

# Research Report

## Response to the Green Deal – research among the business community

Undertaken by BMG Research

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# Contents

<b>Executive summary .....</b>	<b>3</b>
<b>Introduction.....</b>	<b>9</b>
<b>Chapter 1: Energy efficiency and energy efficiency improvements .....</b>	<b>14</b>
<b>Chapter 2: Demand for the Green Deal .....</b>	<b>30</b>
<b>Chapter 3: Business characteristics and energy efficiency: overview.....</b>	<b>53</b>
<b>Chapter 4: The landlord perspective .....</b>	<b>59</b>
<b>Appendices .....</b>	<b>68</b>
<b>Appendix 1: Quantitative survey: characteristics of the weighted sample .....</b>	<b>68</b>
<b>Appendix 2: Awareness and usage of energy assessments and certification ....</b>	<b>72</b>

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**The views expressed in this report are those of the authors, not necessarily those of the Department of Energy and Climate Change (nor do they reflect Government policy).**

# Executive summary

**To inform the implementation of the Green Deal in the business community a programme of quantitative and qualitative research was undertaken.**

The Green Deal is a market-led framework that will allow individuals and businesses to make energy efficiency improvements to their buildings at little/no upfront cost. Central to the Green Deal is a finance mechanism that will allow access to the finance needed for the improvements with repayment, in instalments, attached to the electricity bill.

## Research objectives

The objectives of the research were to:

- Estimate the potential demand for energy efficiency improvements amongst businesses.
- Estimate the potential demand for the Green Deal as a funding mechanism.
- Identify what factors would increase demand for energy efficiency measures and the Green Deal.
- Identify barriers to energy efficiency and the Green Deal.
- Identify how demand for the Green Deal might vary across subgroups and the population as a whole.

## Quantitative overview

The quantitative research comprised a representative telephone interview survey of 2,802 businesses, charities, and voluntary sector organisations in Great Britain (excluding only businesses without employees and/or which operated from domestic premises) conducted during September, October and November 2011. Sampling was at an establishment level, with contacts drawn from the Experian business database.

## Qualitative overview

The research also included two qualitative research elements. These comprised in-depth interviews with:

- 30 businesses across Britain – a mix of 15 owners of their premises and 15 tenants, in a variety of sectors, and of varied sizes. These interviews were designed to generate more detailed insights into the issues raised in the telephone survey than those telephone interviews allowed.
- 17 landlords with significant portfolios of commercial properties under their control were also interviewed. These interviews were designed to examine the Green Deal from the perspective of those in a position, that of control of multiple properties, which is of considerable significance to the Green Deal's wide acceptance.

## Findings in detail

### Potential demand for energy efficiency improvements

#### Energy efficiency

There is clear evidence of an appetite among businesses to reduce energy consumption:

- 79% of businesses regarded the reduction of energy consumption by the business as being very (46%) or fairly (33%) important, with relatively little variation in this figure between sub-groups of businesses. Although the number of in-depth interviews conducted with landlords was small (17 interviews in total), and as such the findings arising from them cannot be extrapolated to the wider population of landlords, energy efficiency was reported to be a high priority in all instances, and many had undertaken, or were considering undertaking, significant developments to improve energy efficiency.
- Just over a quarter (27%) of businesses had already sought information or advice about energy efficiency, with the main sources of information being: specialist consultants or assessors (20%), the internet (13%), energy suppliers (11%), building trades persons (10%), or, a trade or professional body (10%).

#### Motivations and barriers to implementing energy efficiency improvements

Businesses and landlords were strongly motivated towards energy efficiency improvement by its impact on reducing costs. This was a major motivation for 75% of businesses, three times more than the next strongest motivation – reducing environmental impact – which was reported by 26% of businesses. Only single figure percentages of businesses reported other motivations (such as improving the corporate image or the impact of government intervention or support).

The most frequent barrier to implementation was lack of funds – this was a barrier for 32% of businesses. A wide range of other barriers were reported (including ‘it’s the landlord’s responsibility’, lack of knowledge of what could be done, lack of time, and so on) – but each was reported by quite small proportions of businesses.

In-depth interviews with landlords indicated a number of challenges faced when implementing energy efficiency improvements:

- Tenant resistance to paying and/or getting co-occupants to agree to improvements and/or pay towards the costs.
- Structural and/or planning limitations.
- Unwillingness to upgrade empty premises.
- Upgrading only occurring at the point where older equipment fails.

#### Energy efficiency behaviour

As a further indication of the importance of energy efficiency to businesses, nine out of ten (89%) indicated that they had tried to improve energy management by simple behavioural

changes such as turning off equipment and lights when not in use, installing energy efficient light bulbs, or better control of heating.

## **Energy assessments**

Close to one in ten businesses had had an energy assessment or audit (8%), and, of businesses which had not had an energy assessment, 19% thought it very likely (4%), or quite likely (15%) that they would have one in future. However, half (49%) of businesses which would be open to having an assessment in the future would not expect to pay for it. Only one in five (22%) of these businesses indicated a willingness to pay a sum of up to £1,000, although the majority (70%) of those willing to pay would be prepared to pay only up to £100.

Most landlords had had energy efficiency assessments undertaken and/or had Energy Performance Certificates for their buildings. They were seen as useful drivers of energy efficiency and as a valuable marketing tool when letting premises. However, landlords also identified a number of aspects which would need to be considered in order to increase the appeal of undertaking an assessment under the Green Deal:

- Clarification as to the level of payment required for assessments and who would be responsible for payment.
- Ensuring assessments are able to provide sufficiently detailed and bespoke advice covering the improvements needed, the likely costs and savings, and the payback period involved.
- Guarantees as to the competence of the assessor, and the incorporation of a level of accountability, in order to avoid the possibility of self-interest on the part of assessors who might exaggerate the possible savings from improvements but would subsequently have no responsibility for what actual results were achieved.

## **Energy efficiency improvements installed**

As well as the more straightforward energy efficiency behaviours described above, such as turning off lights when not in use etc., more substantial energy efficiency measures were in place in varying proportions of businesses. For example, 53% of businesses operated from double glazed premises, but at the other extreme, only 3% had small scale renewable energy technologies (such as solar panels or micro wind turbines) in place.

Among the landlords with whom in-depth interviews were undertaken most had already undertaken, or were considering undertaking, varied improvements to increase the energy efficiency of their portfolios.

## **Possibilities for future energy efficiency improvements**

The energy efficiency measures that businesses would most like to install were small scale renewable technology (29% would like to install), and smart energy meters and Combined Heat and Power Units (proportion that would like to install was 25% for both).

## Estimating the potential demand for the Green Deal as a funding mechanism

### Demand for the Green Deal

Many businesses interviewed for the survey would not have heard of the proposed scheme before the interview, and consequently the results identify the business community's basic interest in an outline proposition. Reflecting this, one issue raised consistently by both businesses involved in the quantitative and qualitative elements, and by landlords involved in the in-depth interviews, was the need for more detailed information to allow for a more informed and knowledgeable assessment of the scheme.

The findings outlined below should be viewed in this context, and also bearing in mind that the behaviours and intentions outlined are self-reported.

It is estimated that 24% of all businesses would consider the Green Deal<sup>1</sup>.

Independently of other factors, the size of businesses, their existing level of engagement in energy efficient improvements, and (not surprisingly) having motivations to introduce such improvements were key factors in predicting a positive response to the Green Deal. Differences by business sector and the associated types of premises were not generally significant – though hospitality businesses and factories showed a stronger willingness than those in other types of premises to consider the Green Deal.

The relationship between businesses' self-reported level of influence on energy efficiency<sup>2</sup> and their willingness to consider the Green Deal was also investigated but no strong relationship was identified. However it is clear that the potential complexity of the decision-making process (i.e. between tenant and landlord, between head office and branch, between multi-occupants, and many other combinations of these and other factors) will need to be considered in detail if the scheme is to be regarded as relevant by all businesses. Landlords too described a need to involve a wide range of people both from within the organisation and externally, in the decision to go ahead with a Green Deal.

In-depth interviews with landlords indicated that landlords were more likely to envisage having a positive response to the Green Deal if tenants were to put a proposition to them than to envisage taking the initiative themselves. This highlights a potential issue as tenants interviewed as part of the quantitative survey indicated that they would be more likely to consider the Green Deal if their landlord requested it, than they would be to request that their landlord take it up. Further, tenants' views of their landlords' likely response to a request to take out Green Deal financing did not chime with landlords' own views on this: while landlords reported that they might well make a positive response to tenants suggesting the Green Deal, only one in five tenants believed their landlord would be positive. This highlights the importance of targeting tenants to encourage them to approach their landlords to undertake improvements under the scheme.

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<sup>1</sup> In order to generate an indicator for all businesses in the survey, this measure combined answers to questions which were asked of businesses in different circumstances, and as such questions were worded slightly differently. More detail can be found on this on p32.

<sup>2</sup> Respondents were asked 'If you did want to implement energy efficiency measures at your site such as improvements to lighting, heating or insulation of walls or roof, who would be involved in the decision?' Response options were tailored to the circumstances of each business and included: the site itself, head office, landlord, other businesses at the site, someone else.

## Identifying factors that would increase demand for energy efficiency measures and the Green Deal

### Impact of delivery aspects of the Green Deal

Various delivery aspects would encourage businesses to consider installing energy efficiency improvements through the Green Deal. Among businesses who reported having an influence on decisions regarding energy efficiency at their site<sup>3</sup>, the highest proportion, 22%, reported that the availability of skilled and regulated installers carrying an official quality mark would make them much more likely to consider taking up the Green Deal.

### Impact of financial aspects of the Green Deal

In terms of the Green Deal's financial aspects, the Green Deal's central proposition – that its costs would be covered by savings on the energy bill – was its main attraction, with 26% of businesses saying this would make them much more likely to consider installing energy efficiency improvements through the Green Deal. Businesses stated that they would prefer shorter payback periods (up to three years) rather than longer payback periods, and this was a view echoed in the interviews with landlords, among whom payback periods within the period of tenants' leases was widely regarded as essential, with a five year payback period being most frequently mentioned.

The proposed interest rate and the fact that the savings would be estimated not guaranteed were negative factors for businesses.

When the Green Deal was positioned as one of a set of possible ways of paying for energy efficiency, 28% of businesses said they would consider this source of finance and 19% that they would prefer it to other sources. While these figures are lower than those for simply using cash flow and cash holdings, which 43% would consider and 34% would prefer, it is clear that the Green Deal financing mechanism was significantly preferred to conventional loans, which only 7% would consider and 3% would prefer. The qualitative data suggested that, where respondents did prefer the Green Deal scheme, a key reason for some was the fact that it is purpose-built and potentially more straightforward as compared with seeking an appropriate loan independently.

In line with the findings among businesses, many landlords highlighted a preference to pay cash for improvements.

### Possible incentives

The preferred incentives to Green Deal take-up, in line with businesses' financial motivations were those which most clearly guaranteed a financial input – a government grant or subsidy or a rebate on business rates – rather than cash back from a Green Deal provider or discounts on the provider's other services and products.

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<sup>3</sup> Respondents were asked 'If you did want to implement energy efficiency measures at your site such as improvements to lighting, heating or insulation of walls or roof, who would be involved in the decision?' Response options were tailored to the circumstances of each business and included: the site itself, head office, landlord, other businesses at the site, someone else.

## Identifying barriers to energy efficiency and the Green Deal

When asked about the Green Deal's disadvantages, generally businesses saw fewer disadvantages than advantages to the Green Deal – 41% of businesses could not identify any disadvantages compared with the 29% of businesses which could not identify any advantages.

Businesses were most likely to cite the possible cost as a potential disadvantage. This was mentioned by 32% of all businesses, and was expressed in a range of ways including the lack of guarantee as to savings, management overheads, paying external parties, the level of return, but more commonly in relation to the proposed interest rates, and a preference for paying via cash flow. As discussed above, this view was also expressed in the in-depth interviews with businesses and landlords.

The disruption of making improvements and longer payback periods were also mentioned as potential disadvantages, though by fewer respondents.

While landlords highlighted the general benefit of the scheme for tenants in terms of potential savings on energy bills, no upfront cost, and the loan attaching to the property rather than the tenant, they also identified a number of aspects that would be likely to have an impact on whether they chose to implement improvements under the scheme. Landlords were keen that:

- Payback periods are within the period of tenants' leases (five years was most commonly mentioned).
- The impact of premises becoming empty during the payback period is minimised.
- Existing leases can be amended.
- An appropriate balance of costs and benefits between landlords and tenants can be achieved.

## Identifying how demand for the Green Deal varies across sub-groups

An overview analysis examines relationships between a number of positive energy efficiency-related attitudes and behaviours and demographic subgroups in the sample of businesses. Larger businesses, hospitality businesses and factories, and tenants with longer leases were more likely to be concerned about energy efficiency and to act correspondingly. The businesses in these groups were also more likely to consider the Green Deal.

Owners and tenants who reported having an influence on energy efficiency decisions were more likely than tenants who reported no influence to show concern about energy efficiency and higher levels of activity on most of the energy efficiency-related indicators. However, this was not reflected in a greater likelihood of their considering the Green Deal.

The overview analysis found that patterns of responses by business sector were inconsistent and variations between different sectors in their willingness to consider the Green Deal were not significant.

# Introduction

## Background to the research

The Climate Change Act 2008 set out the UK's long-term strategy to cut greenhouse gas emissions and to help the transition to a low carbon economy. The UK is committed to reducing greenhouse gases by at least 34% by 2020, with a target of at least an 80% reduction by 2050<sup>4</sup>. At a time when energy efficiency is one of the most critical global issues, the Government has, thus, started the practical implementation of carbon-use reduction policies designed to improve the energy efficiency of homes, community spaces, and businesses.

As part of this process, the Department of Energy and Climate Change (DECC) is planning to introduce the Green Deal. The Green Deal is a market-led framework that will allow individuals and businesses to make energy efficiency improvements to their buildings at no upfront cost. Central to the Green Deal is a finance mechanism that will allow access to the finance needed for the improvements with repayment, in instalments, attached to the electricity bill.

In order to inform the implementation of the Green Deal, DECC commissioned BMG Research to carry out quantitative and qualitative research amongst businesses in August 2011. This research complements three existing pieces of work focused on domestic consumers, published alongside the Green Deal Consultation, November 2011<sup>5</sup>.

## Research objectives

The overall purpose of the research was to provide data that can be used to determine the likely demand for the Green Deal and an indication of which types of businesses will be most likely to take it up. Specifically, the research was designed to address the following objectives:

- Estimate the potential demand for energy efficiency improvements amongst businesses.
- Estimate the potential demand for the Green Deal as a funding mechanism.
- Identify what factors would increase demand for energy efficiency measures and the Green Deal.
- Identify barriers to energy efficiency and the Green Deal.
- Identify how demand for the Green Deal might vary across subgroups and the population as a whole.

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<sup>4</sup> [http://www.decc.gov.uk/en/content/cms/emissions/carbon\\_budgets/carbon\\_budgets.aspx](http://www.decc.gov.uk/en/content/cms/emissions/carbon_budgets/carbon_budgets.aspx)

<sup>5</sup> A summary of the research and the individual research documents are available at the following website - [http://www.decc.gov.uk/en/content/cms/consultations/green\\_deal/green\\_deal.aspx](http://www.decc.gov.uk/en/content/cms/consultations/green_deal/green_deal.aspx)

## Overview of method

### Quantitative method

#### Survey procedure

The basic method of the quantitative element of the study was a survey using a structured questionnaire. 2802 responses were obtained. The questionnaire was delivered using the Computer Aided Telephone Interviewing (CATI) method.

#### Sample design

The sample was designed to obtain responses from proprietors of private businesses or managers of charities or voluntary sector organisations. However, businesses without employees, typically sole proprietors or small partnerships, were excluded, as were businesses operating from domestic premises because these groups will be eligible for the Green Deal for domestic properties. The survey sample was drawn randomly, within strata for size and sector within each of England, Scotland and Wales, from an Experian database of business establishments.

To guide the distribution of the sample by size, sector and geography, the latest data (March 2010) from the Inter-Departmental Business Register (IDBR) covering Great Britain were used. In order to ensure robust analysis was possible in the larger employer size bands, and within certain sectors of particular interest to DECC, businesses or organisations with 50 to 249 and 250 or more employees, and businesses in the manufacturing, education, and health sectors were over-sampled.

In addition, the number of interviews in Scotland and Wales, which would have been 210 and 114 respectively on a proportional basis, were boosted to 250 in each country to allow a more robust analysis.

#### Weighting the data

Population estimates from IDBR were used as the basis for the weighting scheme as these represent the most reliable available estimates of Great Britain's business population. However, these estimates include businesses or organisations operating from domestic premises, which, as above, were out of scope for this research.

For this reason, while businesses or organisations operating from domestic properties (11% of businesses or organisations contacted) were screened out of the full survey, size and sector information was gathered from these businesses or organisations in order to inform the weighting matrix. Once the data were weighted, businesses operating out of domestic premises accounted for 23% of businesses, i.e. the likely prevalence in the population.

### Qualitative method

In addition to the telephone survey, the study also included two qualitative research elements. These comprised in-depth interviews with:

- 30 businesses across Britain – a mix of 15 owners of their premises and 15 tenants, in a variety of sectors, and of varied sizes. These interviews were designed to generate more detailed insights into the issues raised in the survey than those allowed by the telephone interviews.

- 17 landlords with significant portfolios of commercial properties under their control were also interviewed. These interviews were designed to examine the Green Deal from the perspective of those in a position, that of control of multiple properties, which is of considerable significance to the Green Deal's wide acceptance.

Responses from the first, general, element of the qualitative research are inserted into the survey report at appropriate points. Responses from landlords are the subject of a separate chapter of the report.

## Reporting

Throughout the remainder of this report the following conventions have been used when reporting details of the quantitative survey and its results:

- Percentages are rounded to zero decimal places.
- Where statistical significance is referenced, this is at the 95% level of confidence. In tables, percentages for particular groups which are above those for other groups to a statistically significant degree are emboldened.

The report combines findings from both the quantitative and qualitative elements of the project, identifying common themes emerging from both elements, and using quotes from qualitative interviews to illustrate key points.

It should be noted that, for concision, the terms 'business' or 'businesses' are used instead of 'business or organisation' or 'businesses or organisations' except when the distinction is important. Therefore, when the former terms are used, in many cases they actually include a small proportion of voluntary sector organisations.

Further, as above, sampling was of establishments rather than of enterprises (that is, whole businesses or organisations where these operate at more than one site). Thus, the terms 'business' or 'businesses' actually refer, in the case of branches or headquarters of multi-site businesses, unless a distinction is made, to the business or businesses at the site where the interview took place.

The term 'Green Deal' itself was not used in the survey questions – this was to ensure that the scheme was presented as neutrally as possible. Rather, businesses were asked about 'a scheme such as the one described' after a description had been provided (see Chapter 2). However, to be concise, the wording of the following sections uses 'Green Deal' as a paraphrase rather than the longer version.

## Technical report

A separate report is available which details the technical aspects of the project.

## Quantitative survey: characteristics of the weighted sample

The broad characteristics of the weighted sample achieved by the procedures outlined above are described below. It will be appreciated that in some cases – such as when describing the distribution of the size and sector of respondent businesses – the sample proportions, since they have been weighted to reflect population proportions, are also those of the profile of businesses in the economy of Great Britain (that is, of England, Scotland, and Wales combined).

The sample (following appropriate weighting to ensure that the sample matched the size and sector structure of the economy) had characteristics such that:

- Nine out of 10 of businesses were in the private sector, the remainder being in the voluntary sector.
- Around six out of 10 premises were rented or leased, the remaining four out of 10 being owned.
- Most businesses were small – more than half had between one and four employees and three-quarters had fewer than 10 employees.
- The sector distribution of businesses in the sample was weighted to match the sector distribution of businesses in the corresponding segment (businesses and the voluntary sector) of the economy of Great Britain. Thus, the largest contributions to the weighted sample used as the basis of analysis were of businesses in 'wholesale, retail and vehicle repair' (24%), in 'professional and related services' (13%), and in 'accommodation and food services' (9%).
- Two-thirds of businesses were single site operations, the remainder being branches (27%) or head offices of multi-site operations (10%).
- Offices (36%) and shops (24%), corresponding to the sector distribution above, were the most frequent types of premises surveyed. It should be noted that, throughout the report, the term 'residential premises' refers to businesses such as private hospitals, care homes, or private boarding schools which offer accommodation to clients, and not to domestic premises.
- Three-quarters of businesses were in premises which were built before 1990 and one in four had some form of restriction on development.
- For one in five tenants the total duration of their lease was two years or less. For a third it was between three and 10 years. A minority (13%) had a lease of more than 10 years, and a third was unsure. In terms of the time remaining on their lease, over a quarter had a rolling contract, while one in five had up to two years remaining and a similar proportion had between three and 10 years remaining. A quarter was unsure of the time left to run on their lease.
- On average, just under a fifth of businesses had been in operation at their present site for up to two years, while more than two-fifths had been there for at least 11 years.

- Overall, fewer than one in ten businesses were planning or were due to relocate from their site at the time of survey. The proportion was higher amongst tenants than amongst owners. Overall, half of those planning to relocate expected to relocate in the next 12 months. A further two in five were planning to relocate in one to four years. A fifth did not know when they would relocate.
- All businesses used electricity, more than two-fifths (44%) used gas, and one in ten used other types of energy including oil, LPG, solid fuel, and renewables.
- Where businesses used gas and electricity, they were most likely to pay for each in a separate bill – 57% paid those bills separately. Around a quarter of businesses paid their gas and electricity in the same bill, while nearly a fifth was not sure.
- Where gas or electricity were paid for separately, in the majority of cases tenants paid their bills direct to the supplier. In the majority of cases where tenants did not pay their energy bills direct to the suppliers the cost was included in their rent; particularly when tenants' electricity and gas were on the same bill. Where electricity or gas bills were paid separately, and not paid direct to suppliers, the next most likely method of payment was through a service charge.
- Many businesses did not know how much they paid for energy, particularly when electricity and gas were paid for jointly. This lack of knowledge may partially reflect the proportions of businesses which did not pay their energy bills directly. It may also reflect the fact that general business managers were interviewed in the survey. Speculatively, some of these may have left payment of energy bills to their finance directors or managers and, hence, did not have a clear idea of what the business paid. Where businesses knew what they paid, (annually and in total) for electricity and gas (if they used gas), the distribution of payments was:
  - A quarter (26%) paid less than £1,000, a third (33%) paid between £1,000 and £2,999, a quarter paid between £3,000 and £9,999, and a little less than a fifth (18%) paid £10,000 or more.

More detail on the characteristics of the quantitative sample can be found in appendix one of this report in the form of charts and tables.

# Chapter 1: Energy efficiency and energy efficiency improvements

## Key points

- There is clear evidence of an appetite among businesses to reduce energy consumption: 79% of businesses regarded the reduction of energy consumption by the business as being very (46%) or fairly (33%) important. There was relatively little variation in this figure between sub-groups of businesses – across a wide range of sub-groups such as sector or tenure, the proportion only infrequently drops below 70%.
- Just over a quarter (27%) of businesses had sought information or advice about energy efficiency, and a wide variety of suppliers of information and advice were involved. For businesses who had sought information and advice the top five sources of advice were: specialist consultants or assessors (20%); the internet (13%); energy suppliers (11%); building trades persons (10%); a trade or professional body (10%).
- Close to one in ten (8%) of all businesses reported having had an energy assessment, and, of those which had not, one in five (19%) considered it likely that their business would have an assessment in future, while more than half (54%) did not think it likely.
- However, half (49%) of businesses which were open to the possibility of having an assessment would not expect to pay for it. A further one in five (19%) said that ‘it depends’, and a further one in ten (10%) were unsure. Consequently, around one in five (22%) indicated a willingness to pay a sum of up to £1,000 for an assessment. Of these, the majority would be prepared to pay up to £100.
- The potential impact of energy efficiency improvements on cost was a strong motivator for businesses. This was a major motivation for 75% of businesses, three times more than the next strongest motivation – reducing environmental impact – which was reported by 26% of businesses. Only single figure percentages of businesses reported other motivations (such as improving the corporate image or the impact of government intervention or support).
- The most frequent barrier to implementation was lack of funds – this was a barrier for 32% of businesses. A wide range of other barriers were reported (including ‘it’s the landlord’s responsibility’, lack of knowledge of what could be done, lack of time, and so on) – but each was reported by quite small proportions of businesses.
- As a further indication of the importance of energy efficiency to businesses, nine out of ten businesses (89%) indicated that they have tried to improve energy management by simple behavioural changes such as turning off equipment and lights when not in use, installing energy efficient light bulbs, or better control of heating.

Cont...

- More substantial energy efficiency measures were in place in varying proportions of businesses. For example, 53% of businesses operated from double glazed premises, but at the other extreme, only 3% had small scale renewable energy technologies (such as solar panels or micro wind turbines) in place.
- The proportions of businesses which would like to develop the various measures were highest in relation to small scale renewable technology (29%), and smart energy meters and Combined Heat and Power Units (both 25%).

## Introduction

Interest in the Green Deal is likely to be influenced by businesses' attitudes to energy efficiency and desire for installing energy efficiency measures. In advance of the Green Deal being raised in the interview, businesses were asked a number of questions which revealed their current positions on energy efficiency:

- How important energy efficiency was to the business.
- Whether they had sought advice and information on energy efficiency, and from whom.
- Whether they would be likely to have an energy assessment and how much they would be prepared to pay for this.
- What were the key factors driving energy efficiency or motivating businesses to implement energy efficiency.
- What were the main barriers to energy efficiency;
- Whether they had already taken steps to increase energy efficiency.
- Whether they would like to introduce energy efficiency measures or had plans to do so.

## The importance of energy efficiency to business

Overall, eight out of ten (79%) businesses considered the reduction of energy consumption to be important. This figure combines 46% which considered reducing energy consumption to be a very important issue for their business and a further 33% which thought it fairly important.

Owners of premises (49%) were slightly more likely than tenants (44%) to consider reducing energy consumption to be a very important issue for the business.

Tenants with a longer period left to run on their lease (11 or more years) were more likely than those with shorter periods of their leases remaining to consider reduction as very important (68%, compared with 39% of those with up to two years left to run).

By type of premises, 90% of hospitality premises (hotels, restaurants, and pubs) thought that reducing energy consumption was important to their business. Warehouses (71%), offices (72%), and factories (73%) were less likely to say it was an important issue.

The proportion of businesses considering reducing energy consumption as important increased with the size of the business, such that virtually all employers with 50 or more employees considered it an important issue:

**Figure 1: Proportion of businesses considering the reduction of energy consumption as very or fairly important to their business – all respondents by number of employees**



Sample bases in parentheses

## Advice sought on energy efficiency, and from whom

Businesses were asked whether they had sought advice or information on energy efficiency and, if so, who from. Whether respondents have sought advice gives a further indication of businesses' interest in energy efficiency. Understanding who they have sought it from provides an indication of who businesses are likely to approach and to trust.

Just over a quarter (27%) of all businesses in the telephone survey had sought advice or information, whether formally or informally, about energy efficiency.

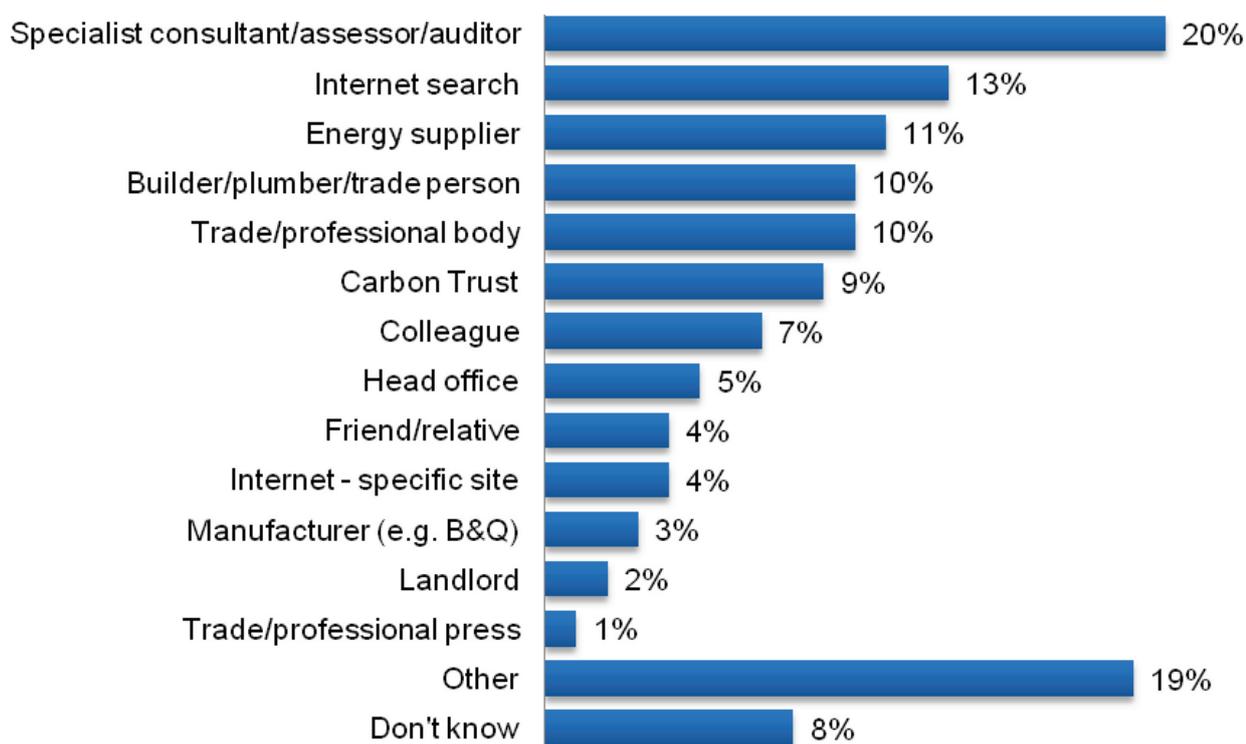
The likelihood of businesses having done so increased to nearly two-fifths (37%) of owners, and reduced to around one in five (21%) of tenants. Amongst tenants, those who reported having some influence over energy efficiency improvements were significantly more likely than those who reported no influence to have sought some kind of advice or information about energy efficiency (32% compared to 14%).

Tenants with a longer period remaining on their lease (11 or more years) were significantly more likely than those with shorter leases to have sought advice or information. Businesses that were listed, in conservation areas, or had other restrictions (33%) were more likely than those without restrictions on their buildings (25%) to have sought advice or information.

The likelihood of having sought advice increased with the size of the business. Four-fifths (79%) of businesses with 250 or more employees had sought information or advice on energy efficiency, compared with just over one-fifth (23%) of the smallest businesses (one to four employees).

Where businesses had sought advice or information they were asked to report who they sought the advice from. In the largest proportion of cases, businesses had sought advice from specialist consultants, assessors or auditors (20%). At least one in ten businesses that had sought advice had done so via an internet search (13%), an energy supplier (11%), a builder, plumber or other trades person (10%) or from a trade or professional body (10%).

**Figure 2: Source of advice or information about energy efficiency – where had sought advice/information on energy efficiency**



Sample base = 1071

## Likelihood of undertaking energy assessments in future

Close to one in ten (8%) of all businesses reported having had an energy assessment. Where businesses had not already had an in-depth energy assessment or audit they were asked how likely it was that their businesses would have one in future. It should be noted that these questions were asked prior to respondents' being exposed to the principles underlying the Green Deal, but the responses provide information to contextualise the energy assessment component of the scheme. Energy assessments as part of the Green Deal are discussed in the following chapter of this report.

One in five (19%) of these businesses (those which had not had an assessment) considered it likely that their business would have an assessment, while half (54%) did not think it likely. Owners (22%) were more likely than tenants (16%) to think it likely that their business would have an assessment in future.

The in-depth interviews highlighted that the likelihood of having an energy assessment would be increased if businesses were convinced that assessors have appropriate expertise across a broad range of building types and sectors.

*“They would need to be well-versed in building types, because obviously you can’t use a one size fits all assessment. Old buildings, particularly Victorian buildings, are incredibly draughty, it’s a feature of their design. Unless you know how it has been built, you may be making impossible recommendations that will never be applied. They need to be familiar with very old fashioned ways of doing things and antiquated equipment”.*

(A multi-use centre with charitable and worship uses, 50 to 249 employees)

*“Having an understanding of the field would help, assessors who specialise in production facilities... yes. It isn't essential but it would be nice to have”.*

(Sheet metal fabricator, 25 to 49 employees)

Businesses also stated that the output of the assessment (i.e. recommendations within a report), should be accessible, practical and be written in plain English.

*“We would want an industry expert and that the results of the assessment would be written in plain English so you can understand what they are and as a business what it would mean to you”.*

(Construction and facilities management, 1,000+ employees)

*“It would have to be straightforward with no gobbledegook and I’d want something that could guarantee the savings made by the improvements”.*

(Meat packing factory, 25 to 49 employees)

The in-depth interviews also highlighted that the likelihood of having an energy assessment would be increased if businesses were convinced that the assessment would identify measures which would contribute to making cost efficiencies.

*“If we could save money doing something, then obviously then we would want to do it. It makes every sense, especially as we are a charity, grants diminishing, to try anything we can to make sure its funding goes in the right way”.*

(Charitable organisation, 50 to 249 employees)

*“With a view to saving money on our energy costs and overheads, it would be appealing. Margins are tight so we have to be looking everywhere to control our costs... If it’s a way of getting cheaper energy, that’s what we’re looking to do”.*

(Meat packing factory, 25 to 49 employees)

For some businesses, a reluctance to pay for an assessment was driven by a belief that it would not necessarily deliver long-term gains, either because they felt their existing knowledge was sufficiently high as to not need formal or further assessment, that all possible energy efficiency improvements had already been made, or because they did not feel that their business would benefit from any such improvements due to its size or nature.

*“We are well enough networked and we have a high enough level of awareness of energy efficiencies not to require an assessment”.*

(Residential youth centre, 10 to 24 employees)

*“We have already had one done and I don't see that the figures will have changed much”.*

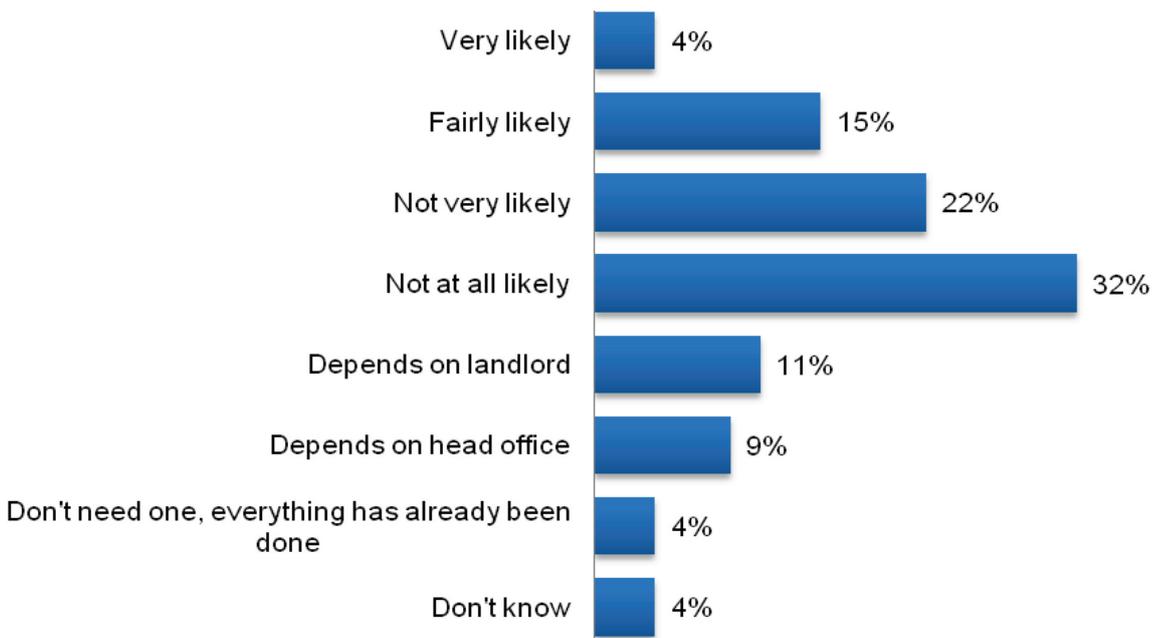
*(Residential youth centre, 10 to 24 employees)*

*“We are not likely to request any form of assessment anytime soon. I can't see it making a huge difference to us really, we are such a small office, there are no major changes that are going to affect us that much. The only real benefit would be if it helped us financially but I don't think it would be a huge difference”.*

*(Architects' practice, two to four employees)*

Overall, as the next figure shows, 11% of businesses in the quantitative survey said that the decision to have an assessment would depend on a landlord, but the figure for tenants alone (i.e. those actually with a landlord) was 17%. Similarly, overall, 9% of businesses (which had not already had an assessment) said that a head office would decide, but the figure for branches alone was 34%.

**Figure 3: Likelihood that businesses would have an in-depth energy assessment or audit at their site – where businesses had not already had an assessment**

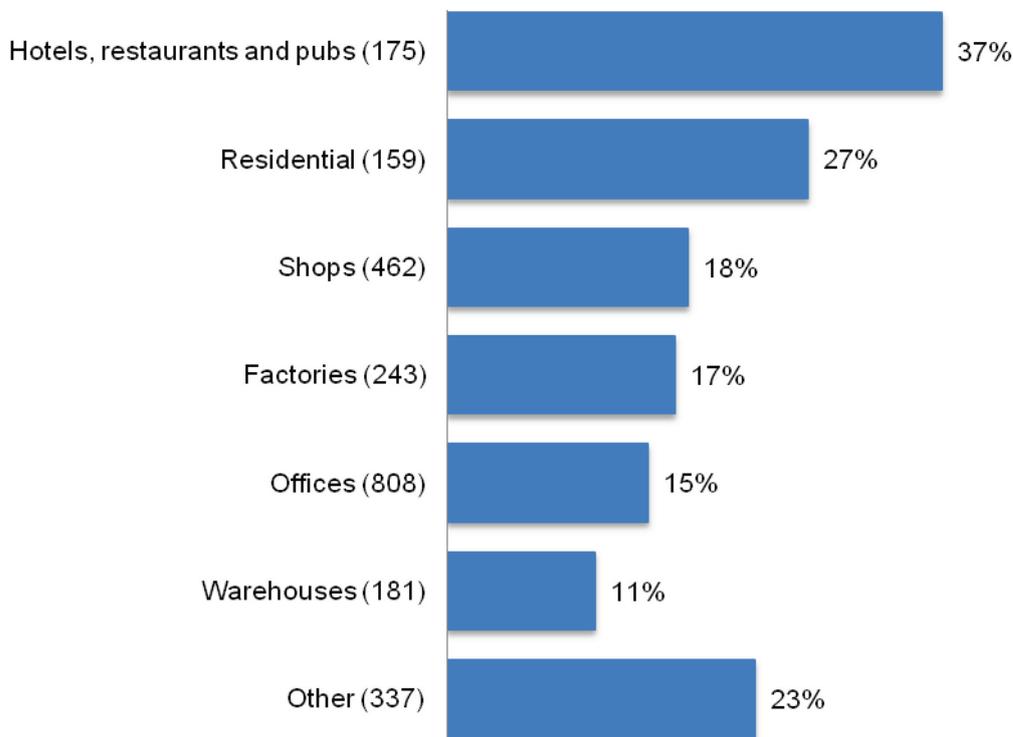


Sample base = 2367

The quantitative survey showed that the likelihood that businesses would have an assessment in the future varied by type of premises. Around one in ten warehouses (11%) considered it likely, compared to nearly four out of ten hospitality premises, as did close to a quarter of those in other<sup>6</sup> types of properties. Factories were most likely to say that it was not likely that their business would have an assessment – 67% reported this compared with the average (for ‘not likely’) of 54%.

<sup>6</sup> ‘Other’ includes disparate responses provided at low levels including premises such as churches, service stations, farms, boat yards, football stadia, etc.

**Figure 4: Likelihood that businesses would have an in-depth energy assessment or audit at their site – where businesses had not already had an assessment by type of premises**



Sample bases in parentheses

The likelihood that businesses would have an assessment in future increased in line with the size of the business, from 16% of those with one to four employees, to close to half (44%) of those with 250 or more employees. This suggests a need for clear, targeted information for small to medium sized businesses in relation to energy efficiency if they are to be encouraged to take up an assessment.

More broadly, these findings highlight the need for clear information on assessments that is relevant to the widely varying circumstances of businesses in terms of the type and nature of their property, and the importance to businesses of assessors having the appropriate expertise across a broad range of building types and sectors.

As well as demonstrating the importance of clarity in the assessment process itself, the research also highlights the potential complexity of the decision-making process, and the importance of communicating to head offices on conducting energy assessments at their branches as well as at their own premises, and to landlords on the benefits they might derive across their property portfolios.

### Amount prepared to pay for assessment

Half (49%) of businesses which were open to the possibility of having an assessment (representing 63% of those businesses that have not already had an assessment) would not expect to pay for it. A further one in five (19%) said that 'it depends', and a further one in ten (10%) were unsure. Consequently, around one in five (22%) indicated a willingness to pay for an assessment. Of these, the majority would be prepared to pay up to £100.

Large businesses with 250 or more employees were more likely than smaller businesses to be prepared to pay at higher levels – one in five (18%) of this group indicated they would be willing to pay £500 or more.

**Table 1: Amount prepared to pay for energy assessment – all respondents open to having assessment by number of employees**

	Number of employees					
	ALL (1,631)	1 to 4 (365)	5 to 9 (404)	10 to 49 (484)	50 to 249 (259)	250 or more (119)
Would not expect to pay	49%	<b>54%</b>	<b>45%</b>	42%	35%	27%
Up to £100	15%	<b>15%</b>	<b>17%</b>	13%	10%	5%
£101 to £500	4%	6%	6%	5%	11%	5%
£501 to £1,000	1%	<.5%	1%	1%	2%	<b>8%</b>
£1,001 or more	<.5%	0%	0%	1%	1%	<b>10%</b>
Depends	19%	16%	18%	26%	24%	<b>33%</b>
Don't know	10%	8%	13%	12%	16%	13%

Unweighted bases in parentheses

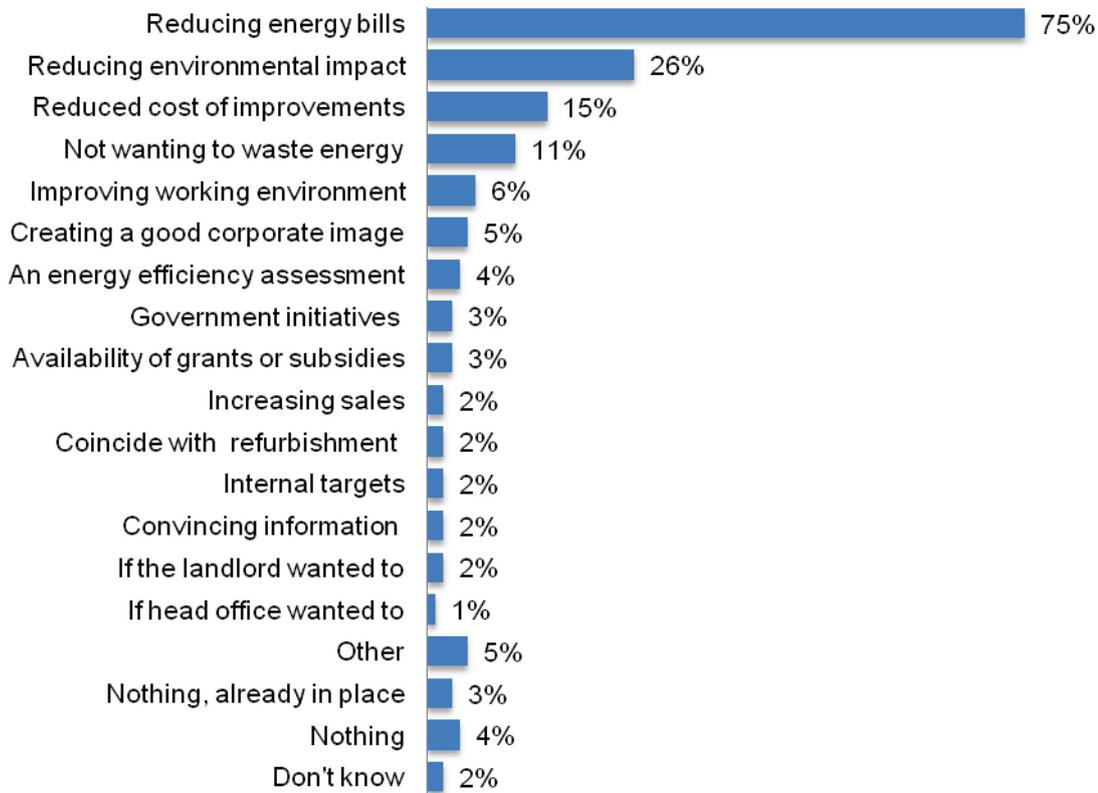
**NB: For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are both emboldened and set on a shaded background**

These views were reflected in the in-depth interviews with businesses. When asked how much they would expect to pay for an assessment, some respondents didn't know or said the question was irrelevant (since they wouldn't have one). Others suggested a cost of between £50 and £1,000. Fewer specified a higher amount or expressed their answer in terms of consultant day rates (which, in different cases, they believed would range from £400 to £1,000 per day). Overall, respondents were not clear about the cost of assessment.

## Main motivations for energy efficiency improvements

When businesses were asked (without prompting) what were their main motivations for energy efficiency at their site, three-quarters (75%) mentioned the reduction of energy bills. The next most frequently mentioned motivation was reduction in the impact on the environment (26%), followed by the reduced cost of energy efficiency improvements (15%) and not wanting to waste energy (11%).

**Figure 5: Main motivations for energy efficiency improvements (unprompted) – all respondents**



Sample base = 2802

Owners of premises (78%) were more likely than tenants (72%) to mention reduction in energy bills as the main motivation and also more likely to mention reduction in environmental impact (29% of owners; 24% of tenants).

Analysis by size of business showed that larger employers were more concerned than smaller employers about reducing environmental impacts (43% of businesses with 50 to 250 employees and 50% of businesses with 250 or more employees, compared with the average of 26%), about creating a good corporate image (12% of businesses with 50 to 250 employees and 20% of businesses with 250 or more employees, compared with the average of 5%).

By sector, manufacturing (81%) and 'accommodation and food' businesses (79%) were most likely to be motivated by reducing energy bills, while mention of most other factors was higher than average amongst businesses in real estate activities (36% mentioned reducing environmental impact, 13% mentioned an energy efficiency assessment, 12% mentioned creating a good corporate image, and 7% mentioned government initiatives).

The importance of, and motivations for, energy efficiency were also discussed in the in-depth interviews with businesses. These businesses fell broadly into two groups. Firstly, those with a commitment to energy efficiency which linked to environmental and social concerns and their Corporate Social Responsibility reporting.

*“Energy efficiency is a priority and trying to reduce our carbon footprint is always considered. Hybrid motor cars have been implemented for fleet cars and we have air source heat pumps”.*

(Insurance assessors, 25 to 49 employees)

*“We publish our carbon footprint on energy as well as on travel and use of paper and everything else. If we can benchmark our utilities and consumption and get it lower then we get a gold star”.*

(Aid agency, 1000+ employees)

Secondly, other businesses were motivated simply by the belief that the implementation of energy efficiency measures can contribute to a reduction of energy consumption, which in turn could reduce the energy bill overhead to the business. As such, these businesses were only motivated to implement energy efficiency improvements should they have a direct impact on ensuring that the overall energy bill was as low as possible.

*“The organisation doesn’t give much priority to energy efficiency – apart from keeping energy bills as low as possible”.*

(Food processing factory, 25 to 49 employees)

*“Keeping overheads low is critical so energy efficiency is a priority”.*

(Architects’ practice, two to four employees)

It should also be noted however, that in some instances, particularly within the manufacturing industry, ensuring that machinery and equipment was being used efficiently was more important than ensuring that a building was running efficiently, given the high energy usage of the machines/equipment.

## **Main barriers to energy efficiency improvements**

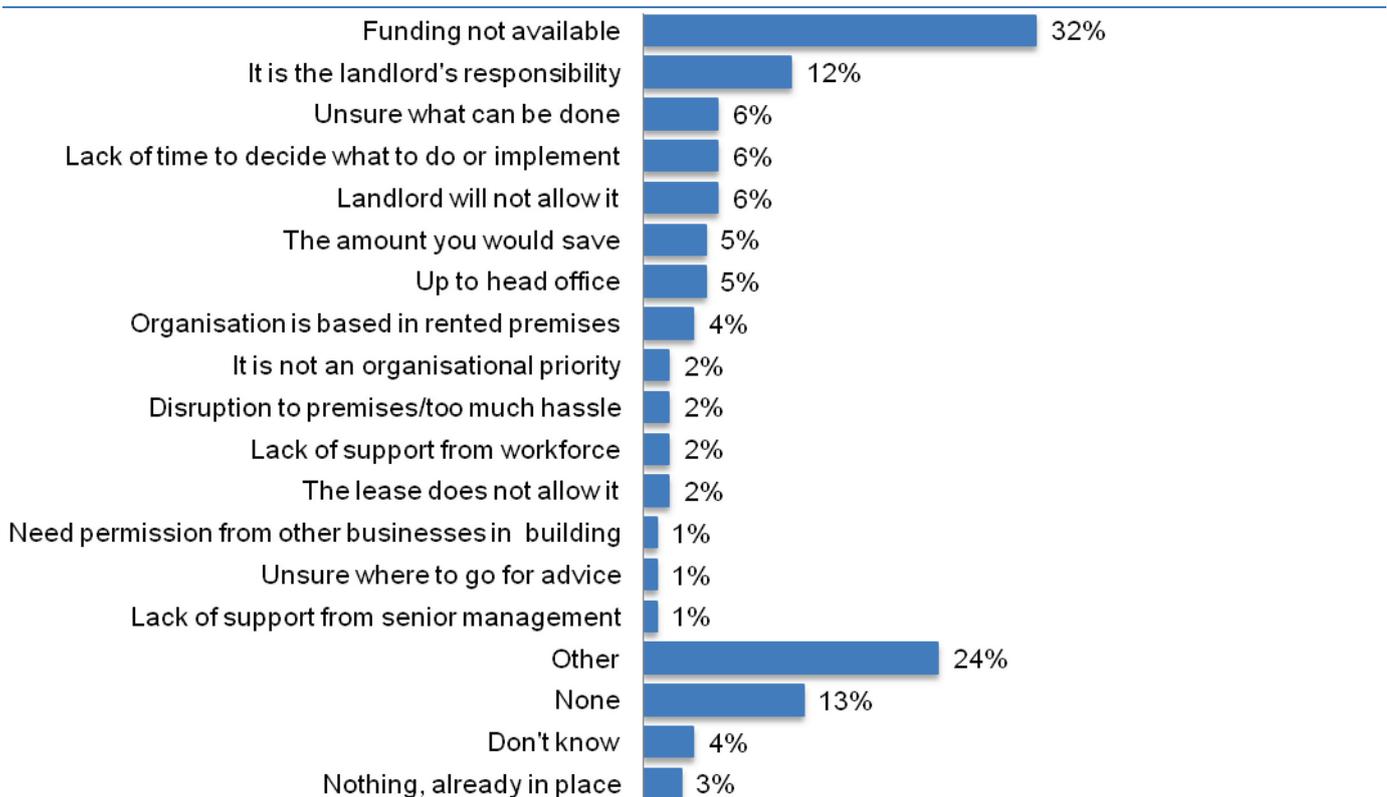
The main barrier to making energy efficiency improvements, identified by around one third of businesses (32%), was that funding was not available. This barrier was mentioned more frequently by owners (37%) than by tenants (30%).

Unavailability of funding was also mentioned more often by larger businesses than by smaller businesses. Nearly half (47%) of businesses with 250 or more employees cited funding not being available as a barrier. By sector, manufacturers (50%) were significantly more likely than other sectors to mention funding not being available as a barrier.

The next most frequent barrier was that energy efficiency improvements were the landlord’s responsibility, mentioned by 12% of businesses overall and 19% of tenants. A further 6% of all businesses and 10% of tenants say their landlord would not allow it.

A wide range of other barriers were also reported by businesses including lack of time to decide what to do and uncertainty about what could be done:

**Figure 6: Main barriers to businesses making energy efficiency improvements at their site (unprompted) – all respondents**



Sample base = 2802

## Energy efficiency behaviour

An indication of the extent to which energy efficiency concerns are important to businesses is actual behaviour – actions already pursued to reduce consumption. If effort to introduce energy efficiency measures/policies has been significant, the climate for the introduction of the Green Deal may be more conducive than if energy efficiency is something to which businesses pay lip service but act on less frequently.

Energy efficiency can be improved by simple behavioural changes requiring little investment. Nine out of ten businesses (89%) had tried to improve energy management through more efficient use of existing equipment, such as turning off equipment or lights when not needed, using energy efficient light bulbs or timers, or better control of heating. Proportions were similar across all types of premises but hospitality businesses (hotels, restaurants, and pubs) and residential businesses were more likely than other sectors to have undertaken such measures (97% and 94% respectively, compared with the average of 89% and 89%). The likelihood of these measures having been undertaken also increased with the size of the business – from 87% of the smallest businesses (with one to four employees) up to 97% of the largest businesses (with 250 or more employees).

### More substantial energy efficiency measures

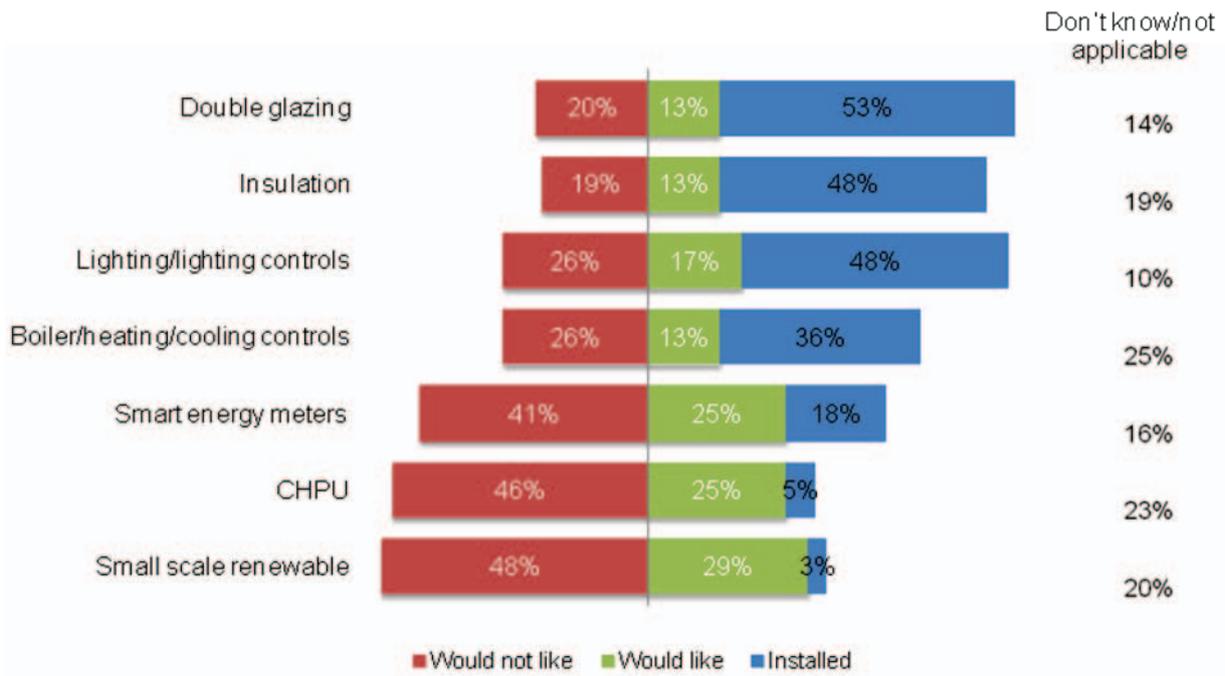
During telephone interviews respondents were also asked about more substantial energy efficiency measure which required a greater financial investment and included changes to their premises. A list of energy efficiency measures was read out to respondents and they were asked whether they were already installed, and if not, whether they would like to have them installed.

Double glazing was the most common energy efficiency measure in place at businesses' premises – 53% operated from double glazed premises. Similar proportions of around half (48% in each case) also had insulated walls or roofs and energy efficient lighting or lighting controls. Around a third (36%) had had their boiler or heating or cooling controls replaced. Small-scale renewable technologies, such as solar panels, micro wind turbines, or heat pumps were least likely of all the measures to be in place – at only 3% of businesses.

However, those latter technologies constituted the type of measure which businesses would most like to have installed – by 29% of businesses. Substantial proportions of businesses were also interested in having smart energy meters and displays and combined heat and power units installed. A quarter of businesses (25% in each case) expressed interest in having each of these measures installed.

However in each instance the proportions of businesses which did not want each measure exceeded the proportions which did want them.

**Figure 7: Whether each energy efficiency measure is already installed and if not, whether businesses would like it to be installed in the future – all respondents**



Sample base = 2802

There were variations in the pattern of existing installations between businesses of different types and in different circumstances:

- Owners of premises were more likely than tenants to have energy efficiency measures already in place. Nine in ten owners (91%) had at least one measure, compared with eight in ten tenants (80%).
- Businesses in buildings that were built in 2007 or after were most likely to have each energy efficiency measure in place (presumably as part of the construction). Consequently, those in older buildings were generally more interested in having each installed.
- In terms of type of premises, a number of energy efficiency measures were more likely to have already been installed in hospitality and residential premises than in other types of premises.
- Businesses employing 10 or more staff were more likely to already have a replacement boiler or heating or cooling controls, and to have insulated walls or roofs (half or more in each instance).
- Businesses with some form of restrictions on their building, such as being listed or located in a conservation area, were more likely than those without to have already replaced their boiler or heating or cooling controls, and to have smart energy meters installed; but less likely than those without restrictions to have double glazing in place.

There were also variations in respect of future installation:

- Businesses with at least 50 employees were particularly keen on the future installation of small scale renewable technologies, with two-fifths (40%) of businesses of this size saying they would like these technologies to be installed.
- Tenants were more likely than owners to say they would like double glazing (16% compared to 8%), smart meters (27% compared to 21%) and replacement lighting or lighting controls (19% compared to 13%). Owners were more likely than tenants to express an interest in the installation of small scale renewable technologies (33% compared to 27%).
- Hospitality premises also tended to have an above-average interest in future installation of energy efficiency measures – particularly in small-scale renewable energy systems (44% against an average of 29%) and Combined Heat and Power Units (42% against an average of 25%).
- Interest in replacing their boiler or heating or cooling controls in future increased with the size of businesses, from 13% of those with one to four employees, to 20% of those with 250 or more employees; while smaller businesses showed more interest than larger businesses in insulating their walls or roof and installing double glazing.

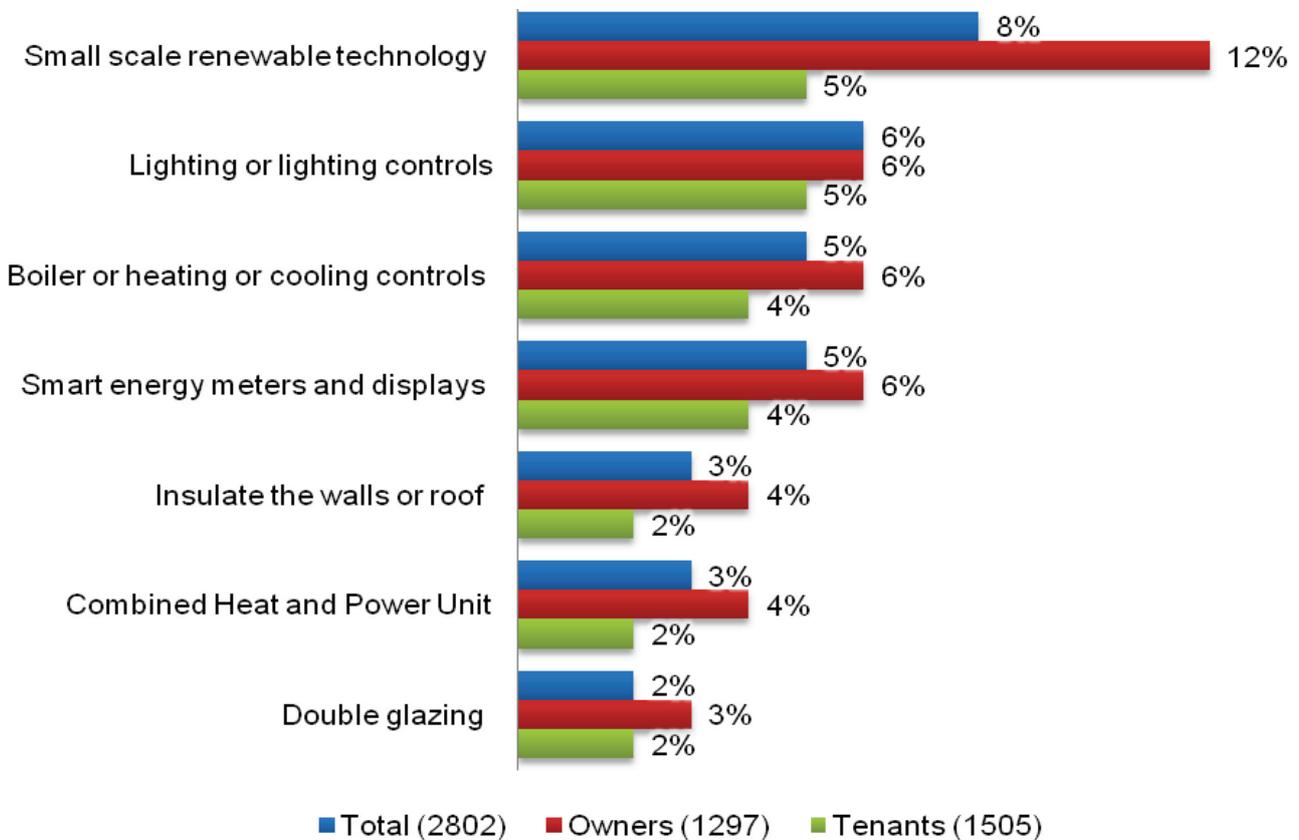
## Measures which businesses plan to install

Clearly the fact that businesses would like to see a range of measures installed does not necessarily translate into an active intention to install. In this light, businesses which said they would like to have particular measures installed were asked whether they had plans to install them. It should be recognised that a stated intention to install measures may well overstate actual instances of future installation.

Businesses were most likely to have plans to install small scale renewable energy technologies, such as solar panels, micro wind turbines, or a heat pump – 8% had plans to do this. Around one in twenty businesses had plans to install replacement lighting or lighting controls (6%), to replace their boiler or heating or cooling controls (5%), or to install smart energy meters and displays (5%).

Thus, overall, those with plans for each type of energy efficiency measure accounted for small proportions of all businesses. However, although proportions were still low, owners were more likely than tenants to have plans to install each measure. Particularly, the proportion of businesses planning to install a small scale renewable energy technology increased to one in eight (12%) amongst owners.

**Figure 8: Proportion of businesses that have plans to install each energy efficiency measures – all respondents by tenancy**



Sample bases in parentheses

Analysis by type of premises shows that hospitality businesses had an above-average likelihood of having plans to install most of the efficiency measures (all except lighting and heating controls).

Larger businesses were more likely to have plans for several of the energy efficiency measures. Businesses that have some form of restrictions over their building/site were, perhaps surprisingly, more likely to have plans than unrestricted businesses.

**Table 2: Proportion of businesses that have plans to install each energy efficiency measure – all respondents by number of employees, restrictions and occupancy**

	Number of employees						Listed or other restriction		Multi-occupancy site	
	ALL (2,802)	1 to 4 (648)	5 to 9 (657)	10 to 49 (762)	50 to 249 (458)	250 or more (277)	Yes (773)	No (2029)	Yes (802)	No (2,000)
Boiler or heating or cooling controls	5%	4%	5%	4%	<b>11%</b>	<b>13%</b>	5%	5%	4%	5%
Insulation of walls or roof	3%	3%	4%	3%	2%	3%	4%	3%	2%	4%
Smart energy meters and displays	5%	4%	5%	6%	8%	<b>11%</b>	<b>8%</b>	4%	4%	5%
Double glazing	2%	3%	2%	2%	3%	2%	3%	2%	2%	3%
Small scale renewable technology	8%	7%	8%	10%	<b>15%</b>	<b>23%</b>	7%	8%	7%	8%
Combined Heat and Power Unit	3%	2%	4%	5%	<b>8%</b>	<b>8%</b>	<b>5%</b>	2%	2%	4%
Lighting or lighting controls	5%	5%	7%	7%	10%	<b>12%</b>	<b>8%</b>	5%	5%	6%
Unweighted bases in parentheses										

**NB: For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are both emboldened and set on a shaded background.**

In-depth interviews with businesses showed that the ‘would like to have’ and ‘plan to’ responses in the main survey were not simply aspirational or lacking in substance. Many of the owners and tenants interviewed reported having undertaken improvements or that they were currently making improvements.

*“We are currently installing insulation and replacement lighting. We are looking at other ways of restructuring the building to improve energy efficiency, such as cladding the outside of the building”.*

(Residential youth centre, 10 to 24 employees)

*“We are constantly looking at ways to be energy efficient. We’ve just spent £52,000 on intelligent lighting. We’ve installed 250 units with 50 still to go”.*

(Food processing factory, 50 to 249 employees)

Few provided specific reasons for undertaking improvements, but in some instances cost savings were cited.

*“The laundry and incinerator side of the business is huge. Lighting and heating costs are high so we are looking at what we are using and how we are using it. We are looking at installing smart meters to measure gas, electric and oil use every 30 minutes and help us see where we can make savings”.*

(Waste management facility, 1,000+ employees)

*“Our lighting is fairly efficient but we are looking at daylight sensors to the outside lights... it might save us a little bit of money but there isn't much saving in the electricity”.*

(Aid Organisation, 1000+ employees)

# Chapter 2: Demand for the Green Deal

## Key points

- It is estimated that 24% of all businesses would consider the Green Deal.
- Independently of other factors, the size of businesses, their existing level of engagement in energy efficient improvements, and motivations to introduce such improvements were key factors in predicting a positive response to the Green Deal. Differences by business sector and the associated types of premises were not generally significant – though hospitality businesses (mainly pubs and restaurants) and factories showed a stronger willingness than those in other types of premises to consider the Green Deal.
- The relationship between businesses' self-reported level of influence on decisions about energy efficiency and their willingness to consider the Green Deal was also investigated but no strong relationship was identified.
- Various delivery aspects would encourage consideration. The main factor, encouraging 22% of businesses, would be the availability of skilled and regulated installers carrying an official quality mark.
- In terms of the Green Deal's financial aspects, the Green Deal's central proposition – that its costs would be covered by savings on the energy bill – was its main attraction. Businesses stated that they would prefer shorter payback periods (up to three years) rather than longer payback periods. The proposed interest rate and the fact that the savings would be estimated not guaranteed were, on balance, negative factors for businesses.
- When the Green Deal was positioned as one of a set of possible ways of paying for energy efficiency, 28% of businesses said they would *consider* this source of finance, significantly higher than the proportion which would consider taking out a conventional loan (7%), and 19% that they would prefer it to other sources, again significantly higher than the proportion which would prefer to take out a conventional loan (3%). However, these figures are lower than those for simply using cash flow and cash holdings, which 43% would consider and 34% would prefer.
- The preferred incentives to Green Deal take-up, in line with businesses' financial motivations were those which most clearly guaranteed a financial input – a government grant or subsidy or a rebate on business rates – rather than cash back from a Green Deal provider or discounts on the provider's other services and products.

Cont...

- Businesses saw the main advantages of the Green Deal as: (1) lower energy bills (perceived by 53% of businesses); (2) better for the environment (15%); (3) no or low up-front payments (11%).
- When asked about the Green Deal's disadvantages, cost (expressed in a range of ways including the lack of guarantee as to savings) the disruption of making improvements, and the payback period were the three most frequently mentioned downsides; but generally businesses saw fewer disadvantages than advantages to the Green Deal – 41% of businesses could not identify any disadvantages compared with the 29% of businesses which could not identify any advantages.

## Introduction

After questions on business structure and energy efficiency more generally, businesses were asked more directly about the Green Deal. To prepare for these questions, an explanation was read out to respondents by interviewers. To reflect how the Green Deal is likely to operate for these groups, the explanation was tailored according to whether the premises was rented or owned, the respondent's self-reported level of influence over decisions at the property, and whether they pay their energy bills direct to the supplier, and is shown in full below.

*"In the future it will be possible for businesses who wish to take out energy efficiency improvements such as improvements to their lighting, heating or insulation to pay for these through a new scheme. I am going to describe this scheme – do not worry – I will not try to make you take it out.*

*"The new scheme will enable private firms to offer energy efficiency improvements to businesses at a small or no upfront cost which should lead to savings on your energy bills. Any savings could be used to cover the cost of the improvement, which you would pay back through instalments on the energy bill.*

*"Firstly, you would get an independent energy assessment carried out by an accredited assessor. This would tell you what energy efficiency improvements could be made, the benefits of having them installed and how much they would cost.*

**(TENANTS ONLY:** *"The assessment could be requested by either you as a tenant or the landlord of the property. Both the tenant and the landlord would have to consent to any work that is undertaken.)*

*"I am now going to tell you a bit more about the scheme. Instead of paying for all of the improvements up-front or taking out a conventional loan, you would pay back the cost of the improvements through savings in your energy bills over a number of years.*

*"Initial advice on the actual amount you might save would be estimated due to a number of variable factors such as the change in the price of fuel and amount of energy you use.*

*"You would only pay for the improvements while you benefit from them – if you moved out of the premises the repayments would become the responsibility of the new energy bill payer.*

**(TENANTS ONLY:** *"If you wanted to get the benefits of these savings you would be able to ask your landlord to sign up to this scheme. Or you could sign up to the scheme yourself as long as you have your landlord's consent. In both cases the cost would be paid through your energy bill. Your landlord would not be able to sign up to the scheme without your permission as a tenant, if you pay the energy bill in the property.")*

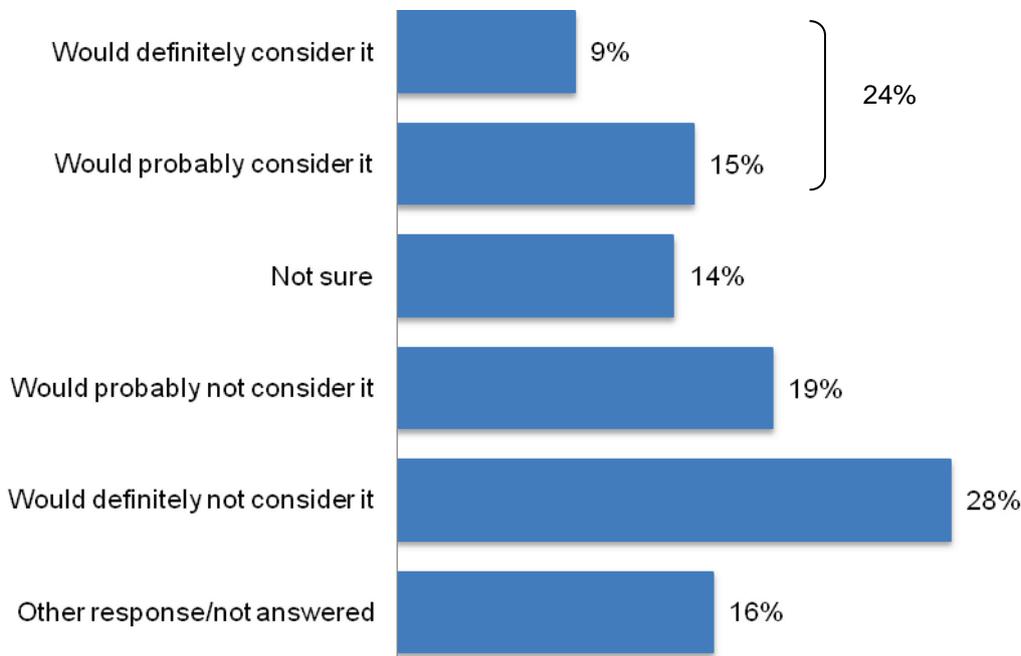
## Willingness to consider the Green Deal

To estimate the possible level of responsiveness to the Green Deal, businesses were asked how willing they would be to consider taking it up. It will be noted that most businesses were probably not aware of the scheme which was described to them before the interview. ‘Willingness to consider’ is, therefore, not definitive of future behaviour but gives a measure of the business community’s basic responsiveness to the outline proposition.

In order to generate an indicator for all businesses in the survey, this measure combined answers to questions which were asked of businesses in different circumstances. Owners and tenants with some involvement in energy efficiency improvement decisions were asked how likely they would be to take up the scheme on a 10 point numerical scale. Tenants with no involvement in decisions were asked how likely they would be to ask their landlord to consider making energy efficiency improvements under the scheme using a five-point scale (definitely consider to definitely not consider). In a small number of cases (104), respondents who had said they had made all possible improvements were asked how likely they would be to consider the scheme if additional improvements *were* identified, on a 10 point numerical scale. Responses were grouped as follows: rated 8 to 10 = definitely consider; rated 6 to 7 = probably consider; rated 5 = not sure; rated 2 to 4 = would probably not consider; rated 1 = would definitely not consider.

The distribution of responses is shown in the figure below.

**Figure 9: Whether business would consider taking up the Green Deal – all respondents**



Sample base = 2802

Overall, nearly a quarter (24%) of businesses were willing to consider the Green Deal. When this proportion is examined for different sub-groups of businesses, some variations are evident, as shown in table 3 overleaf.

This data suggests that, though there are statistically significant variations (emboldened figures in the table), the scale of variation is not huge, most percentages for different groups of businesses falling between 20% and 30%. However, some particular features are evident:

- Larger businesses (particularly those with 50-249 employees) were more likely to consider the Green Deal.
- Hospitality businesses and factories were more likely to consider the Green Deal than were businesses in other types of premises. Closer examination of hospitality businesses showed that pubs and restaurants rather than hotels were most responsible for this difference. It should also be noted that higher levels of consideration among factories are likely to be at least partially explained by the fact that they were more likely than other premises types to be larger businesses.
- Some of the strongest predictors of a positive view of the Green Deal were questions which revealed whether businesses were already engaged in energy efficiency measures or not. A range of items suggest that engagement encourages consideration of the Green Deal.

While the findings outlined above are echoed in the findings from a multivariate analysis of the data described later in this Chapter, there are a number of other significant variations outlined below which are **not** identified as statistically significant via this multivariate analysis. This suggests that the increased likelihood of take up of the Green Deal among some types of business can be explained by other related factors (e.g. size), rather than on the basis purely of type and length of occupancy/tenancy or age of building.

- Tenants were more likely to consider the Green Deal than owners (perhaps partly, because in cases where they reported they had no involvement in energy efficiency decisions, 'consideration' was of asking their landlord to consider the Green Deal rather than considering the Green Deal directly themselves).
- Businesses which had not been in their premises for long were more likely to consider the Green Deal.
- Tenants with longer periods remaining on their leases appeared more likely to consider the Green Deal but the difference was not statistically significant.
- Businesses in buildings built between 1990 and 1999 were more likely to consider the Green Deal. Speculatively, businesses in older buildings may sometimes consider energy efficiency measures as more difficult to implement, whilst those in newer buildings may already have energy efficiency measures built in.

**Table 3: Willing to consider the Green Deal: different groups of businesses**

<b>Benchmark: all businesses (2802)</b>	<b>24%</b>
Owners (1297)	21%
Tenants (1505)	<b>26%</b>
1-4 employees (648)	21%
5-9 employees (657)	24%
10-49 employees (762)	<b>29%</b>
50-249 employees (458)	<b>34%</b>
200 or more employees (277)	<b>29%</b>
In multi-occupancy site (802)	26%
Not in multi-occupancy (2000)	23%
Listed or other restriction (773)	25%
Not listed or restricted (2029)	23%
Shops (519)	20%
Offices (923)	26%
Warehouses (211)	14%
Factories (349)	<b>28%</b>
Hotels, pubs, restaurants (214)	<b>29%</b>
Residential (173)	20%
Other (410)	25%
Primary and construction (240)	20%
Manufacturing (351)	27%
Wholesale and retail (546)	22%
Transport (132)	22%
Accommodation and food services (256)	26%
Information and communication (124)	25%
Business and financial services (611)	24%
Education (102)	25%
Health (281)	22%
Arts, entertainment, recreation, and other services (159)	27%
Building age is pre-1990 (2065)	24%
Building age is 1990-1999 (254)	<b>34%</b>
Building age is 2000-2007 (212)	24%
Building age is 2007 or later (84)	27%
Building age is not known (187)	16%
Business has been at that site for up to 2 years (369)	<b>30%</b>
Building has been at that site for 3-10 years (1004)	23%
Building has been at that site for 11 or more years (1385)	22%

**Table 3: Willing to consider the Green Deal: different groups of businesses (cont)**

<b>Benchmark: all businesses (2802)</b>	<b>24%</b>
Tenants with up to 2 years remaining on lease (282)	23%
Tenants with 3-10 years remaining on lease (345)	27%
Tenants with 11 or more years remaining on lease (107)	32%
Regards energy efficiency as important (2396)	<b>26%</b>
Regards energy efficiency as not important (383)	16%
Has sought information on energy efficiency (1071)	<b>34%</b>
Has not sought information on energy efficiency (1731)	20%
Has had energy efficiency assessment (435)	<b>30%</b>
Has not had energy efficiency assessment (2367)	23%
Has implemented energy efficiency improvements (2345)	<b>25%</b>
Has not implemented energy efficiency improvements (457)	20%
Is covered by the CRC Energy Efficiency Scheme (479)	<b>35%</b>
Is not covered by the CRC Energy Efficiency Scheme (1299)	24%
Is part of a Climate Change Agreement (295)	<b>31%</b>
Is not part of a Climate Change Agreement (1641)	24%

**NB: For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are emboldened.**

Two factors which might hypothetically have affected views on taking up the Green Deal – being in multi-occupancy or in a listed or otherwise constrained building<sup>7</sup> – did not do so. In fact, though the differences were not significant, those in multi-occupancy or under constraint were more likely to consider the Green Deal.

It should be noted that one in twenty (4%) of all businesses interviewed felt that all possible energy efficiency measures had already been implemented at their site, and so had no interest in the scheme. It is not possible to explore the extent to which this group are in fact correct in this view, but it does indicate that there are likely to be a proportion of businesses for whom the Green Deal will be perceived to have no relevance.

## A multivariate analysis

To test whether key business characteristics are associated with significant variability in the willingness to consider the Green Deal, ordinal regression analysis was undertaken. This was to take account of the fact that some factors may correlate with others, for example those in a particular industry sector may tend to be larger, so a greater propensity to consider the Green Deal among businesses in that sector might in fact be explained to some extent by their size.

Ordinal regression is a multiple regression model. When, for example, the strength of association between willingness and business size is examined, all other independent characteristics are kept constant, so in effect, the correlation not only between willingness and

<sup>7</sup> Either in a conservation area or subject to other restrictions not related to the terms of the lease.

business size, but whether other independent factors partially influence this relationship<sup>8</sup> is considered.

Level of willingness to consider the Green Deal was identified as the dependent or response variable. The independent or 'explanatory' variables input into the model were: size of business; premises type; sector; tenure (tenants vs. owners); the extent to which the business already had energy efficiency measures in place; the extent of plans to install further energy efficiency measures; whether or not reduction of energy bills was a motivation for installation of energy efficiency measures; and whether or not other factors motivated installation<sup>9</sup>.

A number of factors were identified as having a statistically significant ( $p < .05$ ) relationship with the likelihood of considering the Green Deal. These were:

- Businesses with fewer than 10 employees were less likely to consider the Green Deal.
- Businesses which did not already have energy efficiency measures in place were less likely to consider the Green Deal.
- Businesses with significant plans to install energy efficiency measures were more likely to consider the Green Deal.
- A lack of motivation towards energy efficiency improvements in order to reduce energy bills, or for other reasons, were both predictors that the business would be less likely to consider the Green Deal.

In addition, there was an indication ( $p = .085$ ) that the 'hospitality' premises type was associated with a higher likelihood of considering the Green Deal but the association did not reach the conventional ( $< .05$ ) level of statistical significance. While not statistically significant at the 95% level of confidence, this is significant at the 90% level of confidence, supporting the findings from the univariate analysis, which also identify the hospitality sector as more responsive to the Green Deal than other types of business.

Thus, a multivariate statistical approach confirms that, independently of other factors, the size of businesses, their existing level of engagement in energy efficient improvements, and (not surprisingly) their having motivations to introduce such improvements were key factors in predicting a positive response to the Green Deal. Business sector and the associated types of premises were not generally significant – though hospitality businesses showed a stronger willingness than those in other types of premises to consider the Green Deal.

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<sup>8</sup> Note however that independent variables that correlate highly with each other are said to be collinear, and would bias or cause the failure of a multiple regression model. Initial tests were undertaken to ensure this was not the case.

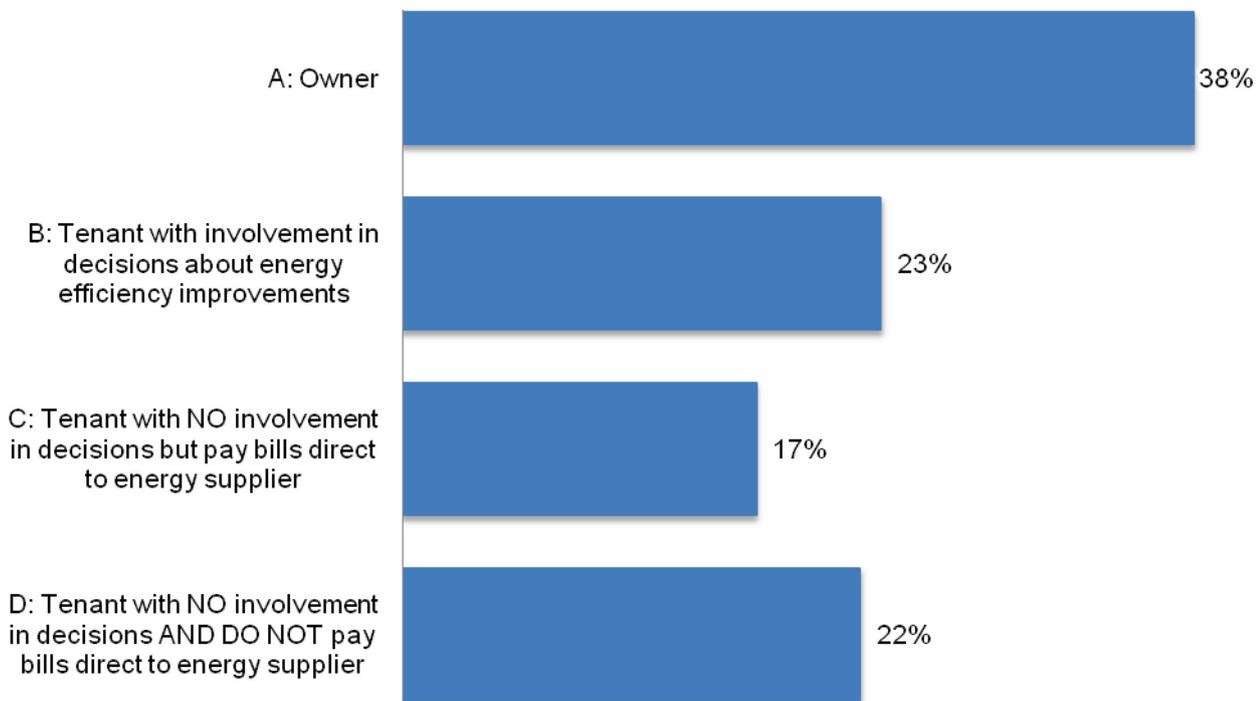
<sup>9</sup> These variables are all *categorical* variables, either an ordered type (such as business size, where there is an ordered grouping of businesses with 1-9, 10-49, 50-249 and 250+ employees), unordered type (such as business sector), or a binary variable (2-category group, such as tenant/owner). The dependent variable is also a categorical variable of the ordered type (highly unlikely, unlikely, possible, highly likely). With categorical variables, tests for significance are performed against the reference category for unordered categorical variables (this is the response with the largest frequency count). In the case of ordered variables, for example business size, those with 0-9 employees are tested against all other size bands combined.

## The Green Deal and decision-making power

Whilst various business circumstances and behaviours, as above, may be associated (or not) with whether businesses are likely to consider the Green Deal, a further factor may be important; that is, where the power to take decisions lies and which parties are involved.

These issues were investigated in the survey. A first analysis distinguishes owners – who would be assumed to have a high degree of autonomy – from tenants. Within tenants as a whole, three groups are further distinguished. The first group said they had some influence on the decision and thus had a degree of autonomy. Two other groups of tenants – together comprising 39% of all businesses – said they would have no influence on the decision even though a substantial minority (17%) pay their energy bills direct to their energy suppliers, whilst 22% pay indirectly. This distinction is significant because the Green Deal will recover costs from whoever pays the associated energy bill. The proportions of these groups are shown below.

**Figure 10: Distribution of autonomy over decisions regarding energy efficiency – all respondents**



Sample base = 2802

There is further complexity, however, in that head office/branch relationships and other occupants of multi-occupancy premises may need to be involved in decisions on energy efficiency. The survey asked businesses:

- Who would be involved in energy efficiency decisions.
- Who would have the most influence.
- Who would be expected to pay for improvements.

The data show that, overall, whilst decision-making and payment responsibility is most frequently at business sites, majorities of tenants and branches would defer to owners and head offices (for some tenants, to both) on energy efficiency improvements.

**Table 4: Involvement in decisions to improve energy efficiency; most influence on decisions; paying for improvements**

Percentage of all businesses*			
<b><i>Some influence</i></b>			
The site	53%	➔	78% of owners and 38% of tenants
Head Office	19%	➔	But 71% of branches (i.e. those businesses which actually have a head office)
Landlord	40%	➔	But 65% of tenants (i.e. those businesses which actually have a landlord)
Co-occupiers	3%	➔	But 8% of those actually in multiple occupancy
Someone else	5%		
Don't know	1%		
<b><i>Most influence</i></b>			
The site	44%	➔	76% of owners and 25% of tenants
Head Office	16%	➔	But 59% of branches (i.e. those businesses which actually have a head office)
Landlord	33%	➔	But 53% of tenants (i.e. those businesses which actually have a landlord)
Co-occupiers	1%	➔	But 2% of those actually in multiple occupancy
Someone else	4%		
Don't know	1%		
<b><i>Expected to pay</i></b>			
The site	56%	➔	79% of owners and 42% of tenants
Head Office	16%	➔	But 59% of branches (i.e. those businesses which actually have a head office)
Landlord	29%	➔	But 48% of tenants (i.e. those businesses which actually have a landlord)
Co-occupiers	3%	➔	But 11% of those actually in multiple occupancy
Someone else	4%		
Don't know	2%		
Unweighted base	2,802		

\*Note: 'Some influence' and 'Expected to pay' were based on multi-response questions so percentages add to more than 100%

How consideration of the Green Deal varies between these groups is set out below, (a more detailed examination of the relationship between responsiveness to energy efficiency issues and business characteristics forms the substance of the following chapter.)

Broadly, the data suggest that the effect of different degrees of self-reported influence on decisions as to whether businesses would consider the Green Deal was quite minor. Tenants who reported no influence and which did not pay bills directly were more likely to consider the Green Deal (in the sense of being willing to ask their landlord to make improvements) but their difference from the average was not great.

**Table 5: Proportion of businesses with varying degrees of influence on energy efficiency decisions which would consider the Green Deal**

<b>Benchmark: all businesses</b>	24%
<b>Owner</b>	21%
<b>Tenant with some influence over decisions regarding energy efficiency improvements</b>	24%
<b>Tenant with NO influence over decisions but pay bills direct to energy supplier</b>	23%
<b>Tenant with NO influence over decisions AND DO NOT pay bills direct to energy supplier</b>	<b>29%</b>
<b>Head office</b>	26%
<b>Branch</b>	24%
<b>Single site business</b>	23%
<b>Sample base</b>	2802

**NB: For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are emboldened.**

The survey then explored the tenant/landlord relationship in respect of considering the Green Deal in more detail:

- How likely they would be to consider asking their landlord to make energy efficiency improvements through a scheme such as the Green Deal.
- How likely they think it is that their landlord would accede to this request.
- If the landlord asked them to make improvements, how likely it is that they would consider their request.

This question sequence was asked of two groups of tenants. Both had said that they had no influence on energy efficiency decisions but they were distinguished by how they paid their energy bills – one group paying bills directly, the other indirectly (through the rent, a service charge, etc) as outlined above. The former group would be directly responsible for the Green Deal repayments whilst the latter group would or might be required to make those repayments only indirectly. The questions were asked in relation to a five point scale ranging from ‘definitely would not consider’ to ‘definitely would consider’.

This analysis shows that many more tenants would be responsive to a landlord request than would initiate the Green Deal themselves, and that tenants were not optimistic about their landlord agreeing to a request should they make it.

**Table 6: Responses of ‘less autonomous’ businesses to the Green Deal**

	Tenants without involvement in energy decisions and pay energy bills directly to suppliers (349)	Tenants without involvement in energy decisions and pay energy bills indirectly (498)
Definitely/might consider asking landlord to use Green Deal	23%	<b>29%</b>
Landlord definitely/might consider acceding to the request	19%	22%
Would definitely/might consider Green Deal if landlord asked	63%	<b>76%</b>
Unweighted bases in parentheses		

**NB: For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are both emboldened and set on a shaded background.**

## Importance of Green Deal characteristics in influencing consideration of the scheme

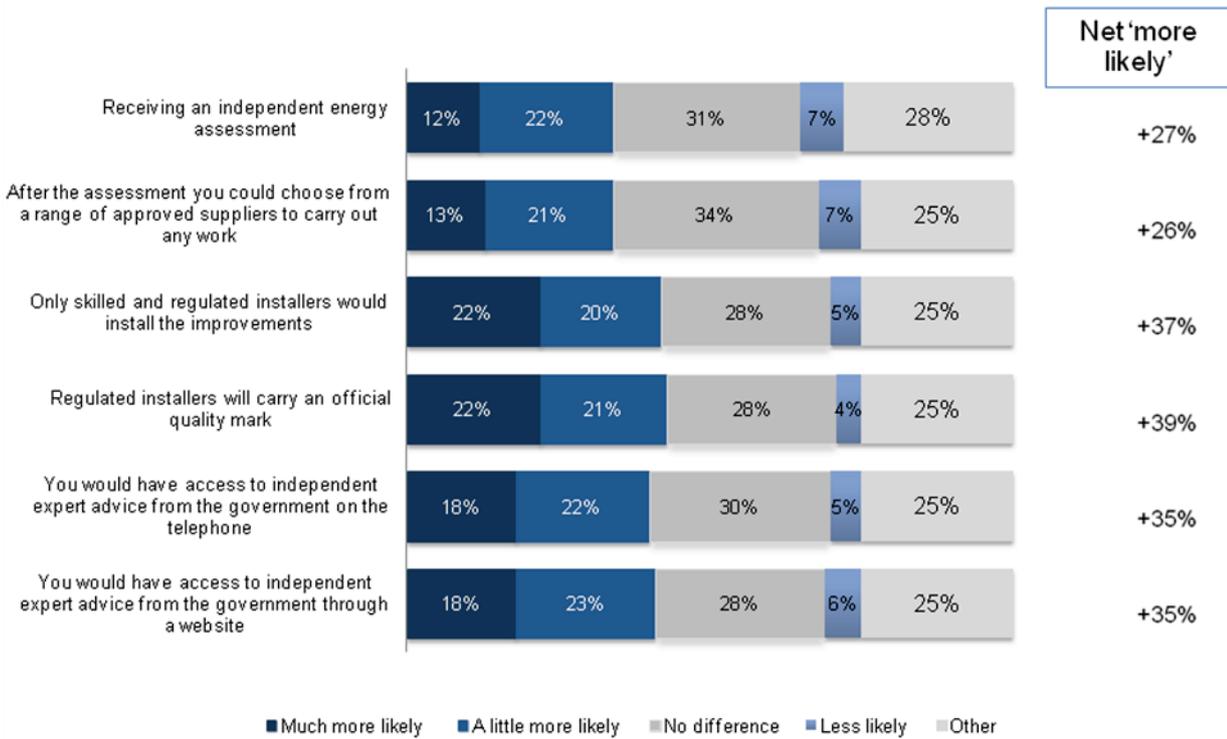
In the telephone survey, businesses were asked whether a range of practical factors in Green Deal delivery would make it more likely that they would take up the Green Deal. The analysis which follows is based on owners, tenants who reported some influence over energy efficiency improvements at their site, and tenants who reported no influence at their site but who pay the bills direct to their energy supplier. This represents 78% of the businesses surveyed.

Just over one in five of these businesses said that having only skilled and regulated installers to install the improvements (22%), and having regulated installers who will carry an official quality mark (22%) would make them ‘much more likely’ to consider energy efficiency improvements through the scheme.

Just less than one in five businesses said they would be ‘much more likely’ to consider the Green Deal if they had independent expert advice from the government via the telephone (18%) or through a website (18%).

Businesses were less likely to be influenced by being able to choose from a range of approved suppliers to carry out the work after the assessment (13%) or by receiving an independent energy assessment (12%).

**Figure 11: Impact of delivery aspects on consideration of installing energy efficiency improvements through the scheme – all respondents excluding tenants who have no influence and do not pay bills direct**



Sample base = 2304

The businesses interviewed in the in-depth interviews were also likely to stress the importance of having skilled and certified installers to carry out improvements.

*“The accreditation, guarantees and warranties are vital as they give reassurance that they are doing what they should. It is also good for us to describe in our own quality documentation that work has been undertaken to a high standard”.*

(Medical equipment manufacturer, 25 to 49 employees)

*“Being a charity and being under the Charity Commission, we have certain processes that we have to undertake, things have to be undertaken by chartered surveyors, engineers. All those accreditations and certificates are a matter of course rather than a selling point”.*

(Aid agency, 1,000+ employees)

One business revealed that their insistence on external accreditation and regulation reflected a previous unsuccessful experience.

*“We were told it would use 23% less energy, but in the end it struggled to make a 10% saving. We had costed on the basis of a 23% saving on an expensive system and this did not work. The system cost us around £180,000, so that’s a lot of money to try and claim back through smaller energy savings than expected. We need some sort of reassurance about how the technology will perform, other than the suppliers. They can tell you what they like. I’m really sceptical, the company is really sceptical, but still we have been burnt a number of times. I’m also worried*

*about smaller companies because they are even more susceptible to being burned”.*  
 (Waste management, 1,000+ employees)

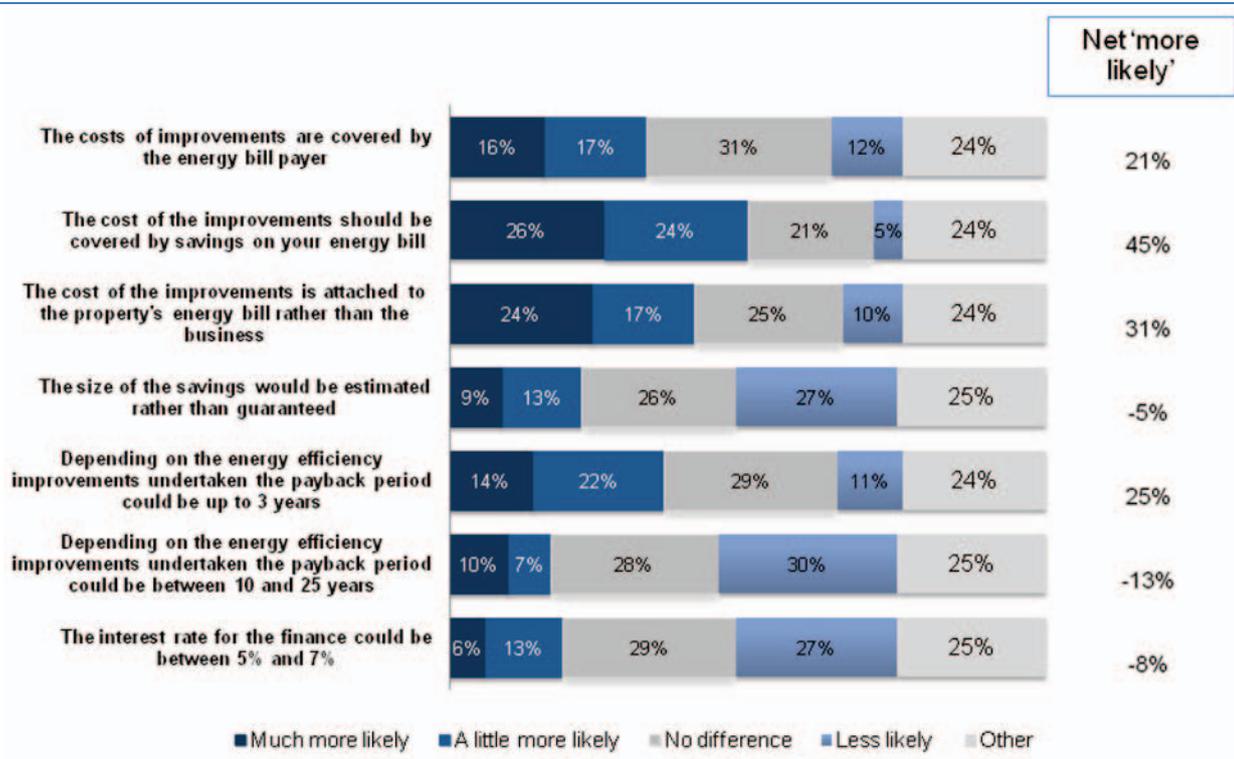
Although having an independent assessment was seen as positive overall, a minority of respondents in the in-depth interviews noted that they would not consider the scheme if they had to pay for the assessment. Others made it clear that the cost of the assessment would have a significant influence on their decision to consider the scheme. The learning from pages 17 to 19, notably that assessments should be tailored and accessible, would also need to be taken into account in the assessment development process.

Businesses were then asked in the telephone survey whether a number of prospective financial features of the Green Deal would influence their likelihood of taking up the scheme. That costs would be covered by savings on the energy bill had the greatest positive effect, followed by the fact that the costs remain attached to the property’s energy bill rather than the business.

While a longer payback period of between 10 and 25 years was, on balance, regarded as a negative factor, a payback period of up to three years was regarded more positively.

Two other factors – that savings would be estimated not guaranteed, and interest rates on the finance of 5%-7% – were, on balance, negative factors.

**Figure 12: Impact of financial aspects on consideration of installing energy efficiency improvements through the scheme – all respondents excluding tenants who report no influence and do not pay bills direct**



Sample base = 2304

Findings from the in in-depth interviews also highlighted concerns about the fact that the savings were estimated and not guaranteed, and mention was also made of the Green Deal's ability to cope with fluctuations in energy prices.

*"I think there has to be a guarantee that it lives up to its expectations and the performance meets sales literature and if it doesn't, what sort of comeback is there on the organisation as a whole? If they tell us we will save 100k/w per month and we don't, what happens then?"*

(Insurance assessor, 25 to 49 employees)

*"To say that you are going to get lower energy bills, for us... it varies every month, it is never a constant figure... when the bill is jumping around so much, how do you know that there are cost savings or not?"*

(Manufacturer of chemicals, 250 to 499 employees)

The length of the payback period evoked considered thoughts amongst businesses, with many stating that the anticipated payback period is entirely dependable on the cost of the efficiency measures implemented. Some anticipated a long payback period (i.e. 25 years) for improvements that were costly, whilst others, stated that it was 'too long', seeing the investment as a burden that would yield little return on investment. Several businesses suggested that a more appropriate payback period would be around three to five years.

*[25 year pay back] "As useful as a chocolate teaspoon. Businesses are transient. It is a liability... 25 years is too much, it is too long".*

(Sheet metal fabricator, 25 to 49 employees)

*"Two or three [years] would be the most. Can you forecast for longer with a company? ... You have got to sell it to someone, you know, the idea, anything more than three years is going to be a challenge".*

(Printer, 250 to 499 employees)

*"It would be one of the deciding factors and I would say if it was going to be longer than five years it would not fly. If it was a few thousand pounds you aren't going to expect to see anything over four or five years because the savings are so slight".*

(Outsourcing activities, 50 to 249 employees)

Interest rates were also discussed within the in-depth business interviews. It is likely that the negative response to the proposed interest rate in the telephone interview is explained in part by the fact that several businesses stated that they were cash rich and would not consider taking out finance with any interest.

*"We would usually self finance modifications via budgets/capital. The scheme would be more attractive if it was equal to or better than other financing options from a cost benefit point of view".*

(Insurance broker, 500 to 999 employees)

Other respondents to the in-depth interviews were negative about the proposed interest rate as they felt that a scheme of this kind shouldn't have a charge attached.

*“Personally, I don't think there should be any charges to be honest, its Government run... You have to encourage them to do it. Because it is Government funded it should be interest paid. We have a commitment to reduce our carbon and making people pay for it won't encourage them to be honest”.*

(Construction and facilities management, 1,000+ employees)

Many also felt that the proposed interest rates of between 5% and 7% were too high and were not competitive. As such, it was suggested by several that the interest rates offered should be linked to the base rate.

*“I think an interest rate at that level would make the scheme prohibitively expensive and therefore unworkable. It does seem quite high”.*

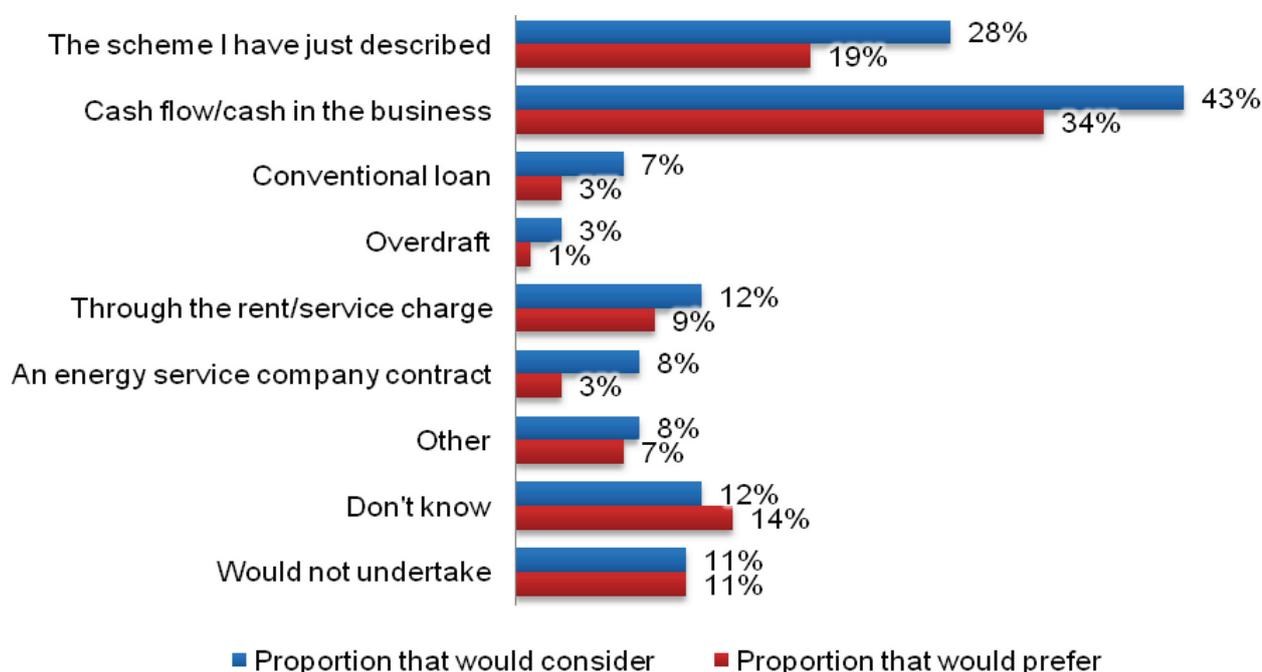
(Public house, 10 to 24 employees)

## **Paying for energy efficiency improvements: The Green Deal compared with other methods**

All businesses were then asked, if they were to undertake energy efficiency improvements, how they would pay for them – the range of payment methods including Green Deal but extending more widely than that. Firstly, they were asked which of the methods they would consider, and, secondly, which one they would actually prefer. More than a quarter (28%) said they would consider paying for improvements through a Green Deal-type scheme, which is significantly higher than the proportion who would consider taking out a conventional loan (7%). However, a higher proportion (43%) would consider paying through cash flow or cash in the business.

When asked which of the suggested methods they would prefer, the highest proportion (34%) reported cash flow or cash in the business, compared with one in five businesses (19%) which would prefer to finance energy efficiency improvements via a scheme like the Green Deal. Again this is significantly higher than the proportion who would prefer to take up a conventional loan (3%):

**Figure 13: Methods businesses would consider, and prefer, in paying for energy efficiency improvements to their business – all respondents**



Sample base = 2802

Considering this by business size, in all instances cash flow was the preferred method, but the extent to which this was the case was considerably greater among large businesses with 250 or more employees, where over half (51%) preferred this method. One in ten (11%) of this group preferred Green Deal financing.

**Table 7: Methods businesses would prefer in paying for energy efficiency improvements to their business – all respondents by number of employees**

	Number of employees					
	ALL (2,802)	1 to 4 (648)	5 to 9 (657)	10 to 49 (762)	50 to 249 (458)	250 or more (277)
The scheme I have just described	19%	<b>19%</b>	<b>19%</b>	<b>20%</b>	<b>17%</b>	11%
Cash flow/cash in the business	34%	34%	34%	34%	39%	<b>51%</b>
Would not undertake	11%	12%	11%	7%	7%	3%

Unweighted bases in parentheses

**NB: For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are both emboldened and set on a shaded background.**

Looking at differences according to tenure, tenants (30%) were more likely than owners (25%) to say they would consider paying for energy efficiency improvements through a Green Deal-like scheme, while owners (53%) were more likely than tenants (45%) to say they would use cash flow or cash in the business. As previously noted, a preference for payment for energy efficiency improvements from revenue or cash was evident in some in-depth interviews while

other respondents were positive about Green Deal financing only if the savings were guaranteed.

Other businesses raised the sort of questions which would be anticipated on first acquaintance with the Green Deal's principles. As outlined in the previous section of this report, key issues concerned the length of the payback period, the transparency of savings, and the absence of guarantees.

*“It depends on whether we stay in the building and the repayments. Would it be worth it? Would there be a penalty if we sold the building within four years? It depends on how long the pay back is and how it fits with our building plan. We would have to look at the penalty clauses and that side of the contract before we go further. It's a lot of ifs and buts at the moment”.*

(Aid agency, 1,000+ employees)

## Business perceptions of the Green Deal's advantages and disadvantages

To explore the reasons why businesses might take positive or negative positions on taking up the Green Deal, they were asked in the telephone survey to identify the reasons for indicating a high or low level of consideration of the Green Deal, and also to identify any advantages or disadvantages which they saw the scheme as having.

### Reasons for considering the Green Deal/perceived advantages

The level of return on investment, the level of improvement possible, and the likely amount saved were cited as the main reasons among those who would definitely consider the scheme. One in five mentioned that it would be a good way of funding improvements.

In line with this, and in line with the motivations towards energy efficiency in general which were reported earlier, the main perceived benefit of the Green Deal was lower energy bills. Half of businesses considered lower energy bills to be the main advantage of the Green Deal scheme (53%).

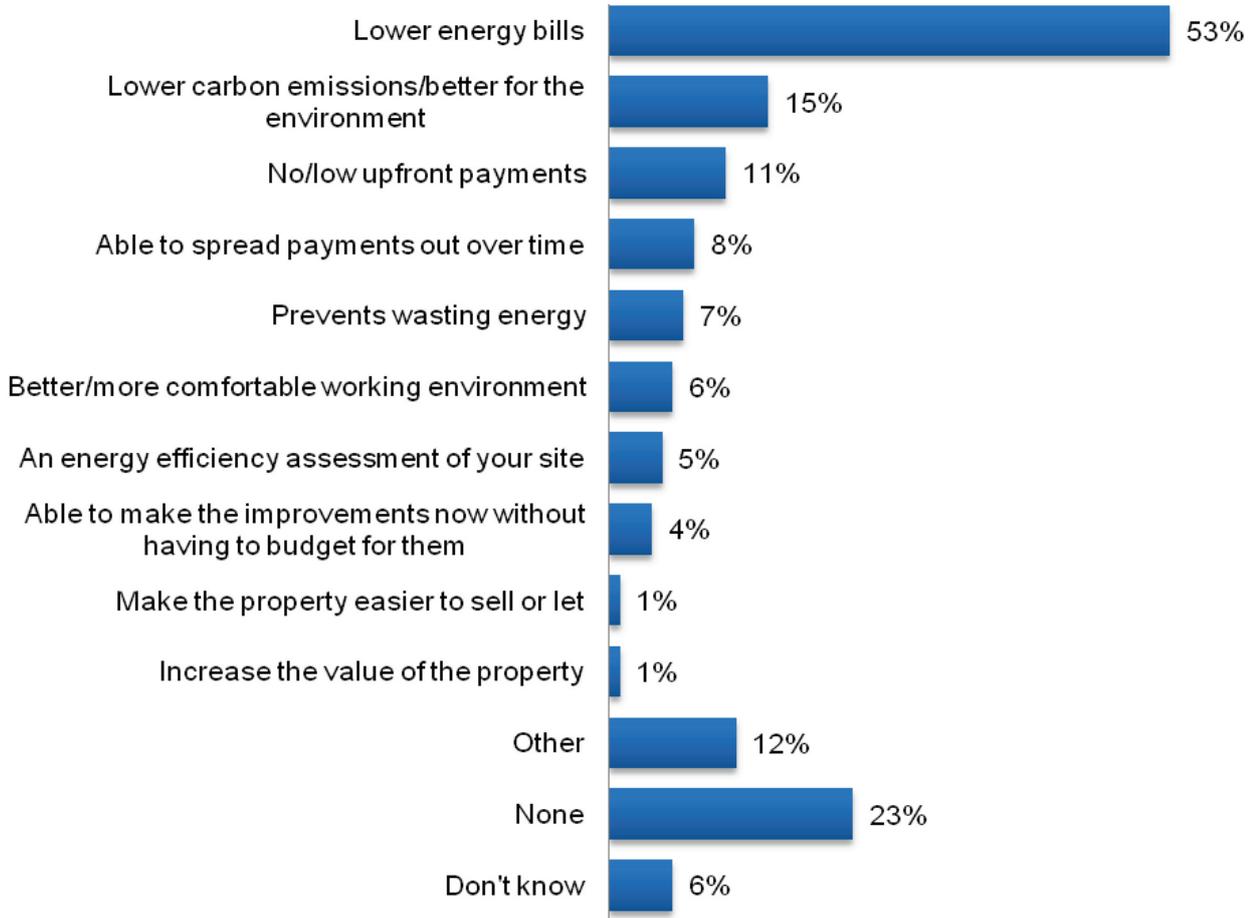
Around one in seven businesses in the telephone survey (15%) considered lower carbon emissions or environmental benefits to be the main advantage of the Green Deal, while no or low upfront payments were considered an advantage by one in nine businesses (11%). Other disparate factors were mentioned at low levels<sup>10</sup>, and, once aggregated, these accounted for 12% of the sample.

Just under a quarter (23%) of all businesses said they perceived no benefits to the Green Deal scheme and a further 6% were not sure. Thus, a majority of businesses (71%) were able to identify at least one advantage of the Green Deal for their business.

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<sup>10</sup> 'Other' includes factors such as the availability of impartial advice, reputational benefits, satisfying industry standards, the freeing up of cash for other activities etc.

**Figure 14: Perceived advantages of the Green Deal scheme for companies (unprompted) – all respondents**



Sample base = 2802

In-depth interview respondents saw the Green Deal's financial advantages but emphasised that the scheme would have to meet criteria – such as quick payback or transparent and low cost for the assessment element – if they were to take it up.

### Perceived disadvantages of the Green Deal

Businesses were also asked their reasons for indicating a low level of consideration of the Green Deal, and to identify any perceived disadvantages of the scheme.

Businesses were most likely to cite the cost of the improvements as a potential disadvantage. This was mentioned by a third (32%) of all businesses, and was expressed in a range of ways in response to the quantitative survey including the lack of guarantee as to savings, management overheads, paying external parties, the level of return, proposed interest rates, and a preference for paying via cash flow.

In addition to concerns about the interest rates, views from in-depth interviews also encompassed concerns over the cost of the assessment, with a minority of the respondents saying that they would not go ahead with the scheme if they were required to pay up front for an assessment. This is supported by the findings from previous DECC research with SMEs on

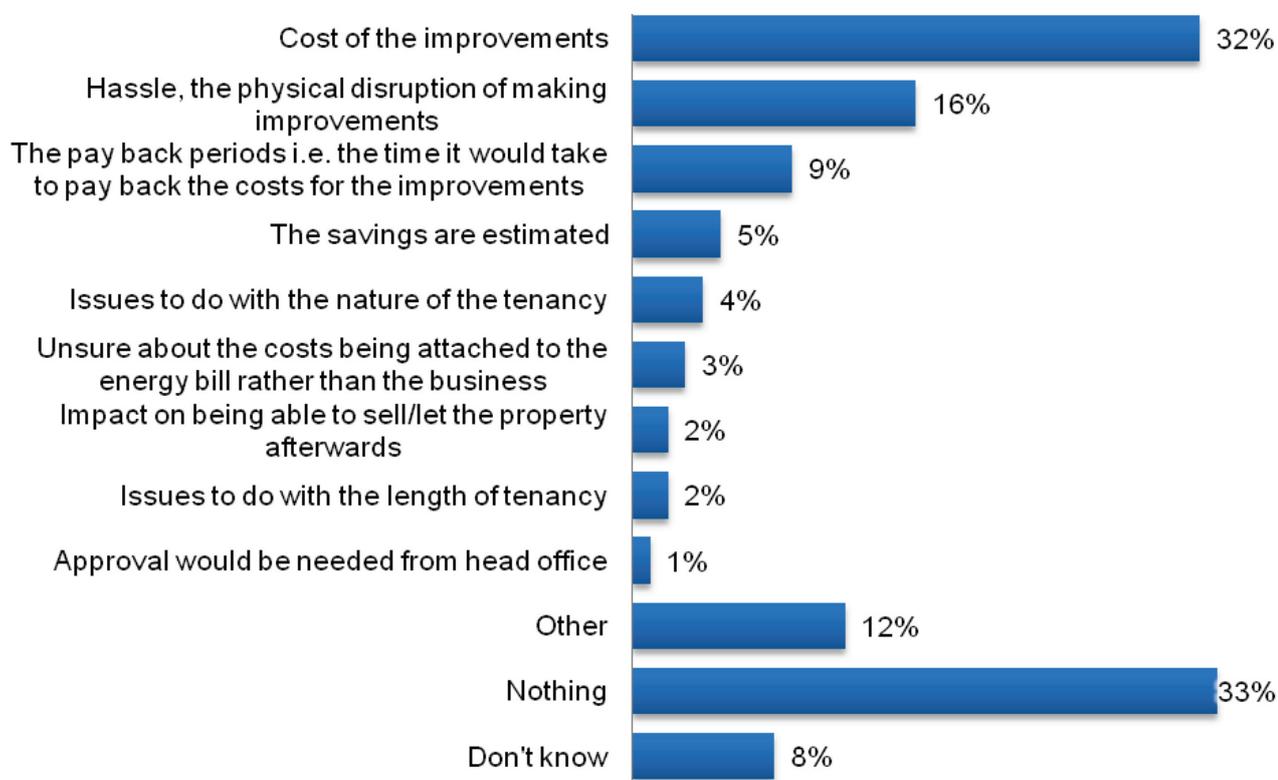
the Green Deal which found that businesses expected to shop around for a service and would expect a free assessment as part of what they considered to be a quote.<sup>11</sup>

As well as costs, businesses identified the hassle and physical disruption of making the improvements as a disadvantage (16%). One in ten (9%) identified the length of the payback periods as a disadvantage.

Other disparate factors were mentioned at low levels<sup>12</sup>, and, once aggregated, these account for 12% of the sample.

A third (33%) of all businesses could not identify any disadvantages to the Green Deal scheme for their company, and a further one in twelve (8%) were unsure.

**Figure 15: Perceived disadvantages of the Green Deal scheme for businesses (unprompted) – all respondents**



Sample base = 2802

While only a small minority of respondents expressed distrust over the stability of environmental schemes, and government schemes more generally, either as a reason for indicating low levels of consideration of the Green Deal, or as a potential disadvantage of the scheme, this does suggest there is a level of scepticism among some businesses.

<sup>11</sup> <http://www.decc.gov.uk/assets/decc/11/consultation/green-deal/3505-green-deal-consumer-needs-wants.pdf>

<sup>12</sup> 'Other' includes factors such as perceptions of red tape/bureaucracy, the amount of time involved in implementing it, the need for more information, a level of mistrust etc.

## The impact of Green Deal incentives

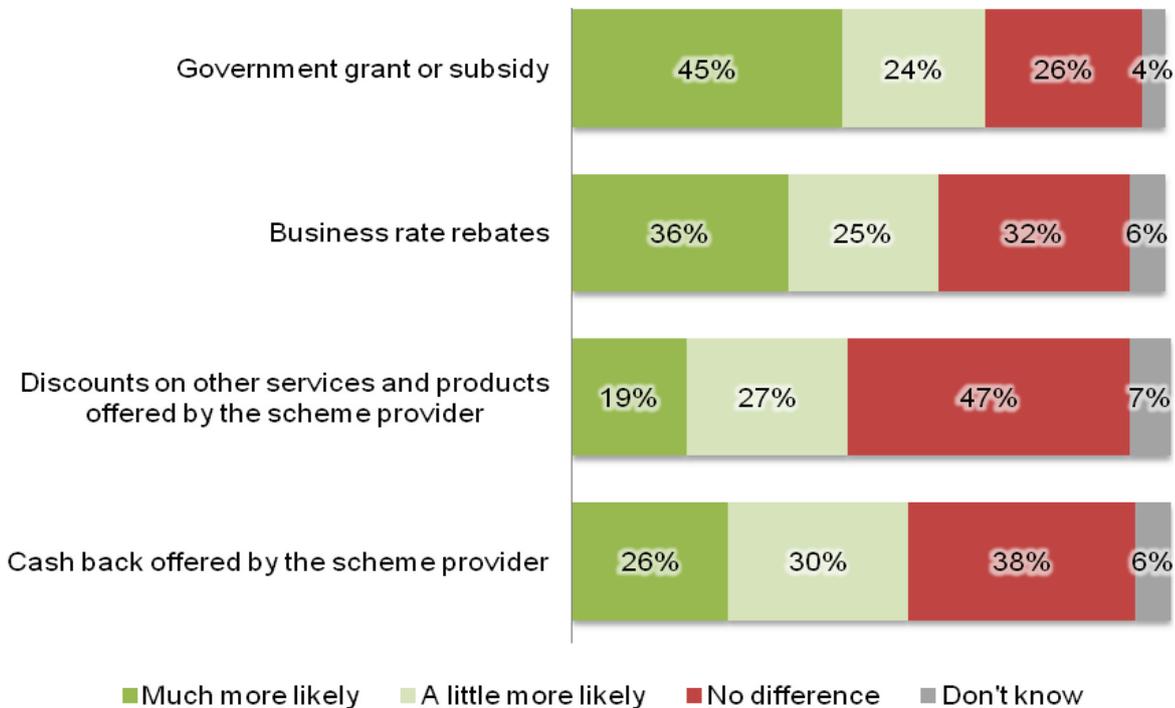
All businesses were read a list of incentives which could be offered to encourage take up of the Green Deal and asked whether or not each would make their business more likely to install energy efficiency improvements through the Green Deal scheme. It should be noted that an indication of a greater likelihood to install improvements represents an attitudinal disposition rather than a behavioural response, and as such cannot be taken as an indication of the actual impact of such incentives on businesses' likelihood to install improvements under the scheme.

Of the incentives suggested, a government grant or subsidy was most likely to encourage businesses. Approaching half of businesses (45%) said that this would make them much more likely to act and a total of seven out of ten reported that a grant or subsidy would at least make it a little more likely (69%). This was the most popular incentive both for owners and tenants.

A third (36%) of businesses reported that business rate rebates would make them much more likely to use the Green Deal; and a quarter (26%) that cash back would make them much more likely to do so.

Discounts on other services and products provided by the scheme provider were the least likely of the incentives suggested to make a difference to businesses' reported likelihood of making energy efficiency improvements through the Green Deal (in 47% of cases this would make no difference):

**Figure 16: Whether possible incentives would make businesses more likely to install energy efficiency improvements through the Green Deal – all respondents**



Sample base = 2802

Businesses interviewed in depth also generated insights into the impact of those possible incentives. Given that four potential incentives were raised with interviewees, a very mixed – and often conflicting – set of responses resulted.

While government grants or subsidies were clearly the most favoured possible incentive among in-depth respondents, a number of further observations were elicited:

- Grants shouldn't really be necessary if the Green Deal really saves money and increases profitability.
- Grants wouldn't be sufficient to be significant to large companies.
- Grants were perceived to be aimed at organisations in specific circumstances and so may not be an incentive to all organisations.

As with the quantitative survey, the possibility of business rate rebates also received positive feedback in the in-depth interviews, although it was not immediately apparent to some respondents how this might work, particularly if it required the involvement of a local authority. One respondent also observed that business rates should be stratified such that energy efficient buildings pay less than inefficient ones.

On balance, the possibility of cash back or discounts was viewed less positively, with some regarding them as potentially quite 'gimmicky', and as not necessarily representing a 'real' financial incentive.

Other incentives raised spontaneously were:

- Free energy assessments.
- Guaranteed savings.
- Compulsory legislation on energy efficiency.
- Negative effect on business rates – *'if you don't meet the required standard, your rate goes up by X%'*.
- Certificates that could be used for PR/marketing purposes.
- No interest on the loan.

# Chapter 3: Business characteristics and energy efficiency: overview

## Key points

- An overview analysis examines relationships between a selected group of energy-efficiency related indicators and structural characteristics of the sample of businesses.
- Patterns are evident such that larger businesses, hospitality businesses and factories, and tenants with longer leases were more likely to be concerned about energy efficiency and to act correspondingly. Businesses in these groups were also more likely to consider the Green Deal.
- Owners and tenants who reported having an influence on energy efficiency decisions were more likely than tenants who reported having no influence to show concern and activity on most of the energy efficiency-related indicators. However, this was not reflected in a greater likelihood of them considering the Green Deal.
- Patterns of responses on the indicators in respect of business sector were inconsistent and variations in willingness to consider the Green Deal were not significant.

In previous chapters of this report, various relationships between structural characteristics of businesses (such as their size and sector distributions) and attitudes and behaviours in respect of energy efficiency have been identified. This chapter seeks to identify patterns in these relationships. Nine indicator variables were selected and cross-tabulated with a number of structural characteristics – business size and sector, their type of premises, ownership and tenancy of premises, and, for tenants alone, the remaining length of their leases. These analyses are set out below. For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are both emboldened and set on a shaded background.

A first analysis shows that larger businesses were consistently more likely to be concerned about energy efficiency and to act on that concern. Larger businesses were also more likely to consider the Green Deal:

**Table 8: Key indicators by number of employees**

	All (2802)	1-4 employees (648)	5-9 employees (657)	10-49 employees (762)	50-249 employees (458)	250 or more employees (277)
Reducing energy efficiency is very important to the business	46%	39%	<b>50%</b>	<b>55%</b>	<b>73%</b>	<b>80%</b>
Reduces energy use by more efficient use of existing equipment	89%	87%	90%	93%	<b>94%</b>	<b>97%</b>
Would like to install small scale renewable energy technology	29%	28%	26%	33%	<b>40%</b>	<b>40%</b>
Motivated towards energy efficiency by desire to reduce energy bills	75%	73%	76%	77%	<b>79%</b>	<b>81%</b>
Motivated towards energy efficiency by desire to reduce environmental impact	26%	23%	26%	<b>32%</b>	<b>43%</b>	<b>50%</b>
Has sought advice or information about energy efficiency	27%	23%	27%	<b>34%</b>	<b>56%</b>	<b>79%</b>
Is aware of energy efficiency assessments	31%	28%	29%	<b>36%</b>	<b>55%</b>	<b>69%</b>
Has had an energy assessment	8%	5%	7%	<b>13%</b>	<b>29%</b>	<b>49%</b>
Would consider Green Deal	24%	21%	24%	<b>29%</b>	<b>34%</b>	<b>29%</b>
Unweighted bases in parentheses						

**NB: For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are both emboldened and set on a shaded background.**

Variation between sectors was much less pronounced and consistent. Fewer significant differences were identified and such differences as there were did not predict any great variation in likelihood of considering Green Deal, which, as noted earlier, had a fairly ‘flat’ distribution across business sectors:

**Table 9: Key indicators by business sector**

	All (2082)	Primary and Construction (334)	Manufacturing (379)	Wholesale and Retail (564)	Transport (147)	Accommodation and Food (265)	Information and Communications (157)	Business services (719)	Education (113)	Health (288)	Arts etc. and other services (189)
Reducing energy efficiency is very important to the business	46%	30%	45%	52%	44%	<b>61%</b>	30%	40%	<b>61%</b>	<b>56%</b>	51%
Reduces energy use by more efficient use of existing equipment	89%	89%	88%	89%	86%	91%	84%	89%	90%	91%	88%
Would like to install small scale renewable energy technology	29%	36%	33%	26%	37%	35%	33%	24%	29%	29%	32%
Motivated towards energy efficiency by desire to reduce energy bills	75%	69%	<b>81%</b>	76%	70%	79%	76%	72%	58%	70%	<b>85%</b>
Motivated towards energy efficiency by desire to reduce environmental impact	26%	25%	23%	24%	22%	18%	29%	<b>30%</b>	20%	29%	26%
Has sought advice or information about energy efficiency	27%	27%	30%	19%	26%	32%	27%	29%	35%	29%	<b>39%</b>
Is aware of energy efficiency assessments	31%	34%	36%	26%	32%	27%	28%	<b>37%</b>	<b>42%</b>	29%	29%
Has had an energy assessment	8%	7%	9%	7%	4%	7%	4%	9%	<b>14%</b>	6%	10%
Would consider Green Deal	24%	20%	27%	22%	22%	26%	25%	24%	25%	22%	27%

Unweighted bases in parentheses

**NB: For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are both emboldened and set on a shaded background.**

However, whilst sector variation on the energy efficiency indicators was not in itself consistent, the pattern in respect of type of premises – which, of course, has some relationship to sector – showed a more consistent pattern. Businesses in the hospitality sector (particularly, on closer analysis, pubs and restaurants rather than hotels) were more likely to be concerned about energy efficiency and to act accordingly. Factories and residential businesses (such as care homes or private hospitals) also tended to show greater concern and activity. The concerns and behaviours of factories and hospitality businesses was reflected in a significantly greater likelihood of considering the Green Deal.

**Table 10: Key indicators by type of premises**

	All (280)	Shops (519)	Offices (923)	Warehouses (211)	Factories (349)	Hospitality (214)	Residential (173)	Other (410)
Reducing energy efficiency is very important (C1) to the business	46%	54%	34%	38%	43%	<b>68%</b>	<b>58%</b>	51%
Reduces energy use by more efficient use of existing equipment (C5)	89%	87%	89%	84%	86%	<b>97%</b>	<b>94%</b>	91%
Would like to install small scale renewable energy technology (C6)	29%	19%	28%	28%	32%	<b>44%</b>	35%	37%
Motivated towards energy efficiency by desire to reduce energy bills (C8)	75%	74%	71%	80%	<b>83%</b>	<b>81%</b>	70%	76%
Motivated towards energy efficiency by desire to reduce environmental impact (C8)	26%	21%	30%	24%	23%	20%	<b>33%</b>	25%
Has sought advice or information about energy efficiency (C11)	27%	20%	25%	21%	<b>39%</b>	<b>35%</b>	<b>35%</b>	<b>36%</b>
Is aware of energy efficiency assessments (D1)	31%	23%	36%	28%	<b>39%</b>	31%	29%	33%
Has had an energy assessment (D2)	8%	6%	7%	9%	<b>13%</b>	9%	7%	8%
Would consider Green Deal	24%	20%	26%	14%	<b>28%</b>	<b>29%</b>	20%	25%
Unweighted bases in parentheses								

**NB: For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are both emboldened and set on a shaded background.**

There was also a consistent pattern in respect of tenure such that owners of premises and tenants who said that they would have some influence on energy efficiency decisions were consistently more likely to be concerned about and to act on energy efficiency than tenants who reported no influence on energy efficiency matters. This did not appear, in this case, to extend to the Green Deal. Tenants who reported no influence and who did not pay energy bills directly – that is, those least likely to take a leading part in implementing the Green Deal – were most likely to say they would consider it. However, as noted earlier, ‘consider’ in this case meant consider asking their landlord to make improvements under the scheme rather than consider it themselves; and, since these businesses did not pay the energy bills themselves, they would not be directly involved in the cost/savings equation on which the Green Deal depends. It was perhaps the case that these factors allowed these tenants to be more positive towards the scheme.

**Table 11: Key indicators for owners and tenants in differing circumstances**

	All (2802)	Owners (1297)	Tenants with some influence on energy efficiency decisions (658)	Tenants with no influence and pay bills (349)	Tenants with no influence and do not pay bills (498)
Reducing energy efficiency is very important (C1) to the business	46%	<b>49%</b>	<b>49%</b>	41%	40%
Reduces energy use by more efficient use of existing equipment (C5)	89%	88%	91%	85%	88%
Would like to install small scale renewable energy technology (C6)	29%	<b>33%</b>	<b>30%</b>	26%	23%
Motivated towards energy efficiency by desire to reduce energy bills (C8)	75%	<b>78%</b>	<b>83%</b>	73%	61%
Motivated towards energy efficiency by desire to reduce environmental impact (C8)	26%	<b>29%</b>	<b>28%</b>	20%	23%
Has sought advice or information about energy efficiency (C11)	27%	<b>37%</b>	<b>32%</b>	14%	14%
Is aware of energy efficiency assessments (D1)	31%	<b>37%</b>	<b>32%</b>	24%	26%
Has had an energy assessment (D2)	8%	<b>11%</b>	7%	5%	5%
Would consider Green Deal	24%	21%	24%	23%	<b>29%</b>
Unweighted bases in parentheses					

NB: For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are both emboldened and set on a shaded background.

Finally, it can be seen that tenants with longer periods remaining on their leases were more concerned about, and likely to act on, energy efficiency (except, perhaps surprisingly, the 'make more efficient use of energy' indicator). The 'longer lease' effect was also apparent in respect of considering the Green Deal though not (because of relatively small sub-samples) to a statistically significant extent (at the  $p < .05$ ) level.

**Table 12: Key indicators by remaining length of tenancy (for tenants only)**

	All (2802)	Up to 2 years (282)	3-10 years (345)	11 or more years (107)
Reducing energy efficiency is very important (C1) to the business	46%	39%	42%	<b>685</b>
Reduces energy use by more efficient use of existing equipment (C5)	89%	<b>91%</b>	85%	785
Would like to install small scale renewable energy technology (C6)	29%	28%	28%	30%
Motivated towards energy efficiency by desire to reduce energy bills (C8)	75%	69%	<b>77%</b>	<b>84%</b>
Motivated towards energy efficiency by desire to reduce environmental impact (C8)	26%	21%	23%	24%
Has sought advice or information about energy efficiency (C11)	27%	22%	23%	<b>385</b>
Is aware of energy efficiency assessments (D1)	31%	28%	28%	<b>38%</b>
Has had an energy assessment (D2)	8%	5%	6%	<b>19%</b>
Would consider Green Deal	24%	23%	27%	32%
Unweighted bases in parentheses				

NB: For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are both emboldened and set on a shaded background.

# Chapter 4: The landlord perspective

## Key points

- In total, 17 telephone in-depth interviews were undertaken with representatives of commercial property landlords. Of these, 14 were landlords who managed their own property, two were landlords who managed their own and other people's property (for one, the company they worked for developed and sold properties, whilst retaining the property management), and one managed only other people's property. Three companies leased between 10 and 20 properties, seven leased 21 to 100 properties and seven leased over 100 properties, yielding an approximate total of 1,500 properties.
- Energy efficiency was a high or very high priority for all of these, and most had already undertaken (or were considering) varied improvements to increase the energy efficiency of their property portfolios.
- However, landlords in some cases also identified a number of challenges faced when implementing energy efficiency improvements, such as tenant resistance to paying and/or getting co-occupants to pay their shares, and structural or planning limitations to the buildings themselves.
- Some landlords also described an unwillingness within the organisation to upgrade (and spend money on) empty premises, or described company policies which dictate that upgrades to properties only occur at the point when older equipment fails.
- Most landlords had had energy efficiency assessments, and these were seen as useful drivers of energy efficiency and as a valuable marketing tool. However, landlords also identified a number of aspects which would need to be considered in order to increase the appeal of undertaking an assessment under the Green Deal:
  - Clarification as to the level of payment required for assessments and who would be responsible for payment.
  - Ensuring that assessments provide sufficiently detailed and bespoke advice covering the improvements needed, the likely costs and savings, and the payback period involved.
  - Guarantees as to the competence of the assessor, and the incorporation of a level of accountability, in order to avoid the possibility of self-interest on the part of assessors who might exaggerate the possible savings from improvements but would subsequently have no responsibility for what actual results were achieved.

Cont....

- In respect of Green Deal financing arrangements, landlords expressed considerable uncertainty. While the general benefit of the scheme for tenants in terms of potential savings on energy bills, no upfront cost, and the loan attaching to the property rather than the tenant were highlighted, landlords identified a number of aspects that would be likely to have an impact on whether they chose to implement improvements under the scheme. Landlords were keen that:
  - Payback periods are within the period of tenants' leases (five years was most commonly mentioned).
  - The impact of premises becoming void during the payback period is minimised.
  - There is some mechanism or support to ensure that existing leases can be amended.
  - An appropriate balance of costs and benefits between landlords and tenants can be achieved.
- While some landlords were positive about Green Deal financing, particularly in relation to the fact that no upfront investment is required, more were less responsive to the concept, mainly because, if motivated to make improvements, they would prefer to pay cash to do so or to use cheaper finance (while 7% interest rate on loans was generally regarded as too high, 5% was more acceptable).
- Interestingly, it was unusual for tenants to request energy efficiency improvements themselves. However, landlords indicated that they would be more likely to respond positively to Green Deal if tenants were to put a proposition to them, rather than taking the initiative themselves. This highlights the importance of targeting tenants, to encourage them to approach their landlords to undertake improvements under the scheme.
- Most landlords, when asked directly about their likelihood of taking up Green Deal remained somewhat equivocal at this stage, largely because of lack of knowledge and uncertainty as to its costs/benefits.
- Most major landlords described a process for achieving consent to go ahead with Green Deal as involving varied actors (including engineering professionals, asset managers, financial directors, CEOs, boards and shareholders, tenants, and managing agents) in varied combinations.

## Introduction

Previous sections of this report have described businesses' views on a range of energy efficiency matters and their reactions to the Green Deal. In addition, 17 property managers – or landlords – were the subject of 'depth' interviews. It should be noted that data from these interviews necessarily reflects the views only of those individuals who participated in this element of the research, and consequently that they should not form the basis of extrapolation to the wider population of landlords. It should also be noted that the individual circumstances of each respondent necessarily has a unique bearing on their views with regard to energy efficiency more broadly and the Green Deal in particular. Consequently this chapter seeks to summarise the views of the landlord sample where themes have emerged from analysis of the qualitative data, and also to provide an overview of the breadth and diversity of the responses provided on a more individual basis.

These landlords between them owned or managed around 1500 properties including industrial premises, shops and shopping centres, offices, warehouses, and pubs, hotels, and restaurants. The number of properties owned or managed per landlord ranged from 10 to 500. They owned or managed both single occupancy and multi-occupancy sites and premises and frequently both. Their tenants had rental agreements ranging from very short periods with effectively no notice required to 30 years. In some cases, tenants or the landlord paid energy bills but in around half of cases, the landlords had arrangements of both types – being responsible for payment of energy bills for some properties but with tenants of other properties being responsible for paying their energy bills themselves. A frequent arrangement was that landlords would pay for the energy use in communal areas and by central services but tenants would pay for their individual units.

## Energy efficiency improvements

Landlords were first asked to what extent energy efficiency was a priority for them. The simple answer was that it was a high or very high priority for all, and the reasons for this encompassed environmental concerns, and the desire to minimise costs for themselves and/or their tenants, as reflected in the comments below.

*“Energy efficiency is a big priority of the owners. We are finding that that is what people want. People are interested in green issues and obviously reducing their overheads. Heating costs is a big one. It is a competitive market, there is a lot out there. There is a lot of office space available. It ticks a box for tenants that it is energy efficient... which then puts a tick in our box”.*

(Mixed portfolio of 20 properties)

*“Energy efficiency is very important to us. The cost of the common areas can be hundreds of thousands of pounds and it is a big big cost that every landlord is trying to keep to an absolute minimum”.*

(Mixed portfolio of 100 properties)

*“It is becoming increasingly important because we are finding that the tenants are concerned about full costs of occupation of which rent is only one part. Energy consumption is a very important part and the costs are rising. So it is very important to reduce energy costs”.*

(Mixed portfolio of 200 properties)

Correspondingly, many landlords had undertaken, or were considering, significant developments to improve energy efficiency.

However landlords in some cases also identified a number of challenges faced when implementing energy efficiency improvements. These included:

- The complexity of introducing new measures in multi-tenanted buildings when all tenants would be required to consent to the changes.
- Physical limitations on making particular types of changes to particular types of building.
- The risk of making investment in buildings which become vacant (particularly as there is a liability still to pay rates on the building).
- The difficulty of getting planning consent for, and presence of local resistance to, some kinds of improvement (such as wind turbines).

Given such potential difficulties, and the likely cost of improvements, some landlords noted that changes were most likely (or would only be undertaken) when existing equipment came to the end of its useful life. The most frequent payment model in respect of energy efficiency improvements was that landlords would pay for improvements and then recover costs through service charges to tenants. It was also usually the case that landlords would initiate improvements rather than tenants. One landlord, for example, described how they managed physical development of their properties, including energy efficiency improvements.

*“A committee meets every quarter with representatives from the facilities and the development departments along with the head of assets. Any proposals would go to the board of directors. We also use consultants who suggest efficiency measures and are accustomed to our company’s green requirements”.*

(Portfolio of 100+ offices and shops)

It was less usual for tenants to initiate improvements, but one landlord described how, in mid-lease, tenants with full repairing leases could initiate improvements with the company itself making improvements only between leases.

*“Tenants are responsible for the space they are in. They are on full repairing leases so they would usually instigate modifications which they would discuss with our company. Only if it was a void property about to be re-let would we do it in-house with a team of appointed civil engineering advisors if necessary”.*

(Managing agent for 100+ properties)

The latter position – of making improvements between leases – was quite frequent. One rationale was that it was much more efficient and causes less disruption to make changes to empty premises.

*“When a property is vacant, between lettings. You get a better job done. You bring the property up to market expectations. It is also much easier to do when there is no-one in the space. You get more done and it is quicker and better”.*

(Portfolio of 100+ properties, mainly shops and offices)

## Energy efficiency assessments

Most landlords had had energy efficiency assessments undertaken and/or had Energy Performance Certificates for their buildings. They were seen as useful drivers of energy efficiency and as a valuable marketing tool when letting premises.

However, landlords also identified a number of aspects which would need to be considered in order to increase the appeal of undertaking an assessment under the Green Deal:

- Clarification as to the level of payment required for assessments and who would be responsible for payment.
- Ensuring assessments are able to provide sufficiently detailed and bespoke advice covering the improvements needed, the likely costs and savings, and the payback period involved.
- Guarantees as to the competence of the assessor, and the incorporation of a level of accountability, in order to avoid the possibility of self-interest on the part of assessors who might exaggerate the possible savings from improvements but would subsequently have no responsibility for what actual results were achieved.

## Green Deal finance arrangements

Landlords provided a varied response to the Green Deal finance arrangements as outlined to them at this stage.

The general benefit of the scheme for tenants, in terms of potential savings on energy bills, was initially highlighted by landlords. Some also concurred that having the Green Deal attached to the property and not the tenant business, was advantageous for tenants.

*“I think it would be very good because I think there is a benefit to the tenant, plus it is socially responsible to be concerned about costs and energy consumption. There is a likelihood that there would be, I hope anyway, a margin between what it would be costing to run the building against what it is costing to run the building including the amortized charge. There should be a benefit remaining for the tenant and the landlord in those two figures”.*

(Mixed portfolio of 200 properties)

*“We'd be happy with that. It is going to get them savings”.*

(Mixed portfolio of 100+ properties)

*“If it reduced the cost of running the property on our tenants then it would have an influence... if it was energy efficient”.*

(Portfolio of 20 offices)

However, upon further consideration of the scheme from their own perspective, with their own financial priorities in mind, landlords identified a number of aspects of the Green Deal finance arrangements that would be likely to have an impact on whether they chose to implement improvements under the scheme.

A key factor for the majority was that, for the financial arrangements to be at least considered, the payback would have to be possible within the length of tenant leases. Several landlords suggested that five year commercial leases were most frequent and, therefore, the ability of Green Deal improvements to be paid for by energy savings within five years would typically be preferred. Payback within the lease length was felt to be essential in order to alleviate several concerns amongst landlords. Firstly, landlords identified the possibility that the Green Deal arrangement could make a property difficult to re-let or sell when the financial commitment to the scheme would be continued to a new tenant.

*“The important thing for us is to make sure that when we sell an asset it is not burdened with too much additional cost. It all depends on how much we are talking about. If we owned an asset for five years with a payback of five years, when we come to sell the building we can say 'look all these energy improvements and efficiencies are now in place, it's all been paid for, you are benefiting from it' it should help the sale. If it was twenty years, I don't think we'd be too interested... because it just seems a long time... I'm just not sure how attractive it would be to us. We buy and sell assets for a short period of time. Attaching a liability to a long long period of time, it would cause us problems”.*

(Manages 100+ office blocks and shopping centres)

*“The only sort of thing that the landlord would state is that it must be paid for within the confines of their lease. In other words they cannot leave their debt because you are destroying other people's choices”.*

(Mixed portfolio of 100+ properties)

*“If the scheme was attached to a property it would limit the chance of the property being re-let. A key factor for properties let is that they are let as a shell so if a scheme is attached it will limit choices and options. Anything that is installed and isn't paid for is not an option”.*

(Mixed portfolio of 75 properties)

Secondly, ensuring payback within the lease length would also mitigate concerns that repayments would have to be made through periods when the property was vacant and generated no revenue to the landlord. Similarly, some identified the possibility that new tenants may refuse to pay the Green Deal charge, resulting in a potential financial burden on the landlord who would be responsible for the charge.

*“The problem is, if a unit is empty for a period of months, there is going to be effectively no energy usage but I imagine that the scheme is going to require those repayments to be continually paid. Depending how much they are, we are in the happy position that we have a reasonably large portfolio but if it was somebody with one unit or two units and it was void for two years, which is not unknown, it could cripple them”.*

(Mixed portfolio of 20 properties)

*“Our concern would be the tenant taking out a Green Deal loan and carrying out some sort of a change to the property, even a sensible change, say they changed the lighting, but then the tenant leaves while the loan is still outstanding, the loan attaches to the property and a new occupier says, 'I'm not going to pay it, why should I pay, you're the landlord, here's the rent, this is what I'm prepared to pay as rent, you pick up the loan'. So suddenly the landlord has got to pick up a bill for something that doesn't benefit us.*

*Potentially if we don't want to pick up the bill, because it could be quite large, it blights the ability of that space to be let”.*

(Mixed portfolio of 50 properties)

In addition to payback within the lease length, landlords also suggested that there should be provision within the scheme to take account of changes to the terms and conditions of the lease.

*“...the landlord would have to have the ability with the tenant to change or add an endorsement to any legal terms to the agreement to cover these new provisions. So government in providing such a scheme would need to make provision for this to be available to the landlord so that the lease and terms can be amended to take account of the new situation”.*

(Mixed portfolio of 200 properties)

Landlords also highlighted that it was not easy to see how the costs and savings of a Green Deal could be shared equitably between landlords and tenants. One landlord expressed the view that major landlords didn't have problems with providing investment funds for improvements but did have problems if the return on investment – Green Deal savings in this case – was not clearly allocated.

*“There is no workable mechanism to share the savings. This is why the Green Deal doesn't work for us because it doesn't address the problem. Green Deal provides capital and capital isn't the problem. It's sharing the savings that is the problem”.*

(Manages 100+ office blocks and shopping centres)

Landlord's views on the possible 5%-7% interest rate applying to the Green Deal loans broadly took two forms.

The landlord would use cash flow or cash holdings to finance any changes or would obtain cheaper finance on the markets than the notional 5%-7% on a Green Deal loan. One landlord suggested that the Green Deal implied some loss of control on business affairs that is both unhelpful and unnecessary when the business does not need the Green Deal's investment loan.

*“From our point of view, we could go down the back of the sofa and pick out a million quid. It is not an issue, finance. We have our own energy saving model. We'd be more likely to use that. We are in control, we can negotiate the terms with the supply company. Obviously the Green Deal has its own rules”.*

(Manages 100+ office blocks and shopping centres)

The landlord would consider the Green Deal but 7% is too high, 5% might be acceptable (to those who required such finance).

*“5% is the expected rate for any business loan”.*

(Manages 100+ office blocks and shopping centres)

However even 5%, for some businesses, was seen as too high.

Overall, landlords had a range of views on the financial aspects of the Green Deal. Positive views focussed on a basic characteristic of financing the Green Deal – that no up-front investment was needed, particularly, as now, when normal commercial loans from banks are restricted.

## Taking the Green Deal forward

The Green Deal could, of course, be initiated by both landlords and tenants. A minority were positive about initiating the Green Deal but, reflecting the issues identified above, their positivity was tempered to some extent by a degree of uncertainty and by the need for the Green Deal to be shown to be cost efficient.

*“Yes, once we understand it properly and it’s worthwhile, then we’d suggest it”.*

(Mixed portfolio of 50 properties)

*“We’d definitely consider it and if it had benefits to us we would take it forward. At the moment, we don’t understand the benefits to the landlord. We don’t know enough about the scheme and its costs or savings”.*

(Mixed portfolio of 100+ premises)

Interestingly, as noted earlier, it was unusual for tenants to request energy efficiency improvements themselves. However, landlords indicated that they would be more likely to respond positively to the Green Deal if tenants were to put a proposition to them, rather than taking the initiative themselves. This highlights the importance of targeting tenants, to encourage them to approach their landlords to undertake improvements under the scheme.

Broadly, landlords reported that they would consent to such requests on condition that:

- Premises were not burdened with a long-term liability extending beyond the tenant’s lease term;
- All implications had been carefully considered and the Green Deal had been identified as a working proposition, delivering savings as anticipated.

Some landlords felt that there should be incentives to implement improvements under the Green Deal.

*“We would be likely to consider the scheme – purely because it is offering long term benefits from improvements. But we would want incentives”.*

(Portfolio of 10 industrial premises)

More specifically, when respondents were asked what would incentivise them to adopt the Green Deal, while there was no clear consensus, factors mentioned included:

- A mechanism for sharing savings between landlords and tenants fairly.
- Free accredited assessments.

- A free site visit to give an initial quotation for the implanting the improvements identified.
- Shorter payback periods and lower interest rates.
- Being able to offset the costs against taxation.
- Generally, any grants, rate reliefs, or subsidies.
- A performance guarantee such that the ‘Golden Rule’ (of costs of improvement being no greater than achieved savings on energy bills) is underwritten by government.

When asked who would be required to consent to the Green Deal, some smaller landlords saw the matter as straightforwardly one for them – if they wanted to pursue the Green Deal, they would do so. Larger landlords suggested more complexity with regard to the issue of consent. They described layered internal decision processes involving building engineers and architects producing plans for senior managements and boards to approve. Externally, they recognised that consent from tenants and planning authorities would be required and a number of specific challenges to implementation were suggested including:

- Time and effort needed to get consent from multiple occupiers and low likelihood of achieving any necessary consensus.
- Adjusting terms of leases to accommodate implications of the Green Deal.
- Getting planning permission for external alterations.

Reflecting the numerous uncertainties which landlords felt at the time of interview, there was a strong demand for clear and detailed information about the Green Deal.

*“Full details of how arrangements were to be made – what would the relationships between the different parties be in the scheme, what the ramifications were, who'd be carrying it out, how it would be paid back, costs. All of that kind of information and we'd need it in the form of a fairly detailed report”.*

(Portfolio of 125 offices and shops)

*“Guidance on what the options are and give some examples I suppose about what are the returns on investment. Practical guidance. A lot of companies may not know what they want or what they need about energy efficiencies. What are the costs, what are the benefits and what are the returns on investment”.*

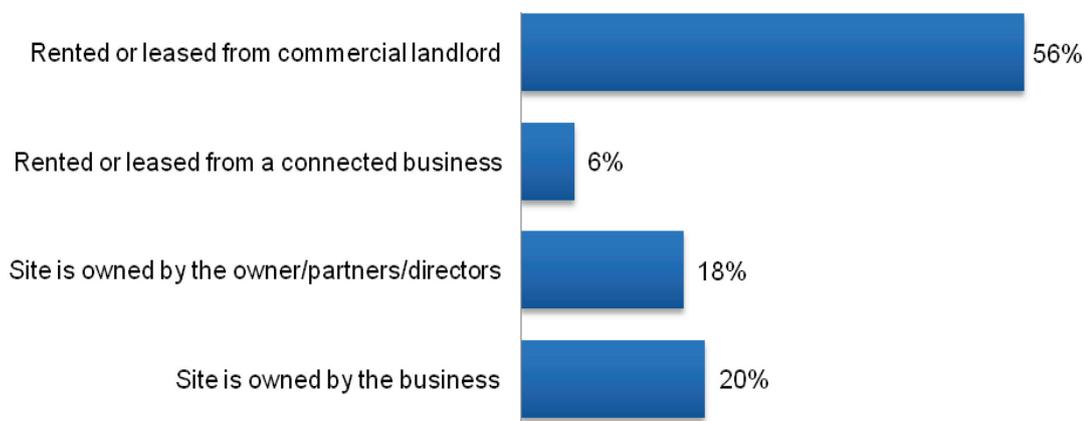
(Portfolio of 90 offices)

# Appendices

## Appendix 1: Quantitative survey: characteristics of the weighted sample

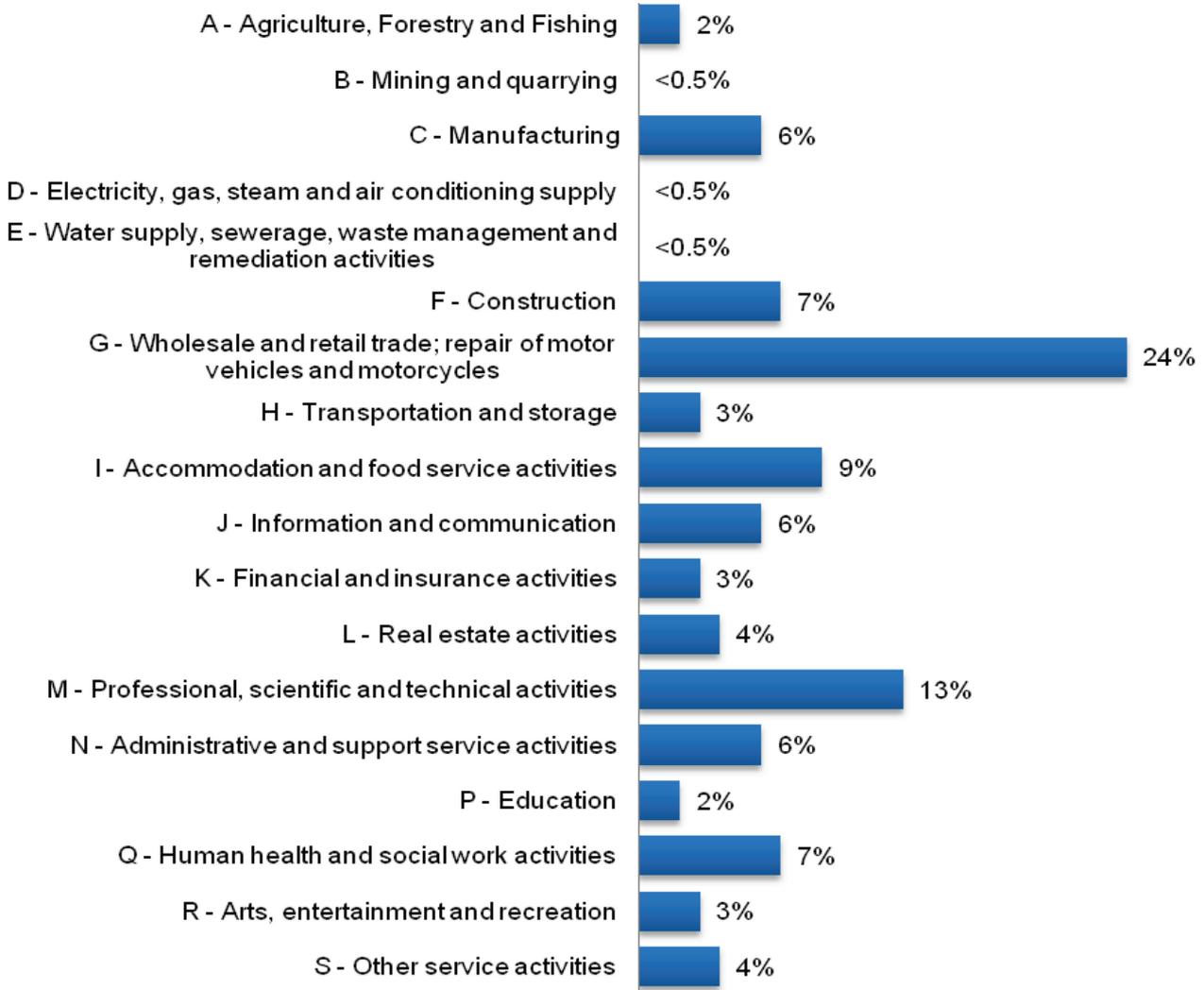
The broad characteristics of the weighted sample achieved are described below. It will be appreciated that in some cases – such as when describing the distribution of the size and sector of respondent businesses – the sample proportions, since they have been weighted to reflect population proportions, are also those of the profile of businesses in the economy of Great Britain (that is, of England, Scotland, and Wales combined).

**Figure 17: Tenure of business or organisation site – all respondents**



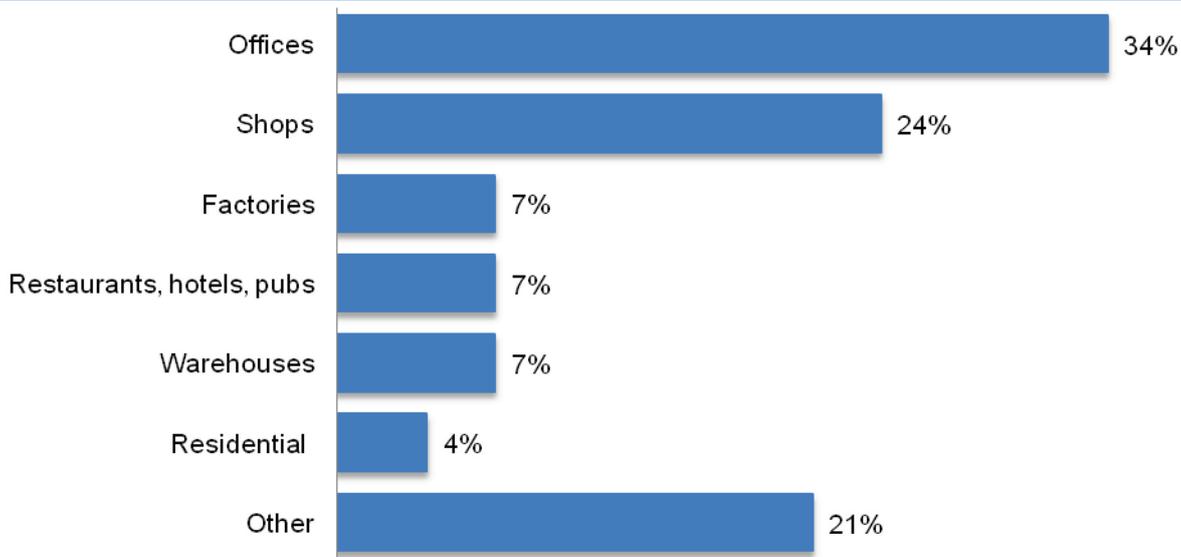
Sample base = 2802

**Figure 18: Business sector – all respondents**



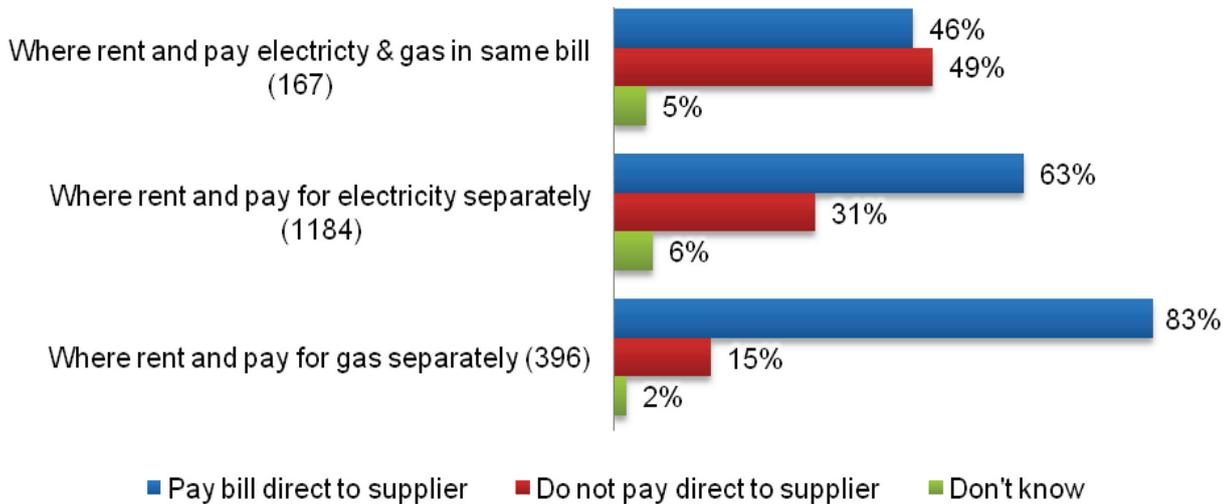
Sample base = 2802

**Figure 19: Premises type – all respondents**

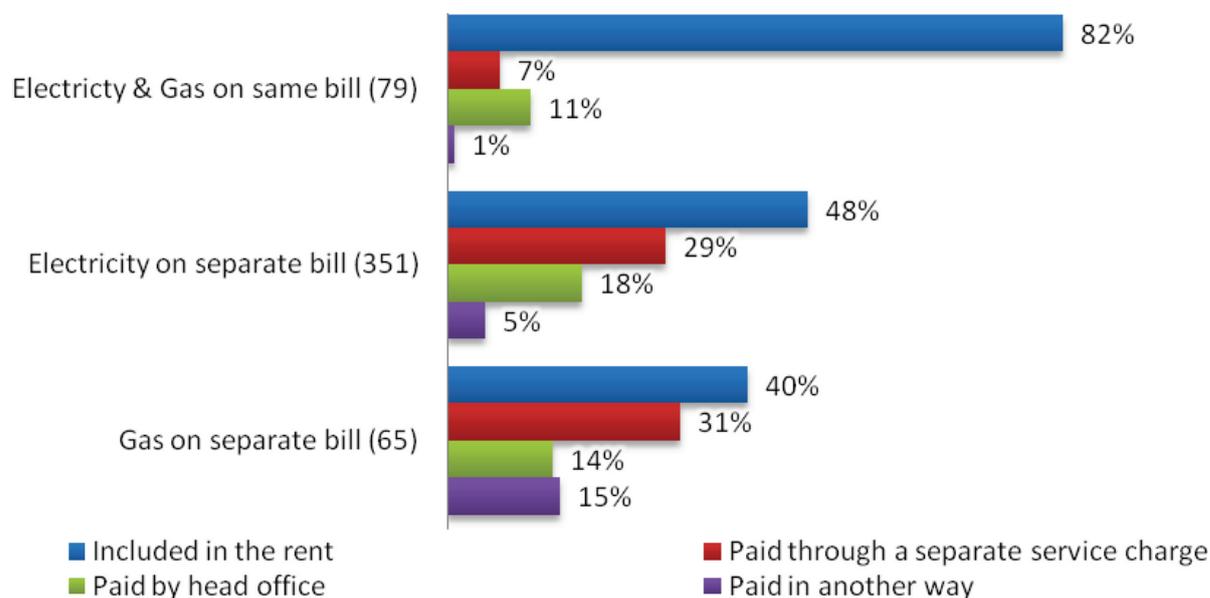


Sample base = 2802

**Figure 20: Whether bills were paid direct to the energy supplier – tenants by types of energy used**



Sample bases in parentheses

**Figure 21: How bills not paid direct to energy suppliers were paid – where tenants did not pay bills direct to energy supplier**

Sample bases in parentheses

**Table 14: Cost of bills in a typical year – all respondents by method of paying bills**

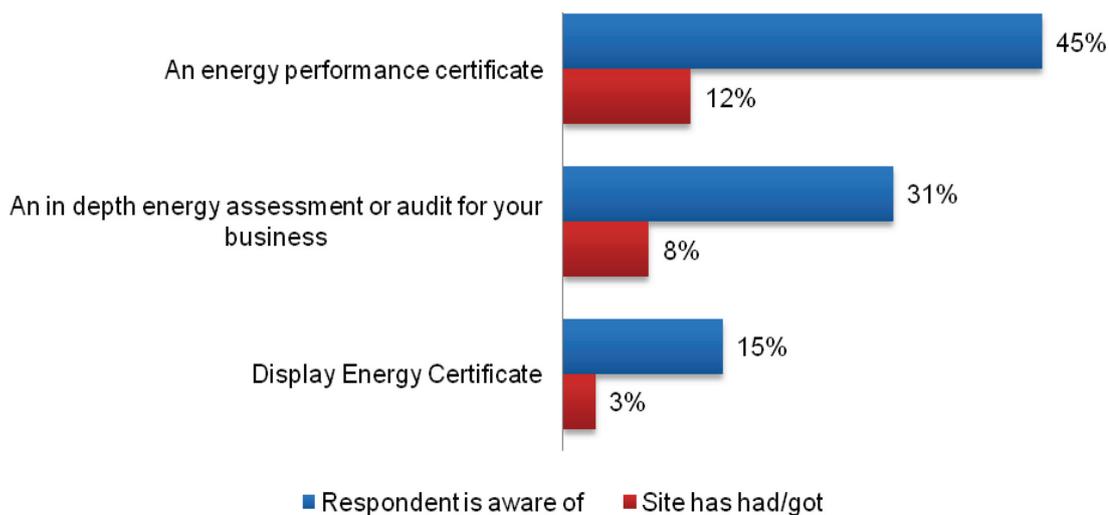
	Electricity and gas Pay gas and electricity in same bill (637)	Electricity Only use electricity or pay for it separately (2,165)	Gas Pay for gas separately (908)	Other form of energy Use something other than electricity and/or gas (367)
Less than £500	3%	7%	10%	19%
£500 - £999	4%	9%	12%	10%
£1,000 – £2,000	9%	11%	13%	12%
£2,000 - £5,000	6%	7%	8%	8%
£5,000 - £9,999	4%	7%	5%	6%
£10,000 - £24,999	3%	7%	6%	5%
£25,000 - £50,000	2%	3%	3%	2%
£50,000 - £99,999	1%	1%	1%	*%
More than £100,000	1%	3%	3%	4%
Don't know	67%	46%	39%	34%
Unweighted bases in parentheses				

## Appendix 2: Awareness and usage of energy assessments and certification

Businesses were asked about their knowledge and use of energy assessments and certification to date.

Almost half (45%) of all businesses had heard of Energy Performance Certificates, and one in eight (12%) reported having one. Nearly a third of businesses were aware of in-depth energy assessments and one in twelve (8%) reported having had one. Around one in seven (15%) were aware of Display Energy Certificates. Fewer than one in thirty (3%) reported having one:

**Figure 22: Whether aware of, and/or got, types of assessment or certification – all respondents**



Sample base = 2802

Owners were more likely than tenants to be aware of Energy Performance Certificates (49% compared to 43% of tenants) and of in-depth energy assessments or audits (37% compared to 28% of tenants). Owners were more likely to hold an Energy Performance Certificate (13% compared to 11% for tenants), and more likely to have had an in-depth assessment or audit (11% compared to 6% for tenants).

The likelihood that tenants had an Energy Performance Certificate increased with the amount of time they had remaining on their lease (26% of those with 11 or more years remaining compared with the 11% average for tenants). Those with the longest period left on their lease were also most likely to have had an in-depth assessment or audit (19% compared with 6% average for tenants), and a Display Energy Certificate (9% compared with 3% average for tenants).

In terms of the ages of buildings, those occupying buildings built in 2007 or later were significantly more likely to have an Energy Performance Certificate (34%); while awareness of in-depth assessments or audits and Display Energy Certificates tended to be higher amongst businesses occupying buildings that were built from 2000 or later.

**Table 15: Whether aware of, and/or got, each type of assessment or certification – all respondents by tenure, time remaining on lease and age of building**

		Tenancy			Time remaining on lease				Age of building			
		ALL (2,802)	Owner (1,297)	Tenant (1,505)	Up to 2 years (282)	3 to 10 years (345)	11 or more years (107)	Pre 1990 (2,065)	1990 to 1999 (254)	2000 to 2007 (212)	2007 or later (84)	
EPC	<b>Aware</b>	45%	<b>49%</b>	43%	50%	38%	46%	45%	<b>58%</b>	<b>53%</b>	<b>53%</b>	
	<b>Got</b>	12%	<b>13%</b>	11%	9%	16%	<b>26%</b>	11%	14%	14%	<b>34%</b>	
Assessment or audit	<b>Aware</b>	31%	<b>37%</b>	28%	28%	28%	<b>38%</b>	32%	33%	42%	37%	
	<b>Got</b>	8%	<b>11%</b>	6%	5%	6%	<b>19%</b>	8%	8%	10%	<b>15%</b>	
DEC	<b>Aware</b>	15%	15%	14%	18%	11%	19%	14%	14%	<b>24%</b>	<b>20%</b>	
	<b>Got</b>	3%	3%	3%	3%	4%	<b>9%</b>	3%	2%	6%	5%	

Unweighted bases in parentheses

**NB: For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are both emboldened and set on a shaded background.**

Of the different types of premises, offices and residential premises were most likely to be aware of Energy Performance Certificates. Residential premises (such as care homes or private hospitals or schools) were also most likely to already hold an Energy Performance Certificate.

**Table 16: Whether aware of, and/or got, each type of assessment or certification – all respondents by type of premises**

		ALL (2,802)	Shops (519)	Offices (923)	Warehouses (211)	Factories (349)	Hotels, pubs, restaurants (214)	Residential (173)	Other (410)
		EPC	<b>Aware</b>	45%	39%	<b>53%</b>	37%	46%	<b>33%</b>
	<b>Got</b>	12%	11%	14%	8%	6%	9%	<b>18%</b>	10%
Assessment or audit	<b>Aware</b>	31%	23%	36%	28%	39%	<b>31%</b>	29%	33%
	<b>Got</b>	8%	6%	7%	9%	13%	9%	7%	8%
DEC	<b>Aware</b>	15%	12%	18%	12%	12%	14%	14%	14%
	<b>Got</b>	3%	4%	4%	2%	1%	1%	4%	3%

Unweighted bases in parentheses

**NB: For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are both emboldened and set on a shaded background.**

Awareness of each type of energy assessment increased with the size of the business. More than two-thirds of the largest businesses (250 or more employees) were aware of Energy Performance Certificates and in-depth assessments/audits, and more than two-fifths were aware of Display Energy Certificates. The likelihood that businesses already had each type of assessment also increased sharply amongst businesses with 250 or more employees.

**Table 17: Whether aware of, and/or got, each type of assessment – all respondents by number of employees**

		Number of employees					
		ALL	1 to 4 (648)	5 to 9 (657)	10 to 49 (762)	50 to 249 (458)	250 or more (277)
EPC	<b>Aware</b>	45%	45%	44%	45%	<b>55%</b>	<b>68%</b>
	<b>Got</b>	12%	12%	9%	12%	15%	<b>27%</b>
Assessment or audit	<b>Aware</b>	31%	28%	29%	36%	<b>55%</b>	<b>69%</b>
	<b>Got</b>	8%	5%	7%	13%	<b>29%</b>	<b>49%</b>
DEC	<b>Aware</b>	15%	13%	14%	17%	<b>24%</b>	<b>42%</b>
	<b>Got</b>	3%	3%	2%	4%	6%	<b>17%</b>
Unweighted bases in parentheses							

**NB: For emphasis, values in the table which are higher than other values in the same set to a statistically significant degree are both emboldened and set on a shaded background.**

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