

SMART METER CUSTOMER EXPERIENCE STUDY

Technical Report

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Glossary of key terms

Smart meter: the next generation of gas and electricity meter. Smart meters can communicate directly with energy suppliers by sending and receiving information about the amount of energy being used. Smart meters are installed by a professional engineer representing an energy supplier. Smart meters can work in prepayment or credit mode.

In-home display (IHD): a portable device with a digital display that shows current and past energy consumption and how much it is costing or will cost. Smart meter customers are offered an IHD free of charge to accompany their smart meter.

Smart meter customers: customers listed by suppliers as having an electricity, or electricity and gas smart meter (there are currently no gas-only smart households).

Credit customers: customers who use energy and pay for it through direct debit or on the receipt of a bill, usually on a monthly or quarterly basis (one example of 'payment type').

Prepay customers: customers who pay for their energy by using a smart meter in prepayment mode and are therefore required to top-up their credit balance to ensure energy is available to their home before they need to use the energy (the other example of 'payment type' in this report).

Vulnerable customers: customers who are considered to be in 'vulnerable circumstances'. Customers may fall under this definition if they; live with a long-term illness, health problem or disability; have limited or no experience of digital technology; live in a low income household; are aged 75 and over and/or alone or live in a rural or off-gas grid household (sometimes in combination with another factor). The survey recorded these details for all customers. Where the term 'vulnerable' is used in this report further detail is provided about the specific group of respondents being referred to.

Smart meter customer journey: the steps taken by an energy supplier and a customer from first raising awareness of smart meters to arranging installation visits, through the installation process (including the provision of information and advice prior to and at the visit) and sometimes involving the receipt of follow-up contact or information post-installation. The smart meter customer journey is likely to differ from supplier to supplier.

App: in this report, this refers to an application which provides account management and potentially information about a customer's energy consumption. It is usually downloaded by the customer to a mobile device.

1. Introduction

Background to this document

This Technical Report sits alongside the main report for the Smart Meter Customer Experience Study. It contains the background to the project phases and documents the following processes for both the qualitative and quantitative stages:

- Sampling
- · Development of fieldwork materials
- Fieldwork stages
- Analysis

This report also includes the research materials from both phases of the project.

Background to project

The Government is committed to ensuring that every home and business in the country is offered a smart meter by the end of 2020. Smart meters are the next generation of gas and electricity meters and communicate directly with energy suppliers. They are consequently expected to deliver a range of benefits for consumers. These include removing the need for manual meter reads, ending estimated billing, making switching between suppliers smoother and faster, and helping consumers take control of their energy consumption by providing them with near real-time information on their energy consumption (via an In-Home Display (IHD)).

The Department for Business, Energy and Industrial Strategy (BEIS) commissioned Ipsos MORI to undertake a longitudinal research study to explore consumer experiences of smart metering over time; beginning with their decision to get a smart meter, through the installation process itself (including demonstration of an in-home display and energy saving advice provided by the installer), to almost one-year after installation.

This research has served to test, update, and further validate, the evidence base on customer experiences and impacts produced earlier in the roll-out by the Early Learning Project (ELP).¹ In particular, the ELP research identified three transition points that consumers must pass through in order to make lasting changes to their energy consumption:

- Engagement with installation of smart meter;
- Engagement with (information generated by) the smart meter;
- Making changes in energy consumption.

Another aim was to capture the impact of developments in the roll-out since the ELP, including the implementation of the Smart Meter Installation Code of Practice (SMICoP)²,

¹ DECC, 'Smart Metering Early Learning Project and Small-Scale Behaviour Trials', 2015.

² Ofgem, 'Smart Metering Installation Code of Practice (SMICoP)', 2013 (latest version 2018).

Smart Energy GB's establishment and communications campaigns, and an expanding smart meter population, with smart prepay meters now being rolled out at scale.

This project comprised three stages of research:

- The first stage was a telephone survey of 2,015 smart meter customers, surveyed up to three months' post installation. The surveyed sample was representative of smart meter installations completed by the two partnering energy suppliers during January and February 2017.
- The second stage was a follow-up telephone survey with 825 of these customers³ around 10 months' post-installation.
- Follow-up qualitative research was conducted in parallel to the second survey stage; 50 in-home in-depth interviews were conducted with a mix of customers from the original surveyed group, including both credit and pre-pay customers and those looking at information through an IHD and/or other smart feedback devices⁴.

³ Analysis found that similar profiles of respondents had completed both surveys, suggesting that self-selection bias into the second survey was not a significant issue.

⁴ Customers were purposively sampled to explore in more depth the experiences of these groups of customers in contexts of particular interest to the BEIS policy team, such as; private renters, those living in multi-person households, vulnerable customers and those who recalled receiving energy efficiency advice.

Post-installation phase: Postinstallation survey

Sampling

Population description

The target population for the survey consisted of smart meter customers who were present for the installation of their smart meter carried out between 3 January and 4 February 2017 (Supplier A) and between 9 January and 6 February 2017 (Supplier B). These dates are referred to as 'the sampling period' in the remainder of this report.

The surveyed sample was drawn to be representative of the installations carried out by the two energy suppliers in the sampling period, with the exception that the number of prepay respondents was boosted to ensure enough representation from this group. The findings were then weighted to adjust for this oversampling. Weighting is discussed in full detail in Chapter 5, and detail of the sample profiles is given below.

Each supplier sent an anonymised dataset containing details of the installations they had carried out in the sampling period, but no contact details were included at this stage.

Sample stratification and selection

Prior to selection of the samples, each dataset was cleaned to remove duplicates. For Supplier A this represented 6% of the population, and for Supplier B it was 0.3%. The deduplicated samples contained between 15,000 – 20,000 customers per supplier.

A core objective of the study was to understand the experiences of smart prepay (prepay) customers in more detail. Each sample file was separated by payment type (prepay or credit). The credit customers were stratified before the sample was drawn such that it would be representative of the population of credit customers with respect to key variables. All prepay customers from each supplier were then included in the sample used for fieldwork in order to maximise the number of interviews with this group, i.e. no stratification or selection was used.

The datasets were reviewed to identify suitable stratification variables. The variables selected were those that had the most complete data and were also known to have a relationship with levels of, and attitudes towards, energy consumption. The credit customers for each supplier were therefore stratified by fuel type (dual or single) and postal area. In addition, the sample for Supplier B was stratified by energy consumption tercile (this information was not available for Supplier A). Random stratified samples were then drawn for each supplier and contact details were requested for those customers. The final sampling frame used for the fieldwork included:

	Supplier A	Supplier B
Prepay	649 ⁵	3,979
Credit	5,790	4,429

The final achieved interview numbers for the above cells are in chapter 3 of this report.

The surveyed sample was representative of the customers of the two energy suppliers who had smart meter installations during January and early-February 2017. While this has enabled the study to gather learning from the experiences of a wide range of customers, including those on different payment types and in different types of household, it should be noted that these customers may not be typical of all smart meter customers. For example, the smart meter customers included in this study:

- Had successful smart meter installations, and so do not represent those whose installations were unsuccessful
- May have been influenced by the targeting and engagement approaches suppliers were using at this time;
- Will have been using the IHD and other smart enabled feedback devices (for example, apps) which were on offer to them from their suppliers at the time; and,
- Will reflect the demographic characteristics of the customer bases of the two suppliers involved.

This means that although the findings are representative of a substantial number of smart meter customers, they may not fully reflect the experiences, attitudes and behaviours of the wider smart meter customer population, or those who are yet to get a smart meter.

Questionnaire development

There were several phases to the development of the questionnaire. All materials were tested prior to mainstage fieldwork to assess comprehension and ease of use.

Draft questionnaire

The questionnaire was developed from a detailed research question matrix devised by BEIS. The matrix contained broad research questions for each stage of the customer journey (i.e. pre-installation, the installation visit, post-installation) with detailed research questions underneath these. In addition, there were evaluative questions that cut across all stages of the customer journey.

Following discussions with BEIS around survey priorities, Ipsos MORI developed a questionnaire outline listing the key survey topics in a suggested order, and mapping these topics to the research questions in the matrix to ensure all research questions were covered. Ipsos MORI also thoroughly cross-checked the topics against the ELP

⁵ The significant difference in the number of prepay and credit leads between the suppliers reflects the number of each type of customer who had installations in January 2017. This difference likely reflects targeting of smart meter installations at the time, rather than the existing customer base of each supplier.

questionnaire – this helped to highlight which topics would require new questions to be devised.

Once the questionnaire outline was agreed with BEIS, Ipsos MORI developed the full draft of the questionnaire. Questions from the ELP were replicated as relevant as these questions had already been tested and used, and provided an approximate benchmark for findings comparison. However, many of the ELP questions were refined to reflect the change in survey mode from face to face to telephone. For questions not covered in the ELP, new questions were devised. The draft was shared with BEIS to gather initial feedback. After initial development, Smart Energy GB, Citizens Advice, and Ofgem were also invited to review and provide feedback. Further drafts were then developed taking on board feedback from these stakeholders until a version was ready for testing with consumers.

Cognitive testing

Following initial sign-off, the questionnaire was tested with members of the public. This tested comprehension of the terminology and concepts covered by the survey and gathered feedback on the advance letter. As many of the questions had been tested and implemented as part of the ELP, the cognitive testing focused on newly devised questions. In total, 10 cognitive interviews were conducted face to face at the lpsos MORI offices in London.

The cognitive interviews produced feedback on a variety of issues which helped inform the draft questionnaire to take to piloting. For example, the cognitive interviews showed some areas where the question wording needed minor edits to improve understanding for respondents or helped to add possible response options to incomplete pre-code lists. In addition, the interviews tested participants' reactions to the advance letter to understand if it would encourage participation in the survey and how it could be improved.

A range of individuals of different ages and backgrounds were recruited for the 10 cognitive interviews. Customers were randomly recruited – a screening question ensured only smart meter customers were interviewed, and while customers of the two suppliers were prioritised, other smart meter customers were not excluded. A disproportionate number of prepay customers were included to fully test the prepay-specific questions. The interviews were conducted in two distinct rounds of 5 to allow for a debrief with BEIS and refining of the questionnaire before the second round. This helped to maximise the insight from the cognitive interviews.

Pilot

After cognitive testing, the revised questionnaire was piloted with 55 smart meter customers. For the pilot sample, each supplier provided a database of all their installations for a one week period prior to the main sampling period. A 1 in *n* sample was drawn from these to provide 300 customers for each supplier to be used in the pilot. The main purpose of the pilot was to test the survey in a live environment to refine the question wording and any aspects of the interviewer approach. It also provided an opportunity to test the quality of the sample provided by the supplier ahead of the main stage fieldwork.

Prior to the pilot the telephone fieldwork supervisor and manager were briefed by researchers at lpsos MORI about the purposes of the survey and the main aims of the

pilot. The briefing also covered the content of the survey and the telephone team were given the opportunity to ask about any questions.

The pilot represented the first point at which the questionnaire was to be tested using Computer Assisted Telephone Interview (CATI), and it therefore also represented an opportunity to ensure that the survey had been correctly programmed to replicate the final paper version.

Pilot feedback

Feedback from interviewers was collated in writing, and additionally a debrief with interviewers was led by the research team. Ipsos MORI and BEIS then met to discuss the pilot feedback and amendments to the survey ahead of the main stage of fieldwork. In particular, several deletions were necessary, as the pilot revealed the survey was much longer than anticipated. After the revised questionnaire was signed off, it was scripted ready for the main stage fieldwork.

Fieldwork

Advance letters and emails

All customers in both samples were sent an advance letter ahead of fieldwork. This provided potential participants with:

- details of what the survey was about and how the findings would be used;
- information regarding how lpsos MORI obtained their contact details;
- reassurances about how their personal data would be stored;
- reassurances about the anonymity of their survey responses;
- and the survey findings used, and:
- how the survey would operate in practice, including details of how to opt out.

For Supplier A only postal addresses were available. Customers in the Supplier A sample were therefore sent advance letters by post such that they arrived one week before fieldwork commenced. For Supplier B, the advance letter was sent by email where email addresses were available and by post for the remainder. All advance letters and emails were addressed to named contacts from the suppliers' databases.

Interviewer instructions and briefings

A set of instructions was prepared for interviewers by the research team. This provided interviewers with:

- Background to the research and its aims
- Details of who was included in the sample, quota information and tips on how to secure participation
- General advice around administering the questionnaire and highlighting specific points to look out for on certain questions, such as those that might be harder for participants to understand or require more probing

The research team briefed the telephone fieldwork supervisor shortly before the start of fieldwork to ensure clarity over the instructions and the administration of the survey.

Interviews were all carried out by telephone using Computer Assisted Telephone Interviewing (CATI).

Responding to customer queries during fieldwork

A number of steps were taken to ensure that customers were given the opportunity to contact the survey team should they have a question, comment or complaint that they wished to lodge.

- A telephone helpline was set up to receive opt-out calls, answer any queries about the research, and take appointment bookings
- An e-mail address was also supplied for the same purpose

Both were managed by the central research team and where necessary a follow-up phone call was made or e-mail written to ensure that the matter was dealt with.

Fieldwork quotas and final outcomes

Rather than reflecting the relative size of each supplier's customer base, a target of 1,000 interviews with each supplier was set to allow for robust sub-group analysis within each supplier sample. There was an aim to maximise the number of prepay interviews within each supplier. The prepay customer sampling frame was therefore exhausted first, and credit leads were then called at random until the target number of interviews had been met. The final outcomes were:

	Supplier A			Supplier B		
	Achieved interviews	% of achieved sample	% of population	Achieved interviews	% of achieved sample	% of population
Prepay	87	9%	4%	382	38%	26%
Credit	917	91%	96%	629	62%	74%
Total	1,004	100%	100%	1,011	100%	100%

Weighting

The Post-installation survey responses from the smart meter customer sample were weighted in two ways.

Firstly, they were weighted within each supplier such to be representative of the total number and range of installations conducted by each supplier within the sampling period (in January and early February 2017). To achieve this, the completed survey data were weighted by the original known profile for each supplier with respect to: payment type, fuel type and postal area. Supplier B data was also weighted by the known profile of electricity consumption.

In addition, weighting was applied to ensure that the overall achieved sample reflects the balance in the respective number of installations conducted by each supplier in the sampling period. This permitted results to be described and analysed for the sample as a whole, rather than only at the supplier-level.

3. Follow-up phase: Follow-up survey

The process for developing and implementing the longer-term Follow-up survey was the same in many respects to the Post-installation survey. The key differences in the process are outlined below.

Sampling

All respondents in the Post-installation survey were asked if they would be willing to be recontacted by Ipsos MORI to take part in the Follow-up survey.⁶

76% of Post-installation survey respondents consented to this recontact – this formed the sample for the Follow-up survey which had the following profile:

	Supplier A	Supplier B
Prepay	72	310
Credit	665	477
Total	737	787

All of those in this sample were contacted for the Follow-up survey – the only customers excluded were those who had since moved property, established via a screening question at the start of the interview.

As outlined in Chapter 4, 50 qualitative interviews were also conducted during the Follow-up phase. Respondents who had also expressed willingness to be re-contacted for a qualitative interview were not excluded from the sample for the Follow-up survey. Fieldwork was scheduled to minimise the number of respondents taking part in a qualitative interview before the Follow-up survey to avoid response bias introduced by taking part in a qualitative interview. Only 8 Follow-up survey respondents took part in a qualitative interview before the Follow-up survey.

Fieldwork

The questionnaire was developed by Ipsos MORI and BEIS in a similar manner to the Post-installation survey, with feedback again sought after initial development from Smart Energy GB, Citizens Advice, and Ofgem. Both surveys contained many of the same questions to provide an understanding of changes to attitudes and behaviours between surveys, however new questions were also developed to contextualise these changes and to allow participants to self-assess the impact smart metering.

This questionnaire was not cognitively tested and a pilot was not carried out as this would have reduced the sample size for the mainstage. Therefore, after two days of fieldwork,

⁶ The exact wording for the recontact question is included in the Post-installation survey which can be found in the appendices

interviewing was paused to allow for edits to the questionnaire, which primarily focused on making it shorter.

Advance letters were sent and an interviewer briefing carried out in the same way as for the Post-installation survey.

825 interviews were completed, reflecting a response rate of 54%7. The achieved sample had the following profile:

	Supplier A	Supplier B
Prepay	27	118
Credit	417	263
Total	444	381

Weighting

The data for the Follow-up survey was weighted in a similar way to the first, i.e. such that the achieved sample for each supplier was representative of its known population of installations in the sampling period, and that the overall sample across both suppliers reflected the balance in the respective number of installations conducted by each in the sampling period.

In addition, the achieved sample of each supplier in the second survey was weighted to adjust for any differential non-response based on the demographic characteristics collected in the first survey. All the measures used for the population adjustment were included in the non-response models regardless of whether they were significant or not. In addition, a range of demographic measures that were collected in the first survey were considered for the models, with only those that were associated with follow up survey responses at the 5% significance level included in the models. The additional terms in the models were: any disability in the household and income category for the Supplier B sample, and level of internet access for the Supplier A sample.

Analysis conducted to compare the demographic profiles of the respondents to the two surveys, in addition to a review of key survey questions (for example, levels of satisfaction, advocacy and frequency of IHD use), showed that similar profiles of respondents had completed both surveys, suggesting that self-selection bias into the second survey was not a significant issue

⁷ Response rates are not included for the Post-installation survey as that was not a response rate survey and instead we used the sample needed to generate the target completes and quotas.

4. Follow-up phase: Qualitative interviews

Sampling

The sampling approach for the qualitative research was purposive, seeking to achieve symbolic representation of a series of specific characteristics of interest, combined with diversity across the population of smart meter recipients.

Given the diversity of the population and the broad range of characteristics of interest, alongside the considerations of data saturation and of budget, it was decided that 50 interviews would allow for sufficient exploration of the relevant research questions.

The sample frame comprised recipients of smart meters who had participated in the Post-installation survey research, and who had consented to re-contact for the purpose of Qualitative interviews. This represented 60% of all participants, or 1,199 people.

Quota targets

Within each payment type and supplier, quotas were set to target respondents with varying levels of engagement with smart feedback (on an IHD, app, on both types of device, or on neither). Quotas were also set across the whole sample to target interviews with private renters, multi-person households, vulnerable participants⁸, and also those who recalled receiving energy efficiency advice at their installation visit. These quotas were agreed with BEIS following a review of the Post-installation survey data. Payment type and supplier were based on sample data, with the other variables taken from the Post-installation survey. However, for multi-person households, the screening questionnaire included a check that the data was still valid, and also whether or not other household members would be willing to take part in the interview (for an additional financial incentive).

The quotas set took into account the number of available sample customers within each target 'cell'.

⁸ Vulnerability was a composite variable whereby respondents were classed as vulnerable if three or more of the following applied: living alone, no internet access, household income less than £16,000 per year, unemployed, rural and off gas grid, private renter, disability in household, aged 75+, still learning English. These characteristics were based in part on the Ofgem definition of vulnerability in their Consumer Vulnerability Strategy

The final	quotas	and	achieved	interviews	were	as follows:

	Customer nent type	Prepay				Credit			
	Supplier	Sup	plier A	Sup	Supplier B		Supplier A		pplier B
Inter	views	Target	Completed	Target	Completed	Target	Completed	Target	Completed
at energy nce on:	App but not IHD	0	0	5	5	0	0	3	2
	App + IHD	3	3	7	6	5	3	5	2
ently lo	IHD but not app	4	4	4	4	4	5	4	7
Freque use or	Neither	0	0	2	1	2	4	2	4
	·	7	7	18	16	11	12	14	15

	Pı	repay	Credit	
	Min Target Completed		Min Target	Completed
Multi-person HH	6	16	6	21
Vulnerability	6	6	6	5
Received EE advice	6	12	6	17
Private renter	6	4	6	4

Developing the qualitative research materials

Discussion guide

Discussion guide development began with agreeing the priorities for this phase of the research in discussions between Ipsos MORI and BEIS. The guide sought to first understand participants' spontaneous views about their energy use, including whether this had changed over the last 12 months, before probing specifically about their experiences of using their Smart Meter and IHD. Given the very different experiences of Prepay customers, the guide contained additional prompts for this group, as well as for other householders interviewed, and private renters.

A draft topic guide was formulated and refined within the lpsos MORI team. This draft was then shared with the team at BEIS to gather feedback in several rounds before being finalised. After initial development, Smart Energy GB, Citizens Advice, and Ofgem were

also invited to review and provide feedback. Further drafts were then developed taking on board feedback from these stakeholders until a version was ready for use in the interviews.

Qualitative fieldwork

Qualitative fieldwork followed the conclusion of the quantitative stage. All interviews were conducted by members of the Ipsos MORI research team. Participants received an incentive of £35 for a single person interview, or £40 where multiple persons were interviewed.

Eight of the interviews were filmed with the consent of participants – the filmed interviews were edited into short clips for BEIS to use to demonstrate customer experiences to stakeholders. Participants who agreed to be filmed received an additional £10 incentive.

5. Survey Data Processing and Analysis

The analytical stage of the project comprised several phases and forms of analysis.

The final report represents a synthesis of the qualitative and quantitative stages, bringing together survey results, statistical analysis and qualitative data. The information below covers the rationale for the methods used in analysing the quantitative data.

Data processing and coding

All data processing and coding was undertaken internally at Ipsos MORI. The main data processing aspects of the project were the drafting and production of topline reports, data tables and an SPSS file. Responses to "Other (please specify)" codes at either prompted or unprompted questions were assigned codes. These responses were either back-coded (i.e. assigned a previous code in the questionnaire) or given a new code. The code frame was developed and reviewed continuously throughout fieldwork, to ensure the accuracy and validity of the codes.

Data tables and subgroup analysis

Quantitative data gathered via the surveys was processed by Ipsos MORI's internal Data Processing team. Data from each survey wave was tabulated, providing a breakdown by key respondent subgroups. Statistical significance testing (at the 95% confidence level) was applied to the weighted data and shown in the data tables to assist interpretation of the results. A combined dataset across waves was produced and can be found at https://www.gov.uk/government/publications/smart-meter-customer-experience-study-2016-18.

Key Drivers Analysis

Key Drivers Analysis (KDA) was conducted on the quantitative survey data as it is a statistical technique which aims to understand which factors, or "drivers", have the strongest relationship with a given outcome. KDA was conducted to investigate the relative importance of aspects of the smart meter customer journey in explaining the following behavioural and attitudinal outcomes:

- · satisfaction with having a smart meter;
- likelihood to recommend a smart meter;
- frequent use of the IHD; frequent use of the app;
- believing that the smart meter had led to an increase in understanding of the household's energy use, and;
- believing the smart meter had impacted on how energy was used by the household.

These variables were chosen in collaboration with BEIS and according to key outcomes sought from the Smart Metering Programme as documented in the programme's theory of change.

Developing the models involved three stages of analysis:

- Firstly, based on theory generated by the ELP and subgroup analysis of the survey data, a long-list of potential explanatory variables were identified for each model (such as receiving energy efficiency guidance, or being shown through the IHD screens).
- Secondly, bi-variate analysis was conducted to test the likely strength of the
 association between each explanator and the outcome variable, as well as between
 the explanators themselves. A short-list of variables to run in the final model was
 then selected by removing variables with weak association to the outcome or with
 too strong a relationship to another explanator. These are listed in the table below.
- Finally, logistic regression was used to analyse the association between each outcome variable and each set of selected explanators. The results of this regression show the relative importance of each explanator in predicting variation in the outcome. The strength of the fit of the model (showing how well the explanators together manage to explain variation in the outcome being tested), was checked through the ratio of concordant to discordant pairs of observations. This metric demonstrated the models run to be a good fit for the data (with approximately 2:1 concordant to discordant pairs). All the models used met this rule of thumb and therefore the results from all models were reported in the main report.

Demographic variables (including supplier and payment type) were not included as drivers because these are not variables that it is possible for policy to inform and change (in the way policy can mandate, for example, provision of energy saving advice). These variables have therefore been held constant, meaning that the KDA reveals the strength of association between elements of the customer journey and the outcomes, *all else being equal*.

The variables included and excluded from the different models are shown below:

Model	Variables included	Variables excluded due to weak association/ collinearity
Satisfaction with having a smart meter	 Frequent user of the IHD Satisfied with installation visit Had follow-up contact from supplier about saving energy within the home Received printed energy efficiency advice Shown through each screen of the IHD Installer asked questions about homes and habits, and gave tailored advice 	 Customer led-installation Had follow up advice about energy efficiency measures Had follow up advice about schemes to help finance energy efficiency measures

Model	Variables included	Variables excluded due to weak association/ collinearity
	Had follow-up contact from supplier allowing questions to be answered about SWIHD	
Likelihood to recommend a smart meter	 Frequent user of the IHD Satisfied with installation visit Customer led-installation Had follow-up contact from supplier allowing questions to be answered about SWIHD Received printed energy efficiency advice Had follow-up advice from supplier about energy efficiency measures 	 Had follow up contact with information about how to save energy Had follow up contact about schemes that can help finance energy efficiency measures.
Frequent use of the IHD	 Received printed energy efficiency advice Set a baseline on IHD or app Received tailored energy efficiency advice Had follow-up advice from supplier about energy efficiency measures Shown through each screen of the IHD Frequent user of the app 	 Demographics Customer-led installation Features looked at on the IHD Installer demonstration of how to set a budget
Frequent use of the app	 Customer-led installation Had follow-up energy efficiency advice from supplier Received printed energy efficiency advice Received tailored energy efficiency advice 	 Had follow up contact to see if the respondent had further questions about the smart meter or IHD Looked at the traffic lights on IHD Installer demonstrated how to set a baseline Installer demonstrated how to set a budget Set a baseline Set a budget
Belief that the smart meter had led to an increase in understanding	 Looked at traffic lights on IHD Had follow-up contact from supplier allowing questions to be answered about Smart Meter/ IHD Frequent user of IHD 	 Received printed energy efficiency advice Received tailored energy efficiency advice

Model	Variables included	Variables excluded due to weak association/ collinearity
of the household's energy use	 Had follow up contact from supplier with further information about saving energy Customer-led installation 	 Installer demonstrated how to set a baseline Installer demonstrated how to set a budget Set a baseline on IHD Set a budget on IHD
Belief that the smart meter had impacted on how energy was used by the household	 Looked at traffic lights on IHD Customer-led installation Frequent use of app Received printed energy efficiency advice Had follow-up contact from supplier allowing questions to be answered about Smart Meter/ IHD 	 Received tailored energy efficiency advice Had energy efficiency advice follow-up contact Installer demonstrated how to set a baseline Installer demonstrated how to set a budget Set a baseline on IHD Set a budget on IHD

Analysis of respondent level changes

The two questionnaires contained many of the same questions to facilitate monitoring of changes in attitudes and behaviours over time. The simplest way of doing this was to compare the overall results at each wave, for example the percentage satisfied at the Post-installation survey with the percentage satisfied at the Follow-up survey. More detailed analysis was carried out to provide more details about the respondent level changes underlying the overall results, which using the satisfaction example above would be:

- The percentages of participants who had shifted from being satisfied to dissatisfied or vice versa
- The demographics of the groups who shifted, to see if there were differences between them and the overall sample

This analysis took the following steps:

- A list of the variables included in both questionnaires was selected for analysis.
 These were the questions with the highest bases many behavioural questions were only asked of participants who used their IHD meaning the bases in the Follow-up survey were small, making them less suitable for analysis. The variables selected were:
 - Satisfaction with the smart meter

- o Agree/ disagree with these attitudes to energy use:
 - I have tried to reduce the amount of energy I use at home
 - I think there is more I could do to reduce the amount of energy I use at home
 - I am more concerned about having a warm and comfortable home than saving energy
 - I feel in control of how much energy I personally use
 - I know what uses the most energy in my home
- o Agree/ disagree they undertake these energy behaviours:
 - I am the kind of person who tends to leave the lights on when I am not in the room
 - I am the kind of person who tends to boil the kettle with more water than I am going to use
 - I am the kind of person who tends to wash clothes at 40oC or higher
 - I am the kind of person who tends to heat rooms that I am not using to the same temperature as those I am using
 - I am the kind of person who tends to leave the heating on when I go out for a few hours
 - I am the kind of person who tends to ignore the energy consumption of new products or appliances when buying them
- How likely would you be to recommend a smart meter to a friend, colleague or relative?
- How often, if at all, have you looked Your in-home display /smart energy display
- For each of these variables, participants who had answered 'Don't know' at either wave were excluded from the analysis.
- For the remaining Follow-up survey participants, their answers to these questions at both waves were denoted as positive, negative, or neutral based on categories agreed between lpsos MORI and BEIS as shown on the table below

	Positive	Neutral	Negative
Satisfaction with the smart meter	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied
Agree/ disagree with positive attitudes to energy use (x5)	Agree	Neither agree nor disagree	Disagree
Agree/ disagree they tend to undertake energy inefficient behaviours (x6)	Disagree	Neither agree nor disagree	Agree
Likelihood to recommend a smart meter	8-10	4-7	1-3

	Positive	Neutral	Negative
Frequency of IHD use	At least once per week	N/A	Less than once per week

- Analysis was conducted for each variable to provide the percentage of participants who had shifted:
 - o From negative to positive
 - From negative or neutral to positive, or from negative to neutral positive overall
 - From positive to negative
 - From positive or neutral to negative, or from positive to neutral negative overall
- For each of the four shift types above, a separate profiling worksheet was created which showed various demographic variables as the rows, and the analysed variables as the columns, in addition to a column showing the overall demographic profile of the sample.
- It was therefore possible to infer characteristics of those who had shifted by comparing their demographic profile with the overall profile, for example whether those making a particular shift were more likely of a different age group.

6. Research Materials

1. Advance Letter provided to Post-installation Survey sample





- <<Name>> Reference: 0000001
- <<Address 1>>
- <<Address 2>>
- <<Address 3>>
- <<Address 4>>
- <<Postcode>>

<<DATE>>

Helping with important research about how we use energy at home

Dear << Mr/Mrs/Ms/Miss XXXXXXX>>,

We are writing to ask for your help with an important survey which is being conducted by the independent research organisation lpsos MORI on behalf of [SUPPLIER 1 ONLY: your supplier and] the UK Government Department for Business, Energy and Industrial Strategy (BEIS). [SUPPLIER 2 ONLY: Your supplier was required to provide your data to Ipsos MORI by the Department, for the purposes of this survey.]

What is the survey about? We will be asking people to tell us about the ways they use electricity and gas in their homes. This will help the Department make important decisions about Britain's energy policy, and how help can be given to ensure people can heat their homes and afford their energy bills. There is no selling involved – this is independent research being conducted on behalf of the Government. We would just like to ask you some questions for research purposes.

Why are we contacting you? You have been selected at random to be contacted about this survey. Ipsos MORI have been given permission by the Department to access your contact information in order to get in touch with you about this research. Ipsos MORI will store your information securely and keep it confidential. Your name and contact details will also not be passed on to any other organisation and we will delete them once this project has been completed.

No personal data that could identify you as having taken part in the survey will be shared with the Government or your supplier. Anonymised survey findings will be published, to do this we will combine your answers with others who have taken part so that you cannot be identified from the report.

What happens next? An Ipsos MORI interviewer may call you in the next few weeks. They will explain more about the survey over the telephone and ask if you would be willing to take part, at a time that is convenient to you. If you would like to take part, you don't need to do anything more at the moment.

If you have any further questions, or if you do not want to be contacted again about this survey, please contact Ipsos MORI on 0808 101 6226 or email us at smartenergysurvey@ipsos.com providing your name and the reference number in the top left corner of this letter.

Thank you very much for giving some of your time to help us.

Yours faithfully,

Antonia Dickman

Research Director

Ipsos MORI

2. Post-installation survey questionnaire

INTRO/SCREENER:

Good morning/afternoon/evening. My name is ... from Ipsos MORI, the independent research organisation. We recently sent a letter about a survey about smart meters to [NAMED CONTACT FROM SAMPLE]

SCRIPTING INSTRUCTION: SET UP LINK TO EMAIL LETTER TO RESPONDENT IF REQUESTED

S1. Please can I speak to [named person – FROM SAMPLE]?

SINGLE CODE

- 1. Yes GO TO S3
- 2. No GO TO S2

IF RESPONDENT IS NOT NAMED PERSON [S1 CODE 2]

S2. Can you confirm if [named person – FROM SAMPLE] lives at this address?

SINGLE CODE

- 1. Yes, they still live at this address GO TO S3
- 2. No, no-one of that name lives at this address THANK AND CLOSE
- 3. Information refused THANK AND CLOSE
- S3. In this survey we would like to ask you some questions about how you use energy at home and about the new meter you recently had installed in your home. The survey will normally take up to 20 minutes. I would like to assure you that all the information we collect will be used for research purposes only, and no selling is involved.

ONLY READ OUT IF SEEK ASSURANCES ABOUT THEIR DATA

[All of the responses you give will be kept entirely anonymous. Your name and address will not be given to anyone else. All your details we be deleted once the project has been completed.

You have been selected at random to take part in this survey as you have recently had a Smart Meter installed. Ipsos MORI have been given permission by the Department for Business, Energy and Industrial Strategy to access your information in order to get in touch with you about this research.]

S3b. When you had your new meter installed this is likely to have involved an installer visiting your home to fit the new meter, or Smart Meter, and explain how it works. They may also have offered you an "In Home Display" which shows data about how much electricity or gas you are using. Firstly, can I just check, were you at home when the smart meter was installed, or not?

- 1. Yes
- 2. No ASK TO SPEAK TO PERSON WHO WAS AT HOME AT THE TIME OF INSTALLATION, AGREEING TIME TO CALL BACK IF NEEDED
- 3. Don't know THANK AND CLOSE

S4. And do you have mains gas in your home, or not?

INTERVIEWER – IF NEEDED: MAINS GAS - If you use gas for cooking, or for heating your home, and you do not regularly buy bottled gas, you are likely to be connected to mains gas.

- 1. Yes
- 2. No
- 3. Don't know

S6. Including yourself, how many people normally live at this address?

ENTER NUMBER. CANNOT BE ZERO.

Don't know Refused

NOTE TO SCRIPTER: Info comes from sample for supplier and payment type

Section A: Background on consumer attitudes to energy (providing baseline measures)

ASK ALL

QA1. I am now going to read out a number of statements that other people have made about the energy they use at home. Please tell me to what extent you agree or disagree with each one?

	Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	Don't know – DO NOT PROMPT
I have tried to reduce the amount of energy I use at home						
2. I think there is more I could do to reduce the amount of energy I use at home						
3.I am more concerned about having a warm and comfortable home than saving energy						
5. I feel in control of how much energy I personally use						
6. I know what uses the most energy in my home						

READ OUT

SINGLE CODE

RANDOMISE STATEMENTS

QA2. I am now going to read out some things that people may do in their homes. For each one, please tell me to what extent you agree or disagree with the statement

"I am the kind of person who tends to..."

- A. Leave the lights on when you are not in the room
- B. Boil the kettle with more water than you are going to use
- C. Wash clothes at 40oC or higher
- D. Heat rooms that you are not using to the same temperature as those you are using
- E. Leave the heating on when you go out for a few hours
- F. Ignore the energy consumption of new products or appliances when buying them
- Strongly agree
- 2. Tend to agree
- 3. Neither agree nor disagree
- 4. Tend to disagree
- 5. Strongly disagree
- 6. Don't know (DO NOT READ OUT)

ASK ALL

QA3.

I am now going to read out some things that some homes may have installed to help them control their heating. Please can you tell me, which, if any, of the following controls have been installed in your home?

INTERVIEWER IF NECESSARY: When answering please think about whether or not this has been installed in your property, even if the decision was not made by you personally or it was installed before you moved in. Please also let me know if you think any of these controls are not possible to install in your home.

READ OUT

- 1. Yes
- 2. No
- 3. I do not think it is possible to install this in my home

- 4. Don't know (DO NOT PROMPT)
- 1. Valves to control the temperature of individual radiators
- 2. A central thermostat to set the temperature of your whole home IF NECESSARY: that is not attached to your boiler
- 3. A programmable thermostat, allowing you to set your heating to different temperatures at different times
- 4. An automated or smart thermostat which can control your heating automatically or remotely, for example through an app [IF SUPPLIER 1 CUSTOMER: such as Hive]

ASK ALL EXCEPT DUAL FUEL CUSTOMERS (FROM SAMPLE)

QA6 Overall how satisfied or dissatisfied are you with your electricity supplier?

SINGLE CODE

- 1. Very satisfied
- 2. Fairly satisfied
- 3. Neither satisfied nor dissatisfied
- 4. Fairly dissatisfied
- 5. Very dissatisfied
- 6. DO NOT PROMPT Don't know

ASK ALL DUAL FUEL CUSTOMERS

QA7. Overall how satisfied or dissatisfied are you with your gas and electricity supplier?

SINGLE CODE

- 1. Very satisfied
- 2. Fairly satisfied
- 3. Neither satisfied nor dissatisfied
- 4. Fairly dissatisfied
- 5. Very dissatisfied
- 6. DO NOT PROMPT Don't know

ASK ALL

QA8 Sometimes energy suppliers contact customers to ask them to submit energy meter readings. Thinking back to before you had a smart meter installed, generally, how often, if at all, did you, or someone in your household, tend to submit energy meter readings?

- 1. Weekly
- 2. Monthly
- 3. Around once every 3 months (quarterly)
- 4. Annually
- 5. Less than once per year

- 6. Never
- 7. Don't know DO NOT PROMPT

Section B: Smart meter experience

I'd now like to ask some questions about the smart meter you recently had installed, and what the experience was like.

ASK ALL

QB1. Were you offered an in-home energy display/IHD [/smart energy display – IF SUPPLIER 1 SAMPLE] or monitor as part of having your smart meter installed?

By in-home energy display / smart energy display – IF SUPPLIER 1 SAMPLE] I mean the digital screen that tells you in near real-time how much energy you have been using through charts, lights and numbers, as you use it.

SINGLE CODE

- 1. Yes
- 2. No
- DO NOT PROMPT Don't know

ASK IF CODE 1 AT QB1

SINGLE CODE

QB1a: And which, if any, of the following best describes when you were first told about the offer of receiving an in-home display [/smart energy display – IFSUPPLIER 1 SAMPLE] or monitor?

- 1. In information you were given by your supplier before the installation visit
- 2. On the day of your smart meter installation when the installer visited your home
- Don't know

ASK ALL WHO WERE OFFERED AN IHD (QB1 code 1)

QB2. And did you agree to having the [in-home energy display / smart energy display – IF SUPPLIER 1 SAMPLE] or monitor when your smart meter was installed?

SINGLE CODE

- 1. Yes
- 2. No
- DO NOT PROMPT Don't know

In this section I am going to ask you some questions about this display, but also some questions about the new meter itself, which was probably installed in the same location as your old meter.

ASK ALL

QB3 Overall how satisfied or dissatisfied are you with your smart meter, IF RECEIVED IN HOME DISPLAY (CODE 1 AT B2): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE?

SINGLE CODE

- 1. Very satisfied
- 2. Fairly satisfied
- 3. Neither satisfied nor dissatisfied
- 4. Fairly dissatisfied
- 5. Very dissatisfied
- 6. DO NOT PROMPT Don't know

ASK ALL

QB4. How likely would you be to recommend a Smart Meter to a friend, colleague or relative? Please give your answer on a scale of one to ten where one means you would definitely <u>not</u> recommend a Smart Meter and ten means you would definitely recommend a Smart Meter if asked.?

SINGLE CODE

- 1. 1 = definitely not recommend
- 2. 2
- 3. 3
- 4. 4
- 5. 5
- 6. 6
- 7. 7
- 8. 8
- 9. 9
- 10. 10 = definitely would recommend
- 11. Don't know

Awareness and attitudes to smart metering in advance of installation

ASK ALL

QB5. Which, if any, of the following statements best describes what happened before the smart meter was installed in your home?

RANDOMISE LIST

READ OUT

- 1. My energy supplier contacted me about smart meters and I agreed to have one installed
- 2. I contacted my energy supplier first stating I would like to receive a smart meter.
- 3. [SUPPLIER 2 ONLY] My energy supplier told me I had to have a smart meter because of the tariff I am on

4. DO NOT PROMPT: Don't know/Can't remember

ASK ALL

QB6 From which people or organisations did you hear anything about smart meters in advance of the installation?

PROBE FULLY FOR SOURCE e.g. was TV ad from energy supplier, other supplier, SEGB?

DO NOT READ OUT

MULTI-CODE

- 1. From Supplier A/ Supplier B/ my own energy supplier
- 2. From other energy suppliers
- 3. From a handyman/ someone coming to service my boiler or appliances
- 4. On a price comparison site (e.g. Money Supermarket, Compare the Market)
- 5. Information from Smart Energy GB, for example about Gaz and Leccy or Estimation Nation, either on TV, radio, printed or online
- 6. From friends, family, neighbours or colleagues
- 7. From a newspaper or magazine article
- 8. A newspaper or magazine advert
- 9. Through a TV programme
- 10. A TV advert
- 11. A radio programme
- 12. A radio advert
- 13. An independent website, such as Citizens Advice, or Consumer First
- 14. Another website
- 15. Social media
- 16. Other (Please specify)
- 17. Don't know (SINGLE CODE ONLY

QB6A And can I just check, did you also hear anything about smart meters in advance of the installation from any of the following? Please say yes to all that apply.

READ OUT

MULTI-CODE

- 1. DO NOT ASK IF CODES 1 OR 2 AT QB6: From an energy supplier, either yours or another supplier
- 2. **ASK ALL**: Information from Smart Energy GB, for example about Gaz and Leccy or Estimation Nation, either on TV, radio, printed or online
- 3. DO NOT ASK IF CODE 7 AT QB6: From friends, family or colleagues
- 4. None of these (SINGLE CODE ONLY)
- 5. Don't know (SINGLE CODE ONLY)

ASK IF MORE THAN ONE SOURCE MENTIONED AT QB6 OR ANYTHING SELECED AT QB6A

QB7 From which one of the people or organisations that you have heard from about smart meters, did you find the information most useful before your installation visit?

DO NOT READ OUT

SINGLE CODE

- 1. From Supplier A/ Supplier B/ my own energy supplier
- 2. From other energy suppliers
- 3. From a handyman/ someone coming to service my boiler or appliances
- 4. On a price comparison site (e.g. Money Supermarket, Compare the Market)
- 5. Information from Smart Energy GB, for example about Gaz and Leccy or Estimation Nation, either on TV, radio, printed or online
- 6. From friends, family, neighbours or colleagues
- 7. From a newspaper or magazine article
- 8. A newspaper or magazine advert
- 9. Through a TV programme
- 10. A TV advert
- 11. A radio programme
- 12. A radio advert
- 13. An independent website, such as Citizens Advice, or Consumer First
- 14. Another website
- 15. Social media
- **16.** Other (Please specify)
- 17. Don't know (SINGLE CODE ONLY)

ASK ALL

QB8. What were the reasons you agreed to, or decided to, have a smart meter installed? Anything else?

DO NOT READ OUT

MULTI-CODE

- 1. Not having to submit meter readings or be at home for a meter reading / it's more convenient
- 2. Accurate bills/ no more estimated bills / paying for what I use
- 3. Being able to see how much energy I'm using / having a display that shows me what I'm using
- 4. Being able to see how much I need to pay for my energy / seeing my energy account balance
- 5. Being able to top up in different ways
- 6. To help me budget
- 7. To help me save money on energy / to help me save money by encouraging me to use less
- 8. It is a cheaper option / Smart pre-pay is cheaper
- 9. Free energy weekends
- 10. To help me reduce my energy use / help me stop wasting energy
- 11. Helping encourage others in my home to reduce their energy use
- 12. Helping the environment / reducing our carbon footprint

- 13. It's new/ I like having the latest technology
- 14. It's necessary / part of a general upgrade
- 15. I wastold I had to/I thought I had to
- 16. Other specify
- 17. Don't know

QB9. And what concerns, if any, did you have about having a smart meter, IF RECEIVED IN HOME DISPLAY (CODE 1 AT B2): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE? Anything else?

DO NOT READ OUT

MULTI-CODE

- 1. The information shown on the IHD is too basic
- 2. I don't want an in-home display
- 3. Difficult to use/understand
- 4. Health risks (general mention)
- 5. Radiation / radio waves from the meter
- 6. I don't trust my energy company (general mention) INTERVIEWER PROBE FURTHER
- 7. I don't trust the technology (general mention) INTERVIEWER PROBE FURTHER
- 8. Invasion of privacy/they will know exactly what I'm doing
- 9. The data could get into the wrong hands/ be hacked
- 10. The data could lead to greater chance of terrorist attacks
- 11. It will be expensive for me
- 12. It will be expensive for the energy companies
- 13. It will be expensive for the government
- 14. The installation will be expensive for taxpayers
- 15. The cost will be passed on to energy bills/energy prices will rise as a result
- 16. Not being installed correctly (general mention)
- 17. The smart meter may not provide accurate readings
- 18. I think it means I will receive less information about energy usage on future bills
- 19. Paying too much attention to the display/checking it too much
- 20. People might be encouraged to use too little / dangerously low levels of energy/heating
- 21. Someone might lose their job (meter checker)
- 22. Too ugly for my home
- 23. My energy company might use the information to force me onto a time of use tariff/ may be used to charge me more for the times I use energy the most
- 24. I might get disconnected by accident / if I press something wrongly I might lose my supply
- 25. Other (please specify)
- 26. Nothing/no concerns
- 27. Don't know

QB10. Which, if any, of the following were you told or asked about by your energy supplier in advance of the installation visit? Please say yes to all that apply.

READ OUT

MULTI-CODE

- 1.
- 2. That you would be offered advice about how to use less energy IF RESPONDENT ASKS FOR FURTHER CLARIFICATION: either through making changes to your home, or through changing your habits and routines
- 3. Whether you or anyone in your household had any requirements that they needed to take into account at the installation
- 4. None of these (SINGLE CODE ONLY)
- Don't know (SINGLE CODE ONLY)

QB11. Was your smart meter successfully installed the first time an installer came to your property, or not?

SINGLE CODE

- 1. Yes
- 2. No
- 3. DO NOT PROMPT Don't know

QB12. And now thinking about the process of installing the smart meter, how satisfied or dissatisfied were you with the following aspects of the installation.

		Very satisfied	Fairly satisfied	Neither satisfied nor dissatisfied	Fairly dissatisfied	Very dissatisfied	Don't know – DO NOT PROMPT	Not Applicable
A.	The installation taking place without any major difficulties or problems							
В.	The explanation provided by the installer about how the smart meter(s) works							

C. IF RECEIVED IN HOME				
DISPLAY (CODE 1 AT				
B2) The explanation				
provided by the				
installer about how				
the in-home				
display(s)/ smart				
energy display – IF				
SUPPLIER 1 SAMPLE?				
(Do not ask if QB2 = 2				
or 3)				
D. IF RECEIVED IN HOME				
DISPLAY (CODE 1 AT				
B2)The supporting				
materials given to you				
explaining how the				
smart meter(s) and in-				
home display/smart				
energy display – IF				
SUPPLIER 1 SAMPLE?				
E. Any follow-up contact				
(e.g. telephone call)				
you received from the				
energy supplier after				
the installation				

QB13 Which, if any, of the following did you receive advice or information about from the installer who fitted your smart meter. Please answer yes to all that apply.

NOTE FOR INTERVIEWERS: This could be verbal or written information

READ OUT

MULTI CODE

RANDOMISE STATEMENTS

- 1. Energy efficiency measures such as loft insulation or cavity wall insulation
- 2. Low cost changes you could make to your home to use less energy such as draught proofing or LED lights
- 3. Zero-cost changes you could make to your habits and routines to use less energy in your home
- 4. Where to receive independent advice on energy issues
- **5.** How to use the in home display / smart energy display IF SUPPLIER 1 SAMPLE to identify how much energy different appliances are using (Do not ask if QB8 codes 2 or 3 OR QB2 = 2 or 3)
- **6.** None of these
- 7. Don't know

ASK IF CODE 1 (YES) AT ANY OF STATEMENTS 1-4 at QB13

QB14. Which, if any, of the following describe the way in which you were given information about energy efficiency measures and/or steps you could take to use less energy? Were you....

Please say yes to all that apply

READ OUT

RANDOMISE 1-4

MULTICODE

- 1. Given printed information about this to read and keep
- 2. Given some general advice about this
- 3. Shown a video
- 4. Asked questions about your home and habits so the installer could base the advice around your specific circumstances
- 5. None of these
- 6. Don't know

QB15. And how satisfied or dissatisfied were you with this advice or information? Were you...

SINGLE CODE

READ OUT

- 1. Very satisfied
- 2. Fairly satisfied
- 3. Neither satisfied nor dissatisfied
- 4. Fairly dissatisfied
- 5. Very dissatisfied
- 6. DO NOT PROMPT Don't know

ASK ALL RECEIVING AN IHD (QB2 CODE 1)

QB16. Which, if any, of the following describe the way in which the in-home display / smart energy display – IF SUPPLIER 1 SAMPLE was shown to you? Were you...

Please say yes to all that apply

READ OUT

MULTICODE

- 1. Given a booklet about it to read and keep
- 2. Given some general advice on how to use it
- 3. Shown through each screen of the In Home Display / Smart energy display IF SUPPLIER 1 SAMPLE
- 4. Shown a video

- 5. Something else (SPECIFY)
- 6. None of these (SINGLE CODE ONLY)
- 7. Don't know

ASK ALL RECEIVING AN IHD (QB2 CODE 1)

QB17. And which, if any, of the following did the installer show you while demonstrating the in-home display / smart energy display – IF SUPPLIER 1 SAMPLE? Please say yes to all that apply

READ OUT

MULTICODE

- 1. How to identify how much energy different appliances are using (e.g. by turning on a kettle)
- 2. How to check how your energy use is changing over time
- 3. How to set a budget for what you spend on energy
- How to work out what a normal level of energy use is for your household i.e. what you use on a typical day, week or month
- 5. How to use the 'traffic lights' which show you whether you are using a high, medium or low amount of electricity at that point in time
- 6. None of these
- 7. Don't know / Can't remember

ASK ALL

QB18. For which, if any, of the following topics would you now like to receive more information? Please say yes to all topics that apply

READ OUT

RANDOMISE STATEMENTS 1-5

MULTICODE

- How your In Home Display / smart energy display IF SUPPLIER 1 SAMPLE works (Do not ask if QB2 = 2 or 3)
- 2. How your smart meter works
- 3. What happens to the data that is stored in your Smart Meter and who can access it
- 4. How to use less energy in your home through changing your habits and routines
- 5. What changes you could make to your home to make it more energy efficient
- 6. ONLY ASK IF CODE 1 AT QB2 How to use your In Home Display/smart energy display IF SUPPLIER 1 SAMPLE to manage how much energy you use
- 7. None of these
- 8. Don't know

ASK ALL

QB19. Has your energy supplier contacted you since your installation visit about any of the following, or not? Please say yes to all that apply

READ OUT

RANDOMISE STATEMENTS 1-5

MULTICODE

- 1. To check the installation took place
- 2. To see if there were further questions you wanted to ask about your in home display / smart energy display IFSUPPLIER 1 SAMPLE (Do not ask if QB2 = 2 or 3)
- 3. To see if there were further questions you wanted to ask about your smart meter
- 4. To give further information about how you can save energy in your home
- 5. To carry out a customer satisfaction survey
- 6. None of these
- 7. Don't know

ASK FOR EACH OF CODES 1-5 CODED YES AT QB19

QB20. And how did they contact you about [INSERT CODE FROM B19]?

DO NOT READ OUT

MULTICODE

- 1. By email
- 2. By phone
- 3. By post
- 4. Someone visited my house
- 5. None of these
- 6. Don't know

ASK ALL

READ OUT

MULTICODE

QB21. To what extent were you satisfied or dissatisfied with your overall experience of the <u>installation</u> of your smart meter, IF RECEIVED IN HOME DISPLAY (CODE 1 AT B2): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE? Anything else?

- 1. Very satisfied
- 2. Fairly satisfied
- 3. Neither satisfied nor dissatisfied

- 4. Fairly dissatisfied
- 5. Very dissatisfied
- 6. DO NOT PROMPT Don't know

ASK IF PPM ONLY (FROM SAMPLE)

QB22. Since the installation of your smart meter have you used any of the following ways to top up? Please say yes to all that apply

READ OUT

MULTICODE

- 1. Online
- 2. At a shop
- 3. By telephone
- 4. Through an app on your phone
- 5. Don't know

ASK ALL

QB24. And since the installation of your Smart Meter, how often, if at all, have you looked at information about how much energy you are using [IF PPM: or your credit balance] through each of the following:

READ OUT

- A. ASK IF QB2 CODE 1: Your in home display/Smart energy display IF SUPPLIER 1 SAMPLE
- B. An app from your energy supplier that shows data from your Smart Meter
- C. Your online account with your energy supplier
- 1. Most days
- 2. About once or twice per week
- 3. About once or twice per month
- 4. Less often than once per month
- 5. Never
- 6. I don't have this
- 7. Don't know

SECTION C: IHD USAGE

ASK ALL WHO SAY THEY NEVER LOOK AT IHD OR DON'T KNOW HOW OFTEN THEY LOOK AT IT (QB24A Code 5 or 6)

QC1. Is your in-home display / smart energy display – IF SUPPLIER 1 SAMPLE still plugged in and used by anyone in your household?

INTERVIEWER NOTE – if respondent says they sometimes have the display plugged in but sometimes unplug it this counts as being 'generally plugged in' so please code 1 'Yes'. Code 2 'No' is for respondents who have permanently stopped plugging in and using their in-home display.

If respondent says they have more than one IHD ask them to answer the questions thinking about the one they received at the time their smart meter or new meter was installed.

SINGLE CODE

- 1. Yes
- 2. No
- DO NOT PROMPT Don't know

ASK ALL IF IHD IS NOT PLUGGED IN [QC1 CODE 2]

QC2. How long did you have your in-home display / smart energy display – IF SUPPLIER 1 SAMPLE generally turned on and in use for before you unplugged it?

DO NOT READ OUT

SINGLE CODE

- 1. For the first day after it was installed
- 2. For the first few days after it was installed
- 3. For the first week after it was installed
- 4. For the first few weeks after it was installed
- 5. For the first month after it was installed
- 6. It was never plugged in
- 7. Don't know DO NOT PROMPT

ASK ALL IF IHD IS NOT PLUGGED IN [QC1 CODE 2]

QC3 For what reasons is your in-home display / smart energy display — IF SUPPLIER 1 SAMPLE not generally plugged in and in use? Any other reasons?

MULTI-CODE

DO NOT READ OUT

1. Did not understand how to use it

- 2. Did not think it would be useful for me
- 3. I used it when it was first installed to find out how much all my appliances used and then didn't need to look at it anymore
- 4. The signal is too weak where I want to put it
- 5. I don't like the way it looks/ makes the room look cluttered
- 6. The installer did not set it up for me
- 7. I had no spare plug sockets
- 8. The display does not work
- 9. Other (please specify)
- 10. Don't know

ASK ALL EXCEPT THOSE IN SINGLE PERSON HOUSHEOLD (S6 > 1)

QC5. How often, if at all, do you and the members of your household discuss the following...?

SINGLE CODE

IF CODE E - LIVE ALONE - ON FIRST STATEMENT PLEASE SKIP TO QC6

Do you do this...

- 1. Very often
- 2. Sometimes
- 3. Not very often
- 4. Never
- 5. DO NOT PROMPT Don't know

RANDOMISE STATEMENTS 1 AND 2 BUT HOLD 3 TO END

- 1. How you can save energy
- 2. Who uses the most energy

ASK IF QC1 CODE 1 OR QB24A CODES 1-4

3. Any of the information displayed on your in-home display / smart energy display – IF SUPPLIER 1 SAMPLE (e.g. Energy use/ costs, etc.)

ASK IF CODES 1-4 AT QB24 B OR C, UNLESS (QC1 CODE 1 OR QB24A CODES 1-4)

4. Any of the information displayed on the app or your online account from your energy supplier

ASK ALL WHO LOOK AT IHD [QB24A CODES 1-4] OR QC1 code 1

QC6. Have you ever looked at each of the following features on your in-home display / smart energy display, or not?—IF SUPPLIER 1 SAMPLE? Please say yes to all that apply.

SINGLE CODE

- 1. Yes
- 2. No
- 3. DO NOT PROMPT I don't know how to look at this
- 4. DO NOT PROMPT My in-home display does not have this feature

RANDOMISE STATEMENTS

INTERVIEWER NOTE – IF ASKED, FOR STATEMENTS 1 TO 4 THIS CAN BE INFORMATION SHOWN IN EITHER KILOWATTS OR SPEND

- 1. Information on how much electricity you have used over the last week or month
- 2. Information on how much electricity you are using at that point in time
- 3. Information on how much gas you have used over the last week or month [ONLY ASK IF YES AT S4]
- 4. Information on how much gas you are using at that point in time [ONLY ASK IF YES AT S4]
- 5. Information on how much carbon you have emitted
- 6. The traffic lights which show you whether you are using a high, medium or low amount of electricity at that point in time

ASK IF PPM CUSTOMER (FROM SAMPLE) AND LOOK AT IHD (CODES 1-4 QB24A OR CODE 1 AT QC1)

QC7. Have you ever looked at the following features on your in-home display / smart energy display – IF SUPPLIER 1 SAMPLE? So, firstly...

Please say yes to all that apply.

SINGLE CODE

- 1. Yes
- 2. No
- 3. DO NOT PROMPT I don't know how to look at this
- 4. DO NOT PROMPT My in home display does not have this feature
- 1. Information on your remaining credit balance
- 2. Information on your debt balance
- 3. Low credit alerts

ASK IF PPM CUSTOMER AND LOOK AT APP OR WEBSITE (CODES 1-4 AT QB24 B OR C)

QC8. And have you ever looked at the following features. So, firstly...

IF CODES 1-4 AT QB24B ONLY: The app from your energy supplier
IF CODES 1-4 AT QB24C ONLY: Your online account with your energy supplier
IF CODES 1-4 AT QB24B AND C: The app or your online account from your energy supplier

Please say yes to all that apply.

- 1. Yes
- 2. No
- 3. DO NOT PROMPT I don't know how to look at this
- 4. DO NOT PROMPT My app/ account does not have this feature
- 1. Information on your remaining credit balance
- 2. Information on your debt balance
- 3. Low credit alerts

ASK IF QC1 CODE 1 OR QB24A CODES 1-4

ASK IF QC1 CODE 1 OR QB24A CODES 1-4

QC10. Have you ever used your in-home display / smart energy display – IF SUPPLIER 1 SAMPLE to:

- A. Work out what a normal level of energy use is for your household i.e. what you use on a typical day, week or month, or not?
- B. Set a budget for what you spend on energy, or not?

SINGLE CODE

- 1. Yes, have
- 2. No, have not
- 3. Don't know

ASK ALL WHO LOOK AT APP OR WEBSITE BUT NOT IHD (CODES 1-4 AT QB24 B OR C AND CODES 5-7 AT QB24A)

QC12. Have you ever used the app or online account from your energy supplier to:

- A. Work out what a normal level of energy use is for your household i.e. what you use on a typical day, week or month, or not?
- B. Set a budget for what you spend on energy, or not?

SINGLE CODE

- 1. Yes, have
- 2. No, have not
- 3. Don't know

ASK IF QC1 CODE 1 OR QB24A CODES 1-4

QC14. And how often, if at all, do you use your in-home display / smart energy display – IF SUPPLIER 1 SAMPLE to do the following

- 1. Check that nothing is left on in the house when you go out or when you go to sleep
- 2. [ASK IF MORE THAN ONE PERSON IN HOUSEHOLD] **Encourage others in your household to reduce** their energy use

Do you do this....

- 1. Most days
- 2. A few times a week
- 3. Around once a week
- 4. Around once a fortnight
- 5. Around once a month
- 6. Less often than once a month
- 7. Never
- 8. Don't know

SECTION D: DATA CONCERNS

QD1. Were you given any information about how your energy supplier uses and stores data about your households energy use over time from your smart meter, or not?

SINGLE CODE

- A. Yes, I was given some information about this
- B. No, I was not given any information about this
- C. DO NOT PROMPT Don't know

ASK IF CODE 1 AT QD1

QD2: And which of the following best describes the information that you received about how your energy supplier uses and stores data from your smart meter.

READ OUT

- A. It did not answer all the queries I had
- B. It answered most of the queries I had
- C. It answered all of the queries I had
- D. I did not have any queries about it
- E. DO NOT PROMPT Don't know

ASK ALL

QD3. Did your supplier ask you if you were happy to share data from your smart meter with them, showing them how much energy your household uses each half hour of the day?

SINGLE CODE

- Yes, and I agreed to share this data with my energy supplier IF SELECT THIS CODE, INTERVIEWER TO CHECK: Did you agree to share <u>half hourly</u> data specifically?
- 2. Yes, but I did not agree to share this data with my energy supplier
- 3. No
- 4. Don't know

ASK IF CODE 1 AT QD3

QD4. What would you say were the main reasons that you agreed to share this data with your energy supplier?

DO NOT READ OUT

MULTICODE

- 1. I think it will benefit me (general mention)
- 2. I think it will mean my bills are lower / it will reduce my prices (general mention)
- 3. I think it will help me get a better/tailored/more suitable energy tariff / energy plan in future
- 4. It will help me receive more information / tailored information on how I can save energy
- 5. It was necessary to get an app/ another specific benefit from my supplier
- 6. I think it will benefit my energy supplier (general mention)
- 7. I think it will help energy suppliers to better predict when/how much energy they need to provide
- 8. I didn't see any reason not to / I didn't see any disadvantages
- 9. Other specify
- 10. Don't know

ASK IF CODE 2 AT QD3

QD5. What would you say were the main reasons that you did not agree to share this data with your energy supplier?

DO NOT READ OUT

MULTICODE

- 1. I don't trust my energy supplier (general mention)
- 2. I don't trust my energy supplier to store this information securely
- 3. I don't trust my energy supplier not to use this information to try to sell me products
- 4. I don't trust my energy supplier not to share this information with other third parties/other organisations/other businesses
- 5. I didn't understand why they wanted this data
- 6. I didn't have enough information about how my data would be stored
- 7. I didn't think it would benefit me
- 8. I didn't think it would benefit my suppliers
- 9. I don't like sharing my data/ don't like sharing data in general
- 10. Other specify
- 11. Don't know

SECTION E: DEMOGRAPHICS

ASK ALL

D1. Which of these applies to your home?

READ OUT

- 1. Being bought on a mortgage
- 2. Owned outright by household
- 3. Rented from a private landlord
- 4. Rented from a local authority
- 5. Rented from a Housing Association/Trust
- 6. Other
- 7. Don't know
- 8. Refused

ASK ALL

SINGLE CODE

D3. What type of property do you live in?

DO NOT READ OUT

SINGLE CODE - PROBE FOR CORRECT ANSWER

- 1. Flat or Maisonette
- 2. Terrace Property
- 3. Semi Detached Property
- 4. Detached Property
- 5. Other (specify)
- 6. Don't know
- 7. Refused

ASK ALL EXCEPT IN SINGLE PERSON HOUSHEOLDS (S6 > 1)

D5. Without giving me their specific ages, can you please tell me how many people living in your household are aged 5 or under, between 6 and 16 or 65 or over?

OPEN

ENTER NUMBER FOR EACH CATEGORY. Allow Don't know / Refused

People living in household aged 5 or under

People living in household aged 16 or under

People living in household aged 65 or over

ASK ALL

D6. Do you [IF NOT SINGLE PERSON HOUSEHOLD D6, or anyone in your household] have any long term illness, health problem or disability which limits your daily activities or the work you [D6 -or they] can do?

- 1. Yes
- 2. No

- 3. Don't know
- 4. Refused

ASK IF YES AT D6 AND MULTI-PERSON HOUSHOLD AT S6

D7. Was this person present during the installation?

SINGLE CODE

- 1. Yes
- 2. No
- 3. Don't know
- 4. Refused

If yes (code 1 at D7 or code 1 at D6 if single-person household (S6=1)

D8. And did the installer take into account any additional needs or specific requirements during the installation, or was this not necessary?

SINGLE CODE

- 1. Yes, did take into account
- 2. No, did not take into account
- 3. No, did not take into account but was not necessary
- 4. Don't know

ASK ALL LIVING IN HOUSEHOLD WHERE SOMEONE HAS LONG TERM CONDITION (D6 CODE 1) MULTICODE

D9. What type of illness or disability do you [IF NOT SINGLE PERSON HOUSEHOLD S6, or someone in your household} have?

CODE ALL THAT APPLY FOR ALL MEMBERS OF HOUSEHOLD

- 1. Vision
- 2. Hearing
- 3. Learning difficulty
- 4. Mobility
- 5. Breathing problems
- 6. Heart disease
- 7. Mental health problems
- 8. Other
- 9. Don't know DO NOT PROMPT
- 10. Refused / No answer DO NOT PROMPT

ASK ALL

D10. To check, is your household's total income, before tax and any other deductions more than or less than £16,000 per year, or not? (IF MORE) And is it more than £30,000, or more than £50,000?

SINGLE CODE

- 1. Less than £16,000 per year
- 2. Between £16,000 and £30,000 a year
- 3. Between £31,000 and £50,000 a year
- 4. Above £50,000 a year
- 5. Don't know
- 6. Refused

ASK ALL

D11. How often, if at all, do you [IF NOT SINGLE PERSON HOUSEHOLD D6, or other members of your household] access the internet either at home or at work?

SINGLE CODE

- 1. Every day
- 2. Several times a week
- 3. Once a week
- 4. Once a fortnight
- 5. Once a month
- 6. Less frequently than once a month
- 7. Never no one in my household has access to the internet either at home or at work
- 8. DO NOT PROMPT Don't know
- 9. DO NOT PROMPT Refused

ASK ALL

D13. Do you currently receive the Warm Home Discount, or not?

SINGLE CODE

- 1. Yes
- 2. No
- 3. Don't know (DO NOT PROMPT)

Personal demographics

ASK ALL

D14. Are you?

SINGLE CODE

1. Male

- 2. Female
- 3. Refused

D15. Please can you tell me your age? IF EXACT AGE REFUSED, ASK BANDS

SINGLE CODE

- 1. 18-24
- 2. 25 -34
- $3. \quad 35-44$
- 4. 45 59
- 5. 60 64
- 6. 65-74
- 7. 75 and over
- 8. Refused

ASK ALL

D16. And which of the following best describes your current work status?

SINGLE CODE

- 1. Working full time (30+ hours per week)
- 2. Working part time (less than 30 hours a week)
- 3. Retired/Not working with private pensions/means
- 4. Unemployed less than 6 months
- 5. Unemployed more than 6 months
- 6. Retired with STATE BENEFIT/PENSION ONLY
- 7. Not working with STATE BENEFIT ONLY
- 8. Student

ASK ALL

D17. Could you please tell me the highest degree or level of education you have achieved? (IF STILL STUDYING, CHECK FOR HIGHEST ACHIEVED SO FAR)

SINGLE CODE EXCEPT FOR 8

- 1. GCSE / O-level / CSE
- 2. Vocational qualifications (=NVQ1+2)
- 3. A-Level or equivalent (=NVQ3)
- 4. Bachelor Degree or equivalent (=NVQ4)
- 5. Masters / PhD or equivalent
- 6. Other
- 7. No formal qualifications
- 8. Still studying
- 9. Refused
- 10. Don't know

D18. To which of these ethnic groups do you consider you belong? Is it....

SINGLE CODE

- 1. White
- 2. Mixed
- 3. Asian or Asian British
- 4. Black or Black British
- 5. Chinese
- 6. Other ethnic group

ASK ALL

D19. Which of the following best describes you?

SINGLE CODE

- 1. I speak English as my first language
- 2. English is not my first language, but I speak it fluently
- 3. English is not my first language, and I'm still learning the language
- 4. Refused

ASK ALL

RC1. Thank you very much for taking part in this survey. We really appreciate you taking the time to help. We would like to invite you to take part in a Follow-up survey which would take place in September this year. This will be a 15-minute survey, asking you about your energy use in the summer months to find out more about how you are getting on with your smart meter. Should you agree to this, your personal details would be held securely by Ipsos MORI and be used for no other purposes other than to invite you to participate in the survey.

Would you be willing for Ipsos MORI to recontact you in August/September time to take part in a Followup survey on this topic? If you agree now, you are still free to change your mind and decline at a later date.

- 1. Yes
- 2. No

ASK ALL WILLING TO BE RECONTACTED CODE 1 AT RC1

RC1a. Please can I take your full name? [RECORD FULL NAME]

ONLY ASK IF FROM SUPPLIER 1 SAMPLE

RC1b. Please can I confirm your address as we will send out a letter in advance of the next survey to let you know that we will soon be in touch about it by phone. Is your address:

[READ OUT ADDRESS FROM SAMPLE]

ENTER NEW ADDRESS IF NEEDED

RC1c. I have contacted you today on telephone number [XXXXXX]. Please can I take down another mobile or landline numbers it would be convenient to contact you on at the time of the next survey? This could include a mobile number.

ENTER TELEPHONE NUMBER (including area code)

RECORD UP TO THREE NUMBERS

RC2. Ipsos MORI may also conduct some more in-depth follow-up interviews in the next 6 months with people who have participated in this survey to explore their responses in more detail. This is likely to involve a researcher visiting your home for around an hour and you would receive £35 as a thank you for your time.

If these take place, would you be willing to take part? Again, if you agree now, you are still free to change your mind and decline at a later date.

SINGLE CODE

- 1. Yes would be willing
- 2. No would not be willing

THANK AND CLOSE

3. Follow up survey questionnaire

INTRO/SCREENER:

Good morning/afternoon/evening. My name is ... from Ipsos MORI, the independent research organisation. We recently sent a letter about a survey about smart meters to [NAMED CONTACT FROM SAMPLE]

SCRIPTING INSTRUCTION: SET UP LINK TO EMAIL LETTER TO RESPONDENT IF REQUESTED

S1. Please can I speak to [named person – FROM SAMPLE]?

SINGLE CODE

- 1. Yes GO TO S3
- 2. No GO TO S2

IF RESPONDENT IS NOT NAMED PERSON [S1 CODE 2]

S2. Can you confirm if [named person – FROM SAMPLE] lives in this household?

SINGLE CODE

- 4. Yes, they still live in this household MAKE APPOINTMENT
- 5. No, no-one of that name lives in this household THANK AND CLOSE
- 6. Information refused THANK AND CLOSE
- S3. Earlier this year you took part in an Ipsos MORI survey about the smart meter you had recently had installed. Thank you very much again for taking part. We are now carrying out a follow-up to that survey to ask you more about your experience of having a smart meter. We would be very grateful for your time again now as your responses will be very helpful to the Government in understanding customer experiences of the smart meter roll-out. The survey will normally take up to 20 minutes. To thank you for your time we will send you a £5 high street voucher after you have completed the survey.

[INTERVIEWER NOTE: This can be an Amazon voucher or Love to Shop high street voucher. They will be given the choice at the end]

As with the first survey I would like to assure you that all the information we collect will be used for research purposes only, and no selling is involved.

ONLY READ OUT IF SEEK ASSURANCES ABOUT THEIR DATA OR HAVE ANY OTHER QUESTIONS

[All of the responses you give will be kept entirely anonymous. Your name and address will not be given to anyone else. All your details we be deleted once the project has been completed.

You have been invited to take part in this survey as you took part in a survey with us earlier this year (in February or March 2017) and gave your permission at that time for us to contact you about a Follow-up survey to ask you more questions about your smart meter. Although you gave us permission after the first survey for us to recontact you, it does not mean you have to take part in this Follow-up survey, this is completely up to you. As explained during the first survey, Ipsos MORI have been given per mission by the Department for Business, Energy and Industrial Strategy to access your information in order to get in touch with you about this research.]

ASK ALL

SINGLE CODE

S6A. Do you still live at [INSERT ADDRESS FROM SAMPLE]?

- 1. Yes CONTINUE
- 2. No THANKS AND CLOSE

S6. Including yourself, how many people normally live at this address?

ENTER NUMBER. CANNOT BE ZERO.

Don't

know

Refused

NOTE TO SCRIPTER: Info comes from sample for supplier and payment type

S7. Since the installation of your smart meter, have you switched your electricity supplier?

- 1. Yes switched electricity and gas supplier
- 2. Yes switched electricity supplier only
- 3. Yes switched gas supplier only
- 4. In the process of switching but not completed yet
- 5. No
- 6. Don't know

ASK IF SWITCHED (CODE 1 or 2) AT S7

- S9. In which month of the year did you switch your electricity or gas supplier? If you aren't sure, please give your best estimate.
 - 1. [WRITE IN MONTH]
 - 2. Don't know

Section A: Consumer attitudes to energy

ASK ALL

QA1. I am now going to read out a number of statements that other people have made about the energy they use at home. Thinking about how your household has tended to use energy over the last few months, please tell me to what extent you agree or disagree with each one?

SINGLE CODE

READ OUT

	Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	Don't know – DO NOT PROMPT
I have tried to reduce the amount of energy I use at home						
2. I think there is more I could do to reduce the amount of energy I use at home						

3.I am more concerned about having a warm			
and comfortable home			
than saving energy			
5. I feel in control of			
how much energy I			
personally use			
6. I know what uses			
the most energy in my			
home			

READ OUT

SINGLE CODE

RANDOMISE STATEMENTS

QA2. I am now going to read out some things that people may do in their homes. For each one, again thinking about the last few months, please tell me to what extent you agree or disagree with the statement

"I am the kind of person who tends to..."

- G. Leave the lights on when I am not in the room
- H. Boil the kettle with more water than I am going to use
- I. Wash clothes at 40 degrees C or higher
- J. Heat rooms that I am not using to the same temperature as those I am using
- K. Leave the heating on when I go out for a few hours
- L. Ignore the energy consumption of new products or appliances when buying them
- 7. Strongly agree
- 8. Tend to agree
- 9. Neither agree nor disagree
- 10. Tend to disagree
- 11. Strongly disagree
- 12. Don't know (DO NOT READ OUT)

ASK ALL EXCEPT DUAL FUEL CUSTOMERS (S4 FROM SAMPLE=NO/ DK)

HOWEVER INCLUDE DUAL FUEL CUSTOMERS (S4 FROM SAMPLE = YES) THAT HAVE SWITCHED THEIR GAS OR ELECTRICITY SUPPLIER ONLY (CODES 2 AND 3 AND S7)

QA6 Overall how satisfied or dissatisfied are you with your electricity supplier?

- 7. Very satisfied
- 8. Fairly satisfied
- 9. Neither satisfied nor dissatisfied

- 10. Fairly dissatisfied
- 11. Very dissatisfied
- 12. DO NOT PROMPT Don't know

ASK ALL DUAL FUEL CUSTOMERS (S4 FROM SAMPLE=YES) EXCLUDING THOSE THAT HAVE SWITCHED THEIR GAS OR ELECTRICITY SUPPLIER ONLY (CODES 2 AND 3 AND S7)

QA7. Overall how satisfied or dissatisfied are you with your gas and electricity supplier?

SINGLE CODE

- 7. Very satisfied
- 8. Fairly satisfied
- 9. Neither satisfied nor dissatisfied
- 10. Fairly dissatisfied
- 11. Very dissatisfied
- 12. DO NOT PROMPT Don't know

ASK IF NON-SWITCHER (CODES 3 – 6 AT S7) AND HAVE A CHANGE OF 2 OR MORE FROM 1st SURVEY AT QA6 OR QA7, EXCLUDING DKi.e. FROM SATISFIED TO DISSATISFIED, OR VICE VERSA, OR FROM NEITHER/NOR TO VERY SATISFIED OR VERY DISSATISFIED

QA7A. You said you are [more/less] satisfied with your [IF NOT DUAL FUEL: electricity IF DUAL FUEL: gas and electricity] supplier in this survey than when we asked you about this earlier in the year. What would you say are the main reasons for this?

DO NOT READ OUT

MULTICODE

IF LESS SATISFIED

- 1. Increase in bills
- 2. Still getting estimated bills
- 3. meter not working as it should
- 4. IHD/display/monitor not working as it should
- 5. problems topping up
- 6. Problems with billing [general mention] INTERVIEWER TO PROBE DETAIL
- 7. Problems with the smart meter or IHD [general mention] INTERVIEWER TO PROBE DETAIL
- 8. Not being able to keep 'smart' functionality if switch
- 9. Poor customer service
- 10. Other (specify)

IF MORE SATISFIED

- 1. More/clearer information on energy use
- 2. No estimated bills
- 3. No meter reads

- 4. Seeing how much spending on energy
- 5. Seeing how much credit I have left
- 6. Being able to top up prepayment meter on phone/online
- 7. Having an app
- 8. It's more convenient / makes life easier [general mention] INTERVIEWER TO PROBE DETAIL
- 9. Good customer service
- 10. Other (specify)

ASK IF NOT SWITCHER (INCLUDE CODE 3 -6 AT S7) AND DID NOT HAVE in-home energy display/smart energy display AT PHASE 1 (CODE 2 AT QB1 OR QB2 IN SAMPLE FILE)

QB1b. Since the installation of your smart meter, have you received an in-home energy display/IHD [/ smart energy display – IF SUPPLIER 1 SAMPLE] or monitor which is the digital screen that tells you in near real-time how much energy you have been using through charts, lights and numbers, as you use it.

SINGLE CODE

- 4. Yes
- 5. No
- DO NOT PROMPT Don't know

ASK ALL

QB1d. Please could you tell me if you have any of the following. Please just say yes to each tht applies.

MULTICODE EXCEPT 4 AND 5

- 1. An app from your energy supplier on your mobile phone or tablet that shows data from your Smart Meter
- 2. ASK IF PPM ONLY: An app from your energy supplier on your mobile phone or tablet that you use to top up your bills
- 3. An online account with your energy supplier
- 4. [DO NOT PROMPT] None of these
- 5. [DO NOT PROMPT] Don't know

QA9. Thinking about now compared with this time last year, do you think the amount of gas your household uses (for instance for heating or cooking) has increased, decreased or stayed the same? Please think about the amount you use rather than how much you pay.

INTERVIEWER NOTE: If respondent mentions the price of gas when answering stress this question is asking about the amount used, not the price paid. We want to know if the amount they use has gone up, gone down or stayed the same, regardless of whether they are paying more for it.

SINGLE CODE

- A. Increased a lot
- B. Increased a little
- C. Stayed about the same
- D. Decreased a little
- E. Decreased a lot
- F. DO NOT PROMPT Don't know

ASK ALL CONNECTED TO MAINS GAS [FROM SAMPLE – PHASE 1 SURVEY S4 CODE 1] WHO THINK GAS USE HAS INCREASED OR DECREASED [QA9 A, B, D, OR E]

QA10. What do you think has led to the amount of gas your household uses [increasing QA9 CODE A OR B / decreasing QA9 CODE D OR E]? This could include changes to who lives in your household, physical changes to your home or changes to how you use energy.

MULTI-CODE EXCEPT CODE 14

DO NOT READ OUT

- 1. More/ fewer people live in the household
- 2. People are spending more/less time in the house
- 3. Changes in the weather/ it's colder/ warmer
- 4. Changes to the physical building, e.g. extension or veranda
- 5. Have the heating on for more or less time/at different times
- 6. Have the heating set to higher or lower temperature
- 7. Using gas appliances (e.g. a gas hob or hot water) more/less/differently
- 8. Installed draught-proofing
- 9. Installed insulation / loft insulation / wall insulation / underfloor insulation
- 10. Replaced or upgraded our boiler
- 11. Replaced other gas appliances with more efficient versions
- 12. Installed new/upgraded heating controls / radiator valves / thermostat
- 13. Made improvements to our heating system / cleaned heating system
- 14. Other (specify)
- 15. DO NOT PROMPT Don't know

ASK ALL

QA12). Thinking about now compared with this time last year, do you think the amount of electricity your household uses has increased, decreased or stayed the same? Please think about the amount you use rather than how much you pay.

INTERVIEWER NOTE: If respondent mentions the price of electricity when answering stress this question is asking about the amount used, not the price paid. We want to know if the amount they use has gone up, gone down or stayed the same, regardless of whether they are paying more for it.

SINGLE CODE

- A. Increased a lot
- B. Increased a little
- C. Stayed about the same
- D. Decreased a little
- E. Decreased a lot
- F. DO NOT PROMPT Don't know

ASK ALL WHO THINK ELECTRICITY USE HAS INCREASED OR DECREASED [QA12 CODE A OR B OR D OR E]

QA13. What do you think has led to the amount of electricity your household uses [increasing – QA12 CODE A OR B]/ decreasing – QA12 CODE D OR E]? This could include changes to who lives in your household, physical changes to your home or changes to how you use energy

MULTI-CODE EXCEPT CODE 10

DO NOT READ OUT

- 1. More/ fewer people live in the household
- 2. People are spending more/less time in the house
- 3. Changes in the weather/ it's colder/ warmer
- 4. Have electric heating on for more or less time/at different times
- 5. Have electric heaters set to higher or lower temperature
- 6. Using electric appliances (e.g. kettle, lights, washing machines/ dryers, TVs) more/ less/ differently
- 7. Installed new lighting/ upgraded lighting/ LED lights
- 8. Replaced electrical appliances e.g. kettle/fridge/ washing machine/ dryer with more energy efficient versions
- 9. Other (specify)
- 10. DO NOT PROMPT Don't know

ASK ALL EXCEPT THOSE WHO DO NOT KNOW IF EITHER GAS OR ELECTRICITY USE HAS CHANGED [CODE F TO BOTH QA9 & QA15]

QA14. And what pieces of information, if any, have you seen that have shown you that the amount of energy your household uses has [changed NOT CODE C TO BOTH QA9 and QA12/ stayed the same CODE C TO BOTH QA9 and QA12]

MULTI-CODE EXCEPT CODE 5 AND 6

DO NOT READ OUT

- 1. Information on my bill/annual statement
- 2. Information on my in-home energy display/ IHD/ smart energy display
- 3. My own records on how much I'm using

- 4. Information shown on an app from my energy supplier
- 5. Information shown on my online account with my energy supplier
- 6. Other (specify)
- 7. None of these no information has informed me about my energy use
- 8. DO NOT PROMPT Don't know

QA17. Please can you tell me, whether any of the following have been fitted in your home, and whether they have been installed or upgraded since getting your smart meter?

INTERVIEWER IF NECESSARY: Again, when answering please think about whether or not this has been done to your property, even if the decision was not made by you personally or it was done before you moved in. Please also let me know if you think any of these measures are not possible to install in your home.

READ OUT

SINGLE CODE

- 1. Yes, and it was fitted or upgraded since the installation of my smart meter
- 2. Yes, but it was fitted before my smart meter was installed
- 3. No, this is not fitted anywhere in my home
- 4. Don't know (DO NOT PROMPT)
- 1. Loft insulation or top-up loft insulation or under floor insulation
- 2. Draught proofing to windows and/or doors
- 3. Double glazing or secondary glazing
- 4. Wall insulation [IF NEEDED: This could be cavity wall or solid wall insulation]
- 5. More energy efficient lightbulbs
- 6. A more efficient boiler
- 7. Technology which provides you with a renewable electricity supply (for example solar panels, micro-wind turbine, micro-hydro system)

ASK FOR EACH OF STATEMENTS 1-7 AT QA17 WHERE THE PARTICIPANT CODED 1

QA17b And, would you say that you had this fitted:

- Entirely because of your smart meter IF RECEIVED IN HOME DISPLAY (QB1b CODE 1 OR PHASE 1 QB2 CODE 1): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE.
- Mostly because of your smart meter IF RECEIVED IN HOME DISPLAY (QB1b CODE 1 OR PHASE 1 QB2 CODE 1): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE but partly for other reasons

- Partly because of your smart meter IF RECEIVED IN HOME DISPLAY (QB1b CODE 1 OR PHASE 1 QB2 CODE 1): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE. but mostly for other reasons
- 4. Entirely for other reasons
- 5. Don't know

ASK FOR EACH OF STATEMENTS 1-4 THAT WERE NOT INSTALLED AT TIME OF FIRST SURVEY (QA3-1 to QA3-4 = ANY CODE EXCEPT YES, FROM SAMPLE)

QA18.

I am now going to read out some things that some homes may have installed to help them control their heating. Please can you tell me, which, if any, of the following controls you have in your home?

INTERVIEWER IF NECESSARY: When answering please think about whether or not this has been installed in your property, even if the decision was not made by you personally. Please also let me know if you think any of these controls are not possible to install in your home.

READ OUT

SINGLE CODE

- 5. Yes
- 6. No
- Don't know (DO NOT PROMPT)
- 5. Valves to control the temperature of individual radiators
- 6. A central thermostat to set the temperature of your whole home IF NECESSARY: that is not attached to your boiler
- 7. A programmable thermostat, allowing you to set your heating to different temperatures at different times
- 8. An automated or smart thermostat which can control your heating automatically or remotely, for example through an app [such as Hive or Nest]

ASK FOR EACH OF STATEMENTS 1-4 THAT **WERE** INSTALLED AT TIME OF FIRST SURVEY (QA3-1 to QA3-4 = YES, FROM SAMPLE)

QA19.

In the previous survey, you said that you had [INSERT STATEMENTS FROM PHASE 1 QA3, FROM SAMPLE] fitted in your home. Please can you tell me whether these have been upgraded since?

INTERVIEWER IF NECESSARY: When answering please think about whether or not this has been upgraded in your property, even if the decision was not made by you personally.

READ OUT

- 1. Yes
- 2. No
- 3. Don't know (DO NOT PROMPT)
- 1. Valves to control the temperature of individual radiators
 - 2. A central thermostat to set the temperature of your whole home IF NECESSARY: that is not attached to your boiler]
 - 3. A programmable thermostat, allowing you to set your heating to different temperatures at different times

ASK IF ANY YES AT QA18 or QA19

QA20. And would you say that you had these heating controls fitted or upgraded:

SINGLE CODE

- Entirely because of your smart meter IF RECEIVED IN HOME DISPLAY (QB1b CODE 1 OR PHASE 1 QB2 CODE 1): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE]
- Mostly because of your smart meter IF RECEIVED IN HOME DISPLAY (QB1b CODE 1 OR PHASE 1 QB2 CODE 1): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE] but partly for other reasons
- Partly because of your smart meter IF RECEIVED IN HOME DISPLAY (QB1b CODE 1 OR PHASE 1 QB2 CODE 1): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE], but mostly for other reasons
- 4. Entirely for other reasons
- 5. Don't know

In this section I am going to ask you some questions about your smart meter IF RECEIVED IN HOME DISPLAY (QB1b CODE 1 OR PHASE 1 QB2 CODE 1): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE]

ASK ALL

QB3 Overall how satisfied or dissatisfied are you with your smart meter, IF RECEIVED IN HOME DISPLAY (QB1b CODE 1 OR PHASE 1 QB2 (FROM SAMPLE) CODE 1): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE?

IF SWITCHER (CODE 1 OR 2 AT S7) USE THIS Q WORDING: Thinking back to when you had a Smart Meter, overall how satisfied or dissatisfied were you with your smart meter, IF RECEIVED IN HOME DISPLAY (QB1b CODE 1 OR PHASE 1 QB2 (FROM SAMPLE) CODE 1): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE?

SINGLE CODE

- 7. Very satisfied
- 8. Fairly satisfied
- 9. Neither satisfied nor dissatisfied
- 10. Fairly dissatisfied
- 11. Very dissatisfied
- 12. DO NOT PROMPT Don't know

ASK ALL WHO HAVE A CHANGE OF 2 OR MORE FROM 1st SURVEY AT QB3, EXCLUDING DK i.e. FROM SATISFIED TO DISSATISFIED, OR VICE VERSA, OR FROM NEITHER/NOR TO VERY SATISFIED OR VERY DISSATISFIED

QB3A. You said you are [more/less] satisfied with your smart meter IF RECEIVED IN HOME DISPLAY (QB1b CODE 1 OR PHASE 1 QB2 CODE 1): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE] in this survey than when we asked you about this earlier in the year. What would you say are the main reasons for this?

DO NOT READ OUT

MULTICODE

IF LESS SATISFIED

- 1. Increase in bills
- 2. Still getting estimated bills
- 3. meter not working as it should
- 4. IHD/display/monitor not working as it should
- 5. problems topping up
- 6. Problems with billing [general mention] INTERVIEWER TO PROBE DETAIL
- 7. Problems with the smart meter or IHD [general mention] INTERVIEWERTO PROBE DETAIL
- 8. Not being able to keep 'smart' functionality if switch
- 9. Poor customer service
- 10. Other (specify)

IF MORE SATISFIED

- 1. More/clearer information on energy use
- 2. No estimated bills
- 3. No meter reads
- 4. Seeing how much spending on energy
- 5. Seeing how much credit I have left
- 6. Being able to top up prepayment meter on phone/online
- 7. Having an app
- 8. Other (specify)

QB4. How likely would you be to recommend a Smart Meter to a friend, colleague or relative? Please give your answer on a scale of one to ten where one means you would definitely <u>not</u> recommend a Smart Meter and ten means you <u>would</u> definitely recommend a Smart Meter if asked.?

SINGLE CODE

- 12. 1 = definitely not recommend
- 13. 2
- 14. 3
- 15. 4
- 16. 5
- 17. 6
- 18. 7
- 19.8
- 20. 9
- 21. 10 = definitely would recommend
- 22. Don't know

ASK ALL

QB9. And what concerns, if any, do you have about having a smart meter, IF RECEIVED IN HOME DISPLAY (QB1b CODE 1 OR PHASE 1 QB2 CODE 1): including the in-home display/smart energy display — IF SUPPLIER 1 SAMPLE? Anything else?

DO NOT READ OUT

MULTI-CODE

CONCERNS/ PROBLEMS WITH SMART METER OR IHD

- 28. Difficult to use/understand
- 29. Not been installed correctly/it's not working properly (general mention)
- 30. The smart meter does not provide accurate readings
- 31. Too ugly for my home

- 32. I might get/have been disconnected by accident / if I press something wrongly I might lose/have lost my supply
- 33. Smart meter being remotely disconnected due to supplier error or technical glitch
- 34. The information shown on the IHD is too basic
- 35. I don't want the in-home display
- 36. Might not able to switch/ if I switch I won't be able to use Smart Meter anyway

DATA CONCERNS

- 37. Invasion of privacy/they will know exactly what I'm doing
- 38. The data could get into the wrong hands/ be hacked

FINANCIAL REASONS

- 39. The cost of having smart meter is added to my bill
- 40. It is expensive for the energy companies
- 41. It is expensive for the government
- 42. My energy company might use/ has used the information to charge me more for the times I use energy the most

OTHER

- 43. Health risks (general mention)
- 44. Radiation / radio waves from the meter
- 45. I don't trust my energy company (general mention) INTERVIEWER PROBE FURTHER
- 46. I don't trust the technology (general mention) INTERVIEWER PROBE FURTHER
- 47. Paying too much attention to the display/checking it too much
- 48. I use too little / dangerously low levels of energy/heating
- 49. Other (please specify)
- **50.** Nothing/no concerns
- **51.** Don't know

ASK ALL, BUT DO NOT ASK STATEMENTS 1, 2, 3 AND 6 IF SWITCHERS (CODES 1-2 AT S7)

QB18. For which, if any, of the following topics would you now like to receive more information? Please say yes to all topics that apply

READ OUT

RANDOMISE STATEMENTS 1-5

MULTICODE

- 9. How your In Home Display / smart energy display IF SUPPLIER 1 SAMPLE works (Do not ask if QB1b CODE 2 OR 3 OR PHASE 1 QB2 CODE 2OR 3)
- 10. How your smart meter works
- 11. What happens to the data that is stored in your Smart Meter and who can access it
- 12. How to use less energy in your home through changing your habits and routines
- 13. What changes you could make to your home to make it more energy efficient

- 14. ONLY ASK IF QB1b CODE 1 OR PHASE 1 QB2 CODE 1 How to use your In Home Display/smart energy display IF SUPPLIER 1 SAMPLE to manage how much energy you use
- 15. None of these
- 16. Don't know

QB19. Has your energy supplier contacted you since your installation visit about any of the following, or not? Please say yes to all that apply

READ OUT

RANDOMISE STATEMENTS 1-6

MULTICODE

- 8. DO NOT ASK IF SWITCHER (CODES 1-2 AT S7): To see if there were further questions you wanted to ask about your smart meter or in home display / smart energy display IF SUPPLIER 1 SAMPLE (Do not ask ifQB1b CODE 2 OR 3 OR PHASE 1 QB2 CODE 2 OR 3)
- 9. To give further information about how you can save energy in your home
- 10. To give advice about energy efficiency measures such as loft insulation or cavity wall insulation
- 11. To give information about schemes that could help you with financing energy efficiency measures IF NEEDED: Such as the energy company obligation, or ECO]
- 12. To give you more information about your energy use, such as how it compares to similar households or how much different appliances use
- 13. To ask whether you would be happy to share half hourly energy consumption data from your smart meter with them
- 14. None of these
- 15. Don't know

ASK IF RECEIVED ENERGY SAVING ADVICE FOLLOW-UP CONTACT (ANY OF CODES 2, 3, 4 AT QB19)

SINGLE CODE

QB19a. And how useful, was this follow up contact?

- 1. Very useful
- 2. Fairly useful
- 3. Neither useful nor not useful
- 4. Not very useful
- 5. Not useful
- 6. Don't know

ASK IF RECEIVED ENERGY SAVING ADVICE FOLLOW-UP CONTACT (ANY OF CODES 2, 3, 4 AT QB19)

QB20. And how did they contact you? Please select all that apply

DO NOT READ OUT

MULTICODE

- 7. By email
- 8. By phone
- 9. By post
- 10. Someone visited my house
- 11. None of these
- 12. Don't know

ASK IF PPM ONLY (FROM SAMPLE) BUT DO NOT ASK IF SWITCHED (CODES 1-2 AT S7)

QB22. Since the installation of your smart meter have you used any of the following ways to top up? Please say yes to all that apply

READ OUT

MULTICODE

- 6. Online
- 7. At a shop/paypoint outlet
- 8. By telephone
- 9. Through an app on your phone
- 10. Don't know

ASK IFTOP UP BY MORE THAN ONE METHOD (>1 CODES 1-4 SELECTED AT QB22

QB22a. And since the installation of your smart meter, which of the following ways to top up have you used most often?

[NOTE TO SCRIPTER – ONLY DISPLAY CODES MENTIONED AT QB22]

READ OUT

SINGLE CODE

- 1. Online
- 2. At a shop/pay-point outlet
- 3. By telephone
- 4. Through an app on your phone
- 5. Don't know

ASK IF PPM ONLY (FROM SAMPLE) BUT DO NOT ASK IF SWITCHED (CODES 1-2 AT S7)

QB22b. And do you feel that topping up has become easier or more difficult since the installation of your smart meter?

READ OUT

- 1. A lot easier
- 2. A little easier
- 3. About the same

- 4. A little more difficult
- 5. A lot more difficult
- 6. Don't know

SECTION C: IHD USAGE

QB24. Thinking about the last couple of months, how often, if at all, have you looked at information about how much energy you are using (either in pounds and pence or kilowatts) [IF PPM: or your credit balance] through each of the following:

READ OUT

SINGLE CODE

- D. **QB1b CODE 1 OR PHASE 1 QB2 CODE 1** Your in home display/Smart energy display IF SUPPLIER 1 SAMPLE
- E. ASK IF QB1d CODE 1 OR 2: An app from your energy supplier that shows data from your Smart Meter
- F. ASK IF QB1d CODE 3: Your online account with your energy supplier
- 8. Most days
- 9. About once or twice per week
- 10. About once or twice per month
- 11. Less often than once per month
- 12. Never
- 13. Don't know

ASK ALL WHO SAY THEY NEVER LOOK AT IHD OR DON'T KNOW HOW OFTEN THEY LOOK AT IT (QB24A Code 5 or 6)

QC1. Is your in-home display / smart energy display – IF SUPPLIER 1 SAMPLE still generally plugged in and used by anyone in your household?

INTERVIEWER NOTE – Code 2 'No' is for respondents who have permanently stopped plugging in and using their in-home display. If respondent says they sometimes have the display plugged in but sometimes unplug it this counts as being 'generally plugged in' so please code 1 'Yes'.

If respondent says they have more than one IHD ask them to answer the questions thinking about the one they received at the time their smart meter or new meter was installed.

- 4. Yes
- 5. No
- 6. DO NOT PROMPT Don't know

ASK ALL IF IHD IS NOT PLUGGED IN [QC1 CODE 2]

QC2. How long did you have your in-home display / smart energy display – IF SUPPLIER 1 SAMPLE generally turned on and in use for before you unplugged it?

DO NOT READ OUT

SINGLE CODE

- 8. For the first day after it was installed
- 9. For the first week after it was installed
- 10. For the first month after it was installed
- 11. For the first few months after it was installed
- 12. For the first six months after it was installed
- 13. It was never plugged in
- 14. Don't know DO NOT PROMPT

ASK ALL IF IHD IS NOT PLUGGED IN [QC1 CODE 2 OR 3]

QC3 For what reasons is your in-home display / smart energy display – IF SUPPLIER 1 SAMPLE not generally plugged in and in use? Any other reasons?

MULTI-CODE

DO NOT READ OUT

- 11. Did not understand how to use it
- 12. Did not think it would be useful for me
- 13. I used it when it was first installed to find out how much all my appliances used and then didn't need to look at it anymore
- 14. The signal is too weak where I want to put it
- 15. I don't like the way it looks/ makes the room look cluttered
- 16. The installer did not set it up for me
- 17. I had no spare plug sockets
- 18. The display does not work
- 19. It is stressful/ worrying to have it on
- 20. I plug it in every now and then to check
- 21. Other (please specify)
- 22. Don't know

ASK ALL EXCEPT THOSE IN SINGLE PERSON HOUSHEOLD (S6 > 1)

QC5. How often, if at all, do you and the members of your household discuss the following...?

Do you do this...

- 6. Very often
- 7. Sometimes
- 8. Not very often
- 9. Never
- 10. DO NOT PROMPT Don't know

RANDOMISE STATEMENTS

- 5. How you can save energy
- 6. Who uses the most energy
- 7. What appliances use the most energy
- 8. When your household uses the most energy

ASK IF QC1 CODE 1 OR QB24A CODES 1-4

9. Any of the information displayed on your in-home display / smart energy display – IF SUPPLIER 1 SAMPLE (e.g. Energy use/ costs, etc.)

ASK IF CODES 1-4 AT QB24 B OR C, UNLESS (QC1 CODE 1 OR QB24A CODES 1-4)

10. Any of the information displayed on the app or your online account from your energy supplier

ASK ALL WHO LOOK AT IHD [QB24A CODES 1-4] OR QC1 code 1

QC6. Within the last couple of months, have you looked at each of the following features on your inhome display / smart energy display, or not?—IF SUPPLIER 1 SAMPLE? Please say yes to all that apply.

SINGLE CODE

- 5. Yes
- 6. No
- 7. DO NOT PROMPT I don't know how to look at this
- 8. DO NOT PROMPT My in-home display does not have this feature

RANDOMISE STATEMENTS

INTERVIEWER NOTE – IF ASKED, FOR STATEMENTS 1 TO 4 THIS CAN BE INFORMATION SHOWN IN EITHER KILOWATTS OR SPEND

- 7. Information on how much electricity you have used over the last week or month
- 8. Information on how much electricity you are using at that point in time
- 9. Information on how much gas you have used over the last week or month [ONLY ASK IF YES AT S4, FROM SAMPLE]
- 10. Information on how much gas you are using at that point in time [ONLY ASK IF YES AT S4, FROM SAMPLE]
- 11. Information on how much carbon you have emitted

12. The traffic lights which show you whether you are using a high, medium or low amount of electricity at that point in time

ASK IF PPM CUSTOMER (FROM SAMPLE) AND LOOK AT IHD (CODES 1-4 QB24A OR CODE 1 AT QC1)

QC7. Within the last couple of months, have you looked at the following features on your in -home display / smart energy display – IF SUPPLIER 1 SAMPLE? So, firstly...

Please say yes to all that apply.

SINGLE CODE

- 5. Yes
- 6. No
- 7. DO NOT PROMPT I don't know how to look at this
- 8. DO NOT PROMPT My in home display does not have this feature
- 4. Information on your remaining credit balance
- 5. Information on your debt balance
- 6. Low credit alerts

ASK ALL WHO LOOK AT IHD [QB24A CODES 1-4] OR QC1 code 1

QC7a Which, if any of the following has your in-home display/smart energy display – IF SUPPLIER 1 SAMPLE shown you? Please answer yes or no for each statement.

MULTI-CODE EXCEPT CODE A AND B, CODE C AND D

REVERSE EXCEPT CODE H, I, J

- A. My household is using more electricity than I expected
- B. My household is using less electricity than I expected
- **C. My household is using more gas than I expected** [ROUTING ONLY IF MAINS GAS = FROM PHASE 1 SURVEY, S4 CODE 1]
- **D. My household is using less gas than I expected** [ROUTING ONLY IF MAINS GAS = FROM PHASE 1 SURVEY, S4 CODE 1]
- E. A particular appliance uses more energy than I expected
- F. A particular appliance uses less energy than I expected
- G. My household is using the most energy at a different time of day to when I expected
- H. Other, please specify
- I. DO NOT PROMPT None of these
- J. DO NOT PROMPT Don't know

ASK IF PPM CUSTOMER AND LOOK AT APP OR WEBSITE (CODES 1-4 AT QB24 B OR C)

QC8. And within the last couple of months, have you looked at the following features. So, firstly...

IF CODES 1-4 AT QB24B ONLY: The app from your energy supplier

IF CODES 1-4 AT QB24C ONLY: Your online account with your energy supplier

IF CODES 1-4 AT QB24B AND C: The app or your online account from your energy supplier

Please say yes to all that apply.

SINGLE CODE

- 5. Yes
- 6. No
- 7. DO NOT PROMPT I don't know how to look at this
- 8. DO NOT PROMPT My app/ account does not have this feature

READ OUT

- 4. Information on your remaining credit balance
- 5. Information on your debt balance
- 6. Low credit alerts

ASK IF QC1 CODE 1 OR QB24A CODES 1-4

QC10. Have you ever used your in-home display / smart energy display – IF SUPPLIER 1 SAMPLE to:

READ OUT

- C. Work out what a normal level of energy use is for your household i.e. what you use on a typical day, week or month, or not?
- D. Set a budget for what you spend on energy, or not?

SINGLE CODE

- 4. Yes, have once
- 5. Yes, have more than once
- 6. No, have not
- 7. Don't know

ASK ALL WHO LOOK AT APP OR WEBSITE (CODES 1-4 AT QB24 B OR C)

QC12. Have you ever used the app or online account from your energy supplier to:

READ OUT

- C. Work out what a normal level of energy use is for your household i.e. what you use on a typical day, week or month, or not?
- D. Set a budget for what you spend on energy, or not?

SINGLE CODE

- 4. Yes, have
- 5. No, have not
- 6. Don't know

ASK IF QC1 CODE 1 OR QB24A CODES 1-4

QC14. And how often, if at all, do you use your in-home display / smart energy display – IF SUPPLIER 1 SAMPLE to do the following

READ OUT

SINGLE CODE

- 3. Check that nothing is left on in the house when you go out or when you go to sleep
- 4. [ASK IF MORE THAN ONE PERSON IN HOUSEHOLD] **Encourage others in your household to reduce** their energy use

Do you do this....

- 9. Most days
- 10. A few times a week
- 11. Around once a week
- 12. Around once a fortnight
- 13. Around once a month
- 14. Less often than once a month
- 15. Never
- 16. Don't know

ASK ALL

QC15. Over the last year, would you say that generally your understanding of how your household uses energy has:

READ OUT. NOTE TO INTERVIEWER: If respondent asks whether to think about gas or electricity, ask them to think about both to think overall about how well they understand the total energy they use

SINGLE CODE

- 1. Got a lot better
- 2. Got a little better
- 3. Stayed about the same
- 4. Got a little worse
- 5. Got a lot worse
- 6. Don't Know

ASK IF CODES 1-2 AT QC15

QC16. You said your understanding of how your household uses energy has got better. Would you say that this is:

- Entirely because of my smart meter or in home display/smart energy display [IF SUPPLIER
 1]
- 7. Mostly because of my smart meter or in home display/smart energy display [IF SUPPLIER 1], but partly for other reasons
- 8. Partly because of my smart meter or in home display/smart energy display [IF SUPPLIER 1] but mostly for other reasons
- 9. Entirely for other reasons
- 10. Don't know

ASK ALL

QC17. I'd now like you to think one more time about the way you currently use energy in your home and to what extent, if at all, this has changed since you had your smart meter installed IF RECEIVED IN HOME

DISPLAY (QB1b CODE 1 OR PHASE 1 QB2 CODE 1): including the in-home display/smart energy display — IF SUPPLIER 1 SAMPLE.

Would you say that having a smart meter IF RECEIVED IN HOME DISPLAY (QB1b CODE 1 OR PHASE 1 QB2 CODE 1): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE.

READ OUT

SINGLE CODE

- 1. made a great deal of difference to how you use energy in your home
- 2. made a fair amount of difference to how you use energy in your home
- 3. made a little difference to how you use energy in your home
- 4. made no difference to how you use energy in your home
- 5. Don't know

ASK IF QC17a CODE 1-3

QC17b. I'm now going to read out a few things that some customers may or may not be doing differently as a result of having their smart meter installed. Please tell me which, if any, of these are things you are doing differently because of your smart meter IF RECEIVED IN HOME DISPLAY (QB1b CODE 1 OR PHASE 1 QB2 CODE 1): including the in-home display/smart energy display – IF SUPPLIER 1 SAMPLE.

READ OUT. CODE ALL THAT APPLY

ROTATE EXCEPT CODE 8

- 1. I leave the lights on when I'm not in the room less often
- 2. I don't boil the kettle with more water than I am going to use
- 3. I wash clothes at 30 degrees or lower more often
- 4. I try not to heat rooms that I am not using
- 5. I don't leave the heating on when I go out or don't need it
- 6. I have replaced my lighting with energy efficient lighting (i.e. LEDs)
- 7. I have replaced appliances with more energy efficient appliances
- 8. I am less wasteful with how I use my appliances
- 9. I use my heating more when I need it
- 10. Other (please specify)
- 11. None of these
- 12. Don't know

SECTION E: DEMOGRAPHICS

ASK ALL EXCEPT IN SINGLE PERSON HOUSHEOLDS (S6 > 1)

D5A. In the last year, have any of the following changes happened in your household? Please say yes to all that apply

MULTICODE

1. Someone in the household has had a baby, or another child under 16 has moved in who was not living there before

- 2. An elderly person has moved in who was not living there before
- 3. Someone with a long term illness, health problem or disability has moved in who was not living there before
- 4. There have been changes in the amount of time people are spending at home
- 5. None of these
- 6. Don't know

ASK ALL

D10. To check, is your household's total income, before tax and any other deductions more than or less than £16,000 per year, or not? (IF MORE) And is it more than £30,000, or more than £50,000?

SINGLE CODE

- 7. Less than £16,000 per year
- 8. Between £16,000 and £30,000 a year
- 9. Between £31,000 and £50,000 a year
- 10. Above £50,000 a year
- 11. Don't know
- 12. Refused

Personal demographics

ASK ALL

D16. And which of the following best describes your current work status?

SINGLE CODE

- 9. Working full time (30+ hours per week)
- 10. Working part time (less than 30 hours a week)
- 11. Retired/Not working with private pensions/means
- 12. Unemployed less than 6 months
- 13. Unemployed more than 6 months
- 14. Retired with STATE BENEFIT/PENSION ONLY
- 15. Not working with STATE BENEFIT ONLY
- 16. Student

ASK ALL

RCO. Thank you very much for taking part in this survey. We really appreciate you taking the time to help. To thank you for your time, we will send you a £5 gift voucher. Is this something you would like to receive?

- 1. Yes CONTINUE
- 2. No GO TO RC1

ASK IF CODE 1 YES AT RCO

RCOa. Which of the following voucher types would you prefer to receive?

READ OUT

SINGLE CODE

RANDOMISE CODES 1 AND 2

- A Love to Shop voucher which can be used at a variety of high street stores and online
- 2. An Amazon voucher to be used on their website
- 3. No preference (DO NOT READ OUT)
- 4. Don't know (DO NOT READ OUT)

ASK IF CODE 1 YES AT RCO

RCOb. Can I confirm the best email address for us to send the voucher to? This will not be passed to anyone else. [INTERVIEWER NOTE: If they don't have an email address or don't want to pass this on we can send the voucher by post)

RECORD EMAIL ADDRESS

ALLOW REFUSED

RC1. Would you be willing for Ipsos MORI to recontact you for further research about this topic in the next 12 months? If you agree now, you are still free to change your mind and decline at a later date.

Yes

No

IF CODE 1 YES AT RC1 AND CODE 2 NO AT RC0

RC1a. Can I confirm the best email address to contact you at for this purpose - this will only be stored for the purposes of contacting you about further research on this subject and will not be passed on to anyone else.

RECORD EMAIL ADDRESS

ALLOW REFUSED

SINGLE CODE

Thank you for your time.

IF CODE 1 AT RCO

You will receive your voucher in the new year, after the survey has completed.

4. Discussion guide for in-depth interviews

	Section reference	Interviewer notes		1		
	Section reference	Review respondent quant fact sheet before interview, and bring this with you to the interview for reference.				
Section title		Overview of section:	Additional prompts for householder interview Will want a lot of focus on household dynamics and interactions with the IHD.	PPM prompts	Private or social renter prompts	Rough section length Research Q to investigate
Introduction & discussion of energy use attitudes/ behaviours		Warm up respondents by starting discussion around current attitudes to energy use and awareness of what uses the most energy around the home.				5- 10 minutes
		Interviewer introduction - Moderator introduces self, lpsos MORI (including role – independent research agency). - Re-cap for respondent that this interview follows on from the lpsos MORI survey they completed earlier in the year. Thank them for completing this and for being willing to help further with the research. - Explain main aim of the discussion is to understand more about how they use energy around their home and what has influenced this. - Interview length and incentives. - (If household interview) Explain that you want to hear from everyone present at the interview as interested in the experiences of everyone, even those who feel they may know less about the energy used across the home, or who use the in-home display less (if they have one) or were not there when the smart meter and IHD were installed. Explain that people should answer for themselves, be as honest as possible and feel free to disagree with one another, - Explain that findings will be collated across interviews and included in a published report, but reassure about confidentiality and anonymity. - In some cases, we may also want to produce case-studies of individuals or households whose experiences are a good example of general findings, to be published on the gov.uk website. These case studies would be anonymous, unless you expressly state that you are happy to be identified. We would give you the opportunity to review and approve what was written, before it was used. Not every interview will become a case study, and if you don't want yours to, that's fine. We'll look back over what we talked about and you can decide if this is something you are ok with or not, at the end of the interview.	If children are present, obtain consent forms from parents.			
	Household composition	Could you start us off by telling me who lives here? - Names - Ages - Relationships to each other			Who is your landlord? What is your relationship with them like? Do you deal with an individual directly or through an agent?	RO2, RO8
	Sense of energy use day-to-day	As you know, we're going to talk a lot today about how use energy around the home, but how much, if at all, do you usually tend to think about the energy you're using day-to-day? Probe: - Why do you think you do/don't think about this? - Does anything specific tend to prompt you to think about it at a particular moment? - Would you say that how you are using energy in your home, and how much you are using, is something you are thinking more abou thow than in the past, or are you thinking about it a similar amount? [Why do you think this is> LISTEN OUT FOR INFO ON SMIHD / APP]	Check how this differs for different household members - what different prompts are there for them to think about energy use, if at all?	How do you tend to top-up? How ofter do you top-up? How low do you tend to let it go before topping up? How often, if at all, do you make use of friendly/emergency credit? PROBE. Why in this way? Why at this timing? (e.g. do they top up the same each time, or spread costs over the year?). Who is responsible for topping up the		RO1
	Awareness of energy-heavy appliances and activities	What activities or appliances do you think use a lot of energy in your home? IF APPROPRIATE: Can you walk me around to show me the things you think you do and use that need a lot of energy? Probe: - Why do you think this uses a lot of energy? How do you know this? [LISTEN OUT FOR INFO ON IHD / APP] - How long have you known this? - Does knowing this make you do anything differently/ more or less often than you otherwise would?	across the household - do people	Are there any appliances you tend not to use / or use differently when credit is low / money for the PPM is tight?		RO1

2. Changes in energy use patterns, and barriers to change		Explore whether, and how, energy use across household has changed over last year (not discussing link to smart meter specifically at this point, but listening out for spontaneous mentions of its impact) COMPILE LIST OF ANY THINGS THAT RESPONDENT/HH REPORTS TO HAVE CHANGED AS DISCUSSION GOES ON - GROUP THEM INTO TYPES OF ACTION/BEHAVIOUR IF POSSIBLE. TO REFER BACK TO LATER	LINK LISTED ACTIONS/BEHAVIOURS TO SPECIFIC PEOPLE IF RELEVANT		10 - 15 minutes
	Household energy use compared to a few years ago	ASK ALL: Compared to this time last year, would you say you're generally using more or less energy? Is that for electricity or gas, or both? Are you thinking there about your use of energy personally, or the household as a whole? If ONE OR OTHER: is this different if you think about how the amount of energy you use personally has changed vs. whether this has changed for others in your home? Have you noticed yourself doing anything differently? What? When do you tend to do this? Have you noticed anyone else in your household doing anything differently? What? When do they tend to do this? PROBE: - Using any specific appliances differently? Which? In what circumstances? - Made any changes in the home to help you less energy? What? Why? - Consider different things when choosing between products? Appliances - what was considered? Was energy efficieny rating considered? If not, why not? Have there been any changes over the last year in how in control you generally feel about your energy use? - Do you feel you know anything different about what uses energy in your home, or not? - Is this the same for both electricity and gas? - Do you feel more in control of your energy bills, or not? - Have there been any changes which you think have led your household / you to be using more / less energy than before? [LISTEN OUT FOR HOUSEHOLD IMPROVEMENTS, APPLIANCE UPGRADES, HOUSEHOLD CHANGES]	Explore views of each HH member on How long have they had a PPM/ extent to which, and how, their they have a non-smart personal use of energy has changed previously? BE ALTERT TO, BUT DO NOT PROBE ON: Any changes as a nor of the smart PPM? Changes in the way they top up? Is this an improvement on befund how big an improvement/wha improvements are?	PPM feel are causing you to use more energy than you need to? Anything about the building itself? ETI sult	RO6, RO5
	Exploring heating behaviours - Underheating and comfort-taking	Do you think you're doing anything differently in terms of heating your home? What is different? PROBE: temperature setting, timer setting, use of individual radiator thermostats, improvements in efficiency of heating behaviour (e.g. not heating unused rooms a empty house) CAN YOU SHOW ME your thermostat? your radiator setting? IF have changed heating (temperature or time or both): -What prompted you to make this change? - Do you think this is affecting you? Do you think it's affecting others in your household? In what way - Have you noticed the difference in your energy-use / bills as a result? IF REDUCED HEATING: - Do you ever have days or times when you feel cold in your home, how do you cope with this? - Did you consider other changes to your energy or gas use? What else did you consider or do before reducing your heating?	gas and electricity in terms of le Is there any disagreement within the the meter run down? How is household over heating temperatures different to when you chose no and use of heating? How are thesel heat / to heat to a lower temperature.	ome change about the way you heat your home ent that you think you would do if you owned ting this property? Why? What is stopping you this doing those things now? What, if anything t ohave you discussed with your landlord re? about these suggestions? How ensapproachable do you find them on this	RO3, RO5
	Action gaps	ALL, BUT OF SPECIFIC REFERENCE FOR PPM CUSTOMERS - Are there any 'easy win' things you know about, but still tend not to do? (IF needed: These might be things that are quick, cheap, or free to do) - What things are you aware of that you don't do / or don't do consistently? Why do you think this is? IF NONE IDENTIFIED Prompt with some ideas e.g. What about the following: - Turning off lights - Shutting doors between rooms - Using the microwave instead of the oven - Drying outside (if have a tumble drier and outside space) Is there anything that would prompt or help you to do these things, or to do them more consistently? Why do you think this would help? PROBE TO FIND OUT WHETHER THIS IS ABOUT: know-how / motivation / evidence of impact	Explore whether there are differences Key area of interest for this gro across the household in who probe fully on this section knows/dosen/t know about these types of 'easy wins', and any differences in type of support they might need to help them do them	p - As someone who rents, do you think you do anything differently to what you would do if you owned your home? (NB. now asking beyond just heating measures) - What do you do differently? What are the reasons for this? - Are there changes you would like to make to your home to help you reduce your energy use? Does anything get in the way of your making these changes? - Do you know of any sources of finance to help private renters make changes to their home? What, if anything, do you think you have the right to request in way of improvements to your home from your landlord? What makes you think this? How does this make you feel? (e.g. does it make them feel 'powerless'?) - Does having the smart meter change the way you feel about inefficiencies in your home or appliances? In what way? - Have you used or referred to information from your smart meter in discussions about	

3. Infuencers on		Explore what has led to any changes reported in energy use - spontaneously first, and then prompt to consider what impact, if any, having a smart meter			 10 - 15 minutes
energy use and impact of having smart meter (and IHD) installed		(and IHD) installed has had.			
	Exploring ways of thinking about and using energy	What, if anything, do you think influences the way you think about, and use, energy at the moment? IF NEEDED: Are you thinking aboutthe cost / generally wanting not to waste energy / the environment? Has what you think about changed in any way over time? How? Why do you think this is? How much do you think this is to do with the kind of person you are generally, and in other areas of your life apart from about energy? Is the way you think about energy similar or different to the way you think about other things, for example, buying and using food?	Probe for differences in personality for different household members. (If applicable) Any changes with age of children? LINK ACTIONS/BEHAVIOURS TO SPECIFIC HIM MEMBERS AND INFLUENCES WHERE POSSIBLE	pre-payment meter affects how you think about and use energy? How do	RO6, RO5, RO1a
	Influence of different information advice / feedback loop on energy use changes (spontaneous)	And do you think the way you use energy has been influenced by any information you have seen, or not? What information? Where did you see this? When? PROBE: what were the key messages of this information you received/have seen? what about this stuck with you? Why do you think it encouraged you to think about and/or use energy differently? [LISTEN OUT FOR (but do not yet prompt): supplier-led information, IHD/app information, other smart feedback] Explore in general first, and then REFER BACK TO LIST OF ACTIONS/BEHAVIOURS: Looking back at this list of things you mentioned you have changed about the way you energy in your home, what, if anything, do you think has led you to make those changes? PROBE FOR EACH CHANGE (OR IF ALOT, EACH TYPE/CATEGORY): - Was this based on any information you have seen? What? From who? When? - Was this based on any evidence you have yourself of the impact this has on your bills / how comfortable you feel? Where did you see this evidence? How do you know if made this difference?	LINK ACTIONS/BEHAVIOURS TO SPECIFIC HH MEMBERS AND INFLUENCES WHERE POSSIBLE	information? What different information do they need and when is it best to receive it?	RO6, RO5, RO1a
	Exploring impact of smart meter (and IHD)	F NOT MENTIONED SPECIFCALLY ABOVE - do you think any of the changes you're describing that you've made to your energy use have been influenced by any of the following: Information received from your supplier [CHECK: timing of receiving this, format] Information received from another organisation - e.g., your local authority, housing association or a charity Information you've seen on TVirationewspaper [CHECK: whether adverts, or programmes/opinion pieces] Information you've seen on an app? on an online account? or any other feedback device? ADD FURTHER DETAL TO LIST OF ACTIONS/BEHAVIOURS: F NOT DISCUSSED ALREADY: What, if anything, have you noticed yourself doing differently as a result of having your smart meter and IHD? What? Why do you think you are doing this? How would you compare your attitude towards saving energy in your home before getting a smart meter? To what extent was this related to why you wanted to get a smart meter installed? Has having a smart meter made you think you could do more to use energy as wisely as possible, or not? Why do you say this? Do you feel like energy efficiency is more important in anyway as a result of seeing your usage data or has it made no difference? F NO DIFFERENCES TO ENERGY USE MENTIONED ABOVE OR IN RELATION TO SM SPECIFICALLY: Why do you think there have been no differences to how you use energy? What, if anything, do you think would encourage you to / or help you to use energy as wisely as possible? PROBE TO FIND OUT WHETHER THIS IS ABOUT: know-how / motivation / evidence of impact]	household? How? Why do they think this has made a difference?	think about or use energy changed as a result of having a smart PPM? Has being able to see how much energy you're using helped you in any away? PROBE: improve your	RO5, RO6
	Exploring impact of smart meter (and IHD) on heating behaviours - Underheating and comfort-taking	Something in particular we're interested to understand is whether having a smart meter (and IHD) affects how people heat their homes. (IF NECESSARY, PLAY BACK COMFORT-TAKING / UNDERHEATING BEHAVIOURS MENTIONED EARLIER). Do you think the smart meter (and IHD/app) have had an influence on any changes you have made to how you heat your home? How do you think the smart meter, and/app or IHD influenced these changes? Has this made any difference to your physical comfort? What about peace of mind? Has the efficiency of your heating changed since having the smart meter? How has it changed? What prompted this change?	LINK ACTIONS/BEHAVIOURS TO SPECIFIC HH MEMBERS AND INFLUENCES WHERE POSSIBLE		RO3

Linking impacts to elements of SM	ľ	d now like to go back to think about how you came to have a smart meter and your experience of having this installed				
customer journey						
l. Smart Meter nstallation visit	E	Experience of installation visit, engagement with installer, reaction to any materials/advice provided				10 - 15 minutes
	Ś	d now like you to think back to the day when your smart meter was installed. NSK ALL present at installation: What, If anything, do you remember pleasing you about the visit? What, If anything, do you remember pleasing you about the visit? NSTEN OUT FOR MENTIONS OF INFORMATION/ADVICE GIVEN, DEMO OF IHD etc.	How did the household decide who would be present for the installation? Was this just based on who could be home, or as a result of any expectation about what would be covered at the install (technical info, energy use advice etc.?)		Who made the decision to get a smart meter - yourself or your fandlord? Was you landlord? Was you fandlord involved in the installation process at air? How did this affect the installation process?	RO6
was giv	iven verbally \installer? [ASK ALL present at installation: What do you remember about what the installer talked to you about during the time they were in your home? IF RESPONDENT MENTIONS IHD TELL THEM THIS WILL BE DISCUSSED IN DETAIL LATER - find out about other types/hopics of information here] What, if anything, do you remember about what they told you about. Probe on each of following - for each ask about format of info (i.e. whether talked through by installer, or printed info given), & whether it was a good time and way to be given this information? If they would have preferred it at another time, when and how would have been better? Things you could change around your home to help keep the heat in - insulation, or draughtproofing? To what extent, if at all, do you think any of these pieces of information or advice have changed the way you use energy in your home? Why? Why not - what could have mode this more helpful for you? DO WHAT EXTENTIAL TO LIST OF ACTION/SIGNEHAYOURS - AND INFLUENCERS - IF APPROPRATE	Observe any reactions/comments made by other household members whilst these questions are answested. E.g. look out for others indicating the were not aware of something before (e.g. a piece of information or advice given etc.)	content, channel, source and when	installation, how did this affect their ability to	RO6, RO5
usefuln	ty, relevance, / ness and [ce of verbal F nation from er	ADD FURTHER DETAIL TO LIST OF ACTIONS/BEHAVIOURS. AND INFLUENCERS - IF APPROPRIATE SIX ALL present air installation. Did you learn anything new from the installer about any of these things or were they things you already knew or had heard before? Probe: What was new? What did you feel you already knew? Which parts of the information you were given did you find most helpful? Why? Which parts of the information did you find least helpful? Why? Is there any way this could have been made more helpful for you? Was the information you were given at the right level of detail or was it too much or too little? Why do you say this?	Was any of this passed on? Was new information new to the household, or just the individual present at installation?			RO6
Details advice installe	e from- er - t t	I installer gave energy saving advice: Is this something you've boked for information on yourself in the past? Whylwhy not? Where did you go for this information? What did you think about the suggestions the installer gave you? How helpful did you find this? Why? Did you feel the advice was tailcred to you? Is there anything you think the installer could have done differently to make this information more useful to you? What did you think about the lact they were doing this whilst they came to install your meter? What, if anything, was good about taiking about this at this time? Was here anything you felt was less good about It? Did it feel like an appropriate time to talk about this or not? Whylwhy not? When do you think is the best time to get this you of advice? Why? Ask all present for installation - shere anything the installation or shere they were done they you that you would have found helpful? Why would that have been helpful? What would have been the best way to present this information to you? In what format, level of detail etc.? I relevant - Why you think it would not have been helpful for the installer to discuss anything else with you?				RO6
installe dissem other	dvice from A er is further ninated to	lak all present for installation: Jid you pass on any of the information / show any of the materials you were given to anyone else in the house? Trobe: Who did you tell about it / give information to? Can you remember which bits of information you shared with them? Was there anything you felt they didn't need to know about? Why was this? How did they react? What questions did they have for you when you told them about this? How able did you feel to answer their questions?	What did others hear about the installation visi? What bits of information do they remember being passed on, if any? Ask other HH members if there are any other questions they would have wanted to ask the installer if they had been present during the visit.			RO2, RO6
Evaluat installa experie	ation	ske all present for installation: Thinking back to the installation visit overall, was there anything you thought should have been done differently at this stage? Yere any specific needs you had around the installation visit taken account of?	, M			RO7, RO9 (set-up)

5. Interaction with IHD		IHD owner – length of time plugged in, frequency of use, knowledge of functions, need for further information			15 - 20 minutes
	Re-check on ownership of IHD	IF survey shows they were not offered an IHD: - Were you expecting to be offered an In Home Display? - Did you ask about the IHD? What were you told? If survey shows they offered but did not accept an IHD: - For what reasons did you decide not to accept the IHD? What was the main reason?	Would other household members have been interested in having the IHD?	Did they feel this had anything to do with their having a smart PPM?	RO4
	Location of the IHD	Was the app presented as an alternative to the IHD at all? How? IF HAVE IHD: ASK RESPONDENT TO SHOW YOU THE IHD: WHETHER PLUGGED IN OR NOT, IF REASONABLY ACCESSIBLE How did you decide where to put the IHD in your home? Did you receive any advice about this from the installer? Are you happy with it where it is?	Any different views on where the IHD should be among others in the HH?	Is the location different from the non- smart PPM location? Why? Does this change things?	RO5, RO6
	Talking through how the IHD works	Can you talk me through what this is and how it works? What do you tend to call this? NOTE TO MODERATOR: the guide refers to IHD but use terminology used by respondent themselves	Ask each HH member in Jurn to show you the HD to talk through the screen they tend to look at and the specific bits of into they got. Asko ask each HH member to point out any bits of inf they overlook, or do not understand. If someone in the HH does not look at the HD, ask if anyone ever shows it to them - what is shown? When? How does this make them feet?	can set an energy spend budget on the display? Do you they know how to access emergency credit through the	RO6, RO5
	Installer info about the IHD	Ask all present for installation: Can you think back to when the installer was here. What do you remember about what they told you about the IHD? Can you show me the things the installer told you about? Any specific screens or bits of information they showed to you? Is there anything you think the installer could have done differently when they were showing you the IHD? What difference do you think this would have made? VULNERABLE CUSTOMERS: probe specifically on accessibility of information, tailored support, anything additional they might have received.	What information was passed on about how the IHD worked?	What, If anything, did the installer applian would be different from your non-smant PPM? PROBE: into no topping up? how it works differently now and what to do if a territ wrone, got if pour por it amount analy applied? Aso ask whether PPM customers were PROBE: shown how to resume your supply in the event of a disconnection?	RO7
	Interaction between IHD and app / online account	ASK IF RESPONDENT USES/ HAS USED BOTH IHD AND APP OR ONLINE ACCOUNT What prompted you to download the app / sign-up to the online account? PROBE FOR BOTH APP AND ONLINE ACCOUNT: - Who told you about it? When? - What did you expect it to help you with? How is the IHD similar to the app, and/or the online account you have? How are they different? - Why do / did you chose to use one or the other? Which is most helpful? Which easiest to look at? Why? - (If they use 2 or more): Are they interchangeable, or are there specific things one has that the other doesn't?	is this true of other household members?	is the information available on the app /HD different from that on your PPM? How? Anything better? Anything worse?	RO4
	Self-taught app use, and secondary sources of info on the IHD	Ask all who have ever used the app and/or online account: ASK FOR EACH: Can you show me the things you've taught yourself about using it? How did you go about working out how to use the app or online account? Probe: - Were you given a demonstration of how to use the app or online account? By who? When? As part of the smart meter visit? - Did you receive any advice from anyone else in the household about how to use it? If sought information on how to use it: What specifically were you looking for help doing? What did you think about the information you found/received? How helpful or not was this? Did it help you do what you wanted to do?		For PPM customers with an App that they use to top up their account - PROSE more on what, if any, demonstration they received of how to use the App and how to use it to top-up. What have they taught themselves about using the App? How easy or difficult do they find it to use?	RO5, RO6
	Location of the app	Ask all who have ever used the App: How did you decide which devices the app should go on? Did you receive any advice about this from the installer? Are you happy with it where it is? Do any other members of the household have copies of the app on their devices? Does anyone else access the app on your devices?		Does having the app change anything about how you monitor credit or top up? What has changed? Has this change affected you?	RO5, RO6
	Individual use of the IHD	HbW, if at all, do you use the IHD / app / online account nowadays? If IHD / app / online account still being used: Probe questions about the respondent's own personal use of the IHD / app / online account: - Can you show me the information you tend to look at personally? Any particular screens you tend to go to? Why these? - How often do you tend to look at it yourself - in a typical day / week / month? Why at these times? - What have you found out from your IHD / app / online account? - How helpful or not has this information been for you? Why? - Has it shown you anything unexpected about your energy use or has it tended to confirm things you already knew? What was unexpected? What has it shown you that you already know? - What, if anything, have you done as a result of seeing that information? - Has the way you use the IHD / app / online account changed at all since you first got it? In what ways? Why do you think it has changed?			ROG

Other	ff IHID / app / online account still being used:	Do different householders agree on		RO6, RO2
	[If relevant] Aside from yourself, who else in your household tends to look at the IHD / app? What do you know about how they use it? Do you think this is any different to the way you use it? Why do you think this is?	who pays most attention to the IHD / app?		
	Who, if anyone, in the household would you say is most familiar with the IHD / app / online account? Why do you think that is? Is this the person you would have expected to be most familiar with it? Why / why not?	How does this fit with their roles in the house more generally?		
Ceasing to use the	IF IHD was used to start with, but is no longer used (may still be plugged in but never looked at): Why do you no longer tend to have your IHD plugged in / installed?			R10
	Probe: Did anything specific prompt you to unplug it or to just generally stop using it? Why did this have this effect? Was it the decision of any one particular person in the household to unplug it / uninstall it? Who? Why do you think this was?			
	For how long did you have it plugged in / installed?			
	IF IHID / app was used to start with, but is no longer used (may still be plugged in / installed but never looked at):			RO6, RO2
the IHD / app	How did you tend to use the IHD /app when it was plugged in / installed / in use? Probe questions about the respondent's own personal use of the IHD / app: - What information did you tend to look at personally? Any particular screens you tended to go to? Why these? - How often did you tend to look at it yourself - in a typical day / week / month? - What did you find out from your IHD/ app? - How helpful or not was this information for you? Why? - Did it show you anything unexpected about your energy use or did it tend to confirm things you already knew? What was unexpected? What did it shown you that you already knew?			
	alleady snow? IF IHID / app was used to start with, but is no longer used (may still be plugged in but never looked at): Did anyone else in the household tend to use the IHD / app when it was plugged in / installed? Who? - What do you know about how they used it?			RO6, RO2
Restarting use of	IF IHD / app was used to start with, but is no longer used (may still be plugged in but never looked at): What, if anything, do you think would lead you to use the IHD / app again in the future? Why do you say this? Is there any advice, support, or action your supplier to could take to help you use the IHD or app again in future?			
Barriers to	IF IHD /app has never been in use: Why do you think your IHD / app has never been plugged in or used?			RO10
plugging in / installing or using the IHD / app	If the Lappins I level been in use. Why wou ulims you in the Lappins nevel been plugged in or useur. Probe: - Were you curious / tempted to use it at all? When? - What, if anything put you off using it? Is this related to how useful or not you think the information it shows will be for you, or is it related to how able you feel to use the IHD / app? - Is there any other reason that has stopped you using the IHD / app?			KOTO
	FIHD / app has never been in use: What, if anything, would lead you to start using the IHD / app? Probe: - Does it depend on who is living in the home? Why? What difference does this make? - Does it depend on how much your enegy bills are? Why? What difference does this make? - Would it help to have any further information on how to use it? What exactly would you want to know? What is best way of giving this information? From who/ format / content / level of detail?			RO10
	content rever or detail? ASK ALL: Overall, how useful or not do you think the IHD / app is to have in your house? Why do you say this?		Is life different with the IHD/app? Better or worse? How so?	RO10
	What, if anything, would make it more helpful to you? What information or support could make it more helpful for you? PROBE: a refresher on how to use it? printed information? a demo?		If better - How big an impact has this had on	
	[If relevant] Do you have a sense of whether it is more or less useful to different members of the household? Why do you say this?		your life? How does it compare to other	

Research Materials

6. Post-installation		IF NOT DISCUSSED IN SECTION 3: Explore any follow-up contact after the installation visit, and any ongoing information needs as well as receptiveness and				10 minutes
receptiveness to information		engagement to further information				To mindo
	installation	ASK IF SUPPLIER FOLLOW-UP INFO NOT DISCUSSED ALREADY (e.g. in Section 3): What, if any, contact, information or data have you had from your energy company since the smart meter (and IHD) was installed? Explore spontaneously first, and then expand: this may have been information about your smart meter, or about your bills, price plan or tariff, about insulation or other information about saving energy Probe: - Channels for information - post / paper, online, SMS, alerts from the app, any other? What channels do you prefer? Why? - Type of information/ data What has been the most useful information you have received? Why? Is there anything you use less / don't bother looking at? If yes: Why is this? What puts you off? Why do you look at other things, but not this? How, if at all, is the information you have received since you've had your smart meter installed different from what you were getting from your energy company before with your old meter? Probe around level of detail compared to before the smart meter, usefulness	across HH - does one person tend to be the 'owner' of this information, how aware are others of what has been delivered/sent to the household? What types (format, content) of information would get attention from people across HH? Why?	Has the contact you've received been different from what you were getting before? How? Do you feel PPM customers are being treated any differently now Smart PPMs have come in? How? Probe on perceptions of being overcharged for the same product, in comparison to credit customers something smart PPMs set out to address.		R06
	Information needed or sought since installation	ASK ALL: Is there any other information you would have liked to have received since having your smart meter (and IHD) installed? Why would this be useful for you? Probe: - Would you have liked any further contact with your supplier? Further contact with anyone else? Who? How i.e. letter, phonecall, home visit? Have you contacted anyone with any queries about your energy use or smart meter since the installation visit? [RECORD ON TIMELINE] Probe: - Who did you contact? What did you ask? Why? How helpful or not was the response? What have you done as a result of this information? ASK RESPONDENT TO SHOW EXAMPLES OF INFORMATION RECEIVED IF POSSIBLE AND TO TALK THROUGH WHAT IS SHOWN, AND WHAT THEY LOOK AT.				RO6
7. Pre-installation		IF TIME: Explore initial engagement approach (whether passive/active), existing knowledge/interest and expectations				5 minutes (ONLY IF TIME)
	Initial smart meter approach	Id now like you to think right back to when you first found out about smart meters. Where/when was the first time you heard about smart meters? From where/who? Can you remember what you thought about smart meters?	Establish who in the household first found out about smart meters.		Did you first hear about this from your landlord, or did you give your landlord information on Smart metering?	RO4
	Prior knowledge of smart meters and choice	How was the Smart Meter described to you? What did you think would be different about it to your old meter? What would you say were the main reasons that you agreed to have a smart meter installed? Did you feel that you had a choice about whether to have a Smart Meter installed or not? IF DID NOT FEEL THEY HAD A CHOICE - What made you feel you did not have a choice? - Did you want to refuse? Did you try to? - How did this make you feel? Probe:What communications did they receive, and what were the channels of communication	What did others in HH know about these conversations? How involved or not were others in the household about decisions to have a smart (new) meter installed? Establish pre-existing levels of motivation for energy reduction across the household, how did they vary. NOTE TO MODERATOR: these prompts may also be relevant in individual interviews depending whether respondent was person involved in pre-installation stage	Did you think it might be an improvement on your PPM? Did you have any concerns about having a smart meter?		R011
	Barriers and motivators for uptake	ASK ALL: What, if anything, did you like about what you heard about smart meters at this time? Why did you like this? What, if anything, put you off the idea of getting a smart meter? Why was this? How interested would you say you were in reducing your energy use before you came across the idea of smart meters? Why/Why not?				RO6

Research Materials

8. Linking energy use changes to smart meter customer journey points		Final review of impacts discussed over course of interview to summarise whether this is related to experiences at particular points in their customer timeline, information received, pre-existing attitudes and engagement levels etc. REFER BACK TO LIST OF ACTIONS/BEHAVIOURS AND INFLUENCERS		10 minutes	
	customer journey elements (prompted)	ASK ALI: Now thinking back over everything we've discussed today, what overall do you think the impact of the following has been, if anything? What makes you say this? -The smart meter and HD -The installation process, and any discussions you had with the installer -Information or materials provided to you during or after the installation - Changes to the information / data you now get from your energy supplier Do you feel like you are being given the right information in a way that makes it easier for you to manage your electricity / gas use and/or your bills? If not: How might things be done differently to enable you to do this? What other help or support would be useful, and how might it best be delivered to you?	Probe on: Change from PPMto smart PPM? Changes in the information availaible to you? Changes to how and where you can access PPM information? Changes to how you top up?	R05, R07	
	Overall impact of smart meter and IHD on household	If no differences - why do you think it is that there have been no differences since your smart meter (and IHD) were installed?	Why no difference in change to smart PPM?	RO5, RO9	
7. Close and re- contact		Can I check whether you would be happy for us to contact you again in future for further research on this topic? If you say 'yes' now, there would be no obligation to take part in further research, if you then decide you do not want to. [RECORD PARTICIPANT RESPONSE] Ask for final comments, any questions and bring discussion to a close.			
		Total average length for interview		60 - 90 n depending engagement of in household	inutes on others

5. Qualitative Recruitment Screener

Good morning/ afternoon/ evening. My name is ... from Ipsos MORI, the independent research organisation. We spoke with [named person – FROM SAMPLE] earlier in the year on behalf of the Government's Department of Business, Energy and Industrial Strategy about how they use electricity and gas in their home and about the smart meter you had recently had installed. [named person – FROM SAMPLE] very kindly said that they were happy for us to contact them again if we had further questions on this topic. We are now hoping to speak with a smaller selection of people, in depth, about similar issues. Might I ask if I could speak with [named person – FROM SAMPLE] now?

[If necessary] There is no selling involved - we would just like to ask you some questions for research purposes. The research is very important as it will help the Government to improve the way smart meters are being delivered to customers and to develop policies to take account of how people use energy in their homes.

S1. Please can I speak to [named person – FROM SAMPLE]?

SINGLE CODE

- 1. Yes GO TO S3
- 2. No GO TO S2

IF RESPONDENT IS NOT NAMED PERSON [S1 CODE 2]

S2. Can you confirm if [named person - FROM SAMPLE] lives at this address?

SINGLE CODE

- 7. Yes, they still live at this address TRANSFER TO THEM/BOOK APP & GO TO S3
- 8. No, no-one of that name lives at this address THANK AND END
- 9. Information refused GO TO S2a

IF CODE 3 AT S2 INTERVIEWER READ OUT TEXT

S2a. The research is very important as it will help the Government to improve the way smart meters are being delivered to customers and to develop policies to take account of how people use energy in their homes. We would very much like to talk to [named person – FROM SAMPLE] as part of this research, and he/she did say that she was happy for us to get in touch again.

ASK ALL

S3. Can I first of all just check whether you switched your electricity supplier since having your smart meter installed i.e. do you have a different electricity supplier now to the one who installed your smart meter?

INTERVIEWER NOTE - it is possible that customers who were 'dual fuel' at the first survey (those who received both electricity and gas from the same supplier) have stayed with the same electricity supplier, but switched to a different gas supplier. This should be coded 'No'. We are

only interested in identifying dual fuel customers who have switched both over, or just their electricity, or those with a single electricity supplier who have switched.

- 1. Yes, switched electricity and gas supplier GO TO S4
- 2. Yes, switched electricity supplier only GO TO S4
- 3. In the process of switching but not completed yet GOT TO S5
- 4. No GOT TO S5
- 5. Don't know GO TO S5

IF CODE 1 OR 2 AT S3

S4. In which month of the year did you switch your electricity supplier? If you aren't sure, please give your best estimate.

- 1. January THANK AND END
- 2. February THANK AND END
- 3. March-THANK AND END
- 4. April THANK AND END
- 5. May GO TO S5
- 6. June GO TO S5
- 7. July GO TO S5
- 8. August GO TO S5
- 9. September GO TO S5
- 10. October GO TO S5
- 11. November GO TO S5
- 12. Don't know GO TO S5

IF NOT SWITCHED ELECTRICITY SUPPLIER BETWEEN JAN-APRIL 2017, CONTINUE:

S6. That's great thank you for confirming that. I would like to assure you that all the information we collect will be used for research purposes only, under the terms of the Market Research Society code of conduct. I can reassure you that no selling is involved.

If you are happy to help us with this research I will book an appointment with you for a researcher from Ipsos MORI to come to your home and talk with you for around an hour. Unless you give us permission, all of the responses you give will be kept entirely anonymous. We would offer you £35 as a thank you for your time. We would really like you to take part. Would you be willing to help us with this?

SINGLE CODE

- 1. Yes CONTINUE
- 3. No THANKS AND TERMINATE

IF MULTI-PERSON HOUSEHOLD IN SAMPLE.

- S7. Last time we spoke with you, you mentioned that you live with other people. Is this still the case?
- 1. Still live with others RECRUIT TO QUOTA

2. No-longer live with others - RECRUIT TO QUOTA

IF CODE 1 AT S7

- S8. We are hoping to do some interviews where other members of the household are present. This is so that we can ask a few questions about how different people in the home think about energy and how you talk about it together, if at all. The interviews would take a little longer (up to 90minutes instead of an hour), but as a thank you to you and others in your household, you would be given £40 for the interview. Would others in your household be willing to take part?
- 1. Yes
- 2. No
- 3. Need to check with them CONTINUE TO BOOK AS INDIVIDUAL INTERVIEW, THEN CALL BACK TO CHECK IF OTHER HOUSEHOLDERS ARE AVAILABLE.

ASK ALL WHO HAVE AGREED TO PARTICIPATE LOCATED IN LONDON, MANCHESTER OR BIRMINGHAM:

- S9. We would like to film a few interviews for this research. There is no obligation to agree to this, but if you do it would involve a camera person accompanying the Ipsos MORI researcher to record a few parts of the interview. The film clips would be presented to our Government clients as part of our report on this study, and may also be shown to at other events where we are sharing the findings of this important research. Your name and any other personal details would not be included in the film. Would you be happy to have your interview filmed?
 - 1. Yes, I would like to participate in the interview and I am happy with it being filmed
 - 2. I would like to participate in the interview but would not like it being filmed

Arrange a date and time that is convenient for the respondent (or householders if household interview), assign to the interviewer.

If possible take an email address to send a reminder, and CHECK FULL ADDRESS that interviewer should visit.

Thank and close.



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Contact us if you have any enquiries about this publication, including requests for alternative formats, at:

Department for Business, Energy and Industrial Strategy 1 Victoria Street London SW1H 0ET Tel: 020 7215 5000

Email: enquiries@beis.gov.uk