

# Technical Report

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

Undertaken by BMG Research

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# 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>1</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. Green Deal is a market led framework that will allow individuals and businesses to make energy efficiency improvements to their buildings at no/little 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>2</sup>.

This report contains the technical details of how the research was undertaken.

## Research objectives

The overall purpose of the research was to provide data that can be used to determine the likely response to the Green Deal and provide an indication of which types of businesses would 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 different business subgroups and the population as a whole.

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<sup>1</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>2</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

### The universe under investigation

For the purposes of the research, the businesses population was defined as follows:

- Private or voluntary sector;
- Establishment-based;
- Excluding businesses with zero employees;
- Excluding sole proprietors;
- Excluding businesses that work out of domestic premises.

To inform the distribution of the sample by size and sector, and by geography, the latest (March 2010) data from the Inter-Departmental Business Register (IDBR) covering Great Britain were used, and the distribution of businesses on this basis is included at Appendix 1.

However, in order to ensure robust analysis was possible in the larger employer size bands, and within certain sectors of particular interest to DECC, businesses in the following size bands and sectors were over-sampled relative to their prevalence in the universe under investigation:

- 50 to 249 and 250 or more;
- Manufacturing, education and health.

Consequently, the following size bands and sectors were under-sampled relative to their prevalence in the universe under investigation:

- 1 to 4 and 5 to 9;
- Construction, and wholesale and retail trade.

The number of interviews in Scotland and Wales, which would have been 210 and 114 respectively on a proportionate basis, were boosted to 250 in each country to allow for robust analysis.

The distribution of the achieved sample by size, sector and geography can also be found in Appendix 1.

Contact data were sourced from Experian in line with the quota requirements by number of employees, industry sector and region. Data from Experian are refreshed on a quarterly basis.

## Weighting the data

Population estimates from IDBR as outlined in Appendix 1 have been used as the basis for the weighting scheme as they represent the most reliable estimates available. However these estimates include businesses operating from domestic premises, which were out of scope for this research.

For this reason, while businesses operating from domestic properties were screened out of the full survey (representing 11% of businesses contacted), size and sector information was gathered from these businesses in order to inform the weighting matrix.

## Landlords

Given that in rented properties the Green Deal will require both the tenant and the landlord to sign up, it had also been planned to undertake a separate quantitative survey of 200 commercial landlords to explore their views on energy efficiency and Green Deal, and to gather information about the tenant/landlord relationship.

Attempts were made to identify relevant contacts from Experian filtered on the basis of 4 digit SIC 2007 codes relating to Real Estate Activities (sector L). This sector includes organisations that lease properties, agents and/or brokers in one or more of the following:

- Selling or buying real estate;
- Renting real estate;
- Providing other real estate services such as appraising real estate or acting as real estate escrow agents.

Organisations defined as falling within this sector may conduct their activities on their own or in leased property, and this may be done on a fee or contract basis. The sector also includes the building of structures, combined with maintaining ownership or leasing of such structures. It also includes real estate property managers.

As such it proved very difficult to identify contacts within this that were both involved in leasing property (rather than selling or developing it), and in leasing property of a commercial (rather than a private) nature.

Additional filtering was implemented by Experian in an attempt to screen contacts further, by cross-matching with other data sources such as Yell and Thomson, and by using key-word searches. However the resulting contacts were very unproductive for the reasons outlined above (i.e. even with this screening process it was difficult to isolate contacts that were specifically involved in leasing commercial property), and were insufficient to support a quantitative survey of 200 commercial landlords.

Approaches were also made to a number of other sources, including the British Property Federation, however it did not prove possible to source or create a database of commercial landlords that could be said to be representative of the wider universe of landlords.

Initial pilot interviews with a number of landlords also highlighted the difficulty of creating a quantitative survey instrument that could capture the breadth of views from this group given the

diversity of their portfolios, and the diversity within their portfolios in how issues relating to energy efficiency were addressed.

Consequently it was decided to undertake a number of depth interviews with commercial landlords, and our approach to this is described in the next section.

Technical details of the quantitative element of the project can be found in Appendix 1 of this document.

## Qualitative method

The research also included two qualitative research elements. These comprised 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, who had undertaken the quantitative interview and agreed to take part in further research. These interviews were designed to generate more detailed insights into the issues raised in the telephone survey than those telephone interviews allowed.
- Given the difficulties in conducting a robust quantitative survey of landlords, as described above, 17 landlords with significant portfolios of commercial properties under their control were also interviewed. These interviews were designed to examine Green Deal from the perspective of landlords – a group that will have a substantial influence over the implementation of the Green Deal in rented properties.

Technical details of the qualitative element of the project can be found in Appendix 2 of this document.

# Appendix 1: quantitative technical annexe

## Source of contacts

Contacts were sourced from Experian, which holds the largest business database in the UK. This holds over 5 million contacts from close to two million businesses, selectable using over 150 different search criteria. Data are captured from a number of sources including: Companies House, Thomson Directories and Yell, and are refreshed on a quarterly basis.

Given that it meets the criteria both of being comprehensive and regularly updated, and hence accurate, and the fact that it provides information at an establishment level, it was decided that this was the most appropriate sample frame to use for this research.

## Questionnaire development

The questionnaire was developed over a number of iterations, with pilot interviews undertaken during the course of the development process to explore a number of aspects:

- Contact procedures;
- Selection of target respondent;
- Anticipated questionnaire length;
- The extent to which respondents understood and were able to answer the questions;
- Routing issues;
- Questionnaire coverage.

A total of 12 pilot interviews were undertaken on paper versions of the questionnaire with a range of sites in terms of size and sector. Following initial feedback and consequent changes to the questionnaire, and due to the complexity of the questionnaire routing, subsequent pilot interviews were undertaken via Computer Aided Telephone Interviewing (CATI). A total of 14 CATI pilot interviews were undertaken.

Changes made as a result of the piloting process, and the reasons for the changes, are outlined below.

## Selection of target respondent

Additional information was required to encourage respondents, particularly those at branches, to participate in the survey as in many instances they felt it would be more appropriate for their head office to complete the survey. Given that the survey was establishment based, and that as such head offices themselves formed part of the sample, these referrals were not followed up. Instead, an explanatory sentence was included to outline more clearly who the target respondent should be at that site in cases where the respondent was unsure (i.e. the person with the most managerial responsibility for the site).

The table below shows the range of roles occupied by respondents to the survey, as collected through the survey instrument.

**Table 1: Respondent role**

Role	
Owner/partner	23%
Managing director/CEO	19%
Operations director/manager	6%
Finance director/manager	2%
Health and safety director/manager	1%
Energy manager	*%
Other department director/manager	37%
N/A	*%
Other	12%
Sample base	(2,802)

## Identifying where responsibility for energy efficiency improvements lies

Pilot interviews highlighted the potential complexity of the various levels of influence that there might be in terms of who is responsible for energy efficiency improvements at a particular site in instances where the establishment was a branch, where the property was rented or where the establishment shared the property with other businesses. Consequently questions were structured to take account of the specific circumstances of each establishment contacted, and to explore their level of influence over decisions affecting the site.

## Taking account of business characteristics

The piloting process highlighted a number of business characteristics that had an impact on whether businesses felt able to answer questions relating to the Green Deal specifically. Initially the key aspects of the Green Deal were explained to all respondents, who were then asked to give their reaction to the various elements of Green Deal. However, for tenants with no influence over energy efficiency improvements at their site it was very difficult for interviewers to encourage them to engage with the details of the scheme. This was even more extreme in the case of tenants who did not pay their energy bills directly to the supplier – a key part of the Green Deal mechanism.

Consequently somewhat different approaches were adopted depending on businesses' influence on energy efficiency improvements, and on whether they paid their energy bills direct to the supplier or not, as outlined below:



*Owners and tenants with some influence over decisions on energy efficiency improvements:* an overview of the Green Deal delivery and funding mechanisms was provided, and businesses were asked to rate whether the various elements would make them more or less likely to consider installing energy efficiency improvements through the scheme. They were then asked to provide an overall rating on a 10 point numerical scale as to how likely they would be to consider taking up the scheme.

*Tenants with no influence over decisions on energy efficiency improvements who pay their energy bills direct to the supplier:* a brief overview of the Green Deal delivery and funding mechanisms was provided, and businesses were asked on a five point scale how likely they would be to consider asking their landlord to make improvements under the scheme, how likely they thought their landlord would be to agree to make such improvements if they were asked, and how likely they would be to consider a landlord request to make energy efficiency improvements under the scheme. Where businesses indicated a likelihood to consider asking their landlord to make improvements under the scheme, or agreeing if their landlord asked to do so, they were then asked whether the various elements would make them more or less likely to consider installing energy efficiency improvements through the scheme.

*Tenants with no influence over decisions on energy efficiency improvements who do not pay their energy bills direct to the supplier:* a brief overview of the Green Deal delivery and funding mechanisms was provided, and businesses were asked on a five point scale how likely they would be to consider asking their landlord to make improvements under the scheme, how likely they thought their landlord would be to agree to make such improvements if they were asked, and how likely they would be to consider a landlord request to make energy efficiency improvements under the scheme. Given that this group both had no influence over decisions on energy efficiency, nor paid their energy bills direct to the supplier, they were not asked in detail about the various aspects of the Green Deal scheme.

Allowance was also made for the small proportion of businesses who were adamant that all possible energy efficiency improvements had been made, and consequently who were unprepared to consider the various elements of the Green Deal in detail. Among this group, a brief overview of the Green Deal delivery and funding mechanisms was provided, and businesses were asked to provide an overall rating on a 10 point numerical scale as to how likely they would be to consider taking up the scheme if additional energy efficiency improvements were identified at their site.

## Mode of interview

Interviews were undertaken using Computer Aided Telephone Interviewing (CATI).

## Average length of interview

The average length of interview was 21.2 minutes.

## Sampling

### Sampling procedure

Contacts were sourced from Experian in line with the quota requirements by number of employees, industry sector and region.

Contacts were selected randomly for interview from the database, and, once a particular size, sector or regional quota was filled, contacts fulfilling these criteria were removed from the database.

### Overview of population under investigation

The table below provides an overview of the population under investigation, as defined by the Inter-Departmental Business Register (IDBR). The final data were weighted to reflect this distribution by sector within size bands 1 to 4 employees, 5 to 9 employees, 10 to 49 employees, 50 to 249 employees and 250+ employees.

**Table 2: The population under investigation – GB private sector establishments excluding zero employees/sole proprietors**

GB	1	2	3	4	5 - 9	10 - 24	25 - 49	50 - 249	250 - 499	500 - 999	1,000 +	TOTAL	TOTAL %
<b>A: Agriculture, forestry and fishing</b>	22745	12040	6670	4030	6770	2790	445	255	20	5	0	<b>55770</b>	<b>2.8%</b>
<b>B: Mining and quarrying</b>	485	260	125	135	370	340	145	145	20	10	5	<b>2040</b>	<b>0.1%</b>
<b>C: Manufacturing</b>	29345	17525	10405	7515	20755	17810	8010	7575	905	340	95	<b>120280</b>	<b>6.0%</b>
<b>D: Electricity, gas, steam and air conditioning supply</b>	315	90	55	70	155	200	140	235	40	25	25	<b>1350</b>	<b>0.1%</b>
<b>E: Water supply, sewerage, waste management and remediation activities</b>	1795	1065	675	545	1425	1305	630	470	30	10	0	<b>7950</b>	<b>0.4%</b>
<b>F: Construction</b>	87440	46755	22470	14465	26455	14350	4455	3080	200	55	15	<b>219740</b>	<b>10.9%</b>
<b>G: Wholesale and retail trade, repair of motor vehicles and motorcycles</b>	100875	62380	41440	31690	86460	55235	15865	9930	1445	370	55	<b>405745</b>	<b>20.2%</b>
<b>H: Transportation and storage</b>	18455	9260	4950	3570	8445	6835	2925	2850	370	140	55	<b>57855</b>	<b>2.9%</b>
<b>I: Accommodation and food service activities</b>	27110	22105	15810	11765	37250	28190	9290	3930	120	35	15	<b>155620</b>	<b>7.8%</b>
<b>J: Information and communication</b>	78200	27570	7940	4545	9870	6780	2585	2255	325	110	55	<b>140235</b>	<b>7.0%</b>
<b>K: Financial and insurance activities</b>	10010	6700	4110	3365	9145	5690	1670	1505	265	165	85	<b>42710</b>	<b>2.1%</b>
<b>L: Real estate activities</b>	27920	12440	7190	4980	10580	4765	1010	775	50	15	0	<b>69725</b>	<b>3.5%</b>
<b>M: Professional, scientific and technical activities</b>	142035	59605	19380	11760	26845	17955	5405	3895	410	180	70	<b>287540</b>	<b>14.3%</b>
<b>N: Administrative and support service activities</b>	58035	26860	12965	8915	21585	13345	4960	6070	735	255	130	<b>153855</b>	<b>7.7%</b>
<b>P: Education</b>	9150	4885	2545	1950	5620	4215	1765	2225	440	205	105	<b>33105</b>	<b>1.6%</b>
<b>Q: Human health and social work activities</b>	19195	11795	8530	7190	23925	25075	9575	5565	155	50	5	<b>111060</b>	<b>5.5%</b>
<b>R: Art, entertainment and recreation</b>	15460	7790	4165	3835	11795	5030	2110	1660	95	30	10	<b>51980</b>	<b>2.6%</b>
<b>S: Other service activities</b>	29500	18180	10780	7400	15150	7065	1375	755	75	20	10	<b>90310</b>	<b>4.5%</b>
<b>TOTAL</b>	<b>678070</b>	<b>347305</b>	<b>180205</b>	<b>127725</b>	<b>322600</b>	<b>216975</b>	<b>72360</b>	<b>53175</b>	<b>5700</b>	<b>2020</b>	<b>735</b>	<b>2006870</b>	<b>100.0%</b>
<b>TOTAL %</b>	<b>33.8%</b>	<b>17.3%</b>	<b>9.0%</b>	<b>6.4%</b>	<b>16.1%</b>	<b>10.8%</b>	<b>3.6%</b>	<b>2.6%</b>	<b>0.3%</b>	<b>0.1%</b>	<b>0.0%</b>	<b>100.0%</b>	

Source: The Inter-Departmental Business Register (IDBR) March 2010

## Screening out businesses operating from domestic premises

The table above shows the profile of the universe under investigation as defined by IDBR, which includes businesses operating from domestic premises as these cannot be defined within the IDBR figures.

However, businesses operating from domestic premises were screened out of the survey, but their size and sector information was collected to inform the weighting process.

A total of 353 businesses were screened out of the survey on this basis, which represent 11% of businesses contacted. Of these, 176 were businesses with 1 employee, 147 were businesses with 2 to 4 employees, and 30 were businesses with 5 or more employees<sup>3</sup>. The table below shows how these were distributed by sector.

**Table 3: Distribution of businesses screened out of the survey on the basis of operating out of domestic premises by sector.**

	Number
<b>Agriculture forestry &amp; fishing</b>	24
<b>Mining/utilities</b>	2
<b>Manufacturing</b>	28
<b>Construction</b>	68
<b>Wholesale/retail/ motor repair</b>	18
<b>Transport &amp; storage</b>	15
<b>Accommodation &amp; food services</b>	9
<b>Information &amp; communication</b>	33
<b>Finance &amp; insurance</b>	1
<b>Real estate activities</b>	4
<b>Professional scientific &amp; technical</b>	46
<b>Administrative and support services</b>	57
<b>Education</b>	11
<b>Health</b>	7
<b>Arts entertainment</b>	8
<b>Other service activities</b>	22
<b>TOTAL</b>	<b>353</b>

Once the data were weighted, businesses operating out of domestic premises accounted for 23% of businesses i.e. the likely prevalence in the population.

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<sup>3</sup> As noted in overview of method section, businesses with 0 employees were not included within the scope of the survey.

## Profile of achieved sample

The tables overleaf show the distribution of the achieved sample by size and sector once businesses operating from domestic premises had been screened out. The first shows the numbers of businesses interviewed, and the second how this breaks down as a proportion of the total sample.

It should be noted that businesses in the following size bands and sectors were deliberately over-sampled relative to their prevalence in the universe under investigation in order to allow robust analysis:

- Sizes 50 to 249 and 250+;
- Manufacturing, education and health.

Consequently businesses in the following size bands and sectors were under-sampled relative to their prevalence in the universe under investigation to compensate for this:

- Sizes 1 to 4 and 5 to 9;
- Construction and the wholesale and retail trade.

**Table 4: Distribution of achieved sample by size and sector (nos)**

	1 to 4	5 to 9	10 to 49	50 to 249	250+	TOTAL
A: Agriculture, forestry and fishing	22	13	8	3	0	<b>46</b>
B: Mining and quarrying	0	1	0	1	3	<b>5</b>
C: Manufacturing	53	54	99	86	62	<b>354</b>
D: Electricity, gas, steam and air conditioning supply	2	1	2	0	4	<b>9</b>
E: Water supply, sewerage, waste management and remediation activities	3	6	9	3	2	<b>23</b>
F: Construction	45	31	50	22	8	<b>156</b>
G: Wholesale and retail trade, repair of motor vehicles and motorcycles	128	164	120	65	65	<b>542</b>
H: Transportation and storage	34	18	35	25	22	<b>134</b>
I: Accommodation and food service activities	36	76	98	39	5	<b>254</b>
J: Information and communication	50	19	30	16	11	<b>126</b>
K: Financial and insurance activities	13	10	14	7	13	<b>57</b>
L: Real estate activities	44	26	23	10	7	<b>110</b>
M: Professional, scientific and technical activities	77	70	71	34	27	<b>279</b>
N: Administrative and support service activities	41	43	42	27	14	<b>167</b>
P: Education	11	24	33	23	12	<b>103</b>
Q: Human health and social work activities	36	55	93	78	17	<b>279</b>
R: Art, entertainment and recreation	20	24	21	13	2	<b>80</b>
S: Other service activities	33	22	14	6	3	<b>78</b>
<b>TOTAL</b>	<b>648</b>	<b>657</b>	<b>762</b>	<b>458</b>	<b>277</b>	<b>2,802</b>

**Table 5: Distribution of achieved sample by size and sector (%)**

	1 to 4 %	5 to 9 %	10 to 49 %	50 to 249 %	250+ %	TOTAL %
A: Agriculture, forestry and fishing	1%	0%	0%	0%	0%	<b>2%</b>
B: Mining and quarrying	0%	0%	0%	0%	0%	<b>0%</b>
C: Manufacturing	2%	2%	4%	3%	2%	<b>13%</b>
D: Electricity, gas, steam and air conditioning supply	0%	0%	0%	0%	0%	<b>0%</b>
E: Water supply, sewerage, waste management and remediation activities	0%	0%	0%	0%	0%	<b>1%</b>
F: Construction	2%	1%	2%	1%	0%	<b>6%</b>
G: Wholesale and retail trade, repair of motor vehicles and motorcycles	5%	6%	4%	2%	2%	<b>19%</b>
H: Transportation and storage	1%	1%	1%	1%	1%	<b>5%</b>
I: Accommodation and food service activities	1%	3%	3%	1%	0%	<b>9%</b>
J: Information and communication	2%	1%	1%	1%	0%	<b>4%</b>
K: Financial and insurance activities	0%	0%	0%	0%	0%	<b>2%</b>
L: Real estate activities	2%	1%	1%	0%	0%	<b>4%</b>
M: Professional, scientific and technical activities	3%	2%	3%	1%	1%	<b>10%</b>
N: Administrative and support service activities	1%	2%	1%	1%	0%	<b>6%</b>
P: Education	0%	1%	1%	1%	0%	<b>4%</b>
Q: Human health and social work activities	1%	2%	3%	3%	1%	<b>10%</b>
R: Art, entertainment and recreation	1%	1%	1%	0%	0%	<b>3%</b>
S: Other service activities	1%	1%	0%	0%	0%	<b>3%</b>
<b>TOTAL</b>	<b>23%</b>	<b>23%</b>	<b>27%</b>	<b>16%</b>	<b>10%</b>	<b>100%</b>

The table below shows the distribution of the achieved sample by geography, alongside the actual geographic distribution of all businesses (including those operating from domestic premises).

Businesses were over-sampled in Wales and Scotland to ensure a minimum of 250 interviews was conducted in each to allow for robust analysis. A rim weight was placed on the final data to reflect the geographical distribution of businesses.

**Table 6: Distribution of achieved sample and population under investigation by geography**

Geography	Achieved sample		Population under investigation
	No	%	
<b>Wales</b>	<b>266</b>	<b>9%</b>	<b>4%</b>
<b>Scotland</b>	<b>265</b>	<b>9%</b>	<b>7%</b>
<b>England</b>	<b>2,271</b>	<b>81%</b>	<b>88%</b>
<b>North East</b>	91	3%	3%
<b>North West</b>	268	10%	10%
<b>Yorkshire and Humber</b>	201	7%	7%
<b>East Midlands</b>	193	7%	7%
<b>West Midlands</b>	221	8%	8%
<b>East of England</b>	251	9%	10%
<b>London</b>	397	14%	17%
<b>South East</b>	401	14%	16%
<b>South West</b>	248	9%	9%
<b>TOTAL</b>	<b>2,802</b>	<b>100%</b>	<b>100%</b>



## Summary of call outcomes

Since a quota sampling approach rather than a random sampling approach was taken, true response rates cannot be calculated. The table below outlines the call outcomes, and provides an estimate of the response rate based on the number of completed interviews (2,802) as a proportion of all definite call outcomes. In effect this is derived from the following calculation:-

$$\text{Completed interviews} / (\text{Completed interviews} + \text{terminated} + \text{refused})$$

On this basis  $((2,802 + 358) / (2,802 + 358) + 218 + 4,039)$ , the response rate for this survey was 43%.

**Table 7: Estimated response rate**

Call outcome	
Complete and in-scope	2,802
Complete and not in scope (operating from domestic premises)	358
Terminated	218
Refusal	4,039
<b>Total</b>	<b>7,417</b>

The table below outlines the number of other call outcomes achieved during the fieldwork period where the telephone number supplied was valid but contact was not made (i.e. engaged, no reply, answer machine) or where the number supplied was invalid (i.e. unobtainable, fax or wrong number).

**Table 8: Other call outcomes**

Call outcome	
Valid number but no contact made	4,405
Invalid number	3,475

## Analysis

### Univariate analysis

The data were processed using Merlin software.

The final data were weighted to reflect the distribution of the population under investigation (i.e. GB private sector establishments excluding zero employees/sole proprietors) as shown in figure 1. While businesses operating from domestic properties were screened out of the full survey (representing 11% of businesses contacted), size and sector information was gathered from these businesses in order to inform the weighting matrix.

Weighting was applied by sector within size bands 1 to 4 employees, 5 to 9 employees, 10 to 49 employees, 50 to 249 employees and 250+ employees, with a rim weight placed on country.

Data tables were produced containing a number of cross-tabulations, as shown below, indicating statistically significant differences between variables at the 95% level of confidence.

**Total sample:**

- Size
- Industry sector
- Tenure
- With head office/head office/branch
- Multi-occupancy
- Listed or other restrictions
- Type of premises
- Age of building
- Influence in decisions about energy efficiency improvements at the site

**Owners:**

- With head office/head office branch
- Multi-occupancy
- Listed or other restrictions
- Type of premises
- Age of building
- Influence in decisions about energy efficiency improvements at the site

**Renters:**

- With head office/head office branch
- Multi-occupancy
- Listed or other restrictions
- Type of premises
- Age of building
- Time remaining on lease

The data tables are presented as an annex to this technical report.

**Multivariate analysis**

To test whether key business characteristics were associated with significant variability in consideration of Green Deal, ordinal regression analysis was undertaken. Ordinal regression is a multiple regression model; when the strength of association between willingness and business size is examined for example, all other independent characteristics are kept constant, so the correlation not only between willingness and business size, but whether other independent factors partially influence this relationship<sup>4</sup> is considered.

The response, or dependent, variable was identified as consideration of taking up the Green Deal (where the business had some influence over decisions regarding energy efficiency at their site), or consideration of requesting the landlord to take up the scheme (where tenants had no influence over decisions regarding energy efficiency at their site).

This variable is an ordered categorical variable (so ordinal regression is appropriate) on a four-point step scale named RESPONSE:

- Highly unlikely = rating of 1 or 2/definitely not consider asking landlord;
- Unlikely = rating of 3 or 4/probably not consider asking landlord;
- Possible = rating of 5 to 7/might consider asking landlord;
- Highly likely = rating of 8 to 10/would definitely consider asking landlord).

Overall, 2,174 (78%) respondents gave a valid rating to this question (others were either unsure, or provided other responses such as 'it depends on the landlord/head office').

The following outlines the independent variables that were examined, with the alphanumeric designation indicating the specific question number in the survey:

- A2 (Number of employees at site), which is an ordered categorical variable, with the following bands:

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<sup>4</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.

1 {1-9}, 2 {10-49}, 3 {50-249}, 4 {250+}

- A11 (Premises type), which is an unordered categorical variable, with values assigned from lowest to highest frequency:  
1 {Residential}, 2 {Warehouses}, 3 {Hospitality}, 4 {Factories}, 5 {Other}, 6 {Shops}, 7 {Offices}
- A3/A4: SIC (Industry classification), again, an unordered categorical variable, with values assigned from lowest to highest frequency:  
1 {Other services – SIC R,S}, 2 {Information & Communication SIC I}, 3 Education & Welfare (SIC P,Q), 4 {Wholesale & retail SIC G}, 5 {Primary, secondary & construction SIC A-F}, 6 {Business Services SIC H & J-N}
- A5 (Site ownership), a binary variable:  
0 {Tenant}, 1 {Owner}
- C6(i) (Whether implemented energy efficiency measures), an ordered categorical variable:  
1 {Inactive, i.e. no energy-efficiency measures implemented}, 2 {Moderately active, i.e. up to 4 of the 8 measures implemented}, 3 {Highly active, i.e. 5 or more measures implemented}
- C6(ii) (Whether plans to implement (further) energy-efficiency measures), an ordered categorical variable:  
1 {No desire, i.e. no interest in installing further energy-efficiency measures}, 2 {Moderate desire, i.e. interest in up to 4 of the 8 measures}, 3 {High level of desire, i.e. interest in 5 or more of the measures}
- C8(i) (Whether reducing energy bills is motivating the installation of energy-efficiency measures), a binary variable:  
0 {No}, 1 {Yes}
- C8(ii) (Whether something else other than reducing energy bills is motivating the installation of energy-efficiency measures), a binary variable:  
0 {No}, 1 {Yes}
- C9(i) (Whether the presence of non-external factors is a barrier to implementing energy-efficiency improvements), a binary variable:  
0 {No}, 1 {Yes}
- C9(ii) (Whether external factors, in this case landlord, head office restrictions, are a barrier to implementing energy-efficiency improvements), a binary variable:  
0 {No}, 1 {Yes}
- D1 (Whether has certification or has had some energy-rating assessment), a binary variable:  
0 {No}, 1 {Yes, i.e. has or had an EPC, DEC, or energy assessment}

Cross-tabulations of the response variable against the independent variables do not highlight any empty or small cells.

From a model including all of these independent variables, initially, the parallel lines test is significant (<0.05), which indicates that the model overall is NOT a good fit for the response variable.

**Table 9: Test of Parallel Lines**

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	4597.271			
General	4493.434	103.837	48	.000

The null hypothesis states that the location parameters (slope coefficients) are the same across response categories.

a. Link function: Logit.

Furthermore, the model explains only 12.9% of the variance in the response variable (re: Cox & Snell in the table below). This suggests that there are likely to be factors other than those covered within the multivariate analysis that have a bearing on businesses’ likelihood to consider taking out the Green Deal.

**Table 10: Pseudo R-square**

Cox and Snell	.129
Nagelkerke	.140
McFadden	.053

Link function: Logit.

Nevertheless, looking at the model in more detail, and as shown in the table below, the initial point of interest is the Wald test, and the significance thereof. It can be seen from the column headed ‘sig’, that the only interactions that are statistically significant (sig value of <0.05) are A2(1), C6(i)(1), C6(ii), C8(i), C8(ii), and C9(i). Therefore, the conclusion from this is that A11 (premises type), SIC (industry sector), A5 (site ownership), C9(ii) (external barriers to implementing improvement), and D1 (certification) have no significant effect on levels of interest in the Green Deal if the remaining independent variables are held constant.

Now examining the significant results:

In terms of number of employees at site, when businesses have 0-9 employees as opposed to more than 9 employees, the likelihood of being interested in the Green Deal decreases by a factor of 0.307, provided that the remaining independent variables are held constant. However, there are no significant differences between businesses with 10-49 employees against those with 50+ employees, or between businesses with 50-249 employees against those with 250+.

In terms of whether businesses have already implemented energy efficiency improvements at their site, when those inactive (not implemented any) are contrasted against those moderately (implemented up to four of the eight measures) and highly active (implemented five or more measures), the likelihood of being interested in the Green Deal decreases by 0.455, but there is no significant difference between those who are moderately active compared to those who are highly active.

In terms of plans to implement energy efficiency improvements, comparing those with no desire (no plans to install measures) against those with moderate (plans to install up to four measures) or high (plans to install five or more measures) levels of desire, the likelihood of

being interested in the Green Deal decreases by a factor of 1.506. There is also a significant difference between those with moderate desire levels against high desire levels, with a decrease of 0.481 between the two.

Also, it is evident that having no incentive to reduce bills, having no other incentive apart from a desire to reduce bills, and having no non-external barriers to the implementation of energy efficiency improvements, also decreases the likelihood of being interested in Green Deal.

**Table 11: Parameter estimates**

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[RESPONSE = 1]	-2.177	.280	60.366	1	.000	-2.726	-1.628
	[RESPONSE = 2]	-1.276	.278	21.131	1	.000	-1.821	-.732
	[RESPONSE = 3]	.854	.278	9.407	1	.002	.308	1.400
Location	[A2=1]	-.307	.154	3.964	1	.046	-.608	-.005
	[A2=2]	.065	.156	.171	1	.680	-.242	.371
	[A2=3]	.272	.166	2.688	1	.101	-.053	.597
	[A2=4]	0 <sup>a</sup>	.	.	0	.	.	.
	[A11=1]	.135	.213	.399	1	.527	-.283	.552
	[A11=2]	-.185	.168	1.212	1	.271	-.513	.144
	[A11=3]	.508	.294	2.975	1	.085	-.069	1.085
	[A11=4]	.060	.146	.168	1	.682	-.227	.347
	[A11=5]	-.040	.133	.090	1	.764	-.302	.222
	[A11=6]	.034	.143	.055	1	.815	-.247	.315
	[A11=7]	0 <sup>a</sup>	.	.	0	.	.	.
	[A3/A4: SIC=1]	.052	.190	.075	1	.785	-.321	.425
	[A3/A4: SIC=2]	-.388	.269	2.083	1	.149	-.914	.139
	[A3/A4: SIC=3]	-.074	.153	.232	1	.630	-.374	.226
	[A3/A4: SIC=4]	-.025	.137	.034	1	.854	-.293	.243
	[A3/A4: SIC=5]	-.169	.121	1.935	1	.164	-.407	.069
	[A3/A4: SIC=6]	0 <sup>a</sup>	.	.	0	.	.	.
	[A5=0]	-.062	.089	.490	1	.484	-.237	.112
	[A5=1]	0 <sup>a</sup>	.	.	0	.	.	.
	[C6(i)=1]	-.455	.173	6.880	1	.009	-.794	-.115
[C6(i)=2]	-.108	.123	.762	1	.383	-.349	.134	
[C6(i)=3]	0 <sup>a</sup>	.	.	0	.	.	.	
[C6(ii)=1]	-1.506	.191	62.195	1	.000	-1.880	-1.132	
[C6(ii)=2]	-.481	.180	7.105	1	.008	-.834	-.127	
[C6(ii)=3]	0 <sup>a</sup>	.	.	0	.	.	.	
[C8(i)=0]	-.369	.103	12.942	1	.000	-.570	-.168	
[C8(i)=1]	0 <sup>a</sup>	.	.	0	.	.	.	

[C8(ii)=0]	-.248	.086	8.336	1	.004	-.416	-.080
[C8(ii)=1]	0 <sup>a</sup>	.	.	0	.	.	.
[C9(i)=0]	-.270	.105	6.628	1	.010	-.476	-.065
[C9(i)=1]	0 <sup>a</sup>	.	.	0	.	.	.
[C9(ii)=0]	-.083	.129	.414	1	.520	-.335	.169
[C9(ii)=1]	0 <sup>a</sup>	.	.	0	.	.	.
[D1=0]	.078	.086	.829	1	.362	-.090	.247
[D1=1]	0 <sup>a</sup>	.	.	0	.	.	.

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Finally, the exponent of the log-odds ratios were calculated. When other variables are held constant:

- Being a business of 0-9 employees against larger business leads to a 73.6% reduction in the likelihood of having a higher level of interest in the Green Deal.
- Not being active in implementing energy efficiency measures against those moderately/highly active in implementing energy efficiency measures leads to a 63.5% reduction in the likelihood.
- Having no desire to implement further energy efficiency measures against those with moderate/high levels of desire to do so, leads to a 22.2% reduction in likelihood.
- Having a moderate level of desire to implement further energy efficiency measures against those with high levels of desire to do so, leads to a 61.8% reduction in likelihood.
- Not being motivated to implement energy efficiency improvements in order to reduce energy bills against those that are motivated to implement energy efficiency improvements in order to reduce energy bills leads to a 69.1% reduction in likelihood.
- Not being motivated to implement energy efficiency improvements for reasons other than reducing energy bills against those that are motivated to implement energy efficiency improvements for reasons other than reducing energy bills leads to a 78.1% reduction in likelihood.
- Having no non-external barriers to implementing energy efficiency improvements against those with non-external barriers leads to a 76.3% reduction in likelihood. This does seem counter-intuitive, but is likely to be explained by the fact that, although these businesses have no **non**-external barriers, they may have external barriers such as landlord or head office restrictions.

## Opportunities for further analysis

At the end of the interview respondents were asked if they would be prepared for their responses to be passed back to DECC. The question was as follows:

*“Finally, it is sometimes possible to link the data we have collected with other government surveys or datasets held by government for the purposes of statistical analysis and informing wider policy formulation. Would you be happy for your responses to be passed to DECC for this purpose? **IF NECESSARY:** Your confidentiality will be maintained, and linked data will only be used for statistical purposes by researchers authorised by the Department for Energy and Climate Change.”*

In total, 2,027 respondents agreed to this, representing close to three quarters (72%) of the total sample.



## The quantitative questionnaire

**Pro 8594 (POST PILOT – 30 September 2011)**

**The potential demand for the Green Deal in the non-domestic market**

**ASK TO SPEAK TO THE MOST SENIOR PERSON AT THAT SITE RESPONSIBLE FOR MAKING DECISIONS ABOUT ENERGY USE AND ENERGY EFFICIENCY IMPROVEMENTS.**

Good morning/afternoon, my name is [NAME] and I am calling from [BMG Research], an independent research organisation. We are conducting a survey on behalf of the Department of Energy and Climate Change. The department is undertaking research to explore how businesses use energy. Your assistance will ensure that the views expressed are representative of all businesses in your industry.

- S1 Can I just confirm that you are the most appropriate person at this site to talk to about energy use and energy efficiency improvements?

**IF NECESSARY:** 'The person we need to speak to is the person *at your site* who has the most responsibility for issues relating to the site itself. At smaller establishments this is likely to be an owner or general manager or site manager, whereas at larger sites it is likely to be someone with a designated function such as the operations director/manager or the finance director. If you are still unsure as to who this would be, then think who has the most managerial responsibility for your site. If an issue arises at your branch relating to the site itself, who would be the staff member at your site that would make contact with head office to communicate this? Conversely if head office wanted to communicate with your site who would be the person they would talk to first about these matters? That would be the person we would like to talk to at your site.

Yes	1	CONTINUE
No	2	ASK FOR CONTACT DETAILS AND RE-CONTACT

- S2 The interview will take on average 20 minutes depending on the answers given. Would it be convenient to conduct the interview now?

Yes	1	CONTINUE
Definite Appointment	2	MAKE DEFINITE APPOINTMENT
Soft appointment	3	MAKE SOFT CALL BACK
Refusal	4	THANK AND CLOSE
Refusal – company policy	5	
Refusal – taken part in recent survey	6	
Not available in deadline	7	
WANTS REASSURANCES	8	SHOW REASSURANCES

**REASSURANCES TO USE IF NECESSARY**

The interview will take around 20 minutes to complete.

Please note that all data will be reported in aggregate form.

If respondent wishes to confirm validity of survey or get more information about aims and objectives, they can call:

- **MRS: Market Research Society on 0500 39 69 99**
- **BMG Research: Lys Coleman on 0121 333 6006**
- (ONLY IF ABSOLUTELY NECESSARY: DECC: Nita Bhupal on 0300 068 6964)

**S3 ALL**

Please can you tell me your job title, or describe the role you hold?

DO NOT READ OUT. PROBE FULLY AND CODE NEAREST

Owner/partner	1
Managing director/CEO	2
Operations director/manager	3
Finance director/manager	4
Health and safety director/manager	5
Energy manager	6
Other department director/manager	7
Other ( <b>SPECIFY</b> )	95

**A Site characteristics (all)**

**READ:** First, some questions about your organisation and the site at which you work. By site we mean the actual buildings that your organisation occupies at this location.

**A1 ALL**

Would you classify your organisation as...?

**READ OUT AND CODE ONE ONLY**

Private sector business	1	
A charity or voluntary sector organisation or a social enterprise	2	
A public sector organisation	3	<b>CLOSE</b>

**A2 ALL**

Including yourself, how many employees are there at this site? Please include both full-time and part-time employees on your payroll but exclude proprietors, partners, and anyone who does not receive a salary direct from the payroll.

**RECORD EXACT NUMBER**

**IF DON'T KNOW PROBE FOR BEST ESTIMATE AND RECORD BANDING**

**CLOSE IF DON'T KNOW / REFUSED**

0	1	<b>CLOSE</b>
1	2	
2 to 4	3	
5 to 9	4	
10 to 24	5	
25 to 49	6	
50 to 249	7	
250 to 499	8	
500 to 999	9	
1,000 or more	10	
Don't know/refused	11	

**A3 ALL**

I have [SIC DESCRIPTION ON SAMPLE] as a general classification for your organisation. Does this sound about right?

**ONE CODE ONLY**

Yes	1	
No	2	<b>ASK A4</b>

**A4 IF NO (A3=2):**

How would you describe the main business activity of this site?

**PROBE FULLY:**

What is the main product or service of this site?

What exactly is made or done at this site?

What material or machinery does that involve using?

Who does it sell its product/services to?

**WRITE IN. MUST CODE TO 4-DIGIT SIC07**

--

**A5 ALL**

Thinking about this site, do you .....?

**READ OUT AND CODE ONE ONLY**

Run the business at or from home	1	<b>CLOSE</b>
Rent or lease from commercial landlord	2	
Rent or lease from a connected business	3	
Or is the site owned by the owner/partners/directors	4	
Or is it owned by the business	5	
<b>DO NOT READ OUT:</b> Don't know	6	<b>CLOSE</b>

**A6 ALL**

Are you the only business that occupies your building or are there other businesses that occupy your building?

**READ OUT AND CODE ONE ONLY**

Single organisation building	1
Multi organisation building	2

**A7 MULTI ORGANISATION SITES (A6=2)**

Approximately how many other businesses occupy your building?

**READ OUT AND CODE ONE ONLY**

1	1
2 to 4	2
5 to 10	3
11 to 20	4
21 to 30	5
31 to 40	6
41 to 50	7
51 or more	8
Don't know	9

**A8 ALL**

Is this site..? **READ OUT AND CODE ONE ONLY**

The only site in the organisation, or	1	<b>GO TO A12</b>
One of a number of sites within a larger organisation	2	

**A9 MULTISITE ORGANISATION (A8=2)**

Can I just check, is this site the head office of the organisation?

**CODE ONE ONLY**

Yes	1
No	2

**A10 MULTI-SITE ORGANISATION (A8=2)**

And how many people work across your organisation in the UK as a whole?

**RECORD EXACT**

**IF DON'T KNOW PROBE FOR BEST ESTIMATE AND RECORD BANDING**

1 to 4	1
5 to 9	2
10 to 24	3
25 to 49	4
50 to 249	5
250 to 499	6
500 to 999	7
1,000 or more	8
Don't know	9

**SAY:** Now thinking just about your site:

**A11 ALL**

Which of the following best describes the premises that your business occupies?

**READ OUT AND CODE ONE ONLY**

Shops	1
Offices	2
Warehouses	3
Factories	4
Hotels	5
Pubs	6
Restaurants	7
Residential (e.g. care home, private hospital)	8
Other ( <b>SPECIFY</b> )	95

**A12 ALL**

Is the site you occupy .....

**READ OUT AND CODE ONE ONLY PER ROW**

	Yes	No	Don't know
Listed ( <b>IF NECESSARY:</b> In order to protect and preserve them, buildings can be listed because of age, rarity, architectural merit, or method of construction)	1	2	3
Located within a conservation area ( <b>IF NECESSARY:</b> An area where there may be restrictions to changes that can be made to buildings)	1	2	3
Or does it have any other restrictions to changing the appearance of the building (that are not related to the lease – <b>RENTED ONLY (A5=2-3) (SPECIFY)</b> )	1	2	3

**A13 RENTED (A5=2-3)**

What is the total length of the lease or the duration of the rental agreement?

**PROBE AND CODE ONE ONLY**

Less than 12 months	1
1 to 2 years	2
3 to 5 years	3
6 to 10 years	4
11 to 25 years	5
More than 25 years	6
<b>DO NOT READ OUT:</b> Don't know	7

A14 **RENTED (A5=2-3)**

How much of the lease or rental agreement is there left to run?

**PROBE AND CODE ONE ONLY**

Less than 12 months	1
1 to 2 years	2
3 to 5 years	3
6 to 10 years	4
11 to 25 years	5
More than 25 years	6
Rolling contract	7
<b>DO NOT READ OUT:</b> Don't know	8

A15 **ALL**

How long has your business been in operation at this site?

**PROBE AND CODE ONE ONLY**

Less than 12 months	1
1 to 2 years	2
3 to 5 years	3
6 to 10 years	4
11 to 25 years	5
More than 25 years	6
<b>DO NOT READ OUT:</b> Don't know	7

A16 **ALL**

And is this business planning or due to relocate from this site?

**CODE ONE ONLY**

Yes	1	
No	2	<b>GO TO A18</b>
Don't know	3	<b>GO TO A18</b>

**A17 ALL PLANNING TO RELOCATE (A16=1)**

When is this business planning to relocate from this site?

**PROBE FOR BANDING**

In the next 12 months	1
In 1 to 2 years	2
In 3 to 4 years	3
In 5 to 10 years	4
In more than 10 years	5
Don't know	6

**WHERE PLAN TO RELOCATE AT A16 (A16=1)**

**SAY:** Please will you answer the following questions on the basis of your current site.

**A18 ASK ALL**

When was the property built? **IF NECESSARY:** By that I mean when was the original building built, even if it has been extended or converted later.

**READ OUT AND CODE ONE ONLY. ACCEPT ESTIMATE IF RESPONDENT IS NOT SURE.**

Pre 1990	1
1990 to 1999	2
2000 to 2007	3
2007 or later	4
<b>DO NOT READ OUT:</b> Don't know	5



**A19 ASK ALL**

What is the total internal floor area of your business premises in square metres or square feet?

**RECORD EXACT**

**IF DON'T KNOW PROBE FOR BEST ESTIMATE AND RECORD BANDING**

**MAKE SURE YOU ENTER APPROPRIATE UNIT – METRES OR FEET AS PREFERRED BY RESPONDENT**

**IF NECESSARY:** A tennis court is approximately 196 square metres, or 2106 square feet.

square metres
square feet

**SQUARE METRES BANDING**

Up to 25	1
26 to 50	2
51 to 100	3
101 to 250	4
251 to 500	5
501 to 1000	6
1001 to 5000	7
More than 5000	8
<b>DO NOT READ OUT:</b> Don't know	9

**SQUARE FEET BANDING**

Up to 269	1
270 to 538	2
539 to 1075	3
1076 to 2690	4
2691 to 5380	5
5381 to 10760	6
10761 to 53820	7
More than 53820	8
<b>DO NOT READ OUT:</b> Don't know	9

**RECORD HERE WHETHER RESPONDENT IS CONFIDENT IN THEIR ANSWER, OR IF IT IS AN ESTIMATE**

Confident response	1
Estimate	2

**B Energy use (all)****B1 ALL**

What types of energy are used at this site, excluding any fuel used for transport?

**PROBE AND CODE ALL THAT APPLY**

Electricity	1
Gas	2
Combined Heat and Power system which is a system that generates heat and electricity simultaneously with any excess electricity produced going back into the grid)	3
LPG e.g. Propane Gas	4
Oil e.g. fuel oil or heating oil	5
Solid fuel	6
Solar panels that generate electricity	7
Solar panels that only heat water	8
Wind turbine	9
Other ( <b>SPECIFY</b> )	95
<b>DO NOT READ OUT:</b> Don't know	98

**B2 USE ELECTRICITY AND GAS AT B1 (B1=1 AND 2)**

Do you pay for gas and electricity separately or as part of the same bill?

**CODE ONE ONLY**

Separately	1	<b>GO TO B6</b>
In same bill	2	
Don't know	3	<b>GO TO B5</b>

**B3 RENTERS WHERE PAY IN SAME BILL AT B2 (A5=2-3 AND B2=2)**

Do you pay these bills for your site direct to the energy supplier?

Yes	1	
No	2	<b>ASK B4</b>
Don't know	3	

**B4 DO NOT PAY BILLS DIRECT TO ENERGY SUPPLIER AT B3 (B3=2)**

Is the cost of energy used.....?

**READ OUT AND CODE ONE ONLY**

Included in the rent	1
Paid through a separate service charge	2
Paid by head office ( <b>WITH HEAD OFFICE ONLY</b> )	3
Paid in another way ( <b>SPECIFY</b> )	95
Don't know	97

**B5 PAY IN SAME BILL AT B2 (B2=2)**

I am going to ask about how much you pay for your energy bills. Would you prefer to answer on a monthly or an annual basis?

Monthly	1	<b>ASK B6a</b>
Annual	2	<b>ASK B6b</b>
Don't know how much	3	<b>GO TO C1</b>

B6a (Regardless of how you pay for it,) approximately how much is your energy bill in a **typical** month?**PROBE FOR BANDING**

Less than £42	1
£42 - £83	2
£84 – £167	3
£168 - £417	4
£418- £833	5
£834 - £2,083	6
£2,084 - £4,167	7
£4,168 - £8,333	8
More than £8,333	9
Don't know	10

B6b (Regardless of how you pay for it,) approximately how much is your energy bill in a typical year?

**PROBE FOR BANDING**

Less than £500	1
£500 - £999	2
£1,000 – 2,000	3
£2,000 - £5,000	4
£5,000 - £9,999	5
£10,000 - £24,999	6
£25,000 - £50,000	7
£50,000 - £99,999	8
More than £100,000	9
Don't know	10

B7 **RENTERS WHERE PAY FOR ELECTRICITY SEPARATELY AT B2 (A5=2-3 AND B2=1)**  
Do you pay the **electricity** bills for your site direct to the energy supplier?

**CODE ONE ONLY**

Yes	1	
No	2	<b>ASK B8</b>
Don't know	3	

B8 **DO NOT PAY ELECTRICITY BILLS DIRECT TO ENERGY SUPPLIER (B7=2)**

Is the cost of electricity.....?

**READ OUT AND CODE ONE ONLY**

Included in the rent	1
Paid through a separate service charge	2
Paid by head office ( <b>WITH HEAD OFFICE ONLY</b> )	3
Paid in another way ( <b>SPECIFY</b> )	95
Don't know	97

B9 **RENTERS WHERE PAY FOR GAS SEPARATELY AT B2 (A5=2-3 AND B2=1)**

Do you pay the **gas** bills for your site direct to the energy supplier?

Yes	1	
No	2	<b>ASK B10</b>
Don't know	3	

**B10 DO NOT PAY GAS BILLS DIRECT TO ENERGY SUPPLIER (B9=2)**

Is the cost of gas.....?

**READ OUT AND CODE ONE ONLY**

Included in the rent	1
Paid through a separate service charge	2
Paid by head office ( <b>WITH HEAD OFFICE ONLY</b> )	3
Paid in another way ( <b>SPECIFY</b> )	95
Don't know	97

**B11 PAY FOR ELECTRICITY SEPARATELY AT B2 (B2=1)**

I am going to ask about how much you pay for your electricity bill. Would you prefer to answer on a monthly or an annual basis?

Monthly	1	<b>ASK B12a</b>
Annual	2	<b>ASK B12b</b>
Don't know how much	3	<b>GO TO C1</b>

B12a (Regardless of how you pay for it,) approximately how much is your electricity bill in a **typical** month?**PROBE FOR BANDING**

Less than £42	1
£42 - £83	2
£84 – £167	3
£168 - £417	4
£418- £833	5
£834 - £2,083	6
£2,084 - £4,167	7
£4,168 - £8,333	8
More than £8,333	9
Don't know	10

B12b(Regardless of how you pay for it,) approximately how much is your electricity bill in a typical year? **PROBE FOR BANDING**

Less than £500	1
£500 - £999	2
£1,000 – £2,000	3
£2,000 - £5,000	4
£5,000 - £9,999	5
£10,000 - £24,999	6
£25,000 - £50,000	7
£50,000 - £99,999	8
More than £100,000	9
Don't know	10

B13 **USE GAS AT B1 (B1=2) AND PAY FOR IT SEPARATELY AT B2 (B2=1)**

I am going to ask about how much you pay for your gas bill. Would you prefer to answer on a monthly or an annual basis?

Monthly	1	<b>ASK B14a</b>
Annual	2	<b>ASK B14b</b>
Don't know how much	3	<b>GO TO C1</b>

B14a(Regardless of how you pay for it,) approximately how much is your gas bill in a typical month? **PROBE FOR BANDING**

Less than £42	1
£42 - £83	2
£84 – £167	3
£168 - £250	4
£251 - £417	5
£418 - £833	6
£834 - £1,667	7
£1,668 - £2,412	8
More than £2,412	9
Don't know	10

B14b (Regardless of how you pay for it,) approximately how much is your gas bill in a typical year? **PROBE FOR BANDING**

Less than £500	1
£500 - £999	2
£1,000 – 2,000	3
£2,000 - £2,999	4
£3,000 - £4,999	5
£5,000 - £10,000	6
£10,000 - £19,999	7
£20,000 - £29,000	8
More than £30,000	9
Don't know	10

B15 **ALL USING OTHER ENERGY SOURCE AT B1 (B1=3-95)**

I am going to ask about how much you pay for your other energy bills. Would you prefer to answer on a monthly or an annual basis?

Monthly	1	<b>ASK B16a</b>
Annual	2	<b>ASK B16b</b>

B16a (Regardless of how you pay for it,) approximately how much is your bill for other forms of energy that are used in this premises in a typical month? Please only include energy that is used within the building, and not costs associated with fuelling transport.

**PROBE FOR BANDING**

Less than £42	1
£42 - £83	2
£84 – £167	3
£168 - £250	4
£251 - £417	5
£418 - £833	6
£834 - £1,667	7
£1,668 - £2,412	8
More than £2,412	9
Don't know	10

B16b (Regardless of how you pay for it,) approximately how much is your bill for other forms of energy that are used in this premises in a typical year? Please only include energy that is used within the building, and not costs associated with fuelling transport.

**PROBE FOR BANDING**

Less than £500	1
£500 - £999	2
£1,000 – 2,000	3
£2,000 - £2,999	4
£3,000 - £4,999	5
£5,000 - £10,000	6
£10,000 - £19,999	7
£20,000 - £29,000	8
More than £30,000	9
Don't know	10

**CATI CALCULATES TOTAL ANNUAL COST**

**C Energy efficiency improvements (all)**

C1 **ALL**

How important an issue for your business is reducing energy consumption?

**READ OUT AND CODE ONE ONLY**

Very important	1
Fairly important	2
Not very important	3
Not important at all	4
<b>DO NOT READ OUT:</b> Don't know	5



**READ OUT:** I am now going to ask you some questions about energy efficiency improvements at your site. By this I mean things like making improvements to lighting, heating or insulation of walls or roof.

- C2 RENTERS (A5=2-3), WITH HEAD OFFICE (A9=2) OR MULTI-ORGANISATION (A6=2)**  
 If you did want to implement energy efficiency improvements at your site such as improvements to lighting, heating or insulation of walls or roof, who would be involved in the decision?  
**READ OUT AND CODE ALL THAT APPLY**
- C3 MENTION MORE THAN ONE AT C2**  
 Who would have the most influence in the decision?  
**READ OUT AND CODE ONE ONLY**
- C4 RENTERS (A5=2-3), WITH HEAD OFFICE (A9=2) OR MULTI-ORGANISATION (A6=2)**  
 Who would you expect to pay for these improvements?  
**READ OUT AND CODE ALL THAY APPLY**

	<b>C2</b>	<b>C3</b>	<b>C4</b>
Your site	1	1	1
Head office ( <b>WITH HEAD OFFICE ONLY</b> )	2	2	2
Landlord ( <b>RENTERS ONLY</b> )	3	3	3
( <b>C4 ONLY</b> Shared with) other businesses within the building/site ( <b>MULTI ORGANISATION SITES ONLY</b> )	4	4	4
Someone else	5	5	5
<b>DO NOT READ OUT:</b> Nobody, already doing everything that can be done ( <b>ONE CODE ONLY</b> )	6 <b>GO TO C5</b>		
Don't know	7	7	7

- C5 ALL**  
 Does your site try to improve energy management through more efficient use of existing equipment, such as ensuring equipment or lights are turned off, using energy efficient bulbs or timers, or better control of heating?

**CODE ONE ONLY**

Yes	1
No	2
Don't know	3

**C6 ALL**

I am going to read out a list of energy efficiency improvements and for each one I would like you to tell me whether it is already installed at this site, or whether you would like it to be installed in the future or not. **(IF NECESSARY FOR RENTERS/THOSE WITH HEAD OFFICE:** It doesn't matter whether you think your landlord/head office would allow this or not, we are interested in whether you think your site would benefit from it). So, in relation to the following, are these already installed at this site, or would you like them to be or not?

**READ OUT AND CODE ONE ONLY PER ROW**

**ROTATE**

**C7 WHERE WOULD LIKE AT C6 (C6=2)**

So thinking about the types of energy efficiency improvements I have described, do you have plans to .....in the future?

**READ OUT AND CODE ONE ONLY PER ROW**

	C6					C7	
	Already done	Would like it	Would not like	DON NOT READ OUT: Don't know	DON NOT READ OUT: Not applicable	Yes	No/ DK
Replacing the boiler or heating or cooling controls	1	2	3	4	5	1	2
Insulating the walls or roof	1	2	3	4	5	1	2
Installing smart energy meters and displays ( <b>IF NECESSARY:</b> Smart meters are devices that provide consumers with near real time information about energy use and more accurate bills.)	1	2	3	4	5	1	2
Installing double glazing	1	2	3	4	5	1	2
Installing a small scale renewable technology such as solar panels, micro wind turbines or a heat pump	1	2	3	4	5	1	2
Installing a Combined Heat and Power Unit, which is a system that generates heat and electricity simultaneously with any excess electricity produced going back into the grid	1	2	3	4	5	1	2
Installing replacement lighting or lighting controls	1	2	3	4	5	1	2
Any other measures to improve energy efficiency ( <b>SPECIFY</b> )	1	2	3			1	2

C8 **ALL**

What would you say are the main motivations for energy efficiency improvements at this site?

**DO NOT READ OUT. PROBE FULLY AND CODE ALL THAT APPLY**

Government initiatives to support energy efficiency improvements	1
Availability of grants or subsidies	2
An energy efficiency assessment	3
Reducing energy bills	4
Reducing environmental impact	5
Creating a good corporate image	6
Increasing sales	7
Improving the working environment	8
To coincide with other building refurbishment or improvements	9
Reduced cost of energy efficiency improvements	10
Internal targets	11
Convincing information that energy efficiency improvements are effective	12
Not wanting to waste energy	13
<b>DO NOT READ OUT: If the landlord wanted to (RENTERS ONLY (A5=2-3))</b>	14
<b>DO NOT READ OUT: If head office wanted to (WITH HEAD OFFICE ONLY (A9=2))</b>	15
Anything else? ( <b>SPECIFY</b> )	95
Nothing, already in place	96
Nothing	97
<b>DO NOT READ OUT: Don't know</b>	98

C9 **ALL**

What are the main barriers to making energy efficiency improvements at your site?

**DO NOT READ OUT. PROBE FULLY AND CODE ALL THAT APPLY**

Funding not available	1
The amount you would save	2
Unsure what can be done	3
Lack of time to decide what to do or implement	4
It is not an organisational priority	5
Organisation is based in rented premises ( <b>RENTERS ONLY</b> )	6
Landlord will not allow it ( <b>RENTERS ONLY</b> )	7
Need permission from other businesses in the building ( <b>MULTI-ORGANISATION SITES ONLY</b> )	8
Unsure where to go for advice	9
Disruption to premises/too much hassle	10
Lack of support from workforce	11
Lack of support from senior management	12
Up to head office ( <b>WITH HEAD OFFICE ONLY</b> )	13
<b>DO NOT READ OUT:</b> It is the landlord's responsibility ( <b>RENTERS ONLY</b> )	14
<b>DO NOT READ OUT:</b> The lease does not allow it ( <b>RENTERS ONLY</b> )	15
Anything else? ( <b>SPECIFY</b> )	95
<b>DO NOT READ OUT:</b> None	96
<b>DO NOT READ OUT:</b> Don't know	97
<b>DO NOT READ OUT:</b> Nothing, already in place	98

**C10 OWNER OCCUPIERS (A5=4-5) OR IF RESPONSIBLE FOR PAYING (C2=1-2)**

If energy efficiency improvements were made at your site, how would you expect to pay for these improvements?

**READ OUT AND CODE ALL THAT APPLY**

Cash flow/cash in the business	1
Loan	2
Overdraft	3
Through the rent/service charge ( <b>RENTERS ONLY</b> )	4
Other ( <b>SPECIFY</b> )	95
<b>DO NOT READ OUT:</b> Don't know	97

**C11 ALL**

Have you sought any advice or information about energy efficiency, whether formally or informally?

Yes	1	<b>ASK C12</b>
No	3	
Don't know	4	

**C12 IF RECEIVED ADVICE (C11=1)**

From whom did you seek this advice?

**DO NOT READ OUT. PROBE FULLY AND CODE ALL THAT APPLY**

Friend/relative	1
Colleague	2
Builder/plumber/trade person	3
Specialist consultant/assessor/auditor	4
Carbon Trust	5
Energy supplier	6
Trade/professional body	7
Trade/professional press	8
Manufacturer (e.g. B&Q)	9
Internet – specific site	10
Internet search	11
Head office ( <b>WITH HEAD OFFICE ONLY</b> )	12
Landlord ( <b>RENTERS ONLY</b> )	13
Other ( <b>SPECIFY</b> )	95
Don't know	97

**D Energy assessments (all)****D1 ALL**

Before today were you aware that it is possible to get any of the following:

**CODE ONE ONLY PER ROW**

	Yes	No
An energy performance certificate ( <b>IF NECESSARY</b> : EPCs provide an energy performance asset rating of the building from A to G, where A is very efficient and G is the least efficient. They measure the potential efficiency of the building fabric and services and make standardised assumptions about the activities occurring within the building. Energy Performance Certificates are required for most non-domestic buildings on construction, sale or rent.)	1	2
An in depth energy assessment or audit for your business	1	2
Display Energy Certificate ( <b>IF NECESSARY</b> : DEC provides an energy rating of the building from A to G, where A is very efficient and G is the least efficient and are based on the <i>actual</i> amount of metered energy used by the building over a period of 12 months.) Display Energy Certificates are currently only required for public buildings, but are used on a voluntary basis for commercial buildings)	1	2

**D2 ALL AWARE AT D1**

Has this site got or had.....?

**CODE ONE ONLY PER ROW**

	Yes	No	DK
A: An energy performance certificate	1	2	3
B: An in depth energy assessment or audit	1	2	3
C: Display Energy Certificate	1	2	3

**D3 ALL OTHER THAN THOSE CONDUCTED AN INDEPTH ENERGY ASSESSMENT AT D2 (ALL EXCLUDING D2/B=1)**

How likely would you be to consider having an in depth energy assessment or audit conducted at this site? **READ OUT AND CODE ONE ONLY**

Very likely	1
Fairly likely	2
Not very likely	3
Not at all likely	4
<b>DO NOT READ OUT: Depends on landlord (RENTERS ONLY)</b>	5
<b>DO NOT READ OUT: Depends on head office (WITH HEAD OFFICE ONLY)</b>	6
<b>DO NOT READ OUT: Don't need one, everything has already been done</b>	7
<b>DO NOT READ OUT: Don't know</b>	8

**D4 ALL WITH SOME INTEREST IN HAVING ASSESSMENT AT E1 (D3=1-3, 5-6, 8)**

How much would you be prepared to pay for an in depth energy assessment or audit?

**RECORD EXACT****IF DON'T KNOW PROBE FOR BEST ESTIMATE AND RECORD BANDING**

Would not expect to pay for it	1
Up to £50	2
£51 to £100	3
£101 to £200	4
£201 to £300	5
£301 to £400	6
£401 to £500	7
£501 to £1,000	8
£1,001 to £2,000	9
£2,001 to £3,000	10
£3,001 to £4,000	11
£4,001 to £5,000	12
£5,001 to £6,000	13
£6,001+	14
<b>DO NOT READ OUT:</b> Depends	15
<b>DO NOT READ OUT:</b> Don't know	16

## **E Green Deal – owner/occupiers (A5=4-5), or some responsibility for decisions (C2=1)**

**READ OUT:** 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.

**RENTERS ONLY (A5=2-3):** 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.



**E1-E6 OWNER/OCCUPIERS (A5=4-5), OR SOME RESPONSIBILITY FOR DECISIONS (C2=1)**

I am going to read out a number of aspects of the scheme? Can you tell me whether they would make you more or less likely to consider installing energy efficiency improvements through the scheme, or whether it would make no difference?

**READ OUT AND CODE ONE ONLY PER ROW. PROMPT WITH SCALE IF NECESSARY.**

	E1 to E6									
	Much more likely	A little more likely	A little less likely	A lot less likely	No difference	DO NOT READ OUT : It is entirely up to head office	DO NOT READ OUT : It depends	DO NOT READ OUT : Not relevant, everything already in place	Don't know	DO NOT READ OUT : Not interested in scheme
E1: Receiving an independent energy assessment	1	2	3	4	5	6 GO TO E7	7	8 GO TO E39	9	10 GO TO F1
E2: After the assessment you could choose from a range of approved suppliers to carry out any work	1	2	3	4	5		7		9	
E3: Only skilled and regulated installers would install the improvements	1	2	3	4	5		7		9	
E4: Regulated installers will carry an official quality mark	1	2	3	4	5		7		9	
E5: You would have access to independent expert advice from the government on the telephone	1	2	3	4	5		7		9	
E6: You would have access to independent expert advice from the government through a website	1	2	3	4	5		7		9	

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.

**RENTERS ONLY (A5=2-3):** 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.

**E7-E14 OWNER/OCCUPIERS (A5=4-5), OR SOME RESPONSIBILITY FOR DECISIONS (C2=1)**

I am going to read out a number of aspects of the scheme relating to the finance? Can you tell me whether they would make you more or less likely to consider installing energy efficiency improvements through the scheme, or whether it would make no difference?

**READ OUT AND CODE ONE ONLY PER ROW. PROBE FOR ‘MUCH MORE/LESS’/‘A LITTLE MORE/LESS’**

	E7 to E14						
	Much more likely	A little more likely	A little less likely	A lot less likely	No difference	DO NOT READ OUT : It is entirely up to head office	Don't know
E7: The costs of improvements are covered by the energy bill payer	1	2	3	4	5	6 GO TO E15	7
E8: The cost of the improvements should be covered by savings on your energy bill	1	2	3	4	5		7
E9: The cost of the improvements is attached to the property's energy bill rather than the business so when the business moves, the cost stays with the property and is paid by the new business.	1	2	3	4	5		7
E10: The size of the savings would be estimated rather than guaranteed	1	2	3	4	5		7
E11: Depending on the energy efficiency improvements undertaken the payback period could be up to 3 years	1	2	3	4	5		7
E12: Depending on the energy efficiency improvements undertaken the payback period could be between 3 and 10 years	1	2	3	4	5		7
E13: Depending on the energy efficiency improvements undertaken the payback period could be between 10 and 25 years	1	2	3	4	5		7
E14: The interest rate for the finance could be between 5% and 7%	1	2	3	4	5		7

**E15 OWNER/OCCUPIERS (A5=4-5), OR SOME RESPONSIBILITY FOR DECISIONS (C2=1)**

Now thinking overall about the scheme that I have described, on a scale of 1 to 10, where 1 means very unlikely and 10 means very likely, how likely would you be to consider taking up this scheme?

**READ OUT AND CODE ONE ONLY**

1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
<b>DO NOT READ OUT: Depends on landlord (RENTERS ONLY)</b>	11
<b>DO NOT READ OUT: Depends on head office (WITH HEAD OFFICE ONLY)</b>	12
<b>DO NOT READ OUT: Depends on other organisations at site (MULTI-ORGANISATION SITE ONLY)</b>	13
<b>DO NOT READ OUT: Depends</b>	14
<b>DO NOT READ OUT: Don't know</b>	15

**E16 OWNER/OCCUPIERS (A5=4-5), OR SOME RESPONSIBILITY FOR DECISIONS (C6=1)**

Why do you say that? **PROBE FULLY AND WRITE IN VERBATIM**

**E Green Deal – renters (A5=2-3) unable to make changes (C2≠1) and pay bill direct to energy supplier (B3=1 OR B7=1 OR B9=1)**

**READ OUT:** 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.

If you rent your property, you could ask your landlord to sign up to the scheme, or you could sign up to the scheme yourself, as long as your landlord consents. In both cases, you would have to pay the cost through your energy bill. Your landlord could also decide to sign up to the scheme, but would need your consent, as you pay the energy bill in the property.

**E17 RENTERS (A5=2-3) UNABLE TO MAKE CHANGES (C2≠1) AND PAY BILL DIRECT TO ENERGY SUPPLIER (B3=1 OR B7=1 OR B9=1)**

How likely would you be to consider asking your landlord to make energy efficiency improvements to your site under a scheme such as this?

**READ OUT AND CODE ONE ONLY**

I would definitely consider it	1
I might consider it	2
I am not sure if I would consider it or not	3
I would probably not consider it	4
I would definitely not consider it	5
<b>DO NOT READ OUT:</b> Don't know	6

**E18 RENTERS (A5=2-3) UNABLE TO MAKE CHANGES (C2#1) AND PAY BILL DIRECT TO ENERGY SUPPLIER (B3=1 OR B7=1 OR B9=1)**

And how likely do you think your landlord would be to agree to make improvements under a scheme such as this

**READ OUT AND CODE ONE ONLY**

The landlord would definitely consider it	1
The landlord might consider it	2
I am not sure if the landlord would consider it or not	3
The landlord would probably not consider it	4
The landlord would definitely not consider it	5
<b>DO NOT READ OUT:</b> Don't know	6

**E19 RENTERS (A5=2-3) UNABLE TO MAKE CHANGES (C2#1) AND PAY BILL DIRECT TO ENERGY SUPPLIER (B3=1 OR B7=1 OR B9=1)**

If your landlord asked to make energy efficiency improvements at your site under a scheme such as this how likely would you be to consider their request?

**READ OUT AND CODE ONE ONLY**

I would definitely consider it	1
I might consider it	2
I am not sure if I would consider it or not	3
I would probably not consider it	4
I would definitely not consider it	5
<b>DO NOT READ OUT:</b> Don't know	6

**E20 WOULD NOT CONSIDER AT E17 AND E19 (E17= 4-6 AND E19=4-6)**

Why do you say that? **PROBE FULLY AND WRITE IN VERBATIM**

--

**WOULD CONSIDER AT E17 OR E19 (E17= 1-3 OR E19=1-3)**

Now thinking about the scheme, 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. The assessment could be requested by either you as the tenant or the landlord of the property.

Both the tenant and the landlord would have to consent to any work that is undertaken.

**E21-E26 WOULD CONSIDER AT E17 OR E19 (E17= 1-3 OR E19=1-3)**

I am going to read out a number of aspects of the scheme? Can you tell me whether they would make you more or less likely to consider installing energy efficiency improvements through the scheme, or whether it would make no difference?

**READ OUT AND CODE ONE ONLY PER ROW. PROMPT WITH SCALE IF NECESSARY.**

	E21 to E26								
	Much more likely	A little more likely	A little less likely	A lot less likely	No difference	DO NOT READ OUT : It is entirely up to head office	DO NOT READ OUT : it depends	DO NOT READ OUT : Not relevant, everything already in place	Don't know
E21: Receiving an independent energy assessment	1	2	3	4	5	6 GO TO E27	7	8 GO TO E39	9
E22: After the assessment you could choose from a range of approved suppliers to carry out any work	1	2	3	4	5		7		9
E23: Only skilled and regulated installers would install the improvements	1	2	3	4	5		7		9
E24: Regulated installers will carry an official quality mark	1	2	3	4	5		7		9
E25: You would have access to independent expert advice from the government on the telephone	1	2	3	4	5		7		9
E26: You would have access to independent expert advice from the government through a website	1	2	3	4	5		7		9

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.

**E27-E34 WOULD CONSIDER AT E17 OR E19 (E17= 1-3 OR E19=1-3)**

I am going to read out a number of aspects of the scheme relating to the finance. Can you tell me whether they would make you more or less likely to consider installing energy efficiency improvements through the scheme, or whether it would make no difference?

**READ OUT AND CODE ONE ONLY PER ROW. PROBE FOR ‘MUCH MORE/LESS’/‘A LITTLE MORE/LESS’**

	E27 to E34						
	Much more likely	A little more likely	A little less likely	A lot less likely	No difference	DO NOT READ OUT : It is entirely up to head office	Don't know
E27: The costs of the improvements are covered by the energy bill payer	1	2	3	4	5	6 GO TO F1	7
E28: The cost of the improvements should be covered by savings on your energy bill	1	2	3	4	5		7
E29: The cost of the improvements is attached to the property's energy bill rather than the business so when the business moves, the cost stays with the property and is paid by the new business.	1	2	3	4	5		7
E30: The size of the savings would be estimated rather than guaranteed	1	2	3	4	5		7
E31: Depending on the energy efficiency improvements undertaken the payback period could be up to 3 years	1	2	3	4	5		7
E32: Depending on the energy efficiency improvements undertaken the payback period could be between 3 and 10 years	1	2	3	4	5		7
E33: Depending on the energy efficiency improvements undertaken the payback period could be between 10 and 25 years	1	2	3	4	5		7
E34: The interest rate for the finance could be between 5% and 7%	1	2	3	4	5		7

**E Green Deal – renters (A5=2-3) unable to make changes (C2≠1) and do not pay bill direct to energy supplier (NOT (B3=1 OR B7=1 OR B9=1))**

**READ OUT:** 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.

If you rent your property and your landlord is responsible for paying the bills, your landlord could sign up to the scheme. Equally, you could ask your landlord to sign up to the scheme.

**E35 RENTERS (A5=2-3) UNABLE TO MAKE CHANGES (C2≠1) AND DO NOT PAY BILL DIRECT TO ENERGY SUPPLIER (NOT (B3=1 OR B7=1 OR B9=1))**

How likely would you be to consider asking your landlord to make energy efficiency improvements to your site under a scheme such as this?

**READ OUT AND CODE ONE ONLY**

I would definitely consider it	1
I might consider it	2
I am not sure if I would consider it or not	3
I would probably not consider it	4
I would definitely not consider it	5
<b>DO NOT READ OUT:</b> Don't know	6



**E36 RENTERS (A5=2-3) UNABLE TO MAKE CHANGES (C2≠1) AND DO NOT PAY BILL DIRECT TO ENERGY SUPPLIER (NOT (B3=1 OR B7=1 OR B9=1))**

And how likely do you think your landlord would be to agree to make improvements under a scheme such as this

**READ OUT AND CODE ONE ONLY**

The landlord would definitely consider it	1
The landlord might consider it	2
I am not sure if the landlord would consider it or not	3
The landlord would probably not consider it	4
The landlord would definitely not consider it	5
<b>DO NOT READ OUT:</b> Don't know	6

**E37 RENTERS (A5=2-3) UNABLE TO MAKE CHANGES (C2≠1) AND DO NOT PAY BILL DIRECT TO ENERGY SUPPLIER (NOT (B3=1 OR B7=1 OR B9=1))**

If your landlord asked to make energy efficiency improvements at your site under a scheme such as this how likely would you be to consider their request?

**READ OUT AND CODE ONE ONLY**

I would definitely consider it	1
I might consider it	2
I am not sure if I would consider it or not	3
I would probably not consider it	4
I would definitely not consider it	5
<b>DO NOT READ OUT:</b> Don't know	6

**E38 WOULD NOT CONSIDER AT E35 AND E37 (E35= 4-6 AND E37=4-6))**

Why do you say that? **PROBE FULLY AND WRITE IN VERBATIM**

**E Green Deal – where respondent insists everything that can be done has been done (E1=8 OR E21=8)**

**READ OUT:** You mentioned that your site does not need any further energy efficiency improvements, but I would be grateful if you could give me your overall view on the new scheme, to see if you might be interested in it if additional energy efficiency improvements **were** identified at your site. First I'd like to give you little more information about the scheme.

Instead of paying for all of the improvements up-front or taking out a conventional loan, the cost of the improvements would be paid back through savings in energy bills over a number of years. Initial advice on the actual amount that might be saved would be

estimated due to a number of variable factors such as the change in the price of fuel and amount of energy used. The energy bill payer would only pay for the improvements while they benefitted from them – if they moved out of the premises the repayments would become the responsibility of the new energy bill payer.

**RENTERS ONLY (A5=2-3):** If you wanted to get the benefits of these savings on energy bills you would be able to ask your landlord to sign up to this improvement scheme. Or you could sign up to the scheme yourself, as long as you have your landlord's consent. In both cases, the cost of the improvements would be paid through the energy bill. Your landlord would not be able to sign up to the improvement scheme without your permission as a tenant, if you pay the energy bill in the property.

**E39 ALL IMPROVEMENTS ALREADY MADE AT E1 OR E21 (E1=7 OR E21=7)**

Now thinking overall about the scheme that I have described, on a scale of 1 to 10, where 1 means very unlikely and 10 means very likely, how likely would you be to consider taking up this scheme if additional energy efficiency improvements **were** identified at your site?

**READ OUT AND CODE ONE ONLY**

1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
<b>DO NOT READ OUT: Depends</b>	11
<b>DO NOT READ OUT: Depends on landlord (RENTERS ONLY)</b>	5
<b>DO NOT READ OUT: Depends on head office (WITH HEAD OFFICE ONLY)</b>	6
<b>DO NOT READ OUT: Don't know</b>	12

**E40 ALL IMPROVEMENTS ALREADY MADE AT E1 OR E21 (E1=7 OR E21=7)**

Why do you say that? **PROBE FULLY AND WRITE IN VERBATIM**

## F Payment and incentives (all)

F1 **ALL**

If you were going to undertake energy efficiency improvements, in which of the following ways would you consider paying for these improvements?

**READ OUT AND CODE ALL THAT APPLY. ROTATE**

F2 **ALL MULTICODED AT F1**

And which one of these would you prefer? **READ OUT AND CODE ONE ONLY**

	F1	F2
The scheme I have just described	1	1
Cash flow/cash in the business	2	2
Conventional loan	3	3
Overdraft	4	4
Through the rent/service charge ( <b>RENTERS ONLY</b> )	5	5
An energy service company contract	6	6
Other ( <b>SPECIFY</b> )	95	95
<b>DO NOT READ OUT:</b> Don't know	97	97
<b>DO NOT READ OUT:</b> Would not undertake	98	98

F3 **ALL**

What do you think would be the main advantages for your company of the scheme I have just described?

**DO NOT READ OUT. PROBE FULLY AND CODE ALL THAT APPLY**

An energy efficiency assessment of your site	1
Better/more comfortable working environment	2
Lower energy bills	3
Lower carbon emissions/better for the environment	4
Prevents wasting energy	5
No/low upfront payments	6
Able to spread payments out over time	7
Able to make the improvements now without having to budget for them	8
Make the property easier to sell or let	9
Increase the value of the property	10
Other ( <b>SPECIFY</b> )	95
None	96
Don't know	97

- ALL**  
 F4 And what do you think would be the main disadvantages for your company of the scheme I have just described?

**DO NOT READ OUT. PROBE FULLY AND CODE ALL THAT APPLY**

Hassle, the physical disruption of making improvements	1
Cost of the improvements	2
The pay back periods i.e. the time it would take to pay back the costs for the improvements	3
Unsure about the costs being attached to the energy bill rather than the business	4
The savings are estimated	5
Impact on being able to sell/let the property afterwards	6
Issues to do with the length of tenancy ( <b>RENTERS ONLY</b> )	7
Issues to do with the nature of the tenancy ( <b>RENTERS ONLY</b> )	8
Approval would be needed from head office ( <b>WITH HEAD OFFICE ONLY</b> )	9
Other ( <b>SPECIFY</b> )	95
<b>DO NOT READ OUT:</b> Nothing	97
<b>DO NOT READ OUT:</b> Don't know	98

**F5-F9 ALL**

I am going to read out a number of possible incentives and I would like you to tell me whether they would make you more or less likely to install energy efficiency improvements through the scheme, or whether it would make no difference?

**READ OUT AND CODE ONE ONLY PER ROW. PROBE FOR 'MUCH MORE/A LITTLE MORE'**

**F10 ALL**

And which one of these would you prefer?

**READ OUT AND CODE ONE ONLY**

	F5 to F9				F10
	Much more likely	A little more likely	No difference	Don't know	Prefer
F5: Government grant or subsidy	1	2	5	6	1
F6: Business rate rebates	1	2	5	6	2
F7: Exemption from business rates during void periods <b>(LANDLORDS ONLY FROM A3/A4)</b>	1	2	5	6	3
F8: Discounts on other services and products offered by the scheme provider	1	2	5	6	4
F9: Cash back offered by the scheme provider	1	2	5	6	5
None					6
Don't know					7

**G Closing questions (all)**

**ALL**

G1 Is your organisation covered by the CRC Energy Efficiency Scheme, formerly known as the Carbon Reduction Commitment (**IF NECESSARY**: The CRC scheme is a mandatory scheme aimed at improving energy efficiency and cutting emissions in large public and private sector organisations)?

**CODE ONE ONLY**

Yes	1
No	2
Don't know	3

**ALL**

- G2 Is your business part of a Climate Change Agreement which covers the majority of its energy use (**IF NECESSARY**: Energy intensive industries can obtain a 65% discount from the Climate Change Levy, provided they meet targets for improving their energy efficiency or reducing carbon emissions. Climate Change Agreements set the terms under which eligible companies may claim the levy reduction)?

**PROBE AS NECESSARY AND CODE ONE ONLY**

Yes – more than 50%	1
Yes – less than 50%	2
No	3
Don't know	4

- G3 We may wish to recontact you in the next few weeks to talk to you in more detail about the issues covered in this survey. This would involve a colleague calling you to make an appointment for a more in-depth conversation on some of the topics we have discussed. It is likely to take around half an hour. Would this be possible?

Yes	1	<b>ASK G4</b>
No	2	<b>CLOSE</b>

- G4 And can I just confirm the best number to contact you on is [SHOW TELEPHONE NUMBER]?

Yes	1	<b>CLOSE</b>
No	2	<b>AMEND NUMBER</b>

- G5 Finally, it is sometimes possible to link the data we have collected with other government surveys or datasets held by government for the purposes of statistical analysis and informing wider policy formulation. Would you be happy for your responses to be passed to DECC for this purpose? **IF NECESSARY**: Your confidentiality will be maintained, and linked data will only be used for statistical purposes by researchers authorised by the Department for Energy and Climate Change.

Yes	1
No	2

**CHECK ADDRESS DETAILS ARE CORRECT AND THANK AND CLOSE**

# Appendix 2: qualitative technical annexe

## Overview

### Businesses

In depth qualitative interviews with 30 businesses were undertaken to generate more detailed insights into the issues raised in the telephone survey than those telephone interviews allowed. These included 15 owners of their premises and 15 tenants, in a variety of sectors, and of varied sizes as outlined in the section below.

### Landlords

Given that in rented properties the Green Deal will require both the tenant and the landlord to sign up, it had been planned to undertake a separate quantitative survey of 200 commercial landlords to explore their views on energy efficiency and Green Deal, and to gather information about the tenant/landlord relationship.

Attempts were made to identify relevant contacts from Experian filtered on the basis of 4 digit SIC 2007 codes relating to Real Estate Activities (sector L). This sector includes organisations that lease properties, agents and/or brokers in one or more of the following:

- Selling or buying real estate;
- Renting real estate;
- Providing other real estate services such as appraising real estate or acting as real estate escrow agents.

Organisations defined as falling within this sector may conduct their activities on their own or in leased property, and this may be done on a fee or contract basis. The sector also includes the building of structures, combined with maintaining ownership or leasing of such structures. It also includes real estate property managers.

As such it proved very difficult to identify contacts within this that were both involved in leasing property (rather than selling or developing it), and in leasing property of a commercial (rather than a private) nature.

Further filtering was implemented by Experian in an attempt to screen contacts further, by cross-matching with other data sources such as Yell and Thomson, and by using key-word searches, but the resulting contacts were very unproductive, and were insufficient to support a quantitative survey of 200 commercial landlords.

Approaches were also made to a number of other sources, including the British Property Federation, however it did not prove possible to source or create a database of commercial landlords that could be said to be representative of the wider universe of landlords.

Initial pilot interviews with a number of landlords also highlighted the difficulty of creating a quantitative survey instrument that could capture the breadth of views from this group given the

diversity of their portfolios, and the diversity within their portfolios in how issues relating to energy efficiency were addressed.

Consequently 17 depth interviews were undertaken with landlords with significant portfolios of commercial properties under their control, to examine Green Deal from the perspective of landlords – a group that will have substantial influence over the implementation of the Green Deal in rented properties.

## Source of contacts

Respondents for the qualitative study were identified from two sources:

- Owners and tenants who were interviewed for the quantitative study were asked if they were willing to be contacted again for further discussions about the study, and a total of 1,144 (41%) said that they were. Contact details were collected from those respondents and a database was created which included all previous responses to the quantitative study.
- Commercial property landlords were identified from various sources: an email was sent on behalf of DECC by the British Property Federation (BPF) to members who were commercial landlords which invited them to volunteer to take part in the research. Individuals and organisations whose contact details were provided by DECC were also accessed in order to try and generate contact details of commercial landlords. Finally, tenants who had taken part in the quantitative survey were asked if they could provide the name and contact details of their landlord. BPF proved the most fruitful source of contacts, yielding 10 of the 17 respondents interviewed as part of this element of the research.

## Recruitment

Respondents were initially recruited by telephone by BMG's dedicated qualitative recruitment team.

### Recruitment criteria for business interviews

Owners and tenants were selected from the database for telephone interviews based on the specified recruitment criteria:

- All who felt energy efficiency was an important issue for their business;
- None to have all energy efficiency measures installed;
- 15 owners: 10 who would consider the scheme, 5 who would not consider the scheme;
- 15 tenants: 10 who would consider the scheme (including 4 who did not have any influence at site level, but paid the bills directly) and 5 who would not consider the scheme;



- Within each respondent type, a spread of size (number of employees), sector and property type was required as was a mix of single and multi-organisation sites. A mix of remaining tenancy lengths for tenants was also specified;
- At least five respondents were required to be based at a head office site and some respondents were required to have Climate Change Agreements or Carbon Reduction Commitments in place.

### Recruitment criteria for commercial landlord interviews

Respondents were required to hold property portfolios of various sizes (10-20, 21-50, 50-100, 101+ properties) and the interviews were also to cover a mix of property types.

### Undertaking the interviews

Respondents who met the relevant recruitment criteria and who had agreed to participate in the depth interview were sent a confirmation email or letter for the interview which detailed the date, time and anticipated length of the appointment (30-45 minutes).

Where respondents were unavailable to take part in the interview at the scheduled time, but were available to speak to, alternative arrangements were made there and then which were reconfirmed by email or letter. Where there was no reply or the respondent was not available to speak to, follow up calls were conducted in order to re-schedule the interview or allow the respondent to withdraw from taking part in the research.

With consent from respondents, interviews were audio-recorded. At the start of the interview, respondents were assured that any comments made or verbatim quotations used in the report would be anonymous and would not be attributed to named individuals or organisations that they represented.

Topic guides for both the business and landlord interviews were designed in conjunction with the Department of Energy and Climate Change, and are included at the end of this report.

## Overview of achieved sample

### Businesses

The tables below show the sample achieved for the business interviews among owners and tenants.

**Table 12: Overview of business sample characteristics – owners**

Descriptor	No of interviews
Consider scheme/not consider scheme	11/4
Single/multi-occupancy site	12/3
Single site/multi-site organisation	8/7
Head office:	4
Participate in CRC/CCA	6
Company size (site level)	
- 2 - 4 employees	2
- 5 - 9 employees	1
- 10 - 24 employees	1
- 25 - 49 employees	3
- 50 - 249 employees	4
- 250 - 499 employees	4
Property Type	
- Factory	5
- Educational	1
- Religious Building	1
- Other	2
- Offices	4
- Residential	2
Sector	
- Manufacturing	4
- Wholesale and retail trade; repair of motor vehicles and motorcycles	2
- Real estate activities	1
- Professional, scientific and technical activities	2
- Administrative and support service activities	1
- Education	1
- Human health and social work activities	2
- Other service activities	2

**Table 13: Overview of business sample characteristics – tenants**

Descriptor	No of interviews
Consider scheme	6
Consider scheme, no influence but pay bills direct to the supplier	3
Not consider scheme	6
Single/multi-occupancy site	10/5
Single/multi-site organisation	5/10
Head office:	3
Participating in CRC/CCA	5
Company size (site level)	
- 2 - 4 employees	2
- 5 - 9 employees	1
- 10 - 24 employees	4
- 25 - 49 employees	1
- 50 - 249 employees	3
- 250 - 499 employees	2
- 500+ employees	2
Remaining lease length	
- 0-2 years	4
- 3 - 5 years	6
- 6 - 10 years	1
- 11 + years	3
- Rolling lease	1
Property Type	
- Offices	7
- Factory	3
- Mix: office, educational, warehouse	1
- Hospitality	1
- Warehouse	3
Sector	
- Manufacturing	4
- Water supply, sewerage, waste management and remediation activities	1
- Wholesale and retail trade; repair of motor vehicles and motorcycles	2
- Accommodation and food service activities	1
- Financial and insurance activities	2
- Professional, scientific and technical activities	3
- Human health and social work activities	1
- Other service activities	1

## Commercial landlords

In total, 17 telephone depth interviews were undertaken with representatives of commercial property landlords. Of these, 14 were landlords who managed their own property, 2 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 1 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.

Ten respondents were recruited via the British Property Federation, four were recruited via DECC contacts and three were recruited via information provided by respondents who took part in the quantitative survey.

Fourteen organisations leased both single and multi-occupancy properties and three leased single occupancy properties. The types of property held in the portfolios of respondents included offices, shopping centres, storage facilities, industrial units (i.e. warehouses), retail, hospitality and leisure facilities. Lease lengths offered varied between 1 day and 99 years.

## Analysis of qualitative data

The interpretation and analysis of the qualitative data was conducted using a data-mapping thematic grid. Data from the interviews was classified and summarised thematically. Such an approach allows the interviews to be grounded in respondents' own accounts whilst also addressing key research areas.

The key themes for the analysis framework were developed from the topic guide and from an initial review of interviews (i.e. a primary analysis of audio recordings) and an internal de-brief within the qualitative research team. Once the analysis framework was agreed amongst the research team, each theme was translated to a column heading in a grid (created in Excel). Each row within the grid represented a 'case' (that is, an individual). Data from each interview was extracted from the audio recording and summarised directly for input into a specific cell within the grid. The result was a series of populated tables representing all of the interviews – so that the analyst could read across a row to see individuals' views and down a column for a thematic perspective. Relevant direct quotations from the audio recordings were also input into the grid and have been used in the report to help to illustrate a point made or respondent perspective.

## Qualitative topic guides

### Green Deal Depth Interviews – Businesses

#### Introduction

- Kathryn Waghorn/Mary Costello, independent researcher from BMG Research.
- Project commissioned by The Department of Energy and Climate Change (DECC).
- This is a follow up depth interview to further explore your organisations perceptions towards energy efficiency, efficiency improvements and potential demand and uptake for a new scheme.
- I am an independent researcher, I do not in any way represent The Department of Energy and Climate Change.
- There are no right or wrong answers, it is your perceptions or opinions that count. So please be open and honest about your views.
- Your confidentiality is assured and responses will not be attributed to individuals or organisations that take part.
- Seek permission to record, again assuring confidentiality. **SWITCH MICROPHONE ON**

#### Warm Up

- First of all, could you please tell me a little about yourself in terms of:
  - Your first name and organisation name.
  - Moderator: seek confirmation of demographics of businesses captured in the telephone survey.
  - A description of customers; business or individuals (site/nationally).
  - And could you tell me about your role and main responsibilities?

#### Your site & energy efficiency improvements

- We would now like to discuss your site and modifications/improvements/refurbishments:  
Moderator: confirm type of premises as captured in the telephone survey.
- Are you/your landlord considering any modifications or improvements to the building? Explore briefly.
  - Does this include any energy efficiency improvements?
  - What, if any, work or research has been undertaken into these so far?
  - Are you able to estimate how much the organisation would be willing to spend for any such improvements?
  - How are you expecting to pay for or finance these options?

#### The scheme

One of the main purposes of the research we are conducting is to understand views on a new scheme. You may recall we mentioned the following scheme in the telephone survey:

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.

The new scheme will enable private firms to offer energy efficiency improvements to businesses at a small or no upfront cost to the business. The improvements should lead to savings on your energy bills and any savings could be used to cover the cost of the improvement. The costs would be repaid through a charge in instalments on the energy bill by the energy bill payer.

## ASK ALL: Owners/occupiers or some ability to make decisions & Renters who pay bill.

The initial element of the scheme is an energy assessment undertaken by an accredited assessor.

**RENTERS ONLY:** The assessment could be requested by either you as a tenant or the landlord of the property.

- What features would make getting an assessment appealing? Moderator to explore what the respondent would 'look for' in the assessment, explore:
  - Assessor familiarity with business area/sector
  - Assessor knowledge of systems/design
  - Assessor reputation
- What, if anything, concerns you about getting an energy assessment?

The energy assessment would take into account the energy efficiency of the building and the way you are using it, it will tell you what energy efficiency improvements could be made and what the benefits are of having them installed. It will also set out the likely energy savings from the measures and give an indication of whether you are likely to be able to pay through the new scheme. The assessor would estimate the savings that you would expect to see from having the improvements

- Moderator to explore any additional comments or opinions to the above (positives, negatives, concerns, etc.).

If you choose not to take up any of the recommendations within the energy assessment or if the assessment reveals that the cost of the efficiency measures are more than the calculated savings, you may be liable to pay a cost for the assessment only.

- Do you think that it would still be valuable for you to have an assessment carried out even if you not take up any energy efficiency measures as a result?
- Explore other benefits such as: Behavioural measures, maximising benefits of technology, reassurance to doing all that is possible, raising the profile of energy efficiency in the organisation.
  - If no additional value, probe why?
- How much would you expect to pay for an assessment?

After you have had the energy assessment, a number of efficiency improvements would usually be identified. An approved installer (chosen by you) would then make the improvements.

**RENTERS ONLY:** Both the tenant and the landlord would have to consent to any work that is undertaken.

- If you were to go ahead with any recommended efficiency improvements, what kind of measures would you potentially be interested in getting from this kind of scheme?
- Explore top of mind responses before prompting:
  - Product and material specification
  - Installation of measures? E.g. loft and cavity wall insulation; thermostatic control valves
- Would you anticipate any guarantees or warranties? Explore top of mind responses before prompting:
  - Warranties for the measures installed? (**Note to moderator:** GD states requirement for insurance backed warranties)
  - Quality Marks?

The installation would be undertaken by an accredited installer who would operate within a code of practice. The work would also be undertaken to a quality mark standard and all measures would have insurance backed warranties.

- Moderator to explore any additional comments or opinions to the above.
  - If the respondent is somewhat ambivalent: seek why.
  - What, if anything, concerns you?

## Financing such a 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.

The cost of the measures will be paid back over a period of time through repayments to the scheme provider. 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

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

## Those who pay the energy bill direct (owners/occupiers and some renters)

- What are your initial thoughts on using such a financing option? Moderator to explore top of mind responses?
- There are a number of features of the scheme relating to finance, can you tell me what you think of the different features. Moderator to explore top of mind responses to each feature, then establish any benefits, drawbacks or concerns as necessary & why this is the case.
  - The costs of improvements are covered by the energy bill payer
  - The cost of the improvements should be covered by savings on your energy bill
  - The cost of the improvements is attached to the property's energy bill rather than the business so when the business moves, the cost stays with the property and is paid by the new business.
- Knowing that a property has such a scheme attached to it would that encourage or discourage you from renting/owning it? Why?
- Would the remaining tenancy length/anticipated length of ownership of the site/s have an impact on your uptake of the scheme? Moderator to explore 'boundaries'

The payback period could be between 3 and 25 years and will never be longer than the life expectancy of the energy efficiency measure.

- How would the payback periods available influence the appeal of taking up measures under the scheme?
  - Is length of payback an issue? Why?
  - What is a reasonable payback period? Why?
  - What internal processes/factors impact on this?
  - An interest rate for the finance:
    - i. What would be a reasonable interest rate?

ii. What would be the maximum rate you would be prepared to pay?

The interest rate could be between 5% and 7%, what do you think to these rates? Do you anticipate that you would be able to access loans (or other finance) with a lower rate of interest?

- If so what kind of options would you consider (probe how do they compare with GD finance in terms of interest rate)
- Do you have any other comments, concerns or questions about paying for the scheme via the finance discussed? Moderator to explore.
- Would this kind of finance make installing measures more appealing? Why/why not?
- If not mentioned already by the respondent, would you prefer to finance the improvements in a different way (also, note the results from the telephone survey)?
  - If yes, how? Explore methods and why they are preferred.
  - What are the benefits of using alternative methods to the included finance option?

## Levels of consent

- Are you able to explain how the process for consent to agree to such schemes works in your organisation?
- Who in your organisation would need to agree in order to take part in the scheme?
  - Landlord/CEO/other tenants/Head Office/Board/leaseholder
- What is/are their role[s] in the decision making process?
  - What decisions can be made at site level? (especially where HO is involved)
- What would need to be done internally to agree to such a scheme?
  - Quant answers suggest range of things such as: proposals with cost benefit analysis; agreement by shareholders/HO/Board; agreements by all tenants through various processes (moderator to unpick processes)
  - Probe – what challenges/barriers do you anticipate to gaining consent for this? (Note: Explore obstacles such as split incentives between branches/head office, different terms of different franchises, any other issues?)

**RENTERS ONLY:** As you rent your premises, what aspects of the scheme would you need to seek permission from the landlord to undertake? (**Moderator note:** Tenants will always need the consent of their landlord to take out the Green Deal finance. They may not have to ask for consent to undertake the measures (because they could have a lease that allows them to make changes to the building).

- What aspects can you decide to undertake yourself/on site (if decision making is split)?
- How easy/difficult do you think it would be to obtain your landlord's permission to undertake the scheme if you were interested? Why do you say that?
  - Would you be happy to approach your landlord about this –why/why not?
  - Why do you think your landlord may/may not undertake such a scheme?
- Any advantages/concerns?

**RENTERS ONLY/ WHERE NO INFLUENCE BUT PAY THE BILL:** If your landlord approached you to undertake the scheme, what would be your initial thoughts?

- Explore top of mind response, then identify any advantages/disadvantages.



## Taking the scheme forward

- Thinking about our discussion today, how likely or unlikely are you to consider the scheme? Why?
- Would any incentives make the scheme more attractive? Why? Explore then prompt, again asking why.
  - Government grant or subsidy
  - Business rate rebates
  - Discounts on other services and products offered by the scheme
  - Cash back offered by the scheme provider
  - Anything else?
- Explore if necessary/clarify what additional information is required in order to make the decision.
- How would you like to receive such information? (i.e. what format)
- Does the scheme fit with the current priorities of your organisation?
  - a. (**WITH CRC & CCA**) Does the scheme fit in with your activities under CRC/CCA? Would such a scheme assist you in meeting your obligations for these?
- If appropriate, seek a summary of what appeals / does not appeal to the respondent.

### Thank and close

## Green Deal Depth Interviews – Landlords

### Information collected at recruitment:

Q1. Approximately how many commercial properties does your company own?

Record actual number of properties and code below: \_\_\_\_\_

10 to 20	1
21 to 50	2
51 to 100	3
101 or more	4

Q2a. Which of the following best describes the properties that your company leases?

Q2b If several mentioned, which one of these do you have most of on your books?  
(as per the sample request, we will endeavour to obtain a mix of properties held)

	Q2a	Q2b
Shops	1	1
Offices	2	2
Warehouses	3	3
Factories	4	4
Hotels	5	5
Pubs	6	6
Restaurants	7	7
Residential (e.g. care home, private hospital)	8	8
Shopping centres	9	9
Retail parks	10	10
Mixed use	11	11
Other - specify:		

Q3a. Which of the following lease lengths does your company offer?

Q3b. If several mentioned, which is the most typical lease length that your company offers?

	Q3a	Q3b
Less than 12 months	1	1
1 to 2 years	2	2
3 to 5 years	3	3
6 to 10 years	4	4
11 to 25 years	5	5
More than 25 years	6	6

Q4. Does your company lease commercial properties which are occupied by more than one business?

Yes	1
No	2

Typical situation: \_\_\_\_\_

Q5. Does your company lease space in sites where there is also space that is leased or owned by someone else?

Yes	1
No	2

Typical situation: \_\_\_\_\_

Q6a. In which of the following ways do your tenants typically pay for their energy use?

Q6b. And what is the most common way in which your tenants pay for their energy use?

	Q6a	Q6b
Direct to energy supplier for all energy used	1	1
Via service charge for energy used in communal areas and direct to energy supplier for own energy use	2	2
Via service charge for all energy used	3	3
Via all-inclusive fixed charge regardless of energy used	4	4
It depends Why?		5
Paid in another way Why?		6

## Introduction

- Kathryn Waghorn/Mary Costello/Sarah Robinson, independent researcher from BMG Research.
- Project commissioned by The Department of Energy and Climate Change (DECC).
- This is a depth interview to explore your organisations perceptions towards energy efficiency, efficiency improvements and potential demand and uptake for a new scheme.
- I am an independent researcher, I do not in any way represent The Department of Energy and Climate Change.
- There are no right or wrong answers, it is your perceptions or opinions that count. So please be open and honest about your views.
- Your confidentiality is assured and responses will not be attributed to individuals or organisations that take part.
- Seek permission to record, again assuring confidentiality. **SWITCH MICROPHONE ON**

## Warm up

1. First of all, could you please tell me a little about yourself in terms of:
  - a. Your first name, organisation name and job title
  - b. And could you briefly tell me about your role and main responsibilities?

**Moderator to clarify ‘typical’ characteristics of the information collected when recruiting/setting up the appointment. Note: Responses to remaining questions about this only.**

## Energy efficiency and energy efficiency improvements

2. To what extent is energy efficiency a priority for your organisation, in regards to the property that you manage? Why?
  - a. How important do you think it is for landlords to prioritise energy efficiency? Why? Explore any requirements/commitments (e.g. EPC).
3. What energy efficiency measures, if any, have been undertaken in your properties? (NB: such as lighting, heating, insulation of walls or roof, let properties, not property the landlord occupies). If yes, explore what has been undertaken then prompt using the table below. If none, explore what, if any measures are being considered.

Measures	Implemented? Why, what has been done so far?/If not, why not? Considering the measure?	How expected to be financed?	How much willing to spend?
Replace the boiler or heating or cooling controls?			
Insulate the walls or roof:			
Install smart energy meters and displays. (Devices that provide near real time info about energy use):			
Install double glazing:			
Install a small scale renewable technology such as solar panels, micro wind turbines or a heat pump:			
Install a Combined Heat and Power Unit -a system that generates heat and electricity simultaneously with any excess electricity produced going back into the grid:			
Install replacement lighting or lighting controls:			

4. If any of the energy efficiency changes above were to be implemented, who would usually make such suggestions?
  - a. Explore any typical responsibility levels.
5. If not mentioned already, have you ever had an energy efficiency assessment conducted? Explore any outcomes.
6. Who would pay for such modifications, improvements or refurbishments?
  - a. In addition to the actual cost of improvements, are there any other fees/costs that would have to be paid for by any of the parties involved.

(PROBE – permission for approval, legal fees, and who would have to pay)
  - b. Are there any other clauses or issues that need to be considered?
    - i. Explore any dilapidation requirements/consequences
7. In general, when do you prefer to conduct modifications, improvements or refurbishments? Prompt for each and explore why, if necessary. Moderator to also ascertain preference.
  - In between tenants

- Once the requirements of a new tenant are identified/once business needs of tenant are clear
- During the course of the lease
- When a tenant requests it
- When there is something that needs to be done
- When undertaking refurbishment

## The Scheme

One of the main purposes of the research we are conducting is to understand views on a new scheme.

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.

(If necessary) Don't worry I am not going to try and sign you up – I am only interested in your views about the scheme.

The new scheme will enable private firms to offer energy efficiency improvements to businesses at a small or no upfront cost to the business. The improvements should lead to savings on energy bills and any savings could be used to cover the cost of the improvement. The costs would be repaid through a charge in instalments on the energy bill by the energy bill payer.

The initial element of the scheme is an energy assessment undertaken by an accredited assessor.

The assessment could be requested by either the landlord or the tenant of a property.

- a. What features, if any, would make getting an assessment appealing?
- b. What, if anything, concerns you about getting an energy assessment?

The energy assessment would take into account the energy efficiency of the building and the way you are using it, it will tell you what energy efficiency improvements could be made and what the benefits are of having them installed. It will also set out the likely energy savings from the measures and give an indication of whether the measures can be paid for through the new scheme. The assessor would estimate the savings that would be expected from having the improvements.

8. Moderator to explore any additional comments or opinions to the above (positives, negatives, concerns, etc.).

After you have had the energy assessment, a number of efficiency improvements would usually be identified. An approved installer (chosen by you) would then make the improvements.

**If the tenant pays the energy bill add:** Both the landlord and tenant would have to consent to any work that is undertaken.

9. If you were to go ahead with any recommended efficiency improvements, what kind of measures would you potentially be interested in getting from this kind of scheme? If applicable, refer to earlier discussions.

The installation would be undertaken by an accredited installer who would operate within a code of practice. The work would also be undertaken to a quality mark standard and all measures would have insurance backed warranties.

10. Moderator to explore any additional comments or opinions to the above.
  - a. If the respondent is somewhat ambivalent: seek why.
  - b. What, if anything, concerns you?

## Financing 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.

The cost of the measures will be paid back over a period of time through repayments to the scheme provider via the energy bill. The bill payer would pay for the improvements as a line item on the energy bill. If the tenant pays the energy bill, in any periods where the property is void, the bill and repayments would be paid for by the landlord.

[As appropriate]: where tenants are the bill payer, they could sign up to the scheme themselves, as long as they have the landlord's consent or the landlord could sign up to the scheme, but will have to gain consent from the tenant to attach a charge to the electricity meter. If the property is empty, the landlord does not have to gain consent for the charge from any third parties.

Where the landlord is the bill payer, the scheme could be initiated by the landlord or tenant, however, the landlord would always have to give consent.

## Landlords who pay the energy bill

11. What are your initial thoughts on using such a financing option? Moderator to explore top of mind responses.
12. There are a number of features of the scheme relating to finance, can you tell me what you think of the different features. Moderator to explore top of mind responses to each feature, then establish any benefits, drawbacks or concerns as necessary & why this is the case.
  - a. The energy bill payer will cover the costs of the improvements
  - b. The cost of the improvements should be covered by savings on the energy bill
  - c. The cost of the improvements is attached to the property's energy bill rather than the business so when the business moves, the cost stays with the property and it is paid by the new business:
    - i. Also, what impact, if any, do you think this will have on:
      1. You signing up to the scheme
      2. Letting your property
      3. Owning a property

The payback period could be between 3 and 25 years, depending on the energy efficiency measure that is installed, and will never be longer than the life expectancy of the energy efficiency measure.

13. How would the payback periods available influence the appeal of signing up to the scheme?
  - a. Is length of payback an issue? Why?
  - b. What is a reasonable payback period? Why?

- c. What internal processes/factors impact on this?
- d. An interest rate for the finance:
  - i. What would be a reasonable interest rate?
  - ii. What would be the maximum rate you would be prepared to pay?

The interest rate could be between 5% and 7%.

14. What do you think of these rates?
- i. Do you anticipate that you would be able to access loans (or other finance) with a lower rate of interest?
  - ii. If so what kind of options would you consider (probe how do they compare with GD finance in terms of interest rate)
15. Would this kind of finance make installing measures more appealing from your perspective, as a landlord? Why/why not?
16. What if any, alternative types of finance would you consider using to pay for this kind of measure? Why. Prompt:

- The scheme I have just described?
- Cash flow/cash in the business?
- Conventional loan?
- Overdraft?
- Through the rent when it is reviewed?
- Through a service charge?
- An energy service company contract?

17. What other thoughts do you have about paying for the scheme via the finance discussed? Moderator to explore.
- a. How likely or unlikely are you to suggest the scheme to tenants? Why?
    - i. Do you have any concerns about approaching tenants?
  - b. Would you consider consenting to such a scheme if tenants approached you? Why?
    - i. How likely is it, do you think, that tenants would approach you about this?

## Where tenants pay the energy bill

18. What are your initial thoughts on such a financing option? Moderator to explore top of mind responses.
19. There are a number of features of the scheme relating to finance. Even though you don't pay the bill, your consent as the landlord may be required in order for the tenant to take up the scheme. Moderator to explore top of mind responses to each feature, then establish any benefits, drawbacks or concerns as necessary & why this is the case.
- a. The energy bill payer will cover the costs of improvements (in this case your tenant)
  - b. The cost of the improvements should be covered by savings on the energy bill
  - c. The cost of the improvements is attached to the property's energy bill rather than the business. So when the business moves, the cost stays with the property and it is paid by the new business or landlord during void periods (as a landlord you would have a duty to tell them):
    - i. Also, what impact, if any, do you think this will have on:
      - 1. You signing up to the scheme



2. Letting your property
3. Owning a property

The payback period could be between 3 and 25 years, depending on the energy efficiency measure that is installed and will never be longer than the life expectancy of the energy efficiency measure.

20. How would the payback periods available influence your decision to give consent?
  - a. Is length of payback an issue? Why?
    - i. Explore implications of lease lengths
  - b. What do you think is a reasonable payback period? Why?
  - c. What internal processes/factors impact on this?
21. Would this kind of finance make installing measures more appealing from your perspective, as a landlord? Why/why not?
22. What if any, alternative types of finance would you consider using to pay for this kind of measure? Why? Prompt:
  - The scheme I have just described?
  - Cash flow/cash in the business?
  - Conventional loan?
  - Overdraft?
  - Through the rent when it is reviewed?
  - Through a service charge?
  - An energy service company contract?
23. What other thoughts do you have about paying for the scheme via the finance discussed? Moderator to explore.
  - a. Would you consider consenting to such a scheme if tenants approached you? Why?
    - i. How likely is it, do you think, that tenants would approach you about this?
  - b. How likely or unlikely are you to suggest the scheme to tenants? Why?
    - i. What factors would you have to consider?
    - ii. Do you have any concerns about approaching tenants?

## Level of consent

24. Are you able to explain how the process for consent to such a scheme would work in your circumstances?
  - a. Who would need to agree in order to take part in the scheme? What are their role/s in decision making?
    - i. Explore different individuals/circumstances such as, leases/leaseholder, multi-site organisations, properties with multiple tenants, role of tenants.
  - b. What would need to be done internally to agree to such a scheme?
    - i. Probe – what challenges/barriers do you anticipate? (Note: Explore obstacles such as lease lengths, impact on specialist properties etc. long-term commercial benefits etc).
  - c. Finally, are there any other consents which you think might be needed to allow energy efficiency improvements to be made to your property/properties? For example planning permission? If so, do you anticipate any challenges/barriers there?

## Taking the scheme forward

25. Thinking about our discussion today, how likely or unlikely are you to consider the scheme?

Moderator to ascertain response (i.e. very – not at all) then explore: why?

- Very likely? Why?
  - Fairly likely? Why?
  - Not very likely? Why?
  - Not at all likely? Why?
- a. If unlikely to take out the scheme: in what circumstances, if any, would you consider taking out such a scheme? Why?
- b. What types of incentives would make the scheme more attractive? Why? Explore top of mind incentives. Then prompt, again asking why.
- i. Government grant or subsidy
  - ii. Business rate rebates
  - iii. Discounts on other services and products offered by the scheme
  - iv. Cash back offered by the scheme provider
  - v. Anything else?
- c. Explore if necessary/clarify what additional information is required in order to make the decision.
- d. How would you like to receive such information? (i.e. what format)
- If appropriate, seek a summary of what appeals / does not appeal to the respondent.

## Thank and close

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