Green Deal Customer Journey

Project 3: Wave 2 Technical Report

June 2014

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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.

This report provides the technical details for the second wave of the survey.

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 in January to March 2014. The data came from DECC administration sources that are used to compile Official Statistics (Green Deal assessors are

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required to lodge assessments once they have been conducted[1]). 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 January to March 2014 were included in the sample universe. The database contained a number of assessments lodged during January to March 2014 that had assessment dates which fell outside of the relevant quarter, but these were excluded from the sample. This explains why the total population of assessments covered by the research is different to the Official Statistics. The Official Statistics shows the total number of assessments lodged across the three months as 58,404,[2] whilst the research is representative of 54,833.

GfK NOP analysed the lists of households in order to create efficient 'clusters' from which to draw the sample. For the purposes of fieldwork efficiency, practicality, cost and timing, clusters were formed from addresses which were sufficiently close to other addresses. 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 January to March 2014, 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 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

January – March 2014	N
Universe	54,833
Number of addresses that could be clustered into interviewing points	32,870
Proportion of addresses that could be clustered into interviewing points	60%

In order to draw a representative sample for each survey, all potential 'eligible' addresses were stratified by Region, Urbanity[3], Tenure, Property Type and Energy Performance Certificate (EPC) rating.

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[1] Green Deal assessments should be entered onto the Landmark database ("lodged") within 14 days of the date of the assessment.
[2] Source:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/305432/Monthly_Statistical_Release_Green_Deal_and_Energy_Company_Obligation_in_Great_Britain_24_April_2014.pdf
[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

Following stratification, a random sample of 180 starting addresses was selected from the eligible sample. The 180 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 1,800 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 under-represented households in Scotland, while over-representing tenants and households in urban areas. Otherwise, the profile of the clustered sample was broadly similar to that of the sample universe.

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.

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Table 3: Sample selection

January-March 2014	Universe (%) 54,833	Sampled (%) 1,800
Region		
East of England	3	3
East Midlands	8	11
London	5	4
North East	4	4
North West	12	16
Scotland	26	19
South East	12	9
South West	6	6
Wales	3	4
West Midlands	11	15
Yorkshire and The Humber	10	10
Urbanity		
Urban	51	61
Suburban	34	29
Rural	15	11
Tenure		
Tenants	29	37
Owner-occupied	71	63
Property Type		
Flats	17	20
Non Flats	83	80
Energy Band		
A-D	66	66
E-G	34	34

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;
- The 'Weighted' column shows the profile of the interviewed sample once corrective weights had been applied.

Overall, the table shows that the achieved (unweighted) sample looks very similar to the universe. The most notable difference between the two is on the urbanity variable where the high number of interviews conducted in urban areas reflects the profile of the selected sample (as shown in Table 3, above).

Table 4: Sample profiles

January-March 2014	Universe (%) 54,833	Unweighted (%) 946	Weighted (%) 946
Region			
East of England	3	3	3
East Midlands	8	11	8
London	5	4	5
North East	4	3	4
North West	12	15	12
Scotland	26	23	26
South East	12	9	12
South West	6	5	6
Wales	3	4	3
West Midlands	11	13	11
Yorkshire and The Humber	10	12	10
Urbanity			
Urban	51	60	51
Suburban	34	27	34
Rural	15	13	15
Tenure			
Tenants	29	32	29
Owner-occupied	71	68	71
Property Type			
Flats	17	15	17
Non Flats	83	85	83
Energy Band			
A-D	66	67	66
E-G	34	33	34

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, face-to-face fieldwork amongst households which had not completed the online survey began. For this wave of the survey fieldwork was shared between GfK NOP and Ipsos MORI.

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 32 minutes to complete.

Fieldwork was conducted between 17th April and 1st June 2014. In total, 946 of the 1,800 sampled households took part in the research (173 online interviews and 773 face-to-face interviews), equating to an unadjusted response rate of 53%. The adjusted response rate (that is where inaccurate and ineligible addresses are removed from the sample) was 58%.

Table 5: Response rate

Outcome	N	Unadjusted response (%)	Adjusted response (%)
Total issued addresses	**1,800**	**100**	**-**
Ineligible[4]	159	9	-
Total eligible addresses	**1,641**	**91**	**100**
Non contacts	479	27	29
Refusals	202	11	12
Completes	**946**	**53**	**58**
Online	*173*	*10*	*11*
Face to face	*773*	*43*	*47*
Partials	14	1	1
Online	*12*	*1*	*1*
Face to face	*2*	***	***

An asterisk (*) denotes a value less than 0.5% but greater than zero.

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[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"),

Questionnaire development

The questionnaire was designed initially by GfK NOP in conjunction with DECC and ICF GHK for the first wave of the survey. It built upon:

- The questionnaire which GfK NOP and DECC designed for the Green Deal Assessments surveys;[5]
- 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 segments[6]. In order to facilitate comparisons between Wave 1 and Wave 2 of the survey the questionnaire was largely unchanged, although a small number of changes were made to the questionnaire for Wave 2. A copy of the questionnaire is available at **[insert URL]**.

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), 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 January to March 2014 by region, property type, tenure, urbanity and energy band (EPC rating). Weighting is the adjustment of the relative importance or influence that

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[5] Green Deal Assessments surveys are available at https://www.gov.uk/government/collections/green-deal-assessments-research.
[6] 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_-_techincal_report.pdf

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 January to March 2014.

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 92% of the interviewed sample size (870 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
1,000	1.9	2.8	3.1

The table shows that for a total sample of 1,000 respondents, the confidence interval for a 50% response would be up to ± 3.1%. 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 46.9% and 53.1%.

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.

In making comparisons of post-assessment actions and intentions between different waves of the survey, it should be note that the wave 1 survey only included households that had a Green Deal Assessment during a single month (October 2013) so respondents may have had less time between their Assessment and interview to take action and install measures compared with respondents in the wave 2 survey (which covered a 3 month Assessment period between January and March 2014).

Appendix

Advance letter

Department
of Energy &
Climate Change

Date 16th April 2014

Ref: 30039/<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 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. GfK NOP, the leading independent research company, is conducting the survey, assisted by interviewers from Ipsos MORI.

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 www.surveys.com/GDEXP2 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.
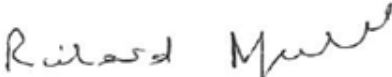
Your responses will be treated in the strictest of confidence and in line with the Data Protection Act. They will not be passed to your assessor or installers, and you will not be contacted again without permission.

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 Julia Raybould on at julia.raybould@decc.gsi.gov.uk.

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,

Richard Mellish
Deputy Director for Green Deal