6%	10.7%	6.2%	2.1%	0.6%
Appliance	0.0%	1.4%	0.5%	1.9%	0.5%
Microgen	0.0%	0.0%	0.1%	0.1%	0.0%
Behavioural	0.0%	0.0%	0.0%	0.6%	0.3%

- 3.28. E.ON has achieved 58.6% of its carbon savings to date from insulation measures. More than half of this was achieved towards the Insulation Obligation.
- 3.29. To achieve these insulation carbon savings, E.ON delivered, professionally installed loft insulation, DIY loft insulation and cavity wall insulation. A very small proportion of solid wall insulation measures were installed in the first four years of CERT. Carbon savings from insulation have mainly been achieved through targeting of the owner-occupier sector as well as through partnerships with social housing providers.
- 3.30. Carbon savings achieved through lighting were largely achieved in the first three years of CERT. This activity has been delivered in CERT through a number of delivery routes including partnerships with leading retailers, giveaway promotions, newspaper promotions and through partnerships with social housing providers.
- 3.31. The remainder of E.ON’s carbon savings to the end of the fourth year of CERT have come from appliances, behavioural measures, heating and microgeneration. Appliance carbon savings have been achieved by promoting both brown and white goods and behavioural carbon savings were achieved through the promotion of Real Time Displays through retailers and free giveaways, on consumer request. E.ON has been the only supplier to date to fund a small scale CHP project.



### Targeting the Priority Group and Super Priority Group

Figure 3.7. E.ON – achieved carbon savings by consumer type as a percentage of its obligation



3.32. As presented in Figure 3.7, of the 88.7% E.ON had met towards its overall obligation more than two fifths was eligible for the Priority Group obligation. E.ON has achieved 99.4% of its Priority Group obligation and 62.0% of its Super Priority Group obligation. E.ON has achieved the highest percentage of both their Priority and Super Priority Group obligations out of the six suppliers.

3.33. Carbon savings from microgen was marginally higher in the Priority Group, whereas the carbon savings for the rest of the measures were higher in the non-Priority Group. Similar amounts of carbon savings towards the Insulation Obligation had been delivered to both groups.

### npower

3.34. By the end of the fourth year of CERT, npower had met 85.0% of its obligation. Of the suppliers, npower, along with E.ON, has achieved the highest proportion of carbon savings in the fourth year of CERT. Only 5.7% of progress towards its obligation was met through EEC2 carryover. This makes npower the supplier which has met the lowest proportion of its obligation through EEC2 carryover. Npower achieved 13.9% of its obligation in the fourth year of CERT.

3.35. npower had 45 scheme proposals approved by Ofgem by the end of the fourth year of CERT. Of the 45 schemes, 14 schemes included elements of insulation obligation and Super Priority Group.

**Achieved Carbon Savings**

Figure 3.8. – npower – achieved carbon savings by measure type

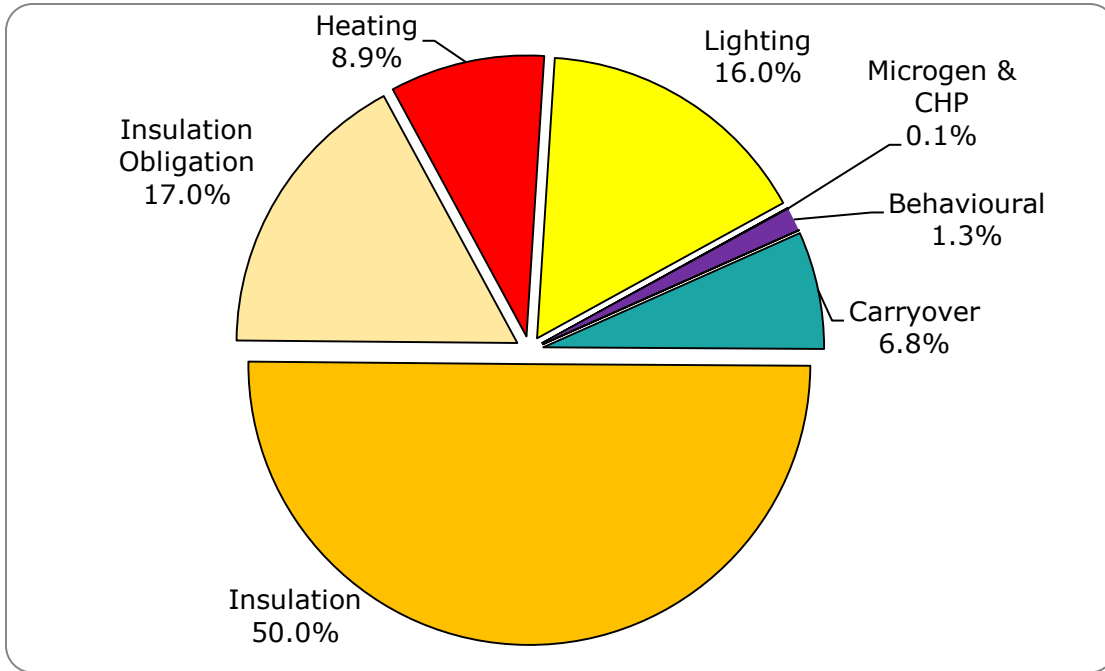


Table 3.4. npower – achieved carbon savings as a percentage of its obligation

Measure	Carryover	CERT Year 1	CERT Year 2	CERT Year 3	CERT Year 4
Insulation	4.2%	12.4%	20.3%	9.1%	0.7%
Insulation Obligation	0.0%	0.0%	0.0%	4.0%	10.5%
Heating	1.5%	0.2%	3.2%	1.5%	2.6%
Lighting	0.0%	1.6%	6.1%	5.6%	0.2%
Appliance	0.0%	0.0%	0.0%	0.0%	0.0%
Microgen	0.0%	0.0%	0.1%	0.0%	0.0%
Behavioural	0.0%	0.0%	0.0%	1.1%	0.0%

3.36. As presented in Figure 3.8, by the end of the fourth year of CERT, npower achieved just over two thirds of its total carbon savings through insulation delivery. For the last 3 years npower have been consistent in meeting the highest proportion of their target via insulation measures. Activity in the fourth year focussed on the insulation obligation. Within the 67.0% of



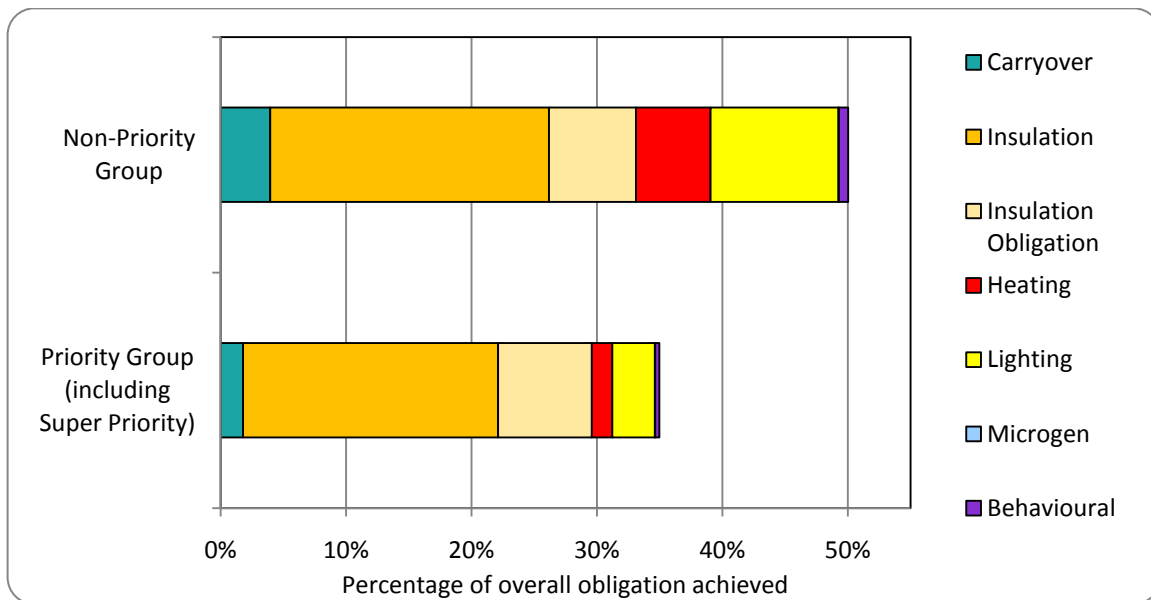
## A review of the fourth year of the Carbon Emissions Reduction Target

insulation carbon savings achieved, a quarter was achieved by measures within the Insulation Obligation.

- 3.37. The fourth year has seen an increase in professionally installed measures, as npower work towards their Insulation Obligation. npower delivered professional loft insulation and cavity wall insulation, with professional loft insulation achieving the highest proportion.
- 3.38. Lighting measures account for 16.0% of total carbon savings towards its obligation. Lighting activity has slowed dramatically in the fourth year of CERT, largely due to the ineligibility of CFLs.
- 3.39. npower achieved 8.9% of its total carbon savings through heating measures. These carbon savings have been achieved through switching of households to lower carbon intensive fuels, replacement boilers as well as through the promotion of shower regulators to customers who requested them.
- 3.40. A small amount of the target has been met through microgeneration. The measures delivered are solar hot water heating, solar PV and heat pumps.
- 3.41. No appliance activity has been undertaken by npower and no appliance schemes have been submitted.

### Targeting the Priority Group and Super Priority Group

Figure 3.9. npower – achieved carbon savings by consumer type as a percentage of its obligation



- 3.42. As presented in Figure 3.9, npower has achieved 85.0% towards its overall obligation, two fifths of this has been achieved in the Priority Group. npower has achieved 87.4% of its Priority Group obligation and 47.6% of its Super



## A review of the fourth year of the Carbon Emissions Reduction Target

Priority Group obligation. npower is one of the suppliers who have achieved the most against their Super Priority Obligation.

- 3.43. Similar amounts of insulation activity were achieved in both Priority Group and non-Priority Group. As shown in Table 3.4, Insulation Obligation activity remained consistent with the third year; however, non-Insulation Obligation activity decreased in Year 4.

### Scottish and Southern Energy

- 3.44. As presented in Figure 3.1, Scottish and Southern Energy (SSE) had achieved 77.7% of its obligation by the end of the fourth year of CERT. Overall activity levels have dropped slightly, from 15.3% in the third year to 13.6% in the fourth year.

- 3.45. By the end of the fourth year of CERT, SSE had 42 scheme proposals approved by Ofgem. Of the 42 schemes, eight schemes included elements of insulation obligation and Super Priority Group.

### Achieved Carbon Savings

Figure 3.10. SSE – achieved carbon savings by measure type

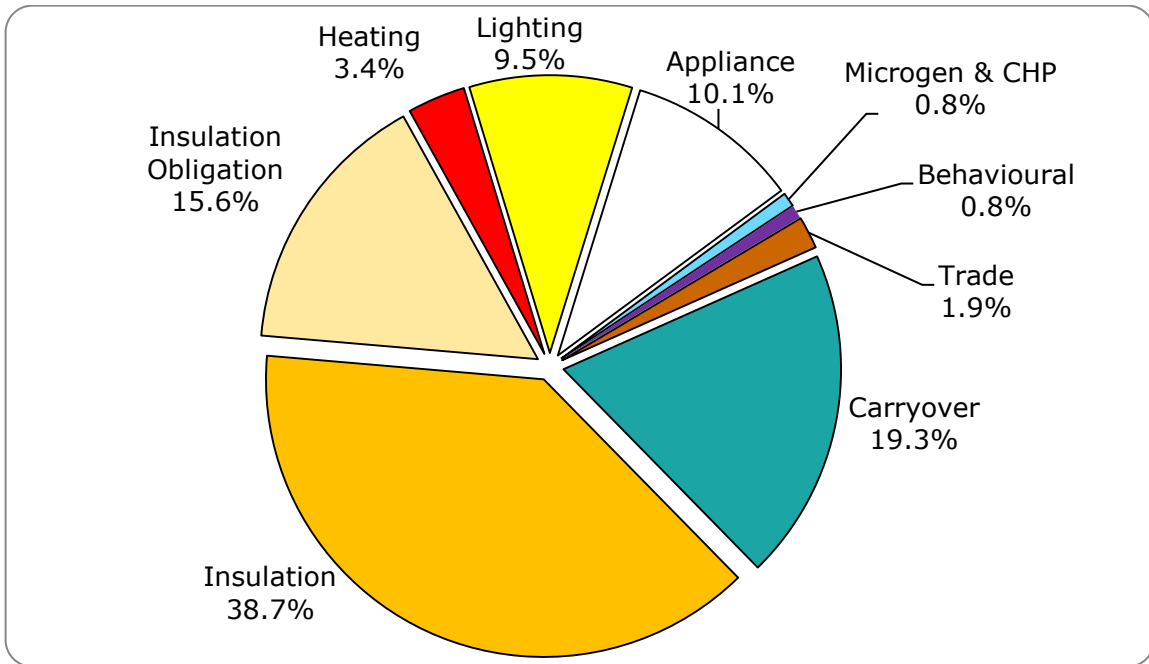


Table 3.5. SSE – carbon savings achieved as a percentage of its obligation

Measure	Carryover	CERT Year 1	CERT Year 2	CERT Year 3	CERT Year 4
Insulation	12.2%	8.9%	14.5%	6.7% <sup>6</sup>	0.0%
Insulation Obligation	0.0%	0.0%	0.0%	3.1%	9.0%
Heating	1.2%	0.6%	0.4%	0.7%	0.9%
Lighting	1.5%	4.6%	0.9%	1.2%	2.0%
Appliance	0.1%	0.6%	3.2%	0.9%	3.2%
Microgen	0.0%	0.0%	0.0%	0.6%	0.0%
Behavioural	0.0%	0.0%	0.0%	0.6%	0.0%

- 3.46. SSE delivered more than half of its carbon savings from insulation measures. A total of 54.3% of carbon savings were achieved through insulation to the end of the fourth year of CERT, of which just over a quarter was delivered towards their Insulation Obligation.
- 3.47. The savings attributed to insulation in Year 3 have been reduced from 8.2% to 6.7% by SSE. Part of this decrease is due to some de-duplication activities between suppliers; however, the majority is due to the re-evaluation of insulation from Year 3 and counting eligible measures towards their Insulation Obligation in Year 4 instead. By the end of the fourth year of CERT, SSE has achieved the highest level of solid wall insulation activity out of all suppliers.
- 3.48. SSE’s lighting activity accounted for 9.5% of its progress so far, with the vast majority of the activity conducted in the first two years of CERT.
- 3.49. Carbon savings achieved through appliances account for 10.1% of SSE’s activity to the end of the fourth year. SSE is the supplier that has delivered the second highest amount of carbon savings from appliances. The carbon savings have predominately been achieved through a number of brown and white goods schemes. As per Table 3.5, it can be seen that the level of carbon savings achieved through appliance measures has increased significantly in the fourth year and is comparable with activity in Year 2 of CERT.
- 3.50. Heating and microgeneration account for 4.2% of SSE’s activity. These carbon savings had been achieved through switching of households to lower carbon intensive fuels, as well ground source heat pumps and solar water heating installations.

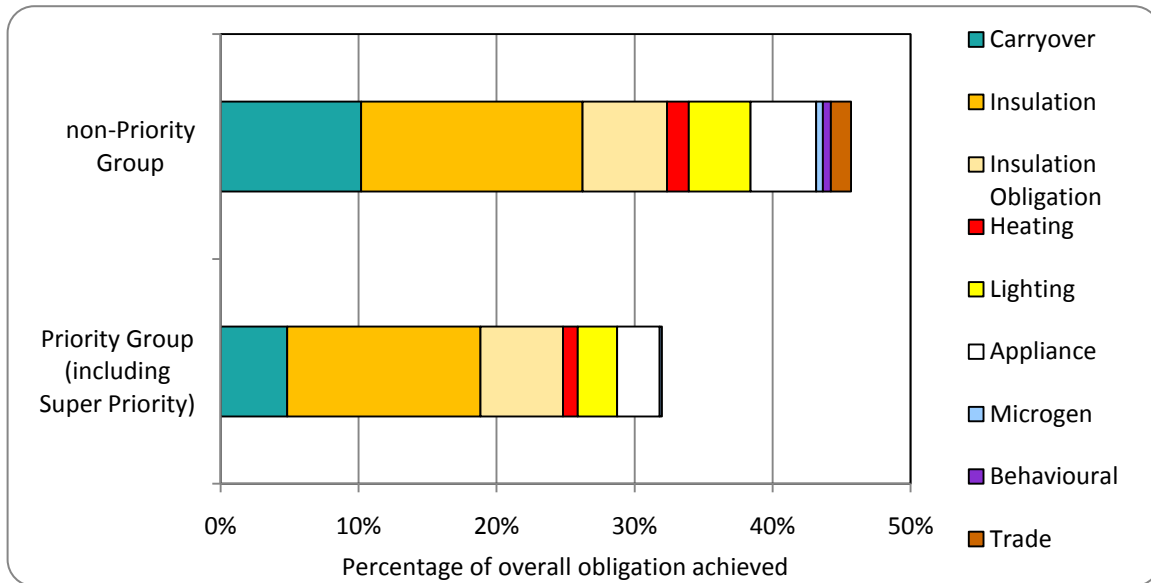
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<sup>6</sup> 1.5% of carbon savings due to Insulation have been removed from the savings reported in year 3. Where eligible, SSE has included this activity in year 4 Insulation Obligation savings.

3.51. Behavioural activity makes up 0.8% of SSE’s activity, which has been achieved through the promotion of Real Time Displays.

**Targeting the Priority Group and Super Priority Group**

Figure 3.11. SSE – achieved carbon savings by consumer type as a percentage of its obligation



3.52. As shown in Figure 3.11, SSE have completed 77.7% towards their overall obligation; two fifths of this progress has contributed towards the Priority Group obligation. SSE has achieved 79.9% of its Priority Group obligation and 27.5% of its Super Priority Group Obligation.

3.53. EEC2 carryover, insulation and insulation obligation carbon savings make up the majority of the total carbon savings achieved towards the Priority Group Obligation.

**Scottish Power**

3.54. As presented in Figure 3.1, Scottish Power had achieved 80.9% of its obligation by the end of the fourth year of CERT. In the third year we saw a slowdown in reporting of activity while Scottish Power’s internal systems were set up to report on Insulation Obligation and Super Priority Group Obligation. The fourth year saw a rise in activity and 17.2% of the overall target was achieved, which is similar to activity levels seen in the first and second year.

3.55. By the end of the fourth year of CERT, Scottish Power had seven scheme proposals approved by Ofgem. Of these schemes, Scottish Power has two schemes which include elements of Insulation Obligation and Super Priority Group.

### Achieved Carbon Savings

Figure 3.12. Scottish Power – achieved carbon savings by measure type

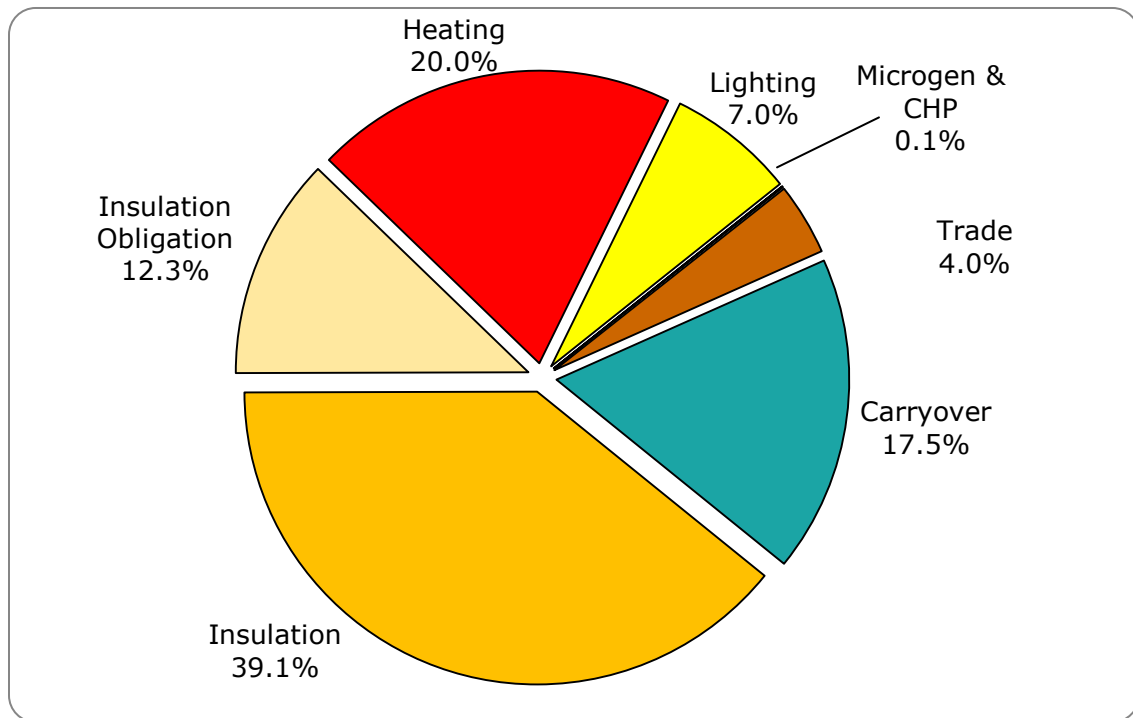


Table 3.6. Scottish Power – carbon savings achieved as a percentage of its obligation

Measure	Carryover	CERT Year 1	CERT Year 2	CERT Year 3	CERT Year 4
Insulation	9.7%	15.6%	14.2%	2.1%	1.8%
Insulation Obligation	0.0%	0.0%	0.0%	0.0%	9.9%
Heating	0.8%	0.8%	2.9%	4.9%	7.6%
Lighting	3.7%	3.5%	2.3%	1.1%	0.0%
Appliance	0.0%	0.0%	0.0%	0.0%	0.0%
Microgen	0.0%	0.0%	0.0%	0.1%	0.0%
Behavioural	0.0%	0.0%	0.0%	0.0%	0.0%

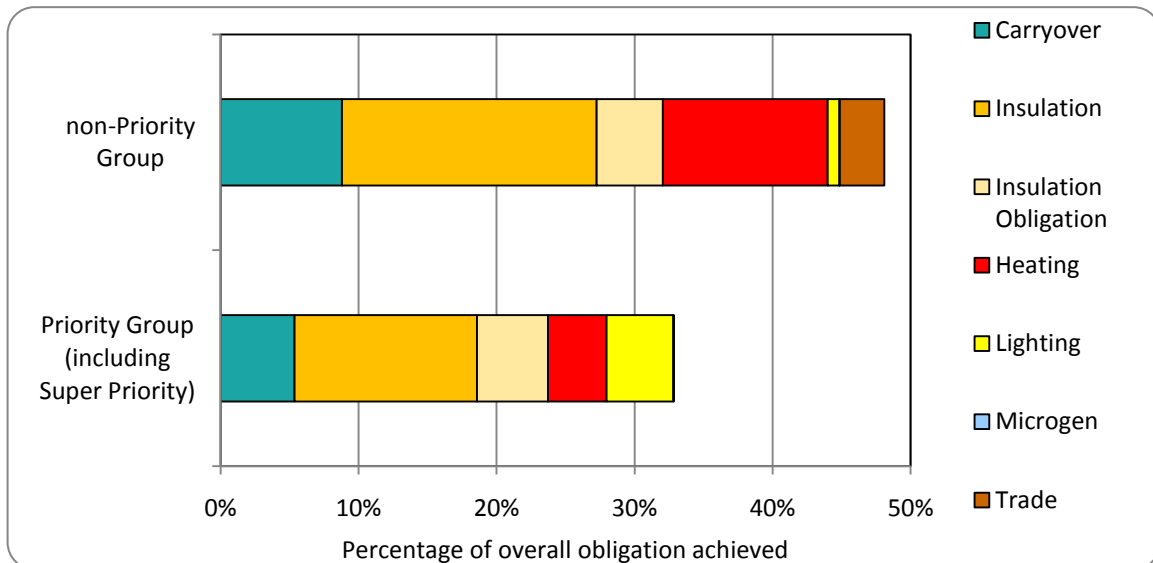


## A review of the fourth year of the Carbon Emissions Reduction Target

- 3.56. As presented in Figure 3.12, insulation measures (including Insulation Obligation) installed to the end of the fourth year of CERT account for just over half of carbon savings achieved by Scottish Power. This is split mainly between cavity wall insulation and professionally installed loft insulation. A small number of solid wall insulations were also promoted.
- 3.57. Scottish Power achieved the lowest proportion of carbon savings from lighting activity. Table 3.6. shows that the majority of carbon savings attributed to lighting were achieved in the first two years of CERT. The savings attributed to lighting in Year 3 have been reduced from 3.2% to 1.1% to reflect that these savings were purchased via a trade with another supplier.
- 3.58. Scottish Power achieved the highest proportion of carbon savings from heating measures out of all suppliers. There has been a consistent year on year increase in the proportion of carbon savings delivered through heating measures.
- 3.59. Air source heat pumps account for the majority of microgeneration carbon savings, which represent a very small proportion of overall savings. These were achieved in the third and fourth years of CERT.
- 3.60. No appliance activity has been undertaken by Scottish Power and no appliance schemes have been submitted under CERT.

### Targeting the Priority Group and Super Priority Group

Figure 3.13. Scottish Power – achieved carbon savings by consumer type as a percentage of its obligation



- 3.61. As shown in Figure 3.13, two fifths of Scottish Power’s activity towards the overall obligation was eligible for the Priority Group Obligation. Scottish Power has achieved 82.1% of its Priority Group obligation and 12.2% of its Super Priority Group obligation.





## A review of the fourth year of the Carbon Emissions Reduction Target

- 3.62. The largest share of carbon savings to the Priority Group came from the installation of insulation measures (including Insulation Obligation measures), followed by lighting and heating.
- 3.63. Scottish Power has purchased a share of carbon savings from another supplier that is equivalent to 4.0% of their overall progress to date (marked as 'trade' in Figure 3.12 and 3.13).

## 4. Measures delivered during the first four years

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### Chapter Summary

This chapter provides information on the types, volumes and delivery routes of measures that suppliers have promoted up to the end of the fourth year of CERT. Where appropriate, the information presented covers the measures carried over from EEC2 in addition to those achieved in the four years of CERT.

This chapter fulfils Ofgem's reporting duties to the Secretary of State on the progress towards the overall CERT obligation which has been met by all suppliers through the promotion of behavioural measures and market transformation activity.

### Measures

#### Overall delivery mechanisms

- 4.1. Suppliers have continued to use a range of delivery mechanisms to deliver the obligation in the fourth year of CERT. These have included partnering with organisations such as social housing providers and charities, promoting measures direct to households, partnering with manufacturers and retailers, linking in with government programmes such as the Warm Front Programme and installing measures in new build properties in partnership with housing developers.

#### Overall number of measures

- 4.2. Table 4.1 details the number of installations in the four years of CERT, excluding EEC2 carryover, for the majority of measure types. These measure numbers have been reported to Ofgem solely for the purposes of this annual report. The table details the number of measures installed split between the non-Priority Group, Priority Group (which includes Super Priority Group) and Super Priority Group alone.

Table 4.1. The number of measures installed, excluding EEC2 carryover

Measure	Number of measures installed <sup>7</sup>			
	Total nPG and PG (inclusive of SPG)	nPG	PG (inclusive of SPG)	SPG
Cavity wall insulation	2,103,150	1,001,735	1,101,414	75,758
Professional LI	2,915,389	1,024,732	1,890,657	135,593
DIY LI (m <sup>2</sup> )	90,765,919	73,588,156	17,177,763	0
Solid wall insulation	47,405	14,506	32,899	1,074
Draught proofing	21,172	7,290	13,882	286
Window glazing (m <sup>2</sup> )	30,138,591	30,023,317	115,273	0
Hot water tank jackets	289,321	243,385	45,937	4,492
Radiator panels (m <sup>2</sup> )	167,683	134,165	33,518	2,549
Under-floor insulation	0	0	0	0
Flat-roof insulation	0	0	0	0
Fuel switching	90,476	47,652	42,824	3,665
Shower regulators	8,651,572	7,053,438	1,598,134	0
Replacement boilers	56,450	44,390	12,060	2,029
Heating controls installed with and without replacement boilers	2,306,849	1,979,173	327,676	6,300
Communal heating - number of heating systems	397	396	1	0
CFLs	303,555,479	175,420,480	128,134,999	0
Other lighting	663,964	492,836	171,128	0
LED lighting	1,409	765	644	0
Energy Efficient cold and wet appliances	2,875,758	2,244,870	630,888	0
Standby savers	5,442,049	3,113,588	2,328,461	6,753
TVs	30,324,293	19,393,364	10,930,930	0
Ground Source heat pump	4,497	3,779	718	0
Air Source heat pump	2,121	1,463	658	0
Solar Water Heating (m <sup>2</sup> )	3,091	3,079	12	0
Small scale CHP	1	0.5	0.5	0
Solar PV	108	108	0	0
Wind turbines	0	0	0	0
Large scale CHP	1	0.5	0.5	0
Small biomass boilers	0	0	0	0
Small hydro	0	0	0	0
Real Time Displays	2,412,883	1,706,279	706,604	0
Home Energy Advice	28,571	6,622	21,949	0

<sup>7</sup> Does not include measures carried over from EEC2

## Insulation

### Number of measures

- 4.3. Excluding carryover from EEC2, suppliers achieved a total of 128.7 Mt CO<sub>2</sub> through insulation measures (including measures counting towards the Insulation Obligation).
- 4.4. Loft insulation was the most popular insulation measure installed, with nearly 3 million households benefiting from professional installations. In addition to this, nearly 91 million square metres of CERT subsidised DIY loft insulation was promoted (with approximately 2.2 million homes benefiting). There was an increase of 23% in DIY loft insulation carbon savings achieved in Year 4 compared to Year 3 of CERT. This is the second most popular insulation measure, with only professionally installed loft insulation having greater take up. All insulation measures, including EEC2 carryover, account for 64% of the carbon savings achieved by the end of the fourth year of CERT.
- 4.5. By the end of the fourth year of CERT, cavity wall insulation was the third most prevalent measure with over 2.1 million households benefitting. Suppliers also achieved nearly 50,000 installations of solid wall insulation. Most of these installations involved external solid wall insulation. Table 4.1 shows examples of other insulation measures that were promoted including draught-proofing, window glazing and hot water tank jackets.
- 4.6. To date there have been no reported installations of either under floor insulation or flat roof insulation claimed from approved schemes.
- 4.7. Table 4.2 shows the split of carbon savings achieved through insulation by consumer type at the end of the fourth year of CERT. Super Priority Group savings have increased since Year 3.

Table 4.2. The contribution of total carbon savings from installed insulation (professional and DIY) to the end of the fourth year of CERT, including EEC2 carryover

Non-Priority Group	Priority Group (including Super Priority Group)	Super Priority Group
34.9%	29.1%	2.0%

### Delivery routes

- 4.8. Insulation measures were delivered through a variety of routes including retail promotions, partnering with manufacturers and working with the government's Warm Front Programme. The vast majority, though, were delivered by direct promotion to private households and through partnerships with social housing providers.

- 4.9. Activity carried out in partnership with social housing providers remains popular with the suppliers as it allows them to target large numbers of Priority Group (and Super Priority Group) households, as well as lever in additional funding from the social housing providers to help towards the cost of the measures. In many instances suppliers offered insulation to the Priority Group free of charge and some suppliers offered cash incentives to attract those in the Super Priority Group.

## Lighting

### Number of measures

- 4.10. Suppliers achieved a total of 44.2 Mt CO<sub>2</sub> through lighting measures by the end of the fourth year of CERT (excluding carryover from EEC2).
- 4.11. Suppliers delivered just over 300 million lighting measures in the first three years of CERT (over 350 million including EEC2 carryover). During the fourth year, there was very little lighting activity, with only one new scheme for LED lighting approved. Table 4.1 shows that nearly all lighting measures distributed were Compact Fluorescent Lamps (CFLs), which were distributed up to the end of the third year of CERT; only a small number of energy efficient halogens, luminaires and LEDs have been promoted during CERT. Lighting accounted for 21.4% of the total carbon savings achieved (including EEC2 carryover).
- 4.12. There have been a total of 23 lighting schemes under CERT, with each supplier having at least one lighting scheme. Table 4.3 shows that a higher proportion of the carbon savings from lighting measures were achieved in the non-Priority Group. Table 4.3 is based on carbon savings from all energy efficient lighting types; CFLs, halogens, luminaires and LEDs.

Table 4.3. The contribution to total carbon savings from lighting at the end of Year 4 of CERT, including EEC2 carryover

Non-Priority Group	Priority Group (including Super Priority Group)	Super Priority Group
12.5%	8.9%	0.0%

### Delivery routes

- 4.13. The 2010 amendment Order prevented further direct lighting activity from being approved as qualifying actions from 1 January 2010 and retail lighting activity (excluding LEDs) from 1 April 2011. A CFL monitoring exercise was conducted on the number of CFLs sold between 1 January and 31 March 2011 to ascertain the volume that had been or were likely to be installed before the end of CERT. Ofgem determined that 89% of all CFLs (and associated savings) promoted during this period were to be counted under CERT. Ofgem wrote to suppliers advising them of the findings. Suppliers have adjusted their figures and the revised totals are included in this report.

- 4.14. All types of lighting delivered are limited to those products accredited under the Energy Saving Trust's Recommended programme.

## Heating

### Number of measures

- 4.15. Excluding carryover, suppliers achieved a total of 16.0 Mt CO<sub>2</sub> through heating measures by the end of the fourth year of CERT.
- 4.16. Heating measures contributed just less than a tenth (including EEC2 carry over) of the total carbon savings achieved (Table 4.4). The majority of these carbon savings were delivered by shower regulators which physically impose a limit on how quickly water can flow through a shower head. This saves hot water and thus reduces water heating costs as well as saving energy and carbon. Shower regulators are an innovation in the heating category and suppliers first promoted them during the first year of CERT.
- 4.17. The second most popular heating measure was fuel switching e.g. replacing an electric heating system with a gas fired heating system. Fuel switching was promoted to just over 90,000 households, with over 20,000 in Year 4. This is an increase of 29.2% on carbon savings in the first three years of CERT.
- 4.18. The majority of the carbon savings achieved by all heating measures have been in the non-Priority Group (see Table 4.4).

Table 4.4. The contribution of total carbon savings from installed heating to the end of the fourth year of CERT, including EEC2 carryover

Non-Priority Group	Priority Group (including Super Priority Group)	Super Priority Group
5.6%	2.7%	0.1%

### Delivery routes

- 4.19. Shower regulators were mainly offered to consumers for free on request, with a small number also distributed via retail channels. The remainder of the heating schemes were largely delivered in partnership with social housing providers or through direct promotion to private households.

## Appliances

### Number of measures

- 4.20. By the end of the fourth year of CERT, suppliers achieved a total of 11.1 Mt CO<sub>2</sub> through appliances (excluding carryover).



A review of the fourth year of the Carbon Emissions Reduction Target

- 4.21. Carbon savings achieved by appliances account for 4.6% of the total achieved in the four years of CERT, including EEC2 carryover.
- 4.22. Three of the six obligated suppliers promoted appliances through multiple schemes. The carbon savings generated by these schemes, however, are small due to the relatively small carbon saving that is achieved per measure.
- 4.23. Appliances that are eligible under CERT include cold appliances rated A+ or A++ (excluding chest freezers, for which A rated appliances are permitted), energy efficient TVs, standby savers and energy efficient kettles. Some suppliers have explored using other products, being awarded scores for innovative consumer electronics, and information and communications technology measures such as standby devices and smart plugs.

Table 4.5. The contribution of total carbon savings from installed appliances to the end of the fourth year of CERT, including EEC2 carryover

Non-Priority Group	Priority Group (including Super Priority Group)	Super Priority Group
2.9%	1.7%	0.0%

**Delivery routes**

- 4.24. Cold appliances are eligible in three ways:
  - incentive schemes (where the supplier incentivises more efficient appliances to a consumer who is already intending to purchase an appliance);
  - trade-in schemes (where consumers replace appliances with a more efficient equivalent); or
  - fridgesaver schemes (similar to the trade-in scheme but limited to the Priority Group).
- 4.25. Both the trade-in and fridgesaver schemes require existing appliances to be destroyed in a specified manner.
- 4.26. The majority of other schemes delivering appliances have been carried out in partnership with a manufacturer. In the case of consumer electronics, suppliers typically fund promotional activity for energy efficient models, contribute to research and development into product efficiency, or directly subsidise the cost of the product itself. Promotions in retail stores have also been a popular delivery method. There has been relatively little activity in this area in Year 4.

## Microgeneration

### Number of measures

- 4.27. Excluding carryover, suppliers achieved a total of 1.6 Mt CO<sub>2</sub> through microgeneration measures by the end of the fourth year of CERT.
- 4.28. Microgeneration measures represent a small proportion of the total carbon savings achieved to date, contributing less than 1% of activity. The most common measures are ground source and air source heat pumps which have been installed in 6,618 households; an increase in carbon savings of 20.4% on the total achieved by the end of the third year of CERT, and solar water heating, now installed in 773 households, has increased by just over half from the end of the third year.
- 4.29. The majority of the carbon savings achieved were delivered to the non-Priority Group. From 1 April 2011, carbon savings can only be achieved in the Super Priority Group as microgeneration measures are now limited to this group. No microgen activity has been delivered to SPG households to date.

Table 4.6. The contribution of total carbon savings from installed microgeneration to the end of the fourth year of CERT, including EEC2 carryover

Non-Priority Group	Priority Group (including Super Priority Group)	Super Priority Group
0.6%	0.1%	0.0%

### Delivery routes

- 4.30. Microgeneration schemes were delivered almost exclusively through three routes:
- through promotion to private householders (with professional installation)
  - in new build properties in partnership with housing developers
  - a small minority of schemes have seen suppliers partner with manufacturers.

## Behavioural measures

### Number of measures

- 4.31. Suppliers achieved a total of just under 2.5 Mt CO<sub>2</sub> through behavioural measures by the end of the fourth year of CERT.
- 4.32. Behavioural measures contributed 1% of the total carbon savings achieved. The vast majority of this was achieved through Real Time Displays (RTDs). Over 2.4 million RTDs were promoted up to the end of the fourth year of



CERT. Although there has been an increase overall, there has been some movement of savings from the Priority Group into the non-Priority Group as suppliers identified that fewer were promoted within the Priority Group than originally thought.

- 4.33. The other behavioural measure that was promoted was home energy advice packages (HEAPs); however, they have only been promoted by one supplier. The number of HEAPs conducted has not increased since the end of the third year and still stands at 28,571.
- 4.34. Both RTDs and HEAPs are eligible for Market Transformation uplifts.
- 4.35. The carbon savings achieved were mostly delivered to the non-Priority Group (see Table 4.7).

Table 4.7. The contribution of total carbon savings from behavioural measures to the end of the fourth year of CERT.

non-Priority Group	Priority Group (including Super Priority Group)	Super Priority Group
0.7%	0.3%	0.0%

### Delivery routes

- 4.36. RTDs were delivered through a variety of routes including retail promotions, partnerships with social housing providers and promoted to consumers for free on request. The Order sets out that an RTD and a HEA is only an eligible measure when provided to a domestic energy user who has requested it. Ofgem has ensured that suppliers' schemes have been specifically designed to ensure that requests are made before any RTD and HEAPs are given to consumers.

### Demonstration action

- 4.37. Demonstration actions are trials, performed under the Order, for measures to which a firm quantified carbon saving cannot yet be attributed. In order to qualify, the measure must be reasonably expected to achieve a reduction in carbon emissions.
- 4.38. Demonstration actions provide an alternative route to the more traditional independent trial route, which is done at the expense of the manufacturer and/or supplier. Under a demonstration action, suppliers are accredited with a carbon reduction that is based on their financial investment in the trial, irrespective of whether or not the trial produces quantifiable carbon savings for the product. DECC introduced this delivery route to encourage innovation and suppliers are choosing this route for a number of different technology types.

- 4.39. Upon completion of a demonstration action the results must be published and, where appropriate, a carbon saving and lifetime score awarded. At this point suppliers are free to promote the product as a standard or market transformation action under the programme, should they choose.
- 4.40. Sixteen demonstration action proposals have been submitted in the four years of CERT; eight of which have been approved. The total value of approved Demonstration Actions is approximately £6.5m. Five of the eight demonstration actions that have been approved have now been completed and reports on the findings of those trials are published on the Ofgem website. The total amount of carbon relating to completed demonstration actions is 15,625 tCO<sub>2</sub>.
- 4.41. The key points of the five completed trials are:
- EDF Energy evaluated a new innovative LED retrofit light bulb. The Lemnis Pharox III LED retrofit light bulb has been tested and during the trial consumer reaction to the bulb was measured as well as the bulb's carbon saving performance.
  - Scottish and Southern Energy worked with VPhase to determine the carbon savings that could be attributed to VX1 Domestic Voltage Optimisation Devices.
  - Scottish and Southern Energy worked with Alba to evaluate the possible carbon savings and energy efficiency of insulating Park Homes.
  - Scottish and Southern Energy worked on a demonstration action which was designed to prove the energy saving potential of fitting doors to 'walk-throughs' between terraced houses.
  - The Visible Energy Trial was conducted by British Gas. This was a 12 month study that analysed the impact of three different types of In Home Display on the energy consumption of 273 homes across East Anglia.

## **Market transformation action**

- 4.42. Measures eligible as market transformation action include microgeneration, behavioural measures and solid wall insulation. They also include measures that were not promoted in EEC2. Where a similar measure was promoted in EEC2 then a 'significantly greater than' test must be passed in order for the measure to be eligible as market transformation. The carbon savings attributed to these actions are eligible for 50% uplift, capped at 10% of a supplier's obligation, including any demonstration activity. Where at least 2% of a supplier's obligation is met by microgeneration, the limit is increased to 12%.

- 4.43. A number of new measures have been introduced into CERT under the market transformation rules.<sup>8</sup>
- 4.44. The suppliers combined have reported 6% (excluding 50% uplift) of the overall CERT obligation through market transformation activity. Ofgem will calculate and award market transformation uplift at the end of the programme.

### Priority Group flexibility mechanism

- 4.45. This mechanism allows suppliers some flexibility in reaching their target for carbon savings in the Priority Group. The measures permitted in this mechanism are a defined level of solid wall insulation and until 1 April 2011, ground source heat pumps. Solid wall insulation is aimed at those in hard to treat homes and excludes social housing properties. Householders eligible for these measures, under the Priority Group flexibility mechanism, must be in the benefits sub-set of the Priority Group. The carbon savings achieved through this mechanism are eligible for uplifts. The factor of the uplift differs for each measure type.
- 4.46. Four schemes have been approved under the Priority Group flexibility mechanism, proposing carbon savings of 8 million lifetime tonnes carbon dioxide (equivalent to 2.7% of CERT). To date, these schemes have achieved carbon reductions through the installation of ground source heat pumps and solid wall insulation. Carbon savings have been reported for only one of these schemes to date. The carbon savings are in the region of 4,000 tCO<sub>2</sub>.

### Technical Monitoring

- 4.47. Technical Monitoring is a key control in CERT which requires obligated parties to contract the independent inspection of 5% of all professionally installed measures, by an agent with appropriate expertise.
- 4.48. Properties are inspected using standard Technical Monitoring questions, developed by Ofgem; the questions are used to ensure compliance with CERT legislation and guidance. Questions cover a range of topics for each measure and failures do not necessarily indicate a reduction in carbon realised. Technical Monitoring assists suppliers in identifying areas for improvement. All of measures identified as failing Technical Monitoring are required to have remedial action completed, by the appropriate supplier, to ensure compliance with CERT guidance.
- 4.49. The questions are divided between major fails and minor fails based upon the severity of non compliance. While we expect suppliers to address minor fails to minimise their occurrence, an installation is only deemed as failing inspection if a major question is not satisfied.

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<sup>8</sup> For more information on which measures are eligible under CERT please see the CERT Carbon Reduction Matrix on the Information for Project Partners pages of our website [www.ofgem.gov.uk/Sustainability/Environment/EnergyEff/Pages/EnergyEff.aspx](http://www.ofgem.gov.uk/Sustainability/Environment/EnergyEff/Pages/EnergyEff.aspx)

- 4.50. All suppliers are now required to report their Technical Monitoring results to Ofgem on a quarterly basis, broken down by question and scheme. We have received two sets of quarterly data (quarters 15 and 16), for which a summary is provided in tables 4.8 and 4.9, below. The data is non cumulative, aggregated across all suppliers and only shows those questions which are classed as major fails. While monitoring is completed on a sample of all professional installations, the most significant results are for both loft and cavity insulation installation.
- 4.51. Some installations may be recorded as failing against more than one of the below questions.

Table 4.8. Cavity wall insulation technical monitoring results

<b>Measure Specific Question</b>	<b>Q15 Fail Rate (%)</b>	<b>Q16 Fail rate (%)</b>
Is the work guaranteed by a CIGA warranty?	10.1%	5.1%
If not, has another form of guarantee for 25 years been provided?	1.0%	1.6%
Does the drilling pattern used ensure that the insulation material is distributed as evenly as possible throughout the cavity?	2.0%	1.8%
Have the injection holes been made good?	3.4%	3.0%
Are all the air bricks and eaves vents clear of insulation material?	2.7%	2.4%
Have the air bricks been sleeved to prevent material moving in the cavity and blocking the vent at a later date?	2.5%	2.6%
Are all air vents particularly those for combustion appliances clear of insulation material?	0.2%	0.3%

- 4.52. Table 4.8 shows that the overall fail rates for cavity wall specific questions were reported 10% and below for quarter 15 and quarter 16. Failure rates across the two quarters show small variations, with the exception of two questions relating to whether the occupant was in possession of a 25 year guarantee for the installation.
- 4.53. The cavity wall question with the highest reported fail rates was: 'Is the work guaranteed by a CIGA warranty?' for which failure rates of 10.1% for quarter 15 and 5.1% for quarter 16 were reported. The higher failure rate in this area may be due to a delay in the CIGA guarantees being issued for whatever reason; that is, no warranty being on site at the time of inspection; however it had been applied for.
- 4.54. The second highest reported fail rate was for the question: 'Have the injection holes been made good?' with reported fail rates of 3.4% for quarter 15 and 3.0% for quarter 16. A fail on this question could affect customer satisfaction due to the potential for damp which has the risk to cause lasting damage to the wall structure.

- 4.55. The third highest reported fail rate was for the question, 'Have the air bricks been sleeved to prevent material moving in the cavity and blocking the vent at a later date?' with reported fail rate of 2.5% for quarter 15 and 2.6% for quarter 16. A fail on this question has the potential to cause damp in the property receiving the measure.

Table 4.9. Loft insulation Technical monitoring results

<b>Measure Specific Question</b>	<b>Q15 Fail Rate (%)</b>	<b>Q16 Fail rate (%)</b>
Was the insulation marked for 'DIY use only' or dyed a specific colour?	0.0%	0.0%
Does the material comply with BS 5803 Part 1: 1985	0.0%	0.0%
Thickness of original insulation (mm)	0.0%	0.0%
Total thickness of insulation (mm)	1.6%	1.5%
Has two thirds of the total loft area been insulated? - If not, approximately what proportion has been insulated?	0.7%	0.4%
Has insulation been applied to all appropriate areas including (i) beneath boarded areas and (ii) if the water storage tank is on the joists, around but not beneath the tanks; or if the tank is elevated, around and beneath the tank.	2.9%	2.3%
Has the loft hatch been fitted with effective draught seals?	4.3%	3.9%
Has the loft hatch been insulated?	2.9%	2.5%
Is the roof space adequately ventilated?	1.2%	1.3%
Have additional vents been fitted if required?	0.4%	0.5%
Have the pipes and tanks been insulated to an adequate standard?	7.3%	4.4%

- 4.56. Table 4.9 shows a consistent failure rate across both quarters 15 and 16, with the notable exception of the question relating to the insulation of pipework, which shows a 2.9 percentage point decrease. It is worth noting that when non cumulative data are reported on a quarterly basis, fluctuations can be observed due to a range of variables (e.g. seasonal variations and the use of new contractors).
- 4.57. The question with the highest fail rate during quarters 15 and 16 (7.3% and 4.4% respectively) is: 'Have the pipes and tanks been insulated to an adequate standard?' Failure against this question may affect the volume of carbon that will be saved for those installations and risks the bursting of pipes in cold weather.
- 4.58. Failures recorded against the questions: 'Has the loft hatch been fitted with effective draught seals?' and 'Has the loft hatch been insulated?' affects the volume of carbon that is saved from those installations and can cause uncomfortable drafts for customers. The results show that across quarters 15 and 16, 4.3% and 3.9% of installations were found to have insufficient



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draught proofing around the loft hatch and 2.9% and 2.5%, respectively, of installations were found to have insufficient insulation on the loft hatch.

- 4.59. While the questions are written to be answered as either pass or fail, some instances where the loft hatch is neither draught proofed nor insulated are due to this not being feasible, for example it may restrict the function of the hatch and/or loft ladder.
- 4.60. The failure rates highlighted in Tables 4.8 and 4.9 demonstrate a commitment to high quality installations. Ofgem works with all suppliers to reduce the fail rates under technical monitoring and ensure compliance with the CERT Order. We will continue to collate quarterly submissions by suppliers of monitoring results, as well as analyse the technical monitoring data that is submitted during the completion of schemes.
- 4.61. Ofgem will continue to work with suppliers to monitor the quality of professionally installed measures throughout the remaining nine months of the programme.

## 5. Trend analysis

### Chapter Summary

This chapter highlights the key issues and trends that have arisen during the fourth year of CERT. The analysis is based both on activity in Year 4 and total activity over the four years that the CERT programme has been running. It represents Ofgem's findings so far.

### The progress to the end of the fourth year

- 5.1. By the end of the fourth year of CERT suppliers had achieved savings of 241.8 Mt CO<sub>2</sub>. This represents 82.5% of the overall obligation, at a point 84.2% of the way through the programme. The fourth year has, however, seen a slowing down in overall activity levels, with 44.5 Mt CO<sub>2</sub> being achieved, compared with an average in the first three years of 53.1 Mt CO<sub>2</sub> per annum. Carryover from EEC2 totalled 37.8 Mt CO<sub>2</sub>.
- 5.2. Priority Group carbon savings make up 42.8% of carbon savings achieved, and as such suppliers are on target to meet their Priority Group Obligations, set at 40% of the overall obligation.

Table 5.1. – Carbon reduction progress to date and further activity required to deliver the obligation

Measure	Carryover	CERT Year 1	CERT Year 2	CERT Year 3	CERT Year 4	Required activity <sup>9</sup>
Insulation (including insulation obligation)	8.9%	10.5%	12.4%	9.2%	11.8%	11.5%
Heating	1.4%	0.4%	1.1%	1.8%	2.1%	6.0%
Lighting	2.6%	7.2%	4.4%	2.8%	0.7%	
Appliances	<0.1%	0.7%	1.2%	1.3%	0.7%	
Microgen	<0.1%	0.1%	0.2%	0.3%	<0.1%	
Behavioural	0.0%	0.0%	0.0%	0.8%	0.1%	

- 5.3. In the period 1 August 2010 to 31 March 2012 suppliers achieved 39.7 Mt CO<sub>2</sub> of savings towards the Insulation Obligation. This represents 54.1% of the Insulation Obligation target (73.4 Mt CO<sub>2</sub>). This is a significant increase in savings from the end of Year 3 where only 13% of the Insulation Obligation target had been achieved. More than two-thirds of the time available to

<sup>9</sup> While previous periods of activity have been measured on an annual basis, suppliers only have nine months remaining until the end of the programme. This therefore represents a significant increase in monthly activity rates.

achieve the Insulation Obligation has now elapsed. Table 5.1 shows that, in order for the Insulation Obligation to be met, nearly two-thirds of the remaining overall obligation (11.5% of the total CER Target) will need to be delivered in the form of insulation measures in the nine months available. This will require a significant increase in the pro rata rate of insulation.

- 5.4. In the same time period suppliers were also able to work towards their Super Priority Group Obligations. By the end of March 2012 suppliers had achieved 5.0 Mt CO<sub>2</sub>, representing 30.9% of the overall Super Priority Group Obligation (16.2 Mt CO<sub>2</sub>). Activity levels in the Super Priority Group will need to significantly increase if suppliers are to meet this obligation.

## Market analysis

- 5.5. Insulation measures once again have dominated the carbon savings achieved by suppliers, accounting for 64.0% of activity in Years 1-4 of the programme. The main measures delivered to the end of Year 4 were cavity wall insulation, professionally installed loft insulation and DIY loft insulation. The fourth year of CERT was the first in which compact fluorescent lamps (CFLs) were ineligible to be approved as a qualifying action. Due to this, savings from lighting measures in Year 4 have contributed only 0.8% of the overall CERT obligation compared to 3.3% in Year 3. Some of this was due to the late-reporting activity from Year 3, and the remainder was due to other lighting activity such as LEDs.
- 5.6. The Insulation Obligation target means that insulation will continue to feature strongly until the end of the programme. Meanwhile, carbon savings derived from heating measures have shown a strong increase in the fourth year of CERT. All other measures, lighting, appliances, microgeneration and behavioural have shown significant decreases in Year 4.

## Measures the suppliers have used

- 5.7. The main insulation measures delivered to the end of Year 4 were cavity wall insulation, professionally installed loft insulation, and DIY loft insulation. Cavity wall insulation activity is split roughly equally between Priority Group and non-Priority Group consumers, whereas professionally installed loft insulation activity has been more focussed on Priority Group consumers, with around twice as many Priority Group households being treated. DIY loft insulation has been more popular with non-Priority Group consumers.
- 5.8. Heating activity has increased in each year of CERT, and has contributed around 8.3% towards the total savings achieved, making it the measure with the third highest savings. Boiler replacement has seen a significant increase in Year 4. Fuel switching has continued to be used, with around 20,000 properties seeing their fuel type changed to a lower carbon alternative in Year 4.
- 5.9. Innovative activity has remained a key component of many suppliers' activity, with consumer electronics at the fore. In addition, shower regulators have proved a prevalent measure, with over 8 million having been promoted. Ofgem has consulted with suppliers as the number of shower regulators



approaches the 11 million threshold identified in the Supplier Guidance. Whilst Real Time Displays continue to be distributed, no additional savings have been reported for home energy advice packages. Several demonstration actions have now been published and, in the case of park homes, have opened up new properties previously falling outside of existing CERT measures.

## Targeting the Priority Group and Super Priority Group

- 5.10. By the end of the fourth year suppliers had achieved around 103.6 Mt CO<sub>2</sub> of carbon savings towards the Priority Group. This equates to around 42.8 per cent of the total savings achieved to the end of Year 4 and is consistent with the previous year. Whilst this data clearly indicates that suppliers are on track to meet their 40% Priority Group activity target, activity levels dropped slightly on Year 3, continuing the slowing trend of activity.
- 5.11. The measures delivered to the Priority Group to date continue to be dominated by insulation, with lighting also prominent. Suppliers also continue to utilise a variety of delivery routes for delivering measures to this group, including working in partnership with Local Authorities/social housing providers, direct marketing to the owner-occupier sector, and integrating with other government programmes such as Warm Front.
- 5.12. The Order contains a list of prescribed measures, savings for which are counted towards Super Priority Group. If a prescribed measure has been installed, other measures promoted to the same household can also be counted towards the Super Priority Group obligation, called secondary measures. However, there has been limited uptake of secondary measure schemes by suppliers.
- 5.13. To the end of Year 4 Super Priority Group activity has ramped up with over 5.0 Mt CO<sub>2</sub> having been achieved. This represents around 30.9% of the overall Super Priority Group obligation. Despite this being a significant increase on Year 3, suppliers will still have to significantly increase activity to this group in the final nine months. Suppliers will have to achieve more than twice as much as has already been reported if they are going to meet their Super Priority Group obligations.

## Delivery Implications

- 5.14. Overall, the delivery of measures across Years 1-4 of the CERT programme have remained broadly consistent, with insulation dominating, followed by lighting. Although Year 4 has again seen a slowing in overall activity, insulation and heating activity has bucked this trend.
- 5.15. Suppliers need to increase their current run-rate from 3.7 Mt CO<sub>2</sub> per month to 5.7 Mt CO<sub>2</sub> per month for the remainder of the programme in order to meet the target of 293 Mt CO<sub>2</sub> by 31 December 2012.
- 5.16. Sixty six percent of the remaining 51.2 Mt CO<sub>2</sub> will need to be Insulation Obligation activity. Twenty two percent of the remaining 51.2 Mt CO<sub>2</sub> will need



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to be targeted towards the Super Priority Group. These both present significant challenges for suppliers.

### **The forthcoming year**

- 5.17. Ofgem will continue to work closely with the suppliers on their schemes, overseeing their progress and working with them to ensure that their banking and completion reports demonstrate that they have complied with the legislation.
- 5.18. Ofgem will continue to monitor suppliers' schemes and publish data on a quarterly basis. We will report again to the Secretary of State at the end of the CERT programme in April 2013.

## Appendices

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## Appendix 1 – Supplier licences

The supplier groups and their licences that have been set CERT obligations for 2008 – 2012.

Supplier	Licence	Fuel
British Gas	British Gas Trading Ltd	Electricity
British Gas	British Gas Trading Ltd	Gas
E.ON Energy	E.ON Energy Ltd	Electricity
E.ON Energy	E.ON Energy Ltd	Gas
EDF Energy	EDF Energy Customers Plc	Electricity
EDF Energy	Seeboard Energy Ltd	Electricity
EDF Energy	EDF Energy Customers Plc	Gas
EDF Energy	Seeboard Energy Gas Ltd	Gas
npower	npower Direct Ltd	Electricity
npower	npower Ltd	Electricity
npower	npower Northern Ltd	Electricity
npower	npower Northern Supply Ltd	Electricity
npower	npower Yorkshire Supply Ltd	Electricity
npower	Electricity Plus Supply Ltd	Electricity
npower	npower Direct Ltd	Gas
npower	npower Gas Ltd	Gas
npower	npower Commercial Gas Ltd	Gas
npower	npower Northern Ltd	Gas
npower	YE Gas Ltd	Gas
npower	npower Yorkshire Ltd	Gas
npower	Gas Plus Supply Ltd	Gas
Scottish and Southern Energy	SSE Energy Supply Ltd	Electricity
Scottish and Southern Energy	Southern Electric Gas Ltd	Gas
Scottish Power	Scottish Power Energy Retail Ltd	Electricity
Scottish Power	Scottish Power Energy Retail Ltd	Gas

## Appendix 2 - Glossary

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### Achieved carbon savings

Achieved carbon savings are calculated based on the CERT carbon saving score and lifetime of the measure. They are accredited towards a suppliers' obligation if measures are promoted and installed in households. Achieved carbon savings are used to meet a supplier's Obligation.

### Accreditation

The determination of the carbon emissions reduction and lifetime attributable to measures under the CERT

### Banking

The process of suppliers submitting interim activity reports and Ofgem estimating their savings before the end of the programme

### Behavioural measures

Real-time displays and Home Energy Advice packages are the only behavioural measures currently included in the scope of CERT. These were introduced into CERT as eligible measures with the Amendment Order on 21 July 2009

### EEC2 carryover

Suppliers were able to apply to Ofgem for the equivalent carbon emissions reduction from any excess carbon savings achieved surplus to their EEC2 target to be credited towards their obligation under the CERT

### CERT

Carbon Emissions Reduction Target

### CESP

Community Energy Savings Programme (CESP)

### CFLs

Compact Fluorescent Lamps (energy efficient light bulbs)

### CHP

Combined Heat and Power

### Completion

Submission of final scheme reports by suppliers and determination of savings by Ofgem

## DECC

Department of Energy and Climate Change

## De-duplication

Suppliers are required to ensure that each measure that is professionally installed is only counted once. Deduplication is both internal (e.g. between CERT and CESP) or external (between suppliers).

## Demonstration Action

Demonstration actions are trials performed under the Order, for measures to which a firm quantified carbon saving cannot yet be attributed. In order to qualify the measures must be reasonably expected to achieve a reduction in carbon emissions

## DIY

Do-it-yourself

## EEC1

Energy Efficiency Commitment, 1 April 2002 - 31 March 2005 EEC1 required gas and electricity suppliers to achieve an energy saving target of 62 TWh in domestic households in Great Britain, between 1 April 2002 and 31 March 2005. At least 50 per cent of the target had to be met in relation to Priority Group consumers.

## EEC2

Energy Efficiency Commitment, 1 April 2005 - 31 March 2008  
EEC2 required gas and electricity suppliers to achieve an energy saving target of 130 TWh in domestic households in Great Britain, between 1 April 2005 and 31 March 2008. At least 50 per cent of the target had to be met in relation to Priority Group consumers.

## EST

Energy Saving Trust

## Fuel switching

Fuel switching action relates to the switching of carbon intensive primary heating fuel of the property to a fuel with lower carbon content

## IDTV

Integrated digital television

## Illustrative Mix

DECC's illustrative mix of measures is presented within its consultation document and indicates how suppliers might meet their carbon obligation. Suppliers are free to choose their own mix of measures or include other measures, subject to approval by Ofgem

### Insulation Obligation

The amount of a supplier's carbon emissions reduction obligation which is to be achieved by the promotion of measures in accordance with article 9 (1A) of The Order

### LPG

Liquid petroleum gas

### Market Transformation

These are measures including microgeneration and solid wall insulation. They also include measures that can pass a 'significantly greater than' test (in terms of savings) or a 'significantly different to' test (in terms of function) in comparison to measures delivered under EEC1, or, for measures delivered on or after 1 April 2011, EEC2.

### Microgeneration/Microgen

Under the terms of CERT, these measures include small scale biomass boilers, wind turbines, heat pumps, solar photovoltaic, small hydro, solar water heating, large and small scale Combined Heat and Power and other microgeneration

### Mt CO2

Million tonnes of carbon dioxide

### The Order

The Electricity and Gas (Carbon Emissions Reduction) Order 2008, The Electricity and Gas (Carbon Emissions Reduction) (Amendment) Order 2009, The Electricity and Gas (Carbon Emissions Reduction) (Amendment) Order 2010 and The Electricity and Gas (Carbon Emissions and Community Energy Saving) (Amendment) Order 2011 (together referred to as 'the Order').

### Priority Group

Defined in the CERT Order as the group of domestic energy users where each member fulfils one of the following criteria:

- (a) is in receipt of at least one of the following benefits: council tax benefit, housing benefit, income support, an income-based jobseeker's allowance, an income-related employment and support allowance, an attendance allowance, a disability living allowance, a war disablement pension which includes either



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mobility supplement constant attendance allowance, a disablement pension which includes constant attendance allowance, or a state pension credit, or

(b) is in receipt of at least one of the following credits: child tax credit or working tax credit, and has a relevant income of less than £16,190, or

(c) is at least 70 years old

### Priority Group flexibility

This mechanism allows suppliers some flexibility in reaching their target for savings in the Priority Group. The measures are ground source heat pumps and a defined level of solid wall insulation. They are aimed at those off gas grid and in hard to treat homes. Householders must be in the benefits sub-set of the Priority Group

### SHP

Social Housing Provider, a Local Authority or a Registered Social Landlord

### Super Priority Group

The group of domestic energy users in the priority group where each member is in receipt of

a) child tax credit and has a relevant income below £16,190

or

b) state pension credit

or

c) income-related employment and support allowance and has responsibility for a child under the age of five who ordinarily resides with that member or is in receipt of a qualifying component

d) income based job seeker's allowance and has responsibility for a child under the age of five who ordinarily resides with that member or is in receipt of a qualifying component

e) income support and has responsibility for a child under the age of five who ordinarily resides with that member or is in receipt of a qualifying component

### Supplier activity

Energy efficiency work undertaken by suppliers to meet the Carbon Emissions Reduction Target



## Appendix 3 – The Authority’s Powers and Duties

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- 1.1 Ofgem is the Office of Gas and Electricity Markets which supports the Gas and Electricity Markets Authority (“the Authority”), the regulator of the gas and electricity industries in Great Britain. This appendix summarises the primary powers and duties of the Authority. It is not comprehensive and is not a substitute to reference to the relevant legal instruments (including, but not limited to, those referred to below).
- 1.2 The Authority's powers and duties are largely provided for in statute (such as the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Acts of 2004, 2008 and 2010) as well as arising from directly effective European Community legislation.
- 1.3 References to the Gas Act and the Electricity Act in this appendix are to Part 1 of those Acts.<sup>10</sup> Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This appendix must be read accordingly.<sup>11</sup>
- 1.4 The Authority’s principal objective is to protect the interests of existing and future consumers in relation to gas conveyed through pipes and electricity conveyed by distribution or transmission systems. The interests of such consumers are their interests taken as a whole, including their interests in the reduction of greenhouse gases and in the security of the supply of gas and electricity to them.
- 1.5 The Authority is generally required to carry out its functions in the manner it considers is best calculated to further the principal objective, wherever appropriate by promoting effective competition between persons engaged in, or commercial activities connected with,
  - the shipping, transportation or supply of gas conveyed through pipes;
  - the generation, transmission, distribution or supply of electricity;
  - the provision or use of electricity interconnectors.
- 1.6 Before deciding to carry out its functions in a particular manner with a view to promoting competition, the Authority will have to consider the extent to which the interests of consumers would be protected by that manner of carrying out those functions and whether there is any other manner (whether or not it

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<sup>10</sup> Entitled “Gas Supply” and “Electricity Supply” respectively.

<sup>11</sup> However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.

would promote competition) in which the Authority could carry out those functions which would better protect those interests.

- 1.7 In performing these duties, the Authority must have regard to:
- the need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
  - the need to secure that all reasonable demands for electricity are met;
  - the need to secure that licence holders are able to finance the activities which are the subject of obligations on them<sup>12</sup>; and
  - the need to contribute to the achievement of sustainable development.
- 1.8 In performing these duties, the Authority must have regard to the interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.<sup>13</sup>
- 1.9 Subject to the above, the Authority is required to carry out the functions referred to in the manner which it considers is best calculated to:
- promote efficiency and economy on the part of those licensed<sup>14</sup> under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;
  - protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity; and
  - secure a diverse and viable long-term energy supply,
- and shall, in carrying out those functions, have regard to the effect on the environment.
- 1.10 In carrying out these functions the Authority must also have regard to:
- the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed and any other principles that appear to it to represent the best regulatory practice; and
  - certain statutory guidance on social and environmental matters issued by the Secretary of State.
- 1.11 The Authority may, in carrying out a function under the Gas Act and the Electricity Act, have regard to any interests of consumers in relation to

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<sup>12</sup> Under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Acts in the case of Electricity Act functions.

<sup>13</sup> The Authority may have regard to other descriptions of consumers.

<sup>14</sup> Or persons authorised by exemptions to carry on any activity.

communications services and electronic communications apparatus or to water or sewerage services (within the meaning of the Water Industry Act 1991), which are affected by the carrying out of that function.

- 1.12 The Authority has powers under the Competition Act to investigate suspected anti-competitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation<sup>15</sup> and therefore part of the European Competition Network. The Authority also has concurrent powers with the Office of Fair Trading in respect of market investigation references to the Competition Commission.

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<sup>15</sup> Council Regulation (EC) 1/2003.