



Department
of Energy &
Climate Change

Green Deal Customer Journey survey

Technical report: Quantitative survey wave 1

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Green Deal Customer Journey (P3)

Background to the research

As part of the Green Deal and ECO evaluation GfK NOP was commissioned to undertake a programme of research in order to understand the Green Deal customer experience.

This research with ICF GHK builds upon previous surveys of Green Deal Assessment customers carried out in 2013 by GfK NOP. Data from that research are available at <https://www.gov.uk/government/collections/green-deal-assessments-research>.

The Green Deal Customer Journey survey was designed to understand the Green Deal customer journey, from initial awareness and the decision to have an assessment, to arranging an assessment, experiences of the assessment, receipt of the Green Deal Advice Report, post-assessment actions (including decisions to install, financing and barriers to installation), through to post-installation outcomes.

Research objectives

The research was commissioned in order to collect the following information:

- The profile of households having Green Deal Assessments;
- Motivations for having an assessment;
- Exposure to marketing materials/prompts to have an assessment;
- Reactions to the assessment;
- Post-assessment actions and intentions;
- The benefits and barriers related to each recommended measure.

In addition, a key objective of the research is to conduct follow-up interviews with respondents in order to look at changes over time to determine:

- Whether intentions to take recommendations forward have been acted upon;
- Reasons for any changes in actions and intentions;
- Ongoing customer experience.

Methodology and sampling

GfK NOP drew the sample from a list of households (the 'universe') in Great Britain which had had a Green Deal Assessment during October 2013. The data came from DECC admin sources that are used to compile Official Statistics. The universe contained addresses of the households that had an assessment, but no names or other contact details.

Only households which had had a Green Deal assessment which was carried out in October 2013 were included in the sample universe. A small number of assessments were lodged outside of the relevant quarter, but these were excluded from the sample. This can explain why the total population of assessments in October covered by the research is different to the Official Statistics. The Official Statistics shows the total number of assessments for the month as 16,674, whilst the research is representative of 14,545.

The decision was taken to exclude these addresses because of the distance between assessment date and the lodgement date. When there is a long delay between the two, there is lack of clarity on which date is correct¹. In addition, it was felt that from the point of view of the respondent, who would not know the lodgement date, it was more important to be certain of the assessment date, as this is referred to in the interview.

Further, it was felt that it would be simpler and more accurate to report on assessments which are known to have been undertaken in the reference period, rather than those lodged within the reference period.

Following the exclusion of these ‘out of period’ addresses, GfK NOP analysed the lists of households in order to create efficient ‘clusters’ from which to draw the sample. For reasons stated above, and for the purposes of fieldwork efficiency, practicality, cost and timing, clusters were formed from addresses which were sufficiently close to other addresses. Ten addresses were required to form a cluster, a cluster was formed where there were ten or more addresses in a single postcode sector. As a result, some households were excluded from the sampling frame because they were not in areas that could be clustered.

Table 2 below shows the number of addresses that had a Green Deal Assessment during October 2013, the number of addresses that could be clustered into interviewing points and the proportion of addresses that were therefore covered by the sampling process at each wave. The profile of the clustered addresses was checked against key variables (see below) to see if it was broadly representative of the sample universe. Therefore, even though large parts of the population were excluded from the sample, analysis was undertaken to make sure the sample profile was close to the universe, or where it differed, the implications of those differences were understood.

Table 2: Sample selection

October 2013	N
Universe	14,545
Number of addresses that could be clustered into interviewing points	4,933
Proportion of addresses that could be clustered into interviewing points	34%

¹ Green Deal assessments should be entered onto the Landmark database (“lodged”) within 14 days of the date of the assessment.

In order to draw a representative sample for each survey, all potential 'eligible' addresses were stratified by Region, Core City vs. Non-Core City², Urbanity³, Tenure, Property Type and Energy Performance Certificate (EPC) rating.

Following stratification, a random sample of 90 starting addresses was selected from the eligible sample. The 90 sectors in which these addresses fell were then used as the 'points' from which to draw the full sample. These points were stratified in exactly the same way as described above and a random selection of 10 addresses per point was made, giving 900 addresses in total in the issued sample.

Table 3 shows the profile of the clustered sample compared with the universe. It shows that the sampled addresses over-represented tenants and households in flats, and under-represented owner-occupiers and those living in houses/bungalows. Otherwise, the profile of the clustered sample was broadly similar to that of the sample universe.

² In 2012 eight cities across England were awarded funding of around £13 million to help them kick-start the Green Deal in their regions. The cities also sought matching funding and/or providing direct support themselves. The focus of the Core Cities is upon raising awareness of the Green Deal through community engagement and show homes, and providing support to local supply chains including trained Green Deal advisors and registered installers. See <https://www.gov.uk/local-authorities-and-the-green-deal>

³ The urbanity stratifier is broken down into three groups; Urban, Suburban and Rural. Urban areas are defined as those in which the population density is greater than 7 persons per hectare, Suburban areas are defined as those in which the population density is greater than 1.5 persons per hectare but less than 7 and rural areas are defined as those in which the population density was less than 1.5 persons per hectare.

Table 3: Sample selection

October 2013	Universe (%) 14,545	Sampled (%) 900
Region		
East of England	3	2
East Midlands	11	13
London	8	9
North East	4	3
North West	13	10
Scotland	16	16
South East	13	14
South West	6	3
Wales	4	3
West Midlands	14	18
Yorkshire and The Humber	9	8
Urbanity		
Urban	61	69
Suburban	27	24
Rural	12	7
Tenure		
Tenants	27	43
Owner-occupied	72	57
Property Type		
Flats	14	22
Non Flats	86	78

October 2013	Universe (%) 14,545	Sampled (%) 900
Energy Band		
A-D	65	70
E-G	35	30

The profile of the interviewed sample is shown in Table 4.

- The 'Universe' column shows the profile of all households which had a Green Deal Assessment during the relevant time period;
- The 'Unweighted' column shows the profile of all households interviewed at each wave.

Table 4 shows that there were a number of differences between the achieved sample and the universe, for example:

- 45% of households were tenants compared with 27% in the universe;
- 19% of households lived in flats compared with 14% in the universe;
- 66% of households lived in urban areas compared with 61% in the universe.

There were also some regional variations with proportionately more interviews in the East and West Midlands, and fewer in London, South East and South West.

Table 4: Sample profiles

October 2013	Universe (%) 14,545	Unweighted (%) 439	Weighted (%) 439
Region			
East of England	3	1	3
East Midlands	11	18	11
London	8	9	8
North East	4	4	4
North West	13	7	13
Scotland	16	13	16
South East	13	10	13
South West	6	3	6
Wales	4	6	4
West Midlands	14	19	14
Yorkshire and The Humber	9	9	9
Urbanity			
Urban	61	66	61
Suburban	27	27	27
Rural	12	7	12
Tenure			
Tenants	27	45	27
Owner-occupied	72	55	72
Property Type			
Flats	14	19	14

October 2013	Universe (%) 14,545	Unweighted (%) 439	Weighted (%) 439
Non Flats	86	81	86
Energy Band			
A-D	65	70	65
E-G	35	30	35

Fieldwork

The first contact with sampled households was via an advance letter which was used to introduce the survey and to invite respondents to complete the survey online (see Appendix). Following a short 'online only' fieldwork period of four days, GfK NOP's face-to-face interviewers began calling at sampled addresses that hadn't completed the survey online. To reduce the impact of mode effects the questionnaires were exactly the same, with face-to-face interviews being self-completed by respondents rather than interviewer administered (using the interviewer's laptop). On average, the questionnaire took 30 minutes to complete.

Fieldwork was conducted between 21st November and 22nd December 2013. In total, 439 of the 900 sampled households took part in the research (70 online interviews and 369 face-to-face interviews), equating to an unadjusted response rate of 49%. The adjusted response rate (that is where inaccurate and ineligible addresses are removed from the sample) was 51%.

Table 5: Response rate

Outcome	N	Unadjusted response (%)	Adjusted response (%)
Total issued addresses	900	100	-
Ineligible ⁴	39	4	-
Total eligible addresses	861	96	100
Non contacts	285	32	33
Refusals	126	14	15

⁴ Ineligible properties are those at which no interview was possible because a resident claimed that they had not had a Green Deal Assessment, or because an interviewer coded the property as vacant, not found or non-residential (i.e. "deadwood").

Outcome	N	Unadjusted response (%)	Adjusted response (%)
Completes	439	49	51
<i>Online</i>	70	8	8
<i>Face to face</i>	369	41	43
Partials	11	1	1
<i>Online</i>	11	1	1
<i>Face to face</i>	-	-	-

Questionnaire development

The questionnaire⁵ was designed by GfK NOP in conjunction with DECC and ICF GHK. It built upon:

- The questionnaire which GfK NOP and DECC designed for the Green Deal Assessments surveys;⁶
- Feedback from the qualitative research which GfK NOP carried out with households who had recently had a Green Deal Assessment;
- A small cognitive pilot carried out by GfK NOP quantitative researchers. These interviews were conducted by telephone with 12 respondents to ensure the questionnaire was 'fit for purpose'.

In addition, the survey questionnaire also included questions from the 2012 Green Deal segmentation research to enable the recreation of the Green Deal segments⁷.

Data processing and analysis

Data tables

A single set of data tables was produced for the survey. Crossbreaks were agreed with ICF GHK and DECC and were added to data tables to allow for sub-group analysis by a number of variables including standard respondent demographics (for example age, gender, ethnicity), housing characteristics (for example house/flat, tenure, Energy Performance Certificate rating),

⁵ A copy of the questionnaire is available at <https://www.gov.uk/government/publications/green-deal-customer-journey-survey-summary-report-quantitative-survey-wave-1>

⁶ Green Deal Assessments surveys are available at <https://www.gov.uk/government/collections/green-deal-assessments-research>.

⁷ The technical report relating to the development of the Green Deal segments can be found at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/49751/Green_Deal_segmentation_-_technical_report.pdf

assessment outcomes (for example whether installed any energy saving measures, whether received a Green Deal Advice Report) and Green Deal segments.

Coding

The questionnaire contained a number of open-ended questions and questions which included 'other' answers which required coding. In order to get the most out of these open responses codeframes were developed by executives working on the project with reference to the objectives of the question. GfK NOP's team of coders were fully briefed by project executives about the objectives of each individual question in advance of starting work.

Post survey weighting

Data were weighted to the known profile of all households which received a Green Deal Assessment in October 2013 by region, property type, tenure, urbanity and energy band (EPC rating). Weighting is the adjustment of the relative importance or influence that each response has on the total survey responses generated in a way so that the profile of the total sample matches some pre-defined criteria or target.

Each respondent was assigned a weight based on the findings from region, property, tenure, urbanity and energy band which was calculated to ensure that the results represented the universe of all properties which had a Green Deal Assessment in October 2013.

The effective sample size was calculated. This describes the effect of the weighting on the accuracy of survey estimates. The effective sample size is dependent upon the size of weights applied to respondents: the more the weights deviate from 1, the smaller the effective sample size and the less accurate estimates will be. The effective sample size for this survey was 74% of the interviewed sample size (325 interviews). The unweighted and weighted sample profiles are shown in Table 4 on page 8 of this report.

Reporting conventions

All survey reports use the following conventions:

- All differences commented upon are statistically significant at the 95% confidence level (unless otherwise stated);
- Significant differences between waves are indicated by arrows (↑↓) within charts and tables;
- All base sizes quoted in the report are unweighted;
- All reported data are weighted;
- A finding of less than 0.5% but greater than zero is indicated by an asterisk (*).

Confidence intervals

Surveys are conducted because it is much more practical and cost effective than interviewing an entire population. However, we need to know how close our survey estimates are to the 'true' figures if we had interviewed the entire population. Confidence intervals are a statistical device which allows us, using our survey results, to estimate the variation that might be anticipated because a sample rather than an entire population was interviewed. This is

essentially a range where the true (overall population) value is likely to sit. In general, the larger the sample, the more sure we can be of the accuracy of our survey estimates, though subject to diminishing returns at larger sample sizes. In other words, if we were to conduct the same survey again we would be more likely to get a similar result if we had a large sample than a smaller sample.

Note that, strictly speaking, analysis of sampling error in this way should only be applied to random probability surveys. However it is generally accepted that confidence intervals can be applied to surveys such as this which use different sampling schemes as a guide.

The table below indicates the confidence intervals associated with different sample sizes and survey estimates. When calculating confidence intervals, we typically use a 95% confidence interval. This means that we can be 95% sure that the survey estimate reflects the true figure for the entire population.

Table 8: Confidence intervals

Sample size	Survey response		
	10% / 90%	30% / 70%	50% / 50%
100	5.9	9.0	9.8
200	4.1	6.3	6.9
300	3.4	5.2	5.6
400	2.9	4.5	4.9
500	2.6	4	4.4

The table shows that for a total sample of 500 respondents, the confidence interval for a 50% response would be up to $\pm 4.4\%$. This means that if the survey found that 50% of respondents held a certain view, we could be 95% sure that the true proportion of people in the (overall) population who hold that view would be between 45.6% and 54.4%.

Approach to analysis

The analysis was designed to answer the key research objectives. In order to answer objectives related to households' post assessment intentions and actions, responses to a number of questions were combined to provide summary statistics as follows:

- Household level data: Where households had been recommended more than one measure as part of their Green Deal assessment, they were often at different stages. The variable 'most action taken' was calculated to provide information at a household level (for example if a household had installed one measure, and was in the process of installing another, the 'most action taken' would be 'already installed');
- Measure level data: Other statistics were provided on the basis of recommended measures, rather than at a household level. Some charts and tables are therefore reported on the basis of 'all measures recommended' (for example, 29% of all measures recommended had been installed);

- Further, some statistics are provided based on the individual measure recommended (for example, 60% of recommended cavity wall insulation had been installed).

Tables are clearly labelled to show whether findings are based on household or measure-level data.

Appendix

Advance letter



Department
of Energy &
Climate Change



Date 21st November 2013

Ref: 404/ <ID>

Dear householder

GREEN DEAL ASSESSMENTS – HAVE YOUR SAY

I am writing to ask for your help and to offer you a £10 gift voucher to say thank you.

I understand that your household has recently had a Green Deal Home Energy Assessment which was carried out by <ASSESSMENT_COMPANY> on <DATE>. We would like to know your views and experiences of this assessment and what you intend to do next.

The Department of Energy and Climate Change (DECC) is the Government department responsible for household energy efficiency and the Green Deal. DECC has asked an independent research company called GfK NOP to conduct a survey of households which have had an assessment recently.

Your address has been chosen at random from a list of such households and we would like to ask for some information from the person/people who were there when the assessment took place. The survey should take up to 30 minutes to complete, and as a thank you for taking part we will send you a £10 gift voucher.

You can take part in one of two ways:



You can visit <https://www.surveys.com/GDEXP> and when prompted, please enter your ID <ID> and password <Password> - this will take you to the survey. Your voucher will be sent to you in the post after you complete the survey.



An interviewer will visit your address to invite you to take part in the survey. He/she will make an appointment to return at a more convenient time if you're unable to do it when they first call.

Your responses will be treated in the strictest of confidence and in line with the Data Protection Act. They will not be passed to your assessor or installers, and you will not be contacted again without permission.

If you have any more questions about the research, you can ask the interviewer when they call or you can contact GfK NOP by email at GDSurvey@gfk.com or on 0800 5280722. If you have any concerns or want to contact an official at DECC you can contact Oliver Anderson at oliver.anderson@decc.gsi.gov.uk or on 0300 068 6131.

I hope that your household will be able to take part. The information from this research will be a valuable input to services for households in Britain, and we will use it to try to make the Green Deal better for all.

Thank you in advance for your help.

Yours sincerely,

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