

RESEARCH INTO THE BEHAVIOURS AND ATTITUDES OF THE FUEL POOR IN ENGLAND

Research Report

November 2017

Research into the behaviours and attitudes of the fuel poor in England

Research Report



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1. Background

This programme of research into the behaviours of the fuel poor was commissioned to build on the existing evidence base and understanding of fuel poverty and inform policies to tackle fuel poverty

Introduction

The definition of the term 'fuel poverty' was given in the Warm Homes and Energy Conservation Act 2000. It stated that "a person is to be regarded as living in 'fuel poverty' if he is a member of a household living on a lower income in a home which cannot be kept warm at a reasonable cost"¹. In 2011 Government commissioned Professor John Hills of the London School of Economics to review fuel poverty in England from first principles, and consider whether the '10%' indicator then used to operationalise the legal definition was fit for purpose.

Based on the recommendations in the review, the Government changed the indicator of fuel poverty in England in 2013 to the Low Income High Costs (LIHC) indicator. Following this Government passed legislation to set a new statutory fuel poverty target in 2014: to raise as many fuel poor homes in England as is reasonably practicable to Band C by 2030; accompanied in 2015 by a new fuel poverty strategy for England. The strategy sets out a strategic approach to making progress against the 2030 target and also sets interim milestones to lift as many fuel poor homes in England as is reasonably practicable to Band E by 2020 and Band D by 2025^{2,3}.

Under the Low Income High Costs indicator, a household is considered to be fuel poor if:

- they have required fuel costs that are above average (the national median level)
- were they to spend that amount, they would be left with a residual income below the official poverty line

Unlike the previous '10%' indicator measuring fuel poverty in England, the Low Income High Costs indicator is a relative measure as it compares households to the national median fuel

³ <u>https://www.gov.uk/government/publications/cutting-the-cost-of-keeping-warm</u>

¹ <u>https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48297/4662-getting-measure-fuel-pov-final-hills-rpt.pdf</u>

² Fuel Poverty is a devolved matter, with separate indicators, targets and strategies adopted by each nation of the UK. Scotland and Wales use variations of the '10%' indicator, whereby a household is considered fuel poor if they need to spend more than 10% of their net income on energy

costs and income – thereby ensuring the contemporary trends are reflected in both these measures.

The Low Income High Costs indicator is a twin indicator consisting of:

- the number of households that have both low incomes and high required fuel costs (shown by the shaded area in bottom left hand quadrant in Figure 1.1); and
- the depth of fuel poverty amongst these fuel poor households. This is measured through a fuel poverty gap (shown by the vertical arrow in Figure 1.1) which represents the difference between the required fuel costs for each household and the median required fuel costs.

The fuel poverty gap for each individual household is then aggregated across all fuel poor households to produce an overall aggregate fuel poverty gap which gives a sense of the depth of fuel poverty on a national level. The total aggregate and average fuel poverty gap can be compared across different groups of households to assess the severity of the problem across different household types.

The LIHC indicator draws upon income after housing costs and required fuel costs⁴. The inclusion of fuel costs in determining who is 'low income' explains the gradient in the income threshold (see Figure 1.1). This leads us to consider as low income some households who have income above the poverty line but whose high energy costs push them below the income threshold.



Figure 1.1: Fuel poverty under the Low Income High Costs indicator

⁴ Note that required energy cost is used, rather than actual energy costs. This allows energy consumption to be set to ensure the household maintains an adequate standard of warmth. In reality, many households under-heat their home, relative to the recommended adequate standard of warmth Households in the top left hand quadrant have low incomes but also relatively low fuel costs, and so are not considered to be fuel poor. Those households to the right of the income threshold have relatively higher incomes, with those in the top right quadrant having high incomes and low costs, and those in the bottom right hand quadrant, having high incomes and high costs.

Background to this research

The LIHC indicator of fuel poverty requires a detailed assessment of the characteristics of the dwelling and the household living in it. To undertake such a detailed assessment may be disproportionate for certain purposes. An alternative method, which can be less burdensome but trades ease of use off against accuracy, is to follow a probabilistic approach. This means using proxies to predict whether a household is likely to be fuel poor or not. While more straight forward, it does however still require a degree of detail about individual households and their dwellings that is unlikely to be available on a consistent and robust fashion across the country as a whole. Therefore, neither of the two approaches provides a cost-effective method for identifying those who are fuel poor on the ground. Yet such a method is important in identifying fuel poor households for research purposes, and also in future to potentially identify households for policy support.

Thus there existed a clear need for a standardised set of questions that can be easily and robustly used by researchers - whether through quantitative surveys or qualitative interviews - with householders to identify the fuel poor. Prior to this research programme, BEIS' predecessor, the Department of Energy & Climate Change (DECC), had already commenced work to develop a set of proxy questions based on characteristics previously identified as predictive of fuel poverty. These would enable the development of guidance on how to sample for fuel poverty within research and to identify the fuel poor in datasets using specified thresholds.

Whilst the department possesses a strong understanding of the number of households in fuel poverty and their main characteristics under the new indicator, a programme of research was established to further explore their attitudes and behaviours around energy use, interventions relating to energy use and coping mechanisms in the absence of interventions for the fuel poor population and the sub-groups within it. DECC commissioned a review of research evidence to assess gaps in the current evidence based in this area to identify where new research may be required. This review was published in 2014, and revealed the need for further primary research on these topics⁵.

This stage of the programme of research builds upon current understandings and develops the evidence base to inform fuel poverty policy and progression towards the statutory target.

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https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/332122/und erstanding_behaviours_households_fuel_poverty_review_of_research_evidence.pdf

Research into the behaviours of the fuel poor: programme summary

The overarching objective of the research programme was to build on the current evidence base and understanding of fuel poverty and to inform future policy to tackle fuel poverty. The key aims of this research included:

- Understanding how the fuel poor use energy in their homes
- Understanding how the fuel poor use heat in their homes
- Exploring fuel poor engagement with energy consumption and bills
- Gauging energy reduction or efficiency behaviours with the fuel poor
- Exploring which channels of communication engage fuel poor and where they go to for energy advice
- Gauging levels of understanding of energy efficient initiatives and measures taken up by the fuel poor
- Understanding and perceptions of what fuel poverty is and the experiences of those affected

These aims were set alongside work to develop a proxy measure of fuel poverty. GfK, in conjunction with Brook Lyndhurst (at Phase 1) were commissioned in November 2014 to deliver a three-phase programme of research consisting of:

- **PHASE 1:** validation and improvement of the proxy measures developed by DECC to identify the fuel poor
- **PHASE 2:** gathering detailed qualitative insight into the behaviours, experience and attitudes of the fuel poor, allowing continued validation and development of the fuel poverty proxy measures and informing the quantitative questionnaire design
- **PHASE 3:** conducting a large-scale survey among households likely to be fuel poor (and a control group of households less likely to be fuel poor) to examine their energy usage behaviours, their attitudes to energy use, and the significance of energy costs

This report focusses on the findings from the Phase 3 quantitative survey, incorporating further findings and illustrative examples from the Phase 2 qualitative research. Phases 2 and 3 constitute the first real world application of the improved proxy from Phase 1.

Phase 2 and 3 method overview

Phase 2: Qualitative research

A qualitative phase of research was carried out prior to the quantitative survey. This gathered detailed insight into the attitudes and behaviours of the fuel poor. The findings from this qualitative phase were used to inform the quantitative questionnaire.

The qualitative research involved 50 in-depth interviews. These were carried out in the participants' homes enabling the researcher to ask the participant to show energy systems and controls used and any energy-saving measures installed. Each depth interview lasted up to 2 hours.

Participants were recruited to take part in the qualitative research using a free-find recruitment method; potential participants meeting relevant criteria were selected from the general public within a specific local area based on areas with high concentration of the fuel poor population.

Recruitment was carried out using the Fuel Poverty allocation algorithm developed by DECC (discussed in Chapter 3). This algorithm estimates the probability of being fuel poor based on the answers to a predetermined set of questions and uses probability thresholds to determine whether a household has low, medium or high probability of being fuel poor. Quotas were applied to the sample to ensure a diverse range of fuel poor people were included across the qualitative research.

The fieldwork took place in February and March 2015. Locations included: London; Manchester; Nottingham; Bradford; Sheffield; Newcastle; Bristol and Birmingham.

Phase 3: Quantitative research

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As only 10.6% of households in England are defined as being fuel poor⁶, and no sampling frame of them exists, the survey design had to be guided by expediency, and particularly the need to achieve sufficient interviews within the available budget. The allocation algorithm was also developed in a way such that, in order to achieve the necessary simplicity of questions used, it would need to be deployed in areas of relatively high fuel poverty prevalence in order to ensure an acceptable level of accuracy. It was therefore decided that the survey would only be conducted in areas with a higher than average concentration of the fuel poor.

Readers should note that because of this the sample interviewed for this survey is not intended to represent the whole national population of fuel poor (or non-fuel poor) households. It is rather a picture of a certain sub-set of the fuel poor (predominantly those who live in less well-off inner urban areas), and households who live in the same areas but are not themselves fuel poor.

The questionnaire was developed jointly by DECC and GfK, drawing on the survey objectives and the outcome of the qualitative stage. Prior to main stage fieldwork, a pilot exercise was undertaken to test the questionnaire in terms of questionnaire length and flow, and to identify any specific questions that were problematic for respondents (both in terms of their understanding of the question and their ability to answer it within the response options provided). The pilot fieldwork (consisting of 28 interviews conducted across five locations) mirrored the approach employed at the main stage fieldwork, with interviewing conducted in areas with a higher than average concentration of the fuel poor.

All interviewing was conducted face-to-face in-home by GfK's interviewer fieldforce, using Computer Assisted Personal Interviewing (CAPI), which means that interviewers carry the survey on a laptop into which they enter the respondent's answers.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/533241/Annual_Fuel_Poverty _Statistics_Report_2016.pdf

Fieldwork took place in two stages, the first running from 28th October to 9th December 2015 during which 2,020 interviews were completed. Following this, the department commissioned an extension to fieldwork to boost the number of households with a higher likelihood of being in fuel poverty in the sample and a second stage of interviewing was conducted between 5th and 17th January 2016, delivering a further 511 interviews. In total, 2,531 interviews were completed across the two stages. The average interview length was 27 minutes.

Interviewers were given a list of all addresses in each sampling point⁷ that they could make a call at. Within each sampling point, an interviewer was required to conduct a total of 12 interviews with householders or their partners (aged 16+) in a given area. Whilst no demographic quotas were set in relation to the respondents, households were instead screened on the doorstep to identify those that were more likely to be in fuel poverty.

Because it was impractical to ask the full range of questions that were necessary to determine a household's likelihood of fuel poverty (i.e. using the Fuel Poverty allocation algorithm) on the doorstep, the screener used a reduced set of criteria. These included property type, age and size; how fuel bills were paid; and, how the property was heated; with households receiving a score for each depending on their response. Of their 12 interviews, interviewers were required to complete nine with households that passed the screener and three with households that didn't⁸. This helped to ensure that the achieved sample contained a suitable number of households with a greater likelihood of being in fuel poverty, alongside a control group of households with a lesser likelihood of being in fuel poverty.

The collected data were weighted by the regional profile of fuel poor households in England⁹ to correct for any imbalances. Further details about the survey methodology are included in the technical report published alongside this report.

Reporting conventions used in the report

Throughout the report, statistically significant differences in response between sub-groups are highlighted and discussed. Statistical significance means that any differences between results are likely to be the result of an actual difference, rather than something related to sampling or methodology. This report uses the following conventions:

- All differences commented upon are statistically significant at the 95% confidence level.
- Significant differences between sub-groups are indicated by the arrows (1) within charts.
- All base sizes quoted in the report are unweighted.

⁷ Each sampling point consisted of a Lower Layer Super Output Area (LSOA)

⁸ For the second stage, this ratio was adjusted to 10:2 with the aim of increasing the final proportion of higher likelihood households in the achieved sample

⁹ See <u>https://www.gov.uk/government/statistics/fuel-poverty-detailed-tables-2013</u>

2. Identification of fuel poor households

This section explains the methods used to categorise households included in the research, based on their likelihood of being in fuel poverty, and discusses the profile of the achieved sample from the quantitative research

Development of a proxy to identify the fuel poor

To assess whether a household is in fuel poverty requires detailed information on household income, household composition, the energy efficiency of their dwelling and their energy tariffs. Such detailed information can be difficult and costly to obtain. Yet a key aspect of this research project was to be able to screen households to identify those who were fuel poor (or, to be more precise, those who were more likely to be fuel poor).

To assess the fuel poverty status of households, the department sought to develop a screening tool that, whilst being easy to use on the ground, would be able to identify with a certain degree of confidence whether a household is fuel poor. Therefore the aim was to identify a short set of questions that would be both good fuel poverty predictors and easy for households to answer reliably 'off the top of their heads'.

The tool was developed in four stages (see Figure 2.1). The first stage was to identify the list of proxy questions that could reasonably be expected to be used to determine how likely a household was to be fuel poor.

The second stage was to then use a statistical technique (Logistic Regression) to attach probabilities to each of the possible answers to the questions in the questionnaire. This would enable the probability of the household of being fuel poor to be determined, given their answers to the questions posed to them.

Stage three was to then set a probability threshold, where if a household had a probability above the threshold they would be selected for participation (Phase 2) or allocated to a particular fuel poverty likelihood group (Phase 3) in the research project. The threshold needed to balance *accuracy* (i.e. having high levels of confidence that those who 'pass the test' by having a probability above the threshold are actually fuel poor) with *practicality* (i.e. setting a very high threshold would mean high accuracy of identifying the fuel poor, but may make these households hard to find, making the project expensive or unworkable).

Finally, stage four was to test different thresholds to balance these two aspects and make a judgement about the right balance between accuracy and practicality to set the final threshold.

A detailed description of each stage is included in the accompanying technical report.

Figure 2.1: Summary process for completing Phase 1 of the project



Application of the tool to the quantitative survey

The model outputs were transformed into a scoring system to determine whether a household had a low, medium or high probability of being fuel poor. The final variables used by the model covered:

- a. Income after tax and housing costs (mortgage/rent payments)
- b. Presence of children under 16/adults aged 65+
- c. Age of property
- d. Tenure
- e. Property type
- f. Presence of a boiler
- g. Method of payment for electricity
- h. Number of bedrooms
- i. Main fuel used to heat the property

For each, households were allocated a score based on their survey responses. Their final score determined their 'likelihood of fuel poverty' categorisation. The full range of scores allocated within each variable, as well as the thresholds for the final allocation, and the imputation process carried out to compensate for missing data on particular questions, are included in the technical report.

Profile information of sampled households

The survey interviewed a total of 2,531 households, each of which were allocated to one of three 'likelihood of fuel poverty' categories - high, medium or low - as described above. The final allocations are shown in Table 2.2 below. It should be noted that the regional weighting

that was applied to correct for some regional imbalances made no significant difference to the profile of the sample in terms of likelihood of fuel poverty.

		Unwe	ighted	Weighted		
Likelihood of fuel poverty allocation	Likelihood of fuel poverty category	n	%	n	%	
Higher likelihood of fuel poverty	High	1,178	47	1,172	46	
	Medium	511	20	514	20	
	TOTAL	1,689	67	1,685	67	
Low likelihood of fuel poverty	Low	842	33	846	33	

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Throughout the report, comparisons are made between households that were categorised as having a higher likelihood of being in fuel poverty and those categorised as having a low likelihood. For brevity, the following terms are used to refer to each of these categories:

- Higher likelihood households: households categorised as having either a high or • medium likelihood of being in fuel poverty
 - Within this, the report also notes key differences between high likelihood households and medium likelihood households
- Low likelihood households: households categorised as having a low likelihood of • being in fuel poverty

The following sections outline the profiles of higher likelihood and low likelihood households interviewed by the survey, as well as comparing the high and medium likelihood categories within higher likelihood households for the following key variables:

- Household income, working status and receipt of benefits
- Household composition
- Property characteristics and ownership

Household income, working status and receipt of benefits

As shown by Table 2.3 on the following page, higher likelihood households were more likely than low likelihood households to be non-working, in receipt of benefits, have a lower household income, and less likely to be retired. Given the survey was conducted in specific areas of high fuel poverty, a proportion of shared student households were found within the higher likelihood households which would almost certainly be atypical of the national population, particularly those living in less urban areas.

As described earlier in this chapter, total monthly household income compared with rent or mortgage costs contributed strongly to a household's final likelihood of fuel poverty allocation (if, after tax, the difference between the two was less than £900). This was especially the case for high likelihood households (amongst whom 76% said their income after tax and rent/mortgage was under £900 a month and just 5% said it was at least £900¹⁰), although much less so for medium likelihood households (29% under £900, 49% at least £900).

Household composition

Although differences by household composition tended to be less pronounced than income/working status and property characteristics/ownership, higher likelihood households were more likely to be larger in size (e.g. 68% had three or more members, compared with 48% of low likelihood households), to be younger and to have at least one child under 16 in the household (Table 2.3).

Property characteristics and ownership

As also shown by Table 2.3, there were a number of key differences by tenure, property type and number of bedrooms, with higher likelihood households more likely to be privately renting, living in a house (as opposed to a flat/maisonette) and living in larger properties (i.e. with 3 or more bedrooms). At the same time and as already described, it should be noted that these characteristics - along with age of property, for which there was less variation between higher and low likelihood households - all strongly contributed to a household's final likelihood of fuel poverty allocation. This also explains why these characteristics were most prevalent amongst high likelihood households.

¹⁰ The remainder gave either a 'don't know' or 'refused' response

Table 2.3: Household profile by likelihood of fuel poverty category	All hous	seholds:	Higher li house	ikelihood holds:
	Low (842)	Higher (1,689)	High (1,178)	Medium (511)
	%	%	%	%
Working status				
Working household ¹¹	66	56 🖊	54 🦊	62
Non-working household ¹²	13	20 🕇	22 🕇	14
Retired household ¹³	19	9 📕	7 📕	14
Shared student house ¹⁴	2	14 🕇	16 🕇	10
Not classified	< 0.5%	1	1	<0.5%
Household in receipt of any	/ state bene	efits ¹⁵		
Yes	43	48 🕇	50 🕇	43
No	47	41 📕	39 🦊	45
Don't know/ Refused	10	11	11	12
Household annual income ¹	6			
Less than £9,500	11	31 🕇	34 🕇	24
£9,500 - £19,999	28	34 🕇	37 🕇	28
£20,000 - £34,999	23	17	17	17
£35,000+	38	19 📕	13 🦊	32
	All hous	eholds:	Higher li house	kelihood holds:

 ¹¹ Households containing one or more member working full or part-time
¹² Households containing no working members (either full or part-time), excluding those where all members are retired or full-time students
¹³ Households where all members are retired
¹⁴ Households of more than one person where all members are full-time students
¹⁵ These include any of Universal Credit, Jobseeker's Allowance, Income Support, Employment Support Allowance, Working Tax Credits, Child Tax Credits, Pension Credit, Housing Benefit, Council Tax Benefit, Disability Living Allowance, Other State Benefits

¹⁶ Re-based on all answering, i.e. excluding 'don't know' and 'refused' responses. Base: Low likelihood households (498), Fuel poor households (916), High fuel poor households (628), Medium fuel poor households (288)

	Low (842)	Higher (1,689)	High (1,178)	Medium (511)		Low (842)	Higher (1,689)	High (1,178)	
	%	%	%	%		%	%	%	
Age of oldest household r	nember				Property type				
16-34	17	31 🕇	33 🕇	27	Detached house/	3	4	3 🖊	I
35-59	38	37	39	34	Semi-detached/ end	20	26 🕇	25	T
60+	38	21 📕	18 🦊	28	Mid terrace house*	59	67 🕇	70 🕇	Ι
Not classified	7	11	10	11	NET: House/bungalow	82	96 🕇	98 🕇	I
Age of youngest househo	ld member				Flat/maisonette	14	3 📕	2 🦊	T
Under 16	28	35 🕇	36	33	Age of property				
16-34	27	35 🕇	37 🕇	30	Pre-1914*	47	41 🖊	42	T
35-59	16	9 📕	9	9	1914-1944*	23	31 🕇	30	Ī
60+	21	10 📕	8 📕	16	1945-1964*	9	12	13	Ī
Not classified	8	11	10	12	1965-1990	10	2 📕	1 🖊	Ī
Anyone with a condition a	ffecting how	w the house	is heated		Post 1990	5	2 📕	1 📕	Ī
Yes	20	20	21	20	Not known	6	13 🕇	14 🕇	
No	80	80	79	80	Tenure				
Number of bedrooms					Owner occupier*	58	29 🖊	25 🖊	
0-1	13	4	2 📕	7	Social tenant ¹⁷	17	13 🖊	13	
2*	27	18 🖡	17	19	Private renter*	22	56 🕇	61 🕇	Ī
3-4*	56	64 🕇	66 🕇	60	NET: Tenant	39	69 🕇	74 🕇	Ī
5 or more*	4	14 🕇	14	14	Other	3	2	1	T

Significance differences shown: Low likelihood households vs Higher likelihood households, High likelihood households vs Medium likelihood households

* Denotes a variable that contributes to household fuel poverty allocation

¹⁷ Renting from a local authority/council or a housing association, registered social landlord or charitable trust

'Higher likelihood' households: Key sub-groups

Throughout this report, the following four key sub-groups are discussed in relation to the findings for the higher likelihood sample, given their situations and experiences are very different: working households (which make up 56% of the higher likelihood sample), non-working households (20%), shared student households (14%) and retired households (9%). Drawing the sample from areas of high concentration of fuel poverty meant that far more shared student households were included in the sample than would have been the case with a sample that represented the whole national population.

gure 2.4: Higher likelihood households - summary of key sub-groups								
	Working households	Non-working households	Shared student households	Retired households				
Household size	Average = 4.0	Average = 2.9	Average = 4.5	Average = 1.4				
% single person	8%	33%	0%	66%				
Property size	3 bed: 49% 4+ bed: 30%	0-2 bed: 33% 3 bed: 43%	4+ bed: 81%	2 bed: 24% 3 bed: 64%				
Tenure	OO: 34% ST: 12% PR: 53%	OO: 19% ST: 22% PR: 56%	OO: 0% ST: 4% PR: 95%	OO: 69% ST: 14% PR: 16%				
Time at property	<12m: 26% >10 years: 27%	<12m: 40% >10 years: 25%	<12m: 83%	>10 years: 82%				
% gas central heating	87%	85%	87%	66%				
Paying for energy	Pre-pay: 39% Regular bill: 35% Direct debit: 26%	Pre-pay: 52% Regular bill: 29% Direct debit: 14%	In rent: 37% Pre-pay: 12% Regular bill: 27% Direct debit: 24%	Pre-pay: 17% Regular bill: 44% Direct debit: 39%				
Income	<£15.5k: 23% £15.5k+: 77%	<£15.5k: 88% £15.5k+: 12%	<£15.5k: 62% £15.5k+: 38%	<£15.5k: 83% £15.5k+: 17%				
% post-tax income less rent/mortgage <£900/month	67%	93%	77%	95%				
% receipt of benefits	49%	72%	5%	59%				

Figure 2.4 summarises the profiles of each group.

Figure 2.4: Higher likelihood households - summary of key sub-groups

Base: All Higher likelihood households (1,689) - Working households (951), Non-working households (342), Shared student households (224), Retired households (157). Note that 15 households could not be classified.

3. Heating the home

Households with a higher likelihood of being in fuel poverty were less likely to have central heating and more likely to report having difficulties keeping their properties warm in winter

Comfort levels

There were clear differences in reported levels of comfort between higher and low likelihood households, with higher likelihood households less likely to say that their household is *always* warm enough on a typical day in winter (Chart 3.1).

Chart 3.1: Whether, on a typical day in winter, households are warm enough (higher and low likelihood households)



Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

Those whose household is not *always* warm enough were asked whether this is usually because there is no heating on or because their home is cold even when there is heating on. Higher likelihood households were more likely to say they were cold even with the heating on. This could be because their homes are hard to heat/keep warm, or may be because they can only afford to run their heating at less than full power, or for only short periods.





Base: All households that are not always warm enough on a typical day in winter (1,118) - Higher likelihood (845), Low likelihood (273)

It may on the surface seem slightly counter-intuitive that those who are less likely to be fuel poor should be more likely to take what is a money-saving route (in outcome if not in purpose). However, there may be many reasons for this, not least because not all low income households are fuel poor, but they may still be likely to ration their use of heating even if their heating costs are relatively low. More insight can be gained when we look at some of the questions about attitudes to heating their home.

Of the low likelihood households who said their home was not always warm because the heating was not on, 44% agreed that "I could afford to make my home warmer if I wanted to", suggesting that for many, saving money is not the prime motivator and that there are other reasons for choosing to not heat the home. Among higher likelihood households this figure was lower, at 39%, but not significantly different.

If we compare all higher likelihood households with low on this question we do find a significant difference – 54% of low likelihood households agreed where only 46% of higher likelihood households did so. This strengthens the view that some people choose to have cold homes with no heating on, rather than being unable to afford to heat more, although higher likelihood households are less able in general to heat more.

Summarising the responses to the two questions on how warm the home is in winter, the following household groups emerged (Figure 3.3).



Figure 3.3: Categorisation of comfort levels (higher and low likelihood households)

Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

Amongst higher likelihood households, a number of sub-groups were more likely to say they fell into each category (Figure 3.4). So, for example, 68% of retired households said they were always warm enough (vs 49% of other households), though we cannot be sure whether this means that their homes are actually warmer of merely that they are more likely to perceive their current level of warmth as sufficient.

Those most likely to be cold because they don't have the heating on were private renters, those on the lowest incomes, and younger households. Those most likely to say they were cold even with the heating on were non-working homes (that is those with no-one working but not all retired), those in receipt of benefits, and those with children.

Figure 3.4: Comfort levels (higher likelihood sub-groups more likely to fall into each category)



Base: Higher likelihood households (1,689) - Higher likelihood sub-group base sizes vary

Overall, there is a clear correlation between likelihood of fuel poverty and perceptions of warmth of the home – those with a high likelihood were more likely to say their home is not warm enough than those with a medium likelihood, who in turn were more likely to say this than those with a low likelihood.

Type and condition of heating in home

Households were asked about the main way they heat their home during the winter and additional forms of heating used. Chart 3.5 shows that there were clear differences in the *main*

way that higher likelihood households heated their homes, being less likely to use central heating¹⁸ and more reliant on portable heaters.

Chart 3.5: Main way property is heated in winter (higher and low likelihood households) CHART EXCLUDES OTHER AND DON'T KNOW RESPONSES



Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

Amongst higher likelihood households, those living in flats¹⁹ were less likely to use central heating (53% vs 85% houses or bungalows) and therefore more reliant on fixed room heaters (31% vs 11%) or portable heaters (14% vs 6%). Despite being no more likely to live in flats, retired households were significantly more likely to rely on fixed room heaters (21% vs 9% of all others) and in particular, gas fixed room heaters (9% vs 3%). As a result they were less likely than average to be using central heating (71% vs 85%).

Additional heating sources

Overall there were no differences in the proportion of higher and low likelihood households that said that they regularly use *any* additional form of heating during the winter (45% amongst both groups). However, there were some notable trends amongst higher likelihood households.

As might be expected, households whose main form of heating was central heating were less likely to say they regularly used any additional form of heating during the winter (43% vs 51% of those using fixed room heaters as their main source and 59% of those using portable heaters). Of those using portable heaters as their main source, 40% said they used central heating as a secondary source, perhaps suggesting a particular heating strategy (e.g. heating a single room rather than the whole household).

Retired households - who were less likely to have central heating - were much more likely to use additional heating sources (57% vs 44%).

¹⁹ CAUTION: Small base (51)

¹⁸ Central heating includes: Gas, Oil, Coal, Wood/Biomass and Other (e.g. LPG, heat pump) central heating, with gas central heating the most prominent main source of heating (81% of higher likelihood and 89% of low likelihood households)

Problems with heating and hot water systems

Higher likelihood households were more likely to report a problem with their current heating system (Chart 3.6), meaning that 13% were experiencing any problem with their heating or hot water systems, compared with 9% of low likelihood households.



Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

Amongst higher likelihood households, non-working households were more likely than average to report any problem with their heating system (15% vs 10% of all others) or hot water system (8% vs 5%).

In addition, those *not* using central heating as their main heating source were more likely to report problems:

- 18% of those using fixed room heaters reported problems with their heating system, compared with 10% of those using central heating
- 10% of those using fixed room heaters and 11% of those using portable heaters reported any problems with their hot water system, compared with 4% of those using central heating

Although one might surmise that the reasons for problems with heating might be different between owners and tenants, there were no observable differences in the proportion of households reporting problems between owners and renters. In particular, amongst higher likelihood households, there were no significant differences by tenure in the proportion experiencing problems with heating or their hot water system, nor in terms of the likelihood of getting it fixed if there was a problem. This may imply that owners in some instances feel no more able to address these problems than renters, and also that not all landlords are effective at addressing such problems on behalf of their tenants.

It was evident that the problems with the heating system reported by higher likelihood households impacted on levels of comfort: one in five households that said their property was not always warm enough in winter even with the heating on (22%) also reported a problem with

their heating. This compared with 7% of those who said their property was always warm enough in winter.

Attitudes to energy use and heating

Perceptions of energy use in the home

All households were asked what they considered used the most energy in their home over the course of a year. Heating the home was considered the biggest user of energy by both groups, although higher likelihood households were less likely to give this response (Chart 3.7). This difference doesn't appear to be driven by the greater likelihood of higher likelihood households to say their home was cold because they didn't have any heating on: amongst higher likelihood households, those who said they were always warm and those who said they were cold because they had no heating on were each less likely to say heating was their main energy use than low likelihood households.

Chart 3.7: Perceptions of which source of energy use uses the most energy over the course of a year (higher and low likelihood households)



Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

There were a number of differences in response by household working status amongst higher likelihood households:

- Non-working households and retired households were both more likely to think that heating the home used the most energy (43% and 50% respectively vs 34% of working households and 25% of shared student households)
- Working households and shared student households which both had higher average household sizes - were more likely to think that large appliances used the most energy (29% and 28% vs 21% of non-working households and 17% of retired households). In

each case this may be because they spent less time at home and so had heating on for less time.

Amongst higher likelihood households, the following groups were also more likely to consider that heating the home used the greatest amount of energy over a year:

- Households without mains gas²⁰ (52% vs 35% of those with) and those *not* using gas central heating as their main heating source (44% vs 34%)
- Households that pre-paid for their electricity or mains gas (40% vs 35% of those that received a regular bill or paid via direct debit/a standing order)
- Lower income households with an annual income under £15,500 (42% vs 32% of households with an annual income of £15,500 and over) and households in receipt of any state benefits (41% vs 31% not in receipt)

For the first two of the three sub-groups above, it is likely that the differences reflect actual differences in the cost of heating, while the last seems more impressionistic.

Amount of attention given to energy use in the home

Chart 3.8 shows, levels of agreement and disagreement with three statements which related to the amount of attention given to energy use in the home. Patterns of response were similar for both groups (although higher likelihood households were less likely to disagree that they prefer not to think about how much energy they are using).

Chart 3.8: Levels of agreement and disagreement with statements relating to the amount of attention given to energy use in the home (higher and low likelihood households)



Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

However, as shown by Chart 3.9, higher likelihood households were significantly more likely to say that they pay *a lot* of attention to the amount of heat that they use in their home.

²⁰ CAUTION: Small base (95)

Chart 3.9: How much attention households pay to the amount of heat they use in their home (higher and low likelihood households)



Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

Two-thirds of higher likelihood households that paid *a lot* or *a fair amount* of attention to the amount of heat they used in their home (69%) said that the *main reason* for this was to monitor the amount of money they spend on heat. Indeed, amongst higher likelihood households, it was those households that were under the most financial pressure that were more likely to say they pay *a lot* of attention to the amount of heat they use, including:

- Households that *agreed* that keeping up with energy bills is difficult (38% vs 21% of all others)
- Households in receipt of benefits (37% vs 20% of higher likelihood households not in receipt) and non-working households (34% vs 27% of all others)
- Households pre-paying for their electricity or mains gas (35% vs 27% of those that received a regular bill or paid via direct debit/a standing order)

Whilst patterns of response were not entirely consistent by household income, households whose monthly income after tax and rent or mortgage costs was less than £900 were more likely to say they paid a lot of attention to the amount of heat they used (31% vs 25%).

For retired households there were noticeably different priorities, with comfort an absolute priority for many of this group. Amongst higher likelihood households, retired households were more likely than average to say that they *did not pay any* or *very much* attention to the amount of fuel they used (33% vs 21% of all others). When asked why they don't pay much/any attention to this, two-thirds (67%) said that it was because they use whatever they need to be comfortable.

Heating behaviours

All households were asked - for a range of circumstances - whether they would change their heating habits for each (Chart 3.10). Higher likelihood households were more likely to say they would change their heating habits if money is particularly tight, but less likely to say they would do so when the weather is particularly cold.

Chart 3.10: Circumstances under which households would make any changes to their heating habits (higher and low likelihood households)



Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

All households were also asked how they respond when their house is not warm enough. There are some key differences in responses between higher likelihood and low likelihood households (Chart 3.11) with low likelihood households more likely to take action to increase the heating temperature by, turning up the thermostat, adjusting thermostatic radiator valves to adjust the temperature and using a timer to increase the amount of time the heating is on.

Chart 3.11: How households respond when their house is not warm enough (higher and low likelihood households)

CHART SHOWS ALL MENTIONS OF 10% AND OVER



Higher likelihood Low likelihood

Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

Linked to the apparently wider use of thermostats, timers and thermostatic radiator valves amongst low likelihood households, it was evident that amongst households with central heating, higher likelihood households were less likely to report having such a wide range of central heating controls as low likelihood households, as shown by Chart 3.12.

Chart 3.12: Types of controls in households with central heating (higher and low likelihood households)



Base: All households with central heating (2,243) - Higher likelihood (1,472), Low likelihood (771)

The quantitative research highlighted differing attitudes and behaviours in relation to heating the home, including some households choosing to have colder homes with no heating on and others prioritising warmth. The qualitative research provided further depth in relation to these findings, where again, different heating behaviours emerged. Heating behaviours were driven by financial circumstances and personal preferences. As demonstrated by the following case studies, a number of participants prioritised low bills.

Male, owner occupier, London: Mr X's employment is fluctuating and he has had previous experience of debt including a county court judgement which has made him very wary of high bills. He has not used the storage heaters since the last period of heavy snow and uses the immersion heater very infrequently. He deals with the cold by wearing thermal clothing and going to bed early.

"I try to keep my bills to an absolute minimum... all you need to do is to wear the right sort of clothes and go to bed early."

Female, social renter, Nottingham: Mrs X is engaged in thinking about how much energy the household uses as she is keen to manage money. The heating comes on for one hour in the morning and evening, every day during winter. The heating is set at 15 degrees and no one else in the household is allowed to touch it.

There is an electric fire in the house but she removed the fuse from this to prevent her daughter from putting it on at night and leaving it on. Mrs X does feel warm enough but in evening around 9.30pm it can begin to feel cold as the heating has been off for an hour. She then goes to bed.

Others participants prioritised comfort. This was particularly the case amongst those with children and was often strongly tied to an emotional value placed on warmth. For some warmth was associated with aspiration to a comfortable life whilst cold was linked to deprivation and inability to provide for children. This meant that some participants prioritised warmth and comfort when their children were at home but would limit the use of heating when the children were not at home.

Female, private renter, Birmingham: Ms X lives with her two young children in a three bedroom house. She uses gas central heating as well as electric fires and other heaters and spends around £50 per week on gas via a pre-payment meter.

Ms X is very keen for the house to be warm for her children and keeps the boiler running 24 hours. She has never considered reducing her usage to save energy although she keeps the house less warm when the children are not home.

"I like to know that the kids are warm...we don't have to put on big dressing gowns and sit around in slippers...if you can't look after your children and keep them warm... Come on now!"

Chapter summary

Households with a higher likelihood of being in fuel poverty differed in their heating behaviours and attitudes in a number of ways, being less likely to (have and) use central heating as their main heating source (84% vs 91%) and to have a comfortably heated home (50% were always warm enough in winter vs 67% of low likelihood households). They were also more likely to still be cold with the heating on, suggesting a compounding problem of homes being harder to heat for the higher likelihood households. This was corroborated by the correlation between colder homes and those with problems with their heating systems.

There were a range of factors that determined whether households have their heating on in winter, although overall, higher likelihood households were less likely to feel able to heat their home more if they wanted to. Financial circumstances and personal preferences emerged from the qualitative research as important drivers of behaviour in relation to heating the home, with some households prioritising low bills and others prioritising comfort. As such, heating patterns and perceptions of being warm enough in winter varied across demographic groups, with:

- Retired households, owner-occupiers, and higher-income households more likely to say their home was always warm enough
- All-student households, private renters, low income households and younger households more likely to say their home was not always warm enough because there was no heating on
- Households in receipt of benefits, those who pre-pay for their energy, those with children, and those with a high likelihood of fuel poverty more likely to say their home was not always warm even when the heating was on

In general, there were no substantial differences in attitudes to energy awareness between higher and low likelihood homes. This implies the fuel poor are not necessarily much worse at understanding energy, but their energy behaviour can be different – for instance their energy use is more informed by their budget than by changes in the weather – and their circumstances in relation to the quality of their home and/or heating system are important drivers of behaviour.

4. Paying for energy and keeping up with bills

Households with a higher likelihood of being in fuel poverty reported greater difficulties when budgeting for their energy use and keeping up with their bills, and were more reliant on having to pay upfront for their energy

Paying for energy and the cost of fuel bills

Chart 4.1 shows how households were paying for their electricity and mains gas (where relevant). This chart shows combined responses – although households were asked about electricity and gas separately, the patterns of payment for each were very similar and so it is reasonable to combine them in the interests of simplicity. Despite the caveats about our sample being one of those living in certain areas rather than nationally representative, these patterns are very close to the national fuel poverty statistics in terms of the comparison between the fuel poor and the general population.

A number of key differences between higher and low likelihood households were apparent, with higher likelihood households notably less likely to be paying via a direct debit or standing order. Instead, they were more likely to be pre-paying via a key card or token meter or via a monthly or quarterly bill. Although they were also more likely to say that their electricity and/or mains gas bills were included in their rent, this was influenced by shared student households within the higher likelihood sample (37% of whom gave this response).

Chart 4.1: How households pay for electricity/mains gas (higher and low likelihood households) CHART SHOWS ALL MENTIONS OF 3% AND OVER



Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

Amongst higher likelihood households, the following groups in particular were more likely to prepay for their fuel via a key card or token meter (although the overlap between groups should be noted):

- Social tenants (60% vs 40% of private renters and 18% of owner occupiers)
- Non-working households (52% vs 32% of all others)
- Households in receipt of state benefits (48% vs 24% of those not in receipt)
- Lower income households with an annual income less than £15,500 (41% vs 34% with an income of £15,500 or more)

Still looking just at higher likelihood households, retired households and owner occupied households (again, the overlap should be noted) were most likely to pay their energy bills either via a monthly/quarterly bill (44% of retired households and 48% of owner occupied households vs 33% of all higher likelihood households) or a direct debit or standing order (39% and 35% vs 25%).

Across the qualitative research, participants tended to have a short-term outlook on the future. This was often driven by circumstances such as temporary work contracts, weekly pay cycles and short-term tenure. Finances were often managed on a short-term basis driving a preference for pre-payment meters which enabled them to feel control over household budgeting. For example:

"I get paid on a Tuesday £35. So I go straight away into the shop next door and I put on my gas and my electric there and then. So that's my gas and electric money, and then on a Thursday, I get my child benefit and my child tax credit...I was able to budget so I know exactly where I'm up to."

Female, private renter, Manchester

Female, social renter, Nottingham: Mrs X lives with her husband and three children. She is a carer for her disabled son. Mrs X pays for both gas and electric via pre-payment meters, preferring to use these as it is easier to manage how much is spent and to make changes to behaviour when needed.

"... it's nice not having a huge bill every few months...I always know where I am, and plus I always know how much I've got left so I'll hang the washing out today instead of using the dryer..."

Keeping up with energy bills and managing arrears

As might be expected, higher likelihood households were more likely to be having difficulties keeping up with (any) bills and credit commitments. Chart 4.2 shows that half of higher likelihood households said that they were keeping up without any difficulties, compared with two-thirds of low likelihood households.





Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

Amongst higher likelihood households, the following groups were least likely to be keeping up without any difficulties:

- Non-working households (33% vs 53% of all others)
- Households in receipt of state benefits (37% vs 62% not in receipt)
- Social tenants (39%vs 50% of private renters and 51% of owner occupiers)

In particular, more than a quarter of non-working higher likelihood households (28%) said that they keep up but it is a constant struggle, that they are falling behind with some bills or that they are having real financial difficulties. This compares with 16% of all higher likelihood households and 7% of low likelihood households.

Managing energy bills

Households were asked how much they agreed or disagreed with a series of statements related to managing energy bills²¹. Higher likelihood households were significantly more likely to agree

²¹ Respondents were presented with the following list of responses: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree

that it's difficult to predict how much energy they will use, how much they will spend on energy each month, and that keeping up with energy bills is difficult at the moment (*Chart 4.3*). In addition, they were also more likely to *strongly agree* that they worry about the cost of energy over the next few years (22% vs 17%).



Chart 4.3: Agreement with statements related to managing energy bills (higher and low likelihood households)

Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

Across the qualitative research, participants agreed that it could be difficult to monitor their energy consumption and the related cost. For example:

"It doesn't matter what you do, [it's] ultimately down to what they charge – and when the bill comes through you could argue it until the cows come home, but you've got no way...of monitoring it."

Female, private renter, Bradford

Some had developed particular strategies for trying to keep aware of their usage and avoiding unexpected large bills, as this example demonstrates:

"Monthly [DD]...I try to keep ahead so I don't get a bill... if the guy comes out reads the meter...I can phone up a couple of weeks later and see how we're doing. 'I'm paying £95 for me gas a month – am I on target?'...if they say 'oh, you can pay 75 quid' because ... we haven't used as much, I'll say 'no, keep it at £95' because the winter will come back, do you understand? ...You're more in control, basically. You don't want to get a bill of 525 quid."

Male, owner occupier, Newcastle

Fuel bill arrears

A similar proportion of higher and low likelihood households said that they had ever been in arrears with their energy supplier (10% and 8% respectively) or had received an unexpected high fuel bill (19% and 21%).

Amongst households that had ever received an unexpectedly high fuel bill, there were key differences between how higher and low likelihood households responded. Whilst low likelihood households were much more likely to have paid it back in one payment from household income (44% vs 24%), higher likelihood households were more likely to say they paid by using savings (9% vs 3%).

Notably, higher likelihood households were more likely to have had to make arrangements with their energy company to repay the bill (35% vs 24%):

- 29% had arranged to pay in instalments (vs 24%)²²
- 7% had a prepayment meter installed (vs 1%)

These differences highlight a greater ability amongst low likelihood households to deal immediately with unexpectedly high fuel bills. Although base sizes limited further analysis there were a number of differences in how higher likelihood households in receipt of state benefits responded. Compared with those not in receipt they were:

- Less likely to say they had paid it back all in one go
- Less likely to have successfully challenged the bill
- More likely to have had to make arrangements with their energy company to repay the bill, either by arranging to pay in instalments or having a prepayment meter installed
- More likely to have borrowed money to pay the bill

Table 4.4 below lists the full findings for higher likelihood and low likelihood households, and higher likelihood households in receipt of state benefits.

Table 4.4: How households that had ever received an unexpectedly high fuel bill had coped(higher and low likelihood households, higher likelihood households in receipt of state benefits)

TABLE SHOWS ALL RESPONSES MENTIONED BY 5% OR MORE OR EITHER SUB-GROUP

BASE: All households that had received an unexpectedly high fuel bill	All hous	seholds:	Higher likelihood households:		
	Higher likelihood	Low likelihood	In receipt of state benefits	Not in receipt	
	(324)	(183)	(202)	(91*)	
	%	%	%	%	

²² Although this difference is not statistically significant, it is directionally consistent with overall patterns in the data in relation to households making arrangements with their energy company to pay a fuel bill

BASE: All households that had received an unexpectedly high fuel	All hous	seholds:	Higher likelihood households:		
Dill	Higher likelihood	Low likelihood	In receipt of state	Not in receipt	
	(324)	(183)	(202)	(91*)	
	%	%	%	%	
NET: Able to pay back in one go	38 🖊	50	30 🖊	52	
just from household income	24 🦊	45	19 📕	34	
but had to use savings	9 👚	3	5	17	
by cutting back on other things	6	3	6	5	
NET: Borrowed money/took a loan	12	7	13 🕇	4	
Borrowed money on credit card	2	2	3	0	
Borrowed money from friends or family	8	5	9 🕇	3	
NET: Made arrangements with energy company	35 🕇	24	49 🕇	12	
Arranged to pay it in instalments e.g. monthly payments	29	24	40 👚	11	
Had a prepayment meter installed/switched to prepay meter	7 🕇	1	9 👚	2	
NET: Challenged the bill	19	20	16 🖊	26	
successfully	14	16	9 📕	23	
unsuccessfully	5	4	6	3	

* CAUTION: Small base size under 100

Significance differences shown: Higher likelihood households vs Low likelihood households, Higher likelihood households in receipt of state benefits vs Higher likelihood households not in receipt of state benefits

Note that the sum of the bases of higher likelihood households in receipt and not in receipt of state benefits do not add up to the sum of the base of higher likelihood households given that they exclude households that gave a 'don't know' or 'prefer not to say' response in relation to receipt of benefits

Similar coping strategies in response to high fuel bills were found during the qualitative research. A number of participants had previously received an unexpectedly high energy bill. Where they had been unable to financially cover this, they had often spoken to the energy supplier and had put payment steps in place to avoid this happening again in the future.

Male, owner occupier, Newcastle: Mr X had received a high energy bill that he had not been expecting and was moved to a pre-payment meter which meant the energy rate was higher. He agreed with the energy supplier to pay an increased charge over a year to cover the arrears but until the debt was paid, he was unable to change supplier. He has now changed supplier and chooses to overpay to provide some contingency.

"I got in touch with my then supplier...and I just paid a bit extra over a year to bring it down. And that's why I don't let it happen anymore...So basically I try to head off the posse at the pass, you know, and try to stop it. And so would I have my meter read – I know basically what's going on because I'll pay more. They're usually telling me to pay less and I'm trying to pay more."

During the qualitative interviews, participants were asked to consider what they would do if they received an unexpected bill of £100. Some noted that they tried to put a little money aside on a weekly basis to provide a 'buffer' for this type of situation.

"Well we put so much away every week – it's not a lot but it mounts up...It's not in the bank, it's just stuffed to one side in case something comes up like that."

Female, social renter, Newcastle

However, not all felt able to do this. Some reflected that in this situation, or if they did not have enough set aside they would ask family, while others felt confident that they could contact the energy supplier to explain that they were unable to immediately cover the payment.

"...Because I don't want debt... [if all else failed] I would borrow off my family and pay them back. I've never ever had a loan. I was brought up not to have them. If you can't pay for it, do without."

Female, social renter, Newcastle

"I don't know. I'm not very good for keeping extra cash around so I'd probably ask my family for help if it was deadly serious...You can ring these people and you can arrange, you know, to miss a month or whatever – as long as you accept that you've had the bill it's generally taken well on board...you should be all right, as long as you speak to people."

Male, private renter, Manchester

Chapter summary

Households with a higher likelihood of being in fuel poverty reported greater difficulties when budgeting for their energy use and keeping up with their bills, and were more reliant on having to pay upfront for their energy.

Higher likelihood households were notably less likely to be paying via a direct debit or standing order (25% vs 61%) and instead, more likely to be pre-paying via a key card or token meter (36% vs 16%) or via a monthly or quarterly bill (33% vs 22%). Across the qualitative research, participants tended to have short-term approaches to managing their finances, often driven by circumstances such as temporary work contracts, weekly pay cycles and short-term tenure. Many therefore expressed a preference to pay for their energy via pre-payment meters, enabling them to feel in control over household budgeting.

Half of higher likelihood households (49%) said that they were keeping up with bills and commitments without any difficulties, compared with two-thirds of low likelihood households (64%). They were also more likely to agree that it's difficult to predict how much energy they will use, how much they will spend on energy each month, and that keeping up with energy bills is difficult at the moment.

Although there was no difference in the proportion of higher and low likelihood households that had received an unexpectedly high fuel bill, the survey highlighted a greater ability amongst low likelihood households to deal immediately with such situations (i.e. by paying the bill). In contrast, higher likelihood households (that had received an unexpectedly high fuel bill) were more likely to have had to make arrangements with their energy company to repay the bill (49% compared with 12%), either by arranging to pay in instalments or having a prepayment meter installed.

5. Accessing advice about energy bills or how to reduce them

Households with a higher likelihood of being in fuel poverty were less likely to have ever switched energy supplier and reported greater difficulty in finding someone to provide advice about reducing energy bills

Switching energy suppliers and sources of advice previously accessed

The survey identified a significant gap between higher and low likelihood households in terms of experience and knowledge of switching energy suppliers. A quarter of higher likelihood households (24%) said they had ever actively switched energy supplier²³, compared with 39% of low likelihood households. This was also reflected in lower levels of knowledge about switching energy supplier amongst higher likelihood households (Chart 5.1).

Chart 5.1: Knowledge of switching energy suppliers (higher and low likelihood households) CHART EXCLUDES DON'T KNOW RESPONSES



Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

Certainly, stability and ownership appeared important in terms of whether higher likelihood households had ever switched energy supplier, with owner occupiers and longer-term residents more likely to have ever done so:

²³ i.e. apart from when they may have been automatically moved to another energy supplier when moving house

- 37% of owner occupiers vs 28% of social tenants and 17% of private renters
- 32% of those that had lived their property for more than two years (vs 15% who had lived there for less time)
- 31% of those intending to stay at their current property for more than two years (vs 13% who intended to move within this period)

A similar proportion of higher and low likelihood households (16% and 15% respectively) said that they had ever wanted to ask someone for advice about their energy bills, or how to reduce them, and of these, two-thirds of both groups had tried and found someone to give them advice.

Amongst higher likelihood households, it was owner occupiers and those that had lived at their property for a longer period of time who were again more likely than average to say they had ever accessed advice, as well as:

- Households that agreed it was difficult to keep up with energy bills (15% vs 8% that did not agree)
- Households with someone with a condition affecting how the house is heated (15% vs 10% of households without anyone with such a condition)

Amongst households that had accessed advice, higher likelihood households reported that they had experienced greater difficulty in finding someone to provide advice, with 22% saying it was *not very* or *not at all* easy, compared with 9% of low likelihood households²⁴ (Chart 5.2). Of those that had accessed advice, just under half of higher and low likelihood households (45% and 44%) had obtained this from their energy supplier.







Base: All households who have ever wanted to ask for advice about their energy bills or how to reduce them and managed to find someone to give them advice (267) - Higher likelihood (183), Low likelihood (84) **CAUTION: Small** base size under 100

Preferences for advice provision

All households were asked to choose from a list which types of support or advice they would find most useful (Chart 5.3). There were some slight (but significant) differences in response between higher likelihood and low likelihood households, with higher likelihood households more likely to say they would find advice on effective budgeting useful and low likelihood households more likely to say none of the types of advice would be useful.





Base: All households (2,531) - Higher likelihood 1,689), Low likelihood (842)

Analysis amongst higher likelihood households showed a number of expected patterns: households that said that their property was not always warm enough were more likely to say they would find advice on how to lower energy bills or make their home more energy efficient useful (35% and 17% vs 26% and 11% whose property was always warm enough). Similarly, those that *agreed* that keeping up with energy bills was difficult were understandably more likely to say they would find advice on how to lower energy bills useful (34% vs 27% that disagreed).

The data also showed that higher likelihood households in receipt of any benefits were more likely than those not receiving benefits to say that advice on schemes and support would be useful (19% vs 8%).

Despite the fact that they were predominantly private renters and not planning to stay at their property for many years, shared student households were more likely to express a preference for advice on how to make their home more energy efficient (24% vs 12% of all others), as well as advice on budgeting (16% vs 10%). In contrast, retired households - who were more likely to have already made any energy saving improvements to their property - were less likely to say that *any* of the types of advice would be useful (55% vs 70% of all others).

Preferences for advice delivery

All households were asked to choose from a list how they would prefer to receive advice about reducing energy bills (e.g. via the internet, over the phone). The internet was the preferred source of advice for 37% of higher likelihood households and 41% of low likelihood households, followed by a face to face meeting (24% and 21% respectively).

Amongst higher likelihood households there were a number of differences in the way that particular households said they would prefer to receive advice. In particular, those that appeared most in need of advice about reducing energy bills or keeping their property warm were more likely to favour a face to face intervention, including:

- Social tenants (18% would prefer to receive advice in their own home vs 11% of owner occupiers and 7% of private renters)
- Households that pre-paid for their fuel (12% would prefer to receive advice in their own home vs 9% who paid via a regular bill or direct debit/a standing order)
- Households in receipt of benefits (27% would prefer to meet face to face and 14% would prefer to receive advice in their own home vs 21% and 5% not in receipt)

As might be expected, younger households were more likely to favour online advice: half whose oldest member was aged 16-34 (56%), compared with 30% whose oldest member was aged 35-59 and 17% whose oldest member was aged 60 or over. In contrast, older households were more likely to express a preference for face to face advice (either meeting face to face or in their own home).

Levels of trust in organisations/individuals to provide good advice about reducing energy bills

All households were asked - for a range of organisations and individuals - the extent to which they would trust each one to provide good advice about reducing energy bills. As Chart 5.4 shows, there were no significant differences in response between higher and low likelihood households. Overall, friends and family were most trusted to provide good advice about reducing energy bills. The most trusted organisations were "organisations like Citizen's Advice Bureau", whilst three in five tenants trusted their landlord to give good advice.

Chart 5.4: Levels of trust in a range of organisations/individuals to provide good advice about reducing energy bills (higher and low likelihood households)



A great deal A fair amount

Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842) except "Landlord": All tenants (including shared ownership) (1,405) - Higher likelihood tenants (1,096), Low likelihood tenants (309)

The qualitative research further highlighted the importance of talking to friends, colleagues and people in the local community when finding out information and discussing energy saving and/or reducing bills.

"Yes, we talk to friends, yeah, because everyone wants to save a bit of money now if they can, and because one of our friends is obviously a plumber, we've talked to him about different things like that. And village life, you usually know somebody who's going to have something done."

Female, private renter, Bristol

Given the importance of friends and family as trusted sources (and indeed key influencers), participants explained how recommendations from friends or family had led to them engaging with a range of government-led initiatives that they would otherwise have dismissed. Such examples highlight the importance of word of mouth recommendations from peers which can help to overcome scepticism and lack of trust.

"They [adverts] confuse us. You know, you see them come up in the adverts, www.gov and that. I never find them in there [indicating laptop computer]. It confuses us....No, the only information I really get is like if somebody puts something on like say Facebook, and they'll say 'oh this is happened' and I think 'oh right' and then somebody else will say 'oh I got that good offer as well'. That's the only way."

Female, social renter, Newcastle

"Found out about the Warm Home Discount from a friend... told that would be eligible as is a mum with kids under 5 and not working, so went online to apply...Had heard about this before, but hadn't done anything about it. Didn't apply as thought it was going to be a con, that people wouldn't give you £140 for nothing"

Female, social renter, Nottingham

Chapter Summary

Households with a higher likelihood of being in fuel poverty were less likely to have ever switched energy supplier (24% vs 39%) and reported greater difficulty in finding someone to provide advice about reducing energy bills, or how to reduce them (22% saying it was *not very* or *not at all* easy vs 9%).

When asked about their preferences for advice provision (in relation to reducing energy bills), there were few differences between higher and low likelihood households; two-fifths (37% and 41% respectively) favoured receiving advice via the internet, whilst around a quarter (24% and 21%) favoured a face to face meeting. However, higher likelihood households most in need of advice about reducing energy bills or keeping their property warm were more likely to favour a face to face intervention, with social tenants and households in receipt of benefits particularly likely to favour in-home advice.

The importance of friends and family as trusted sources (and indeed key influencers) was apparent across both strands of research. Three-quarters of all households said they would trust friends or family to provide good advice about reducing energy bills, whilst examples from the qualitative research highlighted the importance of word of mouth recommendations from peers in helping to overcome scepticism around a range of government-led initiatives.

6. Installing energy-saving measures

Tenure was a key factor in terms of willingness and ability to make energy saving improvements to a property

Attitudes towards making energy-saving improvements

As shown by Chart 6.1, higher likelihood households were less likely to agree that they are aware of improvements that need to be done to make their home more energy efficient and more likely to agree that they'd like to make improvements but can't afford to.





Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

Unsurprisingly, amongst high likelihood households that were not always warm enough in winter even with the heating on, 65% agreed that they were aware of improvements that need to be done to make their home more energy efficient (vs 49% of households who were always warm enough). Although - as will be discussed later in this chapter - owner occupiers were more likely to have already made some energy saving improvements, they were also more likely than tenants to agree with this statement (61% vs 50%). At the same time, it is likely that owner occupiers were more aware of the overall condition of their property and its history in terms of what improvements had and hadn't been made, so may have been answering from a position of greater knowledge as opposed to living in properties in greater need of improvements.

As might be expected, households that *agreed* that keeping up with energy bills is difficult, as well as households in receipt of benefits, those pre-paying for their mains gas or electricity and those whose income after tax and mortgage/rent costs was less than £900, were all more likely

to agree that they would like to make improvements but can't afford to, and would only do so if they got a grant to cover all the costs.

Measures previously installed and barriers to installation

All households were asked - for five energy saving measures - whether each had been done to the property and if not, whether the household had any plans to install it. Table 6.2 shows that there were some very clear differences in response between higher and low likelihood households. Whilst low likelihood households were more likely to say that their property had loft insulation, an energy efficient boiler and external wall insulation, higher likelihood households were more likely to say for all measures that it was not their decision to make because they were renting.

Table 6.2. Energy saving measures instaned (nigher and low internood nouseholds)											
	Exte wa insula	rnal III ation	Loft insulation/ top up		Energy efficient boiler		Solar panels		Heat pump		
	Higher (1,689)	Low (842)	Higher (1,689)	Low (842)	Higher (1,689)	Low (842)	Higher (1,689)	Low (842)	Higher (1,689)	Low (842)	
	%	%	%	%	%	%	%	%	%	%	
Already done this	24 ²⁵	29	47	65	48	61	1	2	2	3	
In the process of doing this	<0.5	1	1	1	2	2	<0.5	<0.5	<0.5	<0.5	
Thinking about it/ would like to do this (but not yet)	6	8	4	3	5 📕	9	8	14	2	3	
Don't want to do it/ not thought about/heard of it	24	26	11	7	10	7	36	45	53	62	
Not my decision to make - renting	38 🕇	25	32	18	31	19	48	29	38	25	
Not applicable	8 📕	11	6	6	3	2	7	9	6	6	

Table 6.2: Energy saving measures installed (higher and low likelihood households)

Significant differences shown: Higher likelihood households vs Low likelihood households

Further investigation shows that the differences between higher and low likelihood households may be explained by their profile differences by tenure; higher likelihood households comprised 29% owner occupiers and 56% private renters, whereas low likelihood households comprised

²⁵ Experience from previous surveys that have asked about energy saving measures suggests that respondents tend to over claim the presence of external wall insulation at their property due to lower levels of understanding around this measure

58% owner occupiers and 22% private renters. Table 6.3 confirms that, amongst both higher and low likelihood households, owner occupiers were more likely to report having had each measure installed and that there were no differences by likelihood within each tenure category.

	Owner occupiers		Social	tenants	Private renters		
	Higher (503)	Low (494)	Higher (225)	Low (146)	Higher (932)	Low (178)	
Measure installed	%	%	%	%	%	%	
External wall insulation	39	37	29	28	15	13	
Loft insulation/ top up	81	81	48	50	29	32	
Energy efficient boiler	73	75	52	53	36	36	
Solar panels	3	3	2	2	<0.5	0	
Heat pump	5	4	1	3	1	0	

Significant differences shown: Higher likelihood households vs Low likelihood households

Focus on tenants - energy improvements undertaken by landlords

All households renting their property (including shared ownership and those living in a property rent-free) were asked about energy saving improvements made by their landlord since they have lived at the property. Twenty-six per cent of higher likelihood tenants and 31% of low likelihood tenants said that their landlord had made any improvements to their heating or property that might help reduce their energy bills. Whilst this difference was not statistically significant, those in the high likelihood category were less likely to say that any improvements had been made (24% vs 30% in the medium likelihood category).

Amongst higher likelihood tenants, social tenants were more likely to report that any improvements had been made by their landlord (43% vs 22% of private renters), although it should be noted that they were more likely to have been at their property for longer (34% had been at their current address for less than two years vs 68% of private renters).

Tenants who said their landlord had made any improvements were asked what these were. Table 6.4 shows the responses for higher and low likelihood tenants and, within higher likelihood tenants, social tenants and private renters. It should be noted that overall, higher likelihood households included a higher proportion of private renters (vs social tenants) and therefore the differences between the higher and low groups are influenced by the differences seen between private and social renters.

Amongst higher likelihood tenants whose landlord had made any improvements, private renters were twice as likely as social tenants to say their landlord had repaired existing faults, whereas

social tenants were more likely to mention that their property had received new heating equipment or energy saving measures such as a new boiler, loft insulation or double glazing. Also, social tenants gave, on average, 2.5 responses compared with 1.4 amongst private renters, suggesting that where improvements had been made they were more likely to have been made in combination with others. Taken together, this seems to suggest more of a shortterm approach amongst private landlords (e.g. repairing an existing heating system as opposed to replacing or upgrading it) and less of a whole-house approach to energy efficiency.

Table 6.4: Improvements made - amongst tenant households whose landlord had made an improvement to their heating/property that might help reduce energy bills (higher and low likelihood households, higher likelihood social tenants and private renters)

TABLE SHOWS ALL RESPONSES MENTIONED BY 10% OR MORE OR EITHER SUB-GROUP

BASE: All tenants whose landlord had ever made improvements that might help reduce energy bills	All te	nants:	All higher likelihood tenants:		
	Higher Low likelihood likelihood (289) (104)		Social tenants (93*)	Private renters (189)	
	%	%	%	%	
Repaired existing faults	31 🛖	19	17 📕	38	
New boiler	48	58	60 🕇	41	
Insulated loft	25 🦊	40	44 🕇	15	
Double glazing	18	24	31 🕇	12	
New radiators	14 🦊	24	25 🕇	8	
Insulated walls	14	21	28 🕇	7	
Heating controls	8	13	18 🕇	3	

* CAUTION: Small base size under 100

Significance differences shown: Higher likelihood tenants vs Low likelihood tenants, Higher likelihood social tenants vs Higher likelihood private renters

Tenants were also asked whether they had asked their landlord to make any improvements (to their heating or property that might help reduce their energy bills) which their landlord refused to do. Fifteen per cent of higher likelihood tenants and 11% of low likelihood tenants said that they had asked their landlord and their request had been refused (although this difference was not statistically significant). Analysis amongst higher likelihood tenants showed the following households were more likely to have unsuccessfully approached their landlord:

- Those not using gas central heating as their main source of heating (22% vs 13%)
- Those pre-paying for their mains gas or electricity (20% vs 13% of those that paid via a regular bill or direct debit/a standing order)

No differences in response were apparent between social tenants and private renters.

All tenants were asked how confident they would be approaching their landlord if they felt there were things that could be done that might reduce their energy bills. A quarter of higher likelihood tenants (24%) and one-fifth of low likelihood tenants (19%) said they would not be confident doing so, with the difference driven by high likelihood tenants (26% of whom were not confident vs 18% of medium likelihood tenants). Amongst higher likelihood tenants, there were few notable sub-group differences.

Across the qualitative research, tenure also emerged as a key influence, both in relation to short-term outlooks and responsibility. Many private renters noted that they typically did not stay in one place for long, or cited personal circumstances that meant they were unlikely to be long-term tenants in their current property. Whilst these participants could often see the benefit of adopting more energy-saving behaviours and measures, they felt that there would be no benefit to making a financial investment if they were likely to move soon.

"The stables would be perfect for solar PV panels, but the trouble is because when Mum's no longer with us we'll have to move so it would be a waste of time us doing it."

Female, private renter, Bristol

"If I was to be living here or living in one place for say three to five years or more, I'd say that was long-term and then maybe I'd consider looking into longer-term investments....I wouldn't imagine doing that if I'm then thinking I'm going to move out of the property within the next year, because it's not something that's going to be beneficial to me in the long term. It's not something I can take with me. It's money invested and gone."

Male, private renter, Manchester

In particular, some participants pushed back strongly against the idea of personally making any financial outlay that would ultimately benefit the landlord and/or future tenants.

"Why would I be paying it, for someone else to sit there [owning the property]?"

Female, private renter, Birmingham

"If I owned the place then yeah, I wouldn't mind paying it, but again, if it's only going to improve the house for them [the landlord] as well, it's up to them..."

Male, private renter, Manchester

Where participants felt that the responsibility for any energy-saving measures lay with the landlord, they tended not to engage with the idea of any installations. For some this was because they lacked interest and were happy for the landlord to make any decisions. For others, it was because they felt that the landlord would need to make any final decision, and

even if they were interested, felt that it was not worth looking into anything because the landlord could say 'no'.

"There again, it's up to them [the landlord] to do that, not me. Someone did knock and said they could do some cavity wall insulation and stuff and I was like "well it's not my house, but you can ask her" and I assume she said no because they didn't come back. So I know of these things but...it's not really my decision to get it installed."

Male, private renter, Manchester

Where the quantitative research found that a quarter of higher likelihood tenants would not feel confident in approaching their landlord to discuss things that could be done to reduce their energy bills, some qualitative participants also expressed similar reservations. In particular, there was some reticence that contacting their landlord could *"rock the boat"* and that such conversations, or improvements to the property, might result in the landlord increasing the rent.

Appeal of loans/grants to pay for energy saving measures

All households were asked whether they would be more likely to install any energy saving measures if it were possible to get a loan(s) that could be paid back later. As shown by Chart 6.5, low likelihood households were more likely to say the availability of a loan would make them *more likely* to install measures, with higher likelihood households more likely to say they did not know. This difference may reflect differences in perceived ability to repay any loan.

Chart 6.5: Whether a loan would make households more likely to install energy saving measures (higher and low likelihood households)



occupiers and 6% of private renters)

Base: All households (2,531) - Higher likelihood (1,689), Low likelihood (842)

All households were then asked how likely they would be to make an improvement to their home that would cost £500 initially, and which would save them £50 every year in energy bills. A third of higher and low likelihood households (32% and 34%) said they would be *very* or *fairly* likely to do so. Looking amongst higher likelihood households, significant differences in response were again apparent by tenure (43% of owner occupiers said that they would be likely to do so vs 27% of tenants). Income/ability to pay also appeared relevant with a higher proportion of the following groups saying they would be likely to make an improvement:

- Households with an annual income of £20,000 or more (45% vs 31% of those with an income less than £20,000)
- Working households (35% vs 25% of non-working households and 24% of retired households)

Across the qualitative research, attitudes towards energy saving improvements were often framed by short-term outlooks and financial management (e.g. related to transience and weekly pay cycles). Participants often struggled to see the advantage of making any changes that would have longer term benefits and current financial situations were a key barrier for many, especially where a significant outlay would be required to make an improvement.

"I haven't got no savings, so what we've got is literally what we've got..."

Female, private renter, Birmingham

Linked to this, there was limited traction with the idea that you would save money quickly enough to make getting a loan and/or self-funding improvements worthwhile.

"...it all depends on what the measure is what you're saving. If someone were to say right you're going to save £800 a year and it costs £200 well I'm going to jump at the chance. But then, £200 to someone is a lot of money, and £100 at the moment..."

Female, private renter, Sheffield

Chapter summary

Across both the quantitative and qualitative research, tenure emerged as a key factor in terms of households' willingness and ability to make energy saving improvements to a property. The qualitative research in particular highlighted short-term outlooks amongst many tenants, related mainly to transience, but also their financial situations (e.g. weekly pay cycles). Whilst they could often see the benefit of installing energy-saving measures, they saw no benefit to making a financial investment if they were likely to move soon.

Across all households, owner occupiers were significantly more likely to have energy saving measures (loft insulation, new boiler, external wall insulation) installed at their properties. Conversely, tenants - and private renters in particular - were more likely to state that these measures hadn't been installed but that it wasn't their decision anyway given they were renting. This theme was also evident in the qualitative research where a number of participants felt that the decision or responsibility for making any energy-saving improvements lay with the landlord.

Twenty-six per cent of higher likelihood tenants and 31% of low likelihood tenants said that their landlord had made any improvements to their heating or property that might help reduce their energy bills. Key differences between social tenants and private renters were apparent: responses amongst higher likelihood tenants revealed shorter-term approaches amongst private landlords (e.g. repairing an existing heating system as opposed to replacing or upgrading it) and less of a whole-house approach to energy efficiency when compared with social landlords.

A quarter of higher likelihood tenants (24%) said that they would not feel confident in approaching their landlord to discuss things that could be done to their property to reduce energy bills. The qualitative research showed that some tenants felt contacting their landlord to discuss improvements to the property could also result in the landlord increasing the rent



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