Department of Energy & Climate Change

Quantitative Research into Public Awareness, Attitudes, and Experience of Smart Meters

(Wave 3)

Research conducted by Ipsos MORI for DECC

The views expressed in this report are those of the authors, not necessarily those of the Department of Energy and Climate Change (nor do they reflect Government policy).

September 2013

Executive Summary

Background to the research

Installation of smart meters has been adopted by the Government as a way of helping consumers have more control over their energy use and spending, while also helping meet environmental and security of supply objectives. The programme aims to install smart meters in all homes in Britain by 2020.

DECC commissioned Ipsos MORI to undertake research to measure the public's views on smart meters and in-home displays (IHDs), including their information needs. The overall objective of this project is to understand consumer awareness, understanding of and attitudes towards smart meters and to see how these are changing over time. The study is comprised of biannual nationally representative surveys, conducted face-to-face in homes across Great Britain.

Three waves of the survey have so far been undertaken, in April and October 2012 and April/May 2013, based on in-home, face-to-face interviews with adults who were at least jointly responsible for paying their household energy bills. Sample sizes ranged between 2,150 and 2,400, with data weighted to provide nationally and regionally representative results.

The key findings from waves one, two and three are presented below.

Awareness and attitudes towards smart meters

The proportion of energy bill-payers living in Great Britain who said they had heard of smart meters, but did not have one installed, was 48% in Wave 3. This is higher than in Waves 1 and 2 (both 44%). In addition to this, 9% in Wave 3 stated that they had a smart meter installed in their home (5% in both previous Waves).

These results imply that the total level of awareness of smart meters has increased to 57%, from 49% (Wave 1) and 50% (Wave 2). However, the images used to show respondents what a smart meter looks like were changed in Wave 3 (to provide a better reflection of the type of smart meters currently being installed in Great Britain) and we cannot be certain of the extent to which this may have influenced the apparent increase.

It should also be noted that in all three waves, the ownership figure is thought to be an overestimate, which the report authors believe is principally due to some respondents misunderstanding what a smart meter is, even with the explanation provided.

Half of all respondents (49%) remain undecided about the installation of smart meters in every home in the country. Support levels showed a small increase, with around three in ten bill-payers (32%) expressing support for the roll-out (compared with 29% in Wave 2), and one in five bill-payers remained opposed (18%).

Interest in having a smart meter installed remained static: four in ten of those without a smart meter in their home were interested in having one installed, but there was an increase in those

not interested in Wave 3 (59%, up from 55% in Wave 2). The main reasons why some respondents were interested in having a smart meter installed in their home related to budgeting (51%), avoiding waste (41%), and greater accuracy in billing (24%). A 'general lack of interest' (41%) was the main reason given by those who said they were less interested in having a smart meter installed, followed by the inconvenience of the installation (20%), a lack of knowledge (10%) and the cost of smart meters – either to themselves, the taxpayers, the Government or the energy companies (9%).

Support for smart meters, and interest in installation, remained highly correlated to age, household size and the presence of children. Younger respondents (aged 25-44), respondents in larger households (with four or more people) and with children aged under 16 expressed some of the highest levels of support and interest.

Respondents' views on the potential benefits and disadvantages of smart meters echoed the reasons why they might be interested or not and also showed a similar pattern to previous waves.

In addition, consistent with the previous waves, data from Wave 3 again found that higher levels of perceived knowledge of smart meters appeared to be related to increased support and interest.

Experience of self-reported smart meter customers

In Wave 3, respondents who reported to be smart meter customers were more likely to be satisfied with the installation process and their overall experience of using the meters (62%). This compares to 48% in Wave 1 and 46% in Wave 2. However, these findings need to be treated with some caution due to the potential overestimate in terms of smart meter ownership (see above) and the relatively small number of respondents on which these experiences are based.

Respondents who reported to be smart meter customers, and who supported the roll-out of smart meters in every home, were more likely to express satisfaction with arranging the appointment, their experience of the installation process, and their overall experience of using meters. This appears to show a relationship between perceptions of good customer service and support for the roll-out of smart meters.

Public attitude to IHDs

Respondents were asked whether they had an in-home energy display or energy monitor in their home. This includes the type of in-home display installed by energy suppliers, which interacts with a smart meter and also other forms of energy display that are acquired separately as stand-alone devices. Stand-alone devices may have been provided by suppliers or purchased directly. In this report, the term 'IHD' is used to refer to both types of in-home energy display or energy monitor.

Reported IHD ownership remained consistent in Wave 3 with the previous waves (at 15%). Almost three in five of those who reported to have an IHD said they looked at it at least occasionally, with most checking either the kilo-watt measure or the money display.

Over half of IHD owners received the device passively from their energy suppliers, rather than having actively requested or purchased them. Interest levels among those who do not have one remained consistent with previous waves, with two in five expressing an interest. As in previous waves, interest was lowest amongst older respondents, single person households and those without qualifications.

Customers who look at their IHDs remained generally positive about their impact in helping them understand and reduce their energy use; overall, three quarters were satisfied with their IHD.

As with previous waves, it is clear that not everyone who has an IHD (either installed with a smart meter by a supplier or by themselves without a smart meter) is using it; one in five never looked at it, while a similar proportion had not installed it. The majority of respondents who said they had not installed their IHD indicated that it was stand-alone (92%), that is, they did not also report they have a smart meter. However, this finding is based on a relatively small base size of 65 people and so should be treated with some caution.

Further information needs about smart meters and IHDs

All respondents were asked what, if anything, they would like to know in relation to Smart Meters and IHDs. The proportion who said they were interested in further information fell significantly from five in ten in Wave 2 to around four in ten in Wave 3.

The groups with fewest information needs tended to be those that were least engaged with smart meters and IHDs, including older people, those without children, those with no formal qualifications and those with no access to the internet.

As with previous waves, internet search engines (37%), energy companies (32%), the Government (7%), and word of mouth (7%) continued to be the main sources of information about smart meters or IHDs for bill-payers.

Again, the most trusted sources of information about smart meters or IHDs still include energy companies (32%), Which? magazine (23%), the Government (16%), the Energy Saving Trust (14%) and word of mouth (14%).

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1. Introduction

1.1 Background to the research

Smart meters are the next generation of gas and electricity meters and they can offer a range of intelligent functions. The Government's vision is for every home and smaller business in Great Britain to have smart electricity and gas meters. Domestic consumers will also be offered an In-Home Display. The roll-out of smart meters will play an important role in Britain's transition to a low carbon economy and help us meet some of the long term challenges we face in ensuring an affordable, secure and sustainable energy supply. The Programme aims to replace 53 million meters with smart electricity and gas meters in all domestic properties, and smart or advanced meters in smaller non-domestic sites by the end of 2020, impacting approximately 30 million premises.

Smart Meters are expected to deliver a range of benefits. Consumers will have near-real time information on their energy consumption to help them control energy use, and avoid wasting energy and money. Smart meters will bring an end to estimated billing, helping consumers to budget better and help make switching between suppliers smoother and faster. New products and services will be supported in a vibrant, competitive, more efficient market in energy and energy management.

The overall objective of this research project was to understand consumer awareness, understanding of, and attitudes towards smart meters. More specific objectives were to assess, among the general public:

- Awareness – had consumers heard of smart meters and, if so, from what source?
- Understanding and attitudes – what did those aware of smart meters understand about them and what were their attitudes towards them? Among those not aware, when presented with the concept, what was their reaction? What were the perceived benefits? Were there any concerns?
- Experience of and attitude towards installation of a smart meter – had respondents had a smart meter installed and, if so, how was the experience for them? What was the reaction to the idea of having their meter replaced with a smart meter?
- Awareness, understanding and experience of in-home energy display units (IHD) – did respondents have one installed? If yes, where did they get it (e.g. from supplier) and what has their experience been?
- Information needs – to explore where consumers would expect to find out about smart meters/IHDs, what were considered the most trusted sources of information and what type of information consumers would be looking for.

1.2 Methodology

DECC commissioned Ipsos MORI to undertake research to measure the public's views on smart meters and IHDs, including their information needs. The study comprises biannual nationally representative surveys, conducted face-to-face in homes across Great Britain.

Three waves have been completed: Wave 1 in April 2012, Wave 2 in October 2012 and Wave 3 in April/May 2013. Further details are provided below.

Before Wave 1 Ipsos MORI drafted an initial questionnaire for piloting which was agreed with DECC. A cognitive pilot was then completed with 15 respondents who were at least jointly responsible for paying their household energy bills. The purpose of the cognitive pilot was to ensure that respondents were able to interpret the questions correctly and provide a meaningful response. Following the pilot a number of revisions were made to the questionnaire before it was signed off for use in the field.

All three survey waves have been conducted on Ipsos MORI's weekly omnibus, Capibus, which is conducted in-home using face-to-face interviewers. Wave 1 comprised 2,396 interviews, Wave 2 comprised 2,159 interviews and Wave 3 comprised 2,210 interviews. The respondents were all adults who were at least jointly responsible for paying their household energy bills. Data were weighted to provide nationally and regionally representative results by:

- age (by gender);
- working status (by gender);
- region (by gender);
- social grade (by gender);
- household tenure; and
- ethnicity within region.

After reviewing responses to Wave 1, Ipsos MORI and DECC agreed a number of question amendments for Wave 2, detailed below:

1) Additional pre-codes were added to certain questions including:
    i. Source of awareness of smart meters (QAW3);
    ii. Disadvantages of smart meters (QUN3);
2) An additional statement was raised about the use of gas IHDs (QIHD3); and
3) An open-ended question on information needs around smart meters was changed to a spontaneous pre-coded question using responses from Wave 1 (QKN1).

Some additional questions and amendments were included for Wave 3, as follows:

- Two updated pictures of smart meters were shown in place of the picture shown in Waves 1 and 2 to provide a more accurate reflection of the type of smart meters that are now currently being installed in Great Britain (QAW1);
- An additional open-ended question was added to understand the concerns of any respondents who spontaneously mentioned a health related disadvantage in connection to smart meters (QUN3a);
- Two additional questions were added to probe why bill-payers were or were not interested in having a smart meter installed in the near future (QUN4a and QUN4b);
- Three attitudinal statements were added about energy use at home for analysis purposes (QENER1-3); and
- Two new demographic questions were added - property type and property size (number of rooms in the property) (QACC and QROOM).

Any impact on trends as a result of these changes is commented on in the main body of the report.

More information about the omnibus survey can be found in Appendix 1.

1.3 Reporting the findings

This report presents the findings from the third wave of the study. Findings from a previous qualitative research study for DECC around public attitudes and understanding of smart meters is also referenced where appropriate. See https://www.gov.uk/government/publications/smart-meters-research-into-public-attitudes.

Each section of the report begins with a summary of the findings followed by analysis of each question in text and chart format. Reference is made to the previous waves where relevant, and in some sections with smaller bases, to combined data from Waves 1, 2 and 3 in order to allow for more robust analysis of different sub-groups. Analysis by sub-group is included under each chart, although it has not been possible to include *all* statistically significant differences due to the volume of data. Each question has been analysed and the most relevant and interesting differences included.

Within the sub-group analysis specific attention is paid to groups of particular interest or identified as vulnerable by DECC. These include:

- Those aged 65 and over;
- Those on lower household incomes, less than £15,500 per annum;
- Those with a disability or long-standing illness;
- Those who do not speak English as their first language; and
- Those with children aged 15 or under, living with them.

Findings from any survey have a confidence interval, or margin of error, when a sample of the population is interviewed, as opposed to the entire population (a census). Approximate confidence intervals for various sample sizes related to this survey are shown in Appendix 1. This report only highlights differences in the behaviours and attitudes of specific groups of bill-payers where the difference between the findings is statistically significant, taking account of their confidence intervals. This is also true of differences between waves; any differences quoted within this report are significant at the 95% confidence level.

It should be noted that subgroup differences have been quoted throughout, but that correlations between overlapping subgroups have not been analysed (e.g. respondents with higher qualifications are also likely to be respondents who report a higher level of annual income.)

Where figures do not sum to 100%, this is due to computer rounding or multiple response answers and an asterisk (*) denotes a figure less than 0.5% but greater than zero.

2. Main findings

2.1 Awareness and attitudes towards smart meters

The proportion of energy bill-payers living in Great Britain who said they had heard of smart meters, but did not have one installed, was 48% in Wave 3. This is higher than in Waves 1 and 2 (both 44%). In addition to this, 9% in Wave 3 stated that they had a smart meter installed in their home (5% in both previous Waves).

These results imply that the total level of awareness of smart meters has increased to 57%, from 49% (Wave 1) and 50% (Wave 2). However, the images used to show respondents what a smart meter looks like were changed in Wave 3 (to provide a better reflection of the type of smart meters currently being installed in Great Britain) and we cannot be certain of the extent to which this may have influenced the apparent increase.

It should also be noted that in all three waves, the ownership figure is thought to be an overestimate, which the report authors believe is principally due to some respondents misunderstanding what a smart meter is, even with the explanation provided.

Half of all respondents (49%) remain undecided about the installation of smart meters in every home in the country. Support levels showed a small increase, with around three in ten bill-payers (32%) expressing support for the roll-out (compared with 29% in Wave 2), and one in five bill-payers remained opposed (18%).

Interest in having a smart meter installed remained static: four in ten of those without a smart meter in their home were interested in having one installed, but there was an increase in those not interested in Wave 3 (59%, up from 55% in Wave 2). The main reasons why some respondents were interested in having a smart meter installed in their home related to budgeting (51%), avoiding waste (41%), and greater accuracy in billing (24%). A ‘general lack of interest’ (41%) was the main reason given by those who said they were less interested in having a smart meter installed, followed by the inconvenience of the installation (20%), a lack of knowledge (10%) and the cost of smart meters – either to themselves, the taxpayers, the Government or the energy companies (9%).

Respondents’ views on the potential benefits and disadvantages of smart meters echoed the reasons why they might be interested or not and also showed a similar pattern to previous waves.

In addition, consistent with the previous waves, data from Wave 3 again found that higher levels of perceived knowledge of smart meters appeared to be related to increased support and interest.

2.1.1 Awareness

The proportion of energy bill-payers living in Great Britain who said they had heard of smart meters, but did not have one installed, was 48% in Wave 3. This is higher than in Waves 1 and 2

(both 44%). In addition to this, 9% in Wave 3 stated that they had a smart meter installed in their home (5% in both previous Waves).

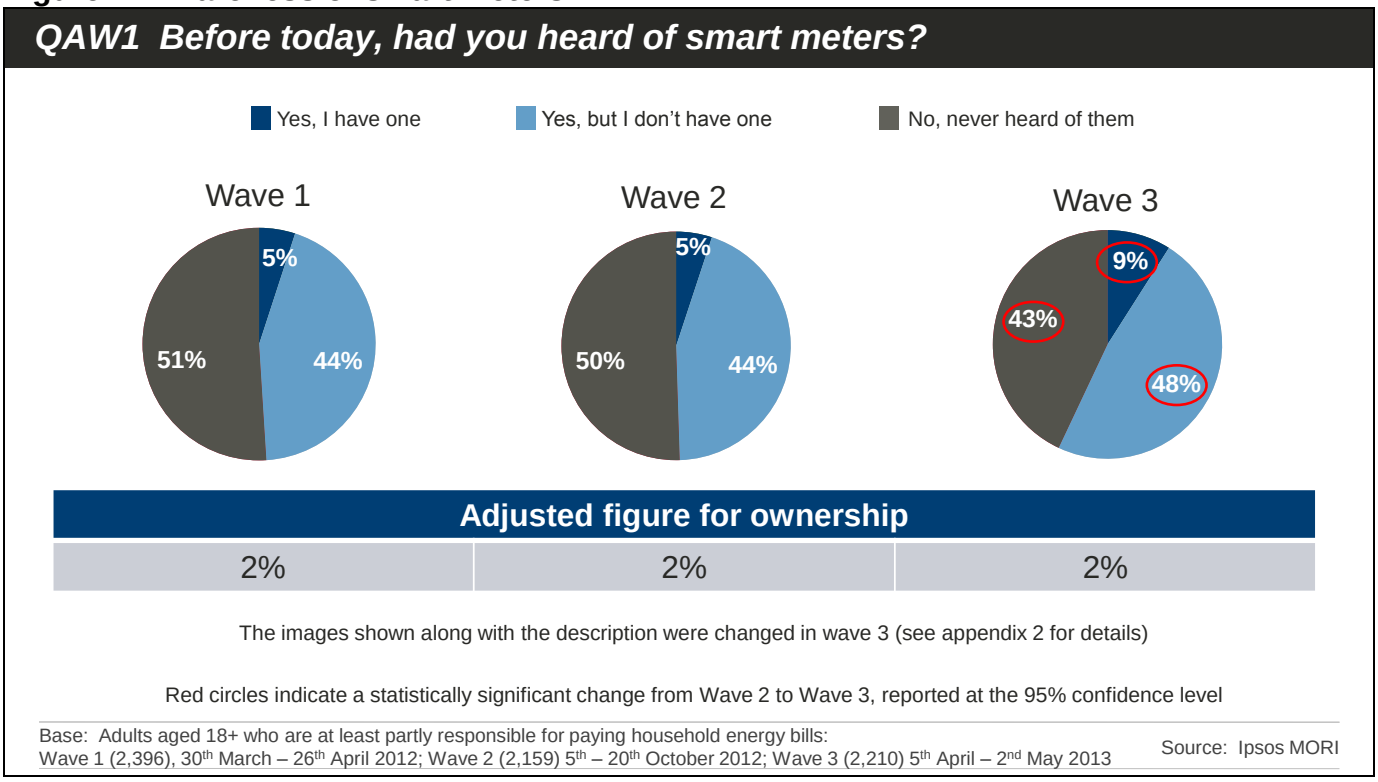
These results imply that the total level of awareness of smart meters has increased to 57%, from 49% (Wave 1) and 50% (Wave 2). However, changes to the images of smart meters used at the awareness question in Wave 3 may have influenced this finding. While the explanation read out had not changed (as detailed below), the images used to help illustrate what a smart meter looks like were updated in Wave 3. The description of the smart meter provided to respondents was as follows:

Smart meters are able to communicate with energy suppliers by sending and receiving information about the amount of energy being used. Smart meters are installed by a professional engineer from your gas or electricity company, unlike an energy monitor which can be installed by householders themselves.

The images used to accompany the description were updated in Wave 3 to better reflect what the majority of smart meters that are currently being installed in Great Britain look like (see questionnaire at Appendix 2 for details) and we cannot be certain of the extent to which this may have influenced the apparent increase.

In addition, the ownership figures should be treated with some caution as, despite best efforts, some people could still be mistaken about the exact definition of a smart meter. Previous studies have shown that smart meters are often confused with In-Home Displays (IHDs). Consistent with the previous waves for this study, editing rules have been applied to the data to obtain a more likely ownership figure: anyone who said that they did not have an IHD was excluded, as was anyone unable to say whether they were satisfied or dissatisfied with at least two of the three statements about the installation of and satisfaction with their smart meter. This revision produced an ownership figure of 2% for Wave 3, which was in line with Waves 1 and 2 (both 2%).

Figure 1: Awareness of smart meters



The analysis showed a number of demographic differences amongst those responsible for energy bills in terms of awareness of smart meters. All differences listed are statistically significant and the demographic splits remained consistent with Waves 1 and 2.

The following groups were more likely to report that they had heard of smart meters:

- Men (66%) compared to women (49%);
- Those aged 45-74 (62%) compared to those aged 18-44 (52%) or those aged 75+ (53%);
- The higher social grades, including 66% of ABs compared to 45% of DEs;
- Those with A-Level qualifications or higher (62%) compared to those with no formal qualifications (45%);
- Owner-occupiers (61%) compared to renters (50%); and
- Those who agreed that they had tried to reduce the amount of energy they use at home (61%) compared to those who disagreed (46%).

A number of the key groups of interest to DECC had lower awareness than respondents overall (57%). These included:

- Those who do not speak English as their first language (42%)
- Those with a household income of less than £15,500 (52%)
- Those with children (54%)

Awareness was consistent between those with a disability (58%) and those without (57%).

2.1.2 Source of awareness

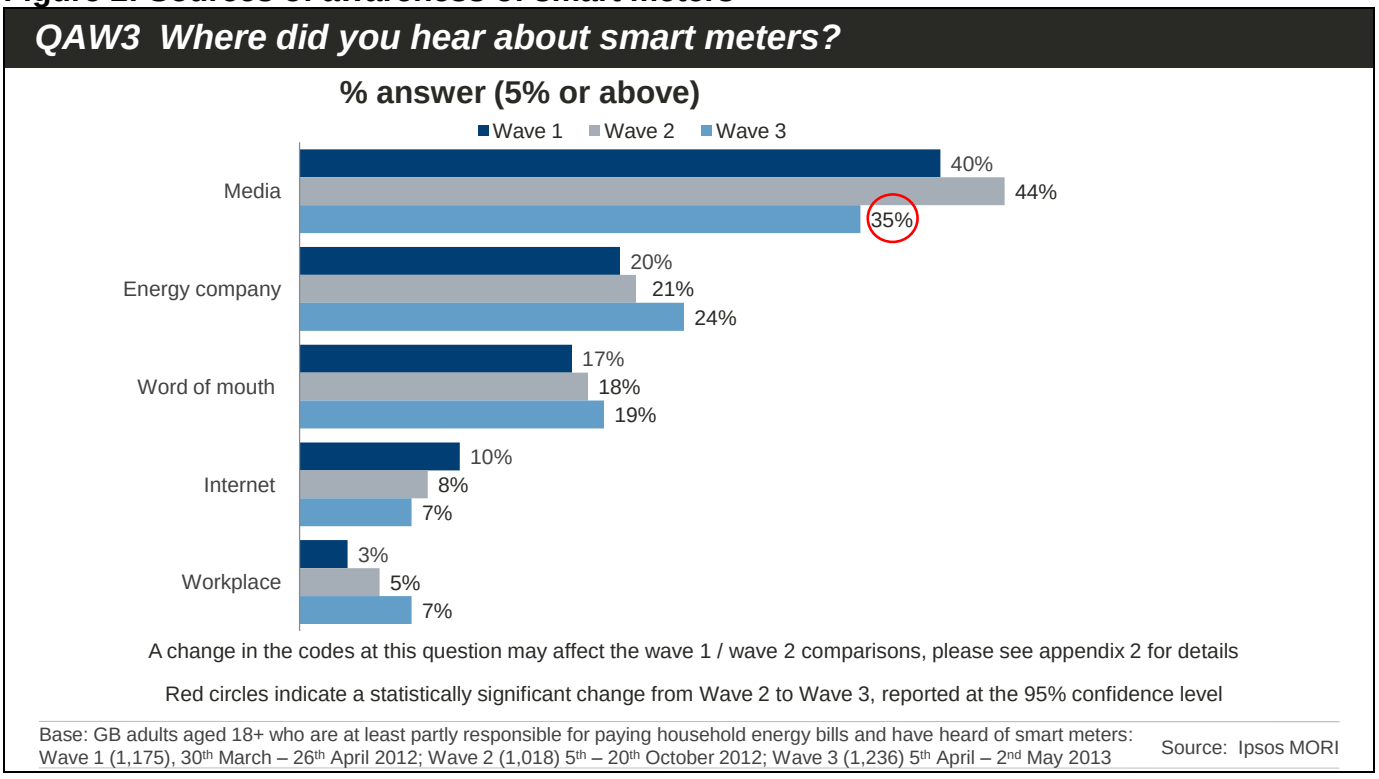
As with Waves 1 and 2, the media and energy companies remained the main sources of people's awareness in Wave 3 (see figure 2).

The proportion of those that had heard of smart meters via the media had dropped slightly since Wave 2, with just over a third of people having heard about them in this way (35% in Wave 3 compared to 44% in Wave 2 and 40% in Wave 1). Included within the media category are those who had heard about smart meters on TV, which had increased between Waves 1 and 2 (from 20% to 27%) but then fell back to 22% in Wave 3. It is possible that this spike was related to the British Gas 'smart' campaign which aired in the Summer of 2012 between Waves 1 and 2. The proportion who reported to have heard about smart meters via the radio (either on a programme or via an advert) was also lower in Wave 3 (4%), after increasing from 2% to 9% between Waves 1 and 2.

Almost a quarter learned about smart meters through an energy company (24%), which had increased since Wave 1 (20%). 'Word of mouth' was also a popular medium in Wave 3, with almost one in five having heard of smart meters through a friend or relative (19%).

Those hearing about smart meters from the Government had fallen since Wave 2 with 2% hearing about them this way, down from 5% in Waves 1 and 2. Those specifically mentioning DECC fell from 3% to 1%.

Figure 2: Sources of awareness of smart meters



Wave 3 continued to highlight that different demographic groups were more likely to have heard about smart meters from different sources, albeit with some differences between waves. Again, the sub-group differences highlighted below are statistically significant and the reported figures are all based on respondents who had heard of smart meters.

The following groups were more likely to have heard of smart meters through the media:

- Older people aged 65+ (49%) compared to those aged 18-24 (12%);
- Those households with children aged under 16 (40%) compared to those without (26%);
- Higher social grades; 44% for ABs compared to 35% for C1s, 29% for C2s and 28% for DEs; and
- Those who opposed the roll-out (44% compared to 31% who supported it).

The following groups were more likely to have heard of smart meters through the workplace:

- Men (9%) compared to women (4%); and
- Those on annual household incomes of £15,500 or more (10%), compared to those on less than £15,500 (1%).

The following group was more likely to have heard of smart meters through their energy company:

- Those who reported to have a smart meter installed (44%) compared to 20% of those who did not have a smart meter but had heard of them.

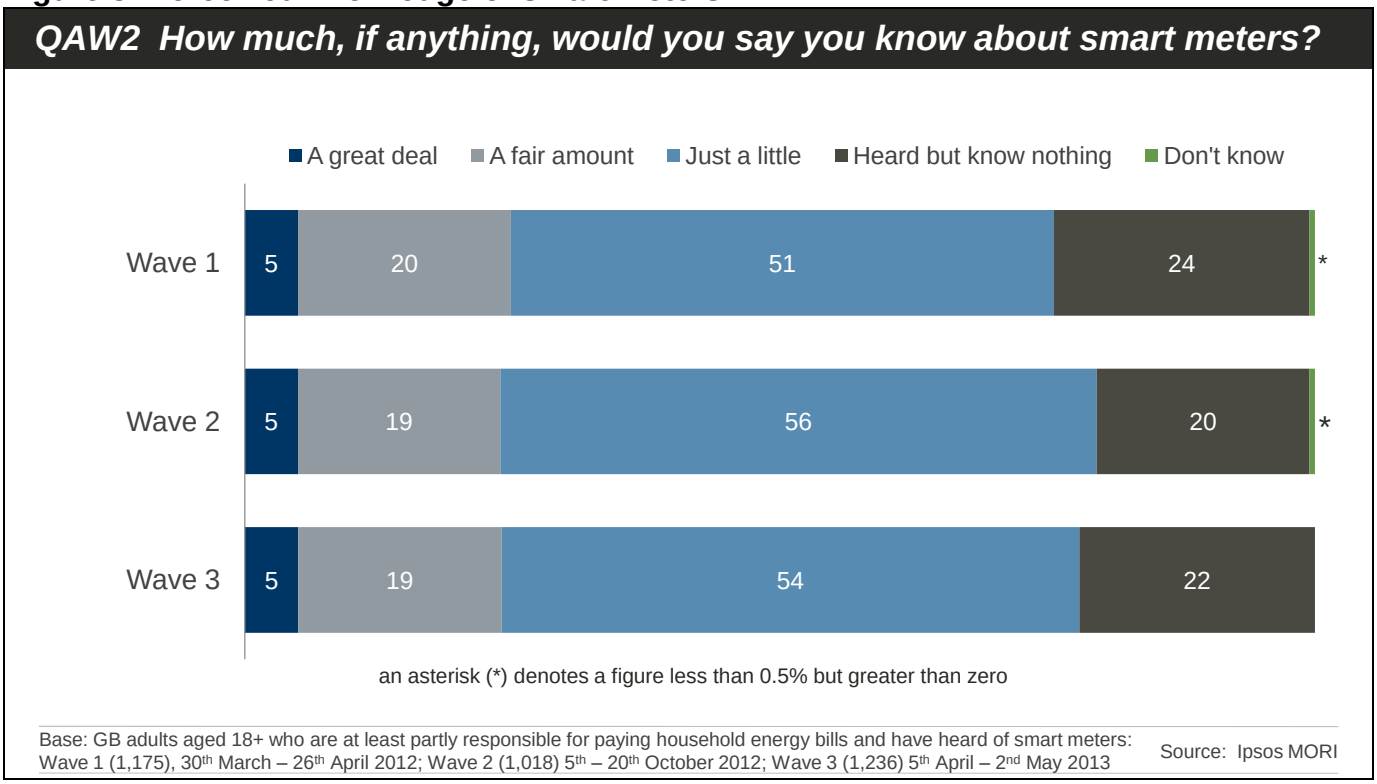
Those on lower annual household incomes (of less than £15,500) were more likely than respondents aware of smart meters overall to have heard of them through their Local Authority (5% compared to 2% of respondents overall) and through the Government (4% compared to 2%).

In terms of other key groups of interest to DECC, there were no differences of note between the responses of respondents who are disabled (or have a long-standing illness) and those who are not, or those who speak English as their first language or those who do not.

2.1.3 Perceived knowledge of smart meters

There was a slight increase in reported knowledge around smart meters in Wave 2, but in Wave 3 it had returned to a level that was similar to Wave 1. A high proportion (78%) of British bill-payers who had heard of smart meters said they know something about them, while the remaining 22% said they had heard of them but know nothing about them. The majority (54% of all those who had heard of smart meters) said they only know a little, while 19% said they know a fair amount and 5% a great deal.

Figure 3: Perceived knowledge of smart meters



These figures equate to 14%[1] of all British energy bill-payers knowing at least a fair amount about smart meters, and just 3% claiming to know 'a great deal', which was consistent with Waves 1 and 2. As in previous waves, knowledge was even limited among those who reported to have a smart meter installed - only 48% claimed to know a fair amount.

The majority of demographic differences in terms of reported knowledge are in line with those found in Waves 1 and 2. Once again, those differences highlighted below are statistically significant and are based on those who had heard of smart meters.

The following groups were more likely to claim to have a greater level of knowledge:

- Men; 29% said that they know at least a fair amount about them compared to 18% of women;
- Larger households, with 30% in households with four or more people knowing at least a fair amount, compared to 20% of those living on their own;
- Those who had access to the internet (at either home or work); a quarter who had access know at least a fair amount (25%), falling to 16% among those without internet access; and

[1] 304 of the 1,259 respondents (weighted) who answered this question knew at least a fair amount about smart meters. The 943 respondents who were not asked this question had earlier stated that they had not heard of smart meters. Therefore, of the 2,202 bill-payers that took part in Wave 3, 304 knew at least a fair amount about smart meters (14%).

- Those who did not speak English as their first language; 35% know at least a fair amount compared to 23% who spoke English as their first language.

In contrast, the following groups were more likely to have lower levels of knowledge:

- The oldest age group; 14% of those aged 75+ know at least a fair amount compared to 24% of all respondents who had heard of a smart meter;

- Those with no formal qualifications; 17% claimed to know at least a fair amount about smart meters compared to 24% of all respondents who had heard of smart meters; and

- Those with a disability or long-standing illness were more likely to report that they had heard of them but know nothing about them (27% compared to 20% without a disability or long-standing illness).

Knowledge did not vary significantly by presence of children in the household or by household income.

2.1.4 Relative support for the national roll-out of smart meters

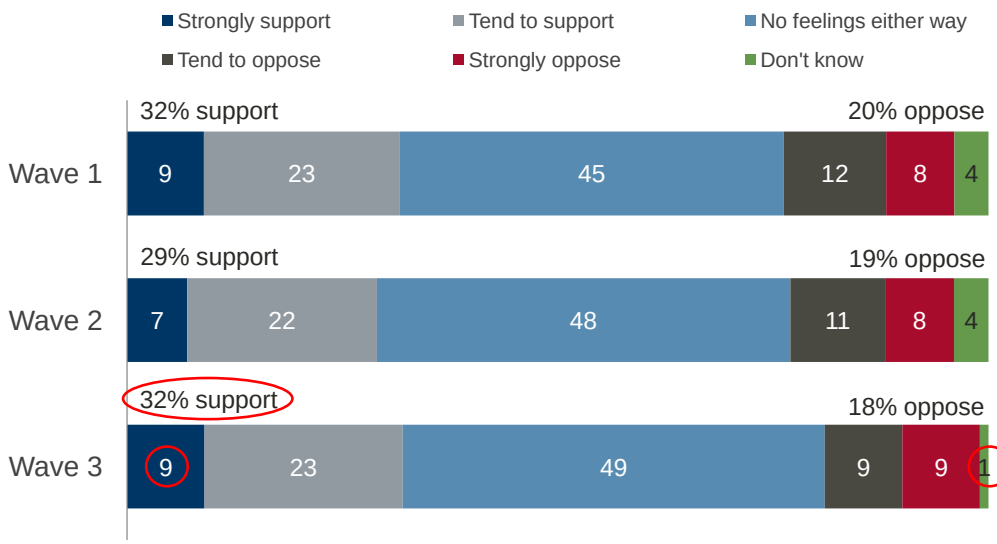
A large proportion of British bill-payers were undecided about whether smart meters should be installed in every home (see figure 4). Just under half, 49%, reported to have no feelings either way (compared to 45% in Wave 1 and 48% in Wave 2; significantly higher than in Wave 1). Around a third of bill-payers (32%) were still supportive of the installation of smart meters in every home. This was higher than Wave 2 (29%) but consistent with Wave 1 (32%). The slight dip in those strongly supporting roll-out between Wave 1 (9%) and Wave 2 (7%) also recovered in Wave 3 (9%). Fewer than one in five bill-payers were opposed to the roll-out (18%).

The DECC qualitative study on smart meter attitudes[2] concluded that the way in which the installation process was presented to people would have an impact on their level of support; if people thought that the installation would be compulsory, they would be more likely to oppose it and, if it was a choice, they would be more supportive. The survey detailed in this report attempted to be as neutral as possible in all question wording and, while a smart meter description was given to each respondent, care was taken not to provide any information about the proposed installation.

[2] https://www.gov.uk/government/publications/smart-meters-research-into-public-attitudes

Figure 4: Support for smart meters

QUN5 To what extent do you support or oppose the installation of smart meters in every home?



Red circles indicate a statistically significant change from Wave 2 to Wave 3, reported at the 95% confidence level

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills:
Wave 1 (2,396), 30th March – 26th April 2012; Wave 2 (2,159) 5th – 20th October 2012; Wave 3 (2,210) 5th April – 2nd May 2013

Source: Ipsos MORI

Wave 3 confirms the findings from previous waves that there appears to be a relationship between knowledge and support, with the most knowledgeable also the most likely to support smart meters; over half (58%) of those who knew at least a fair amount supported their installation compared to around one in four (26%) who have never heard of them or who have heard of them but know nothing about them (28%).

Support across demographics continues to vary. In previous waves, respondents aged 35-44 were most likely to support the installation of smart meters but in Wave 3 the level of support (tend to / strongly support) was highest amongst those aged 25-34 (40%).

Other groups who were more likely to support the roll-out included:

- Those earning an annual household income of £50,000 or more (43% compared to 32% of respondents overall);
- Families with children (37%) compared to those with no children (30%);
- Men (36%) compared to 29% of women;
- Those who reported being concerned about climate change; 37% compared to 24% of those less concerned about climate change; and
- Those who reported they have a smart meter; 53% compared to 32% of respondents overall, although 10% of smart meter owners were opposed to the roll-out.

In terms of other key groups of interest to DECC, while the level of opposition (tend to or strongly oppose) was higher in Wave 2 amongst those with a disability or long-standing illness than those

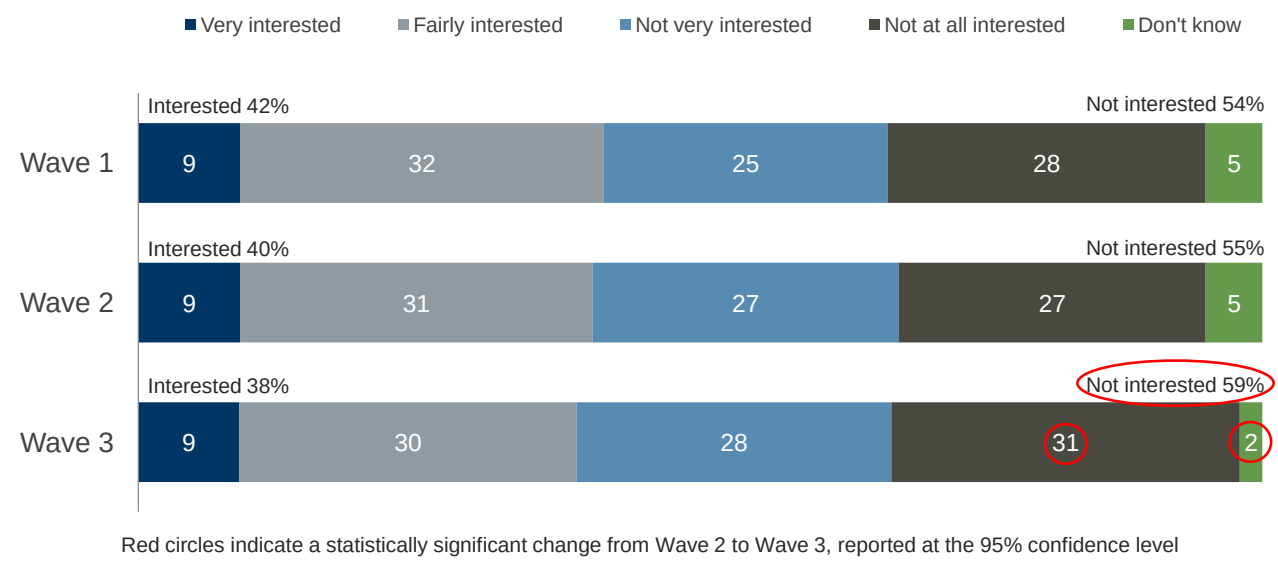
without, no difference was found in Wave 3. There were also no differences found in support among those who do not speak English as their first language or those with lower incomes.

2.1.5 Relative interest in having a smart meter installed

Figure 5 shows bill-payers remained split in terms of their interest in having a smart meter installed in the near future. Around four in ten bill-payers who did not have a smart meter said they were at least fairly interested in having one installed (38%). That said, there was a slight increase in the proportion of those who reported that they were not interested. The proportion of people who were not interested increased in Wave 3; almost six in ten were not interested (59%, up from 55% in Wave 2 and 54% in Wave 1) with three in ten 'not interested at all' (31%, up from 27% in Wave 2 and 28% in Wave 1).

Figure 5: Interest in having a smart meter installed

QUN4 To what extent would you be interested, or not, in having a smart meter installed in your home in the near future?



Red circles indicate a statistically significant change from Wave 2 to Wave 3, reported at the 95% confidence level

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills and have not had a smart meter installed: Wave 1 (2,267), 30th March – 26th April 2012; Wave 2 (2,049) 5th – 20th October 2012; Wave 3 (1,984) 5th April – 2nd May 2013

Source: Ipsos MORI

As was the case with support, knowledge appeared to be related to interest. Interest among those who claimed to know at least a fair amount about smart meters but did not already have one installed was 58%, compared to 34% who had never heard of them, and 36% who had heard of them but knew nothing about them.

Current behaviours and attitudes towards energy use appeared to be related to interest in smart meters. Those who agreed that they had tried to reduce their energy at home were more likely to be interested in smart meters (43%) than those who had not tried (30%). The difference was even more pronounced between those who felt they could do more to save energy (49%) and those who did not (24%), as well as those who did not prioritise a warm and comfortable home over saving energy (50%) and those who did (36%).

Other subgroups that did not already have a smart meter installed that were more likely to be interested included:

- Larger households with four or more people (46%) compared to single person households (29%);
- Those respondents with a child aged 15 or under compared to those without (47% compared to 34%);
- Those aged 35-44; 48% compared to 18% of those aged 75+;
- Those who do not have a disability or long-standing illness (40% compared to 32% of those who do);
- Households with higher incomes; 60% of those with an annual household income of £50,000 or more compared to 35% of those earning less than £15,500;
- Higher social grades; 46% of ABs compared to 30% of DEs;
- Those with a mortgage (48%) compared to 31% for those who owned their property outright or those who rented social housing (also 31%); and
- Those who were concerned about climate change (46% compared to 26% not concerned), energy bills (41% compared to 25% not concerned) and household finances (42% compared to 35% not concerned).

Interest was relatively lower amongst those with no formal qualifications; around one in five were likely to be interested in having a smart meter installed compared with three-quarters who were not (22% compared to 76%).

As in previous waves, there were no differences between the responses of those who do not speak English as their first language and those who do.

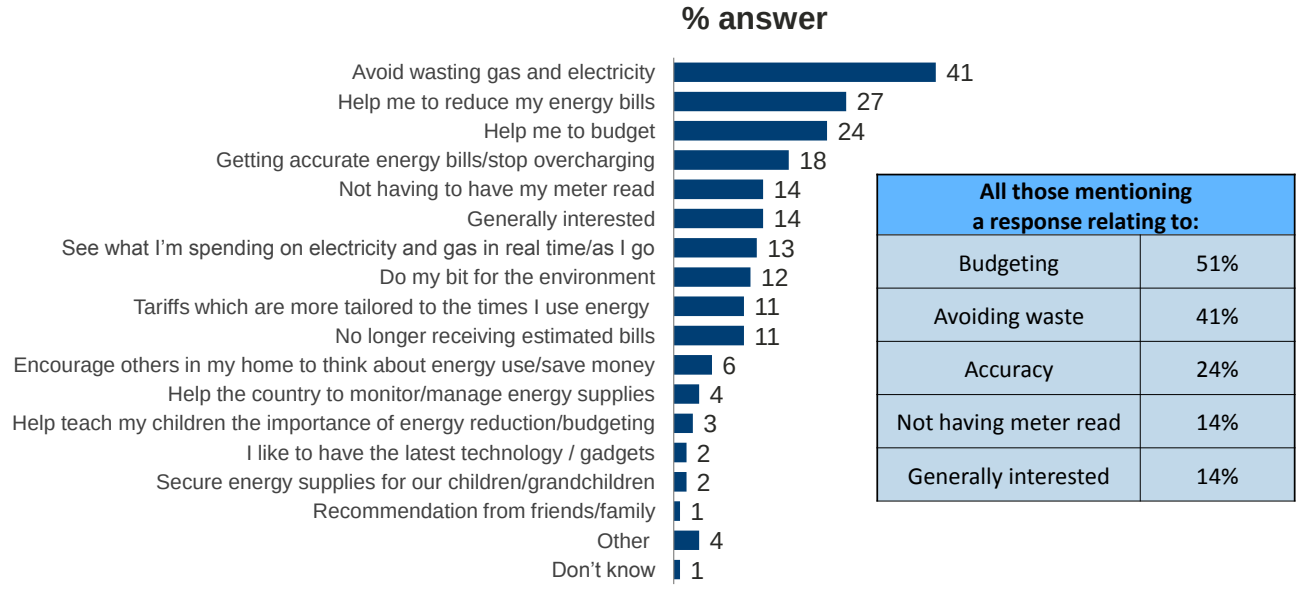
2.1.6 Reasons for relative interest in having a smart meter installed

Two further questions were introduced in Wave 3 to understand why respondents were interested or not in having a smart meter installed (figures 6 and 7). Respondents were not prompted, but interviewers coded their answers to sets of pre-codes which were developed from Ipsos MORI's and DECC's collective experience of research into smart meters.

For those who were interested in having a smart meter installed (figure 6), the main reasons were related to budgeting (51%), followed by helping to avoid waste (41%) and greater accuracy of billing (24%). Around one in seven (14%) said they were interested in having a smart meter because it meant they would not have to have their meter read, while one in seven (14%) said that they were just generally interested in having a smart meter. One in eight (12%) expressed an interest because they wanted to do their 'bit for the environment'.

Figure 6: Reason for interest in having a smart meter installed

QUN4a Why do you say that you are interested in having a smart meter installed in your home in the near future? (spontaneous)



All those mentioning a response relating to:	
Budgeting	51%
Avoiding waste	41%
Accuracy	24%
Not having meter read	14%
Generally interested	14%

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills and are interested in receiving a smart meter (725), 5th April – 2nd May 2013

Source: Ipsos MORI

There are some nuances in some of the reasons why different groups of respondents said they were interested in having a smart meter installed in their home.

The following groups were more likely to be interested because they wanted to avoid waste:

- Respondents with an annual household income of less than £15,500 (49%) compared to those earning more than £15,500 (35%); and
- Those concerned about household finances (45%) compared to those not concerned (36%).

The following groups were more likely to be interested in order to do their bit for the environment:

- The higher social grades; 17% of ABs compared to 5% of DEs;
- Those concerned about climate change (15%) compared to 5% of those not concerned; and
- Those who did not prioritise a warm and comfortable home over saving energy (20%) compared to 8% of all those who said they were interested in receiving a smart meter.

Accuracy of billing was more likely to be mentioned by tthose who were more concerned about their energy bills (26%) compared to those not concerned (11%).

Reasons relating to energy security were more likely to be mentioned by the higher social grades; 12% of ABs compared to 4% of DEs.

The higher social grades were also more likely to be interested in being offered tariffs which are more tailored to the times when they use energy; 16% of ABs compared to 8% of DEs.

The elderly (aged 75+) were more likely to mention not having to have their meter read; 27% compared to 14% of all respondents who said they were interested in a smart meter.

Families with older children aged 10-15 were more likely to be interested in a smart meter so that they could influence others; 16% compared to 8% of all those interested.

Those who do not speak English as their first language were less likely to mention reasons related to budgeting; 33% compared to 53% among those whose first language is English.

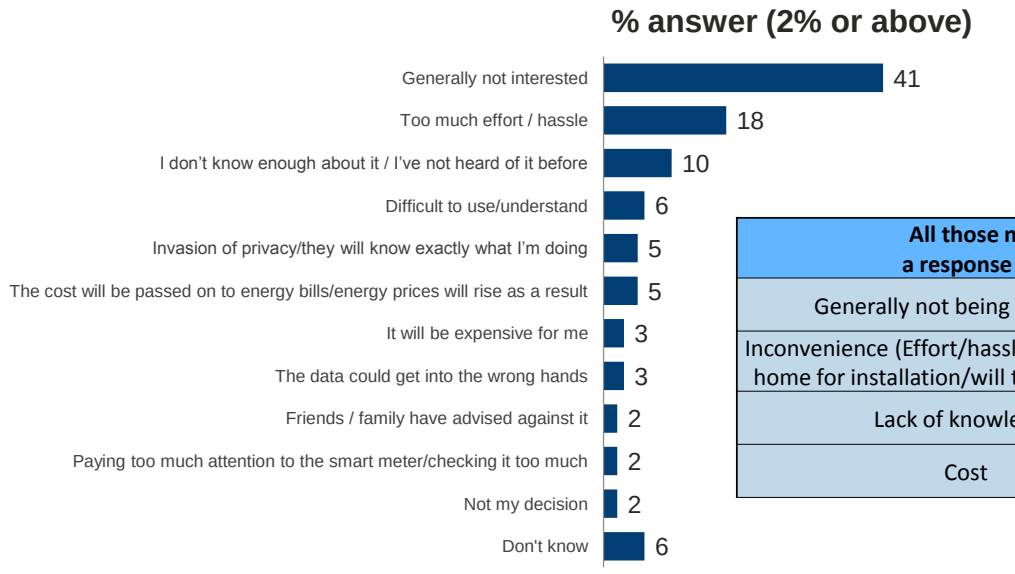
There were no differences according to whether the respondent had a disability or a long-standing illness.

Figure 7 shows the spontaneous reasons why respondents said they were either not very or not at all interested in having a smart meter installed.

A high proportion of those respondents who said they were not interested in having a smart meter installed did not point to anything specific but simply said they were 'generally not interested' (41%). Inconvenience was the largest specific factor, with one in five stating that it would be too much effort / hassle, having to be at home when it was installed or that installation would take a long time (20%). This was followed by around one in ten saying that they didn't know enough about smart meters (10%) or the cost, either to themselves, the taxpayer, the Government or the energy companies (9%).

Figure 7: Reason for not being interested in having a smart meter installed

QUN4b Why do you say that you are not interested in having a smart meter installed in your home in the near future? (spontaneous)



All those mentioning a response relating to:	
Generally not being interested	41%
Inconvenience (Effort/hassle/having to be at home for installation/will take a long time)	20%
Lack of knowledge	10%
Cost	9%

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills and are not interested in receiving a smart meter (1,211), 5th April – 2nd May 2013

Source: Ipsos MORI

Once again there are some differences in some of the reasons why different groups of respondents said they were not interested in having a smart meter installed in their home.

The following groups were more likely to mention reasons relating to cost (mostly to themselves) as to why they were not interested in having a smart meter installed:

- Those aged 45-54; 14% compared to 9% of all those who said they were not interested; and
- Those who claimed to know at least a fair amount about smart meters; 18% compared to 9% of all respondents who said they were not interested.

The following groups were more likely to mention reasons relating to data security to explain why they were not interested in having a smart meter installed:

- Those in the higher social grades; 8% amongst ABs and 10% amongst C1s, compared to 3% for C2s and 4% for DEs;
- Those with higher annual household incomes of £15,500 and over; 8% compared to 3% for those earning less than £15,500; and
- Those who claimed to know at least a fair amount about smart meters; 17% compared to 7% of all respondents who said they were not interested.

Concern that the meter would be difficult to use / understand was more likely to be a reported barrier for the following groups:

- Those in the lower social grades; 9% of DEs compared to 3% of ABs;
- Those with a lower annual household income of less than £15,500; 8% compared to 2% of those with an income in excess of £15,500; and
- Those who do not speak English as their first language; 11% compared to 6% of all respondents who said they were not interested.

Pensioners were more likely to be generally not interested; 45% among those aged 65+ compared to 41% among all those not interested in receiving a smart meter.

Those aged 75+ were more likely to mention reasons relating to inconvenience; 27% compared to 20% of all those who said they were not interested.

There were no differences among those with a disability or long-term illness.

2.1.7 Perceived benefits of smart meters

Results were similar to Waves 1 and 2 in terms of perceived benefits of smart meters (see figure 8). However, there was a fall in those being able to spontaneously think of at least one benefit to having a smart meter installed in their home (55%, down from 62% in Wave 2 and 61% in Wave 1); almost a quarter said explicitly they could not think of anything (24%) while a further 21% said that they did not know.

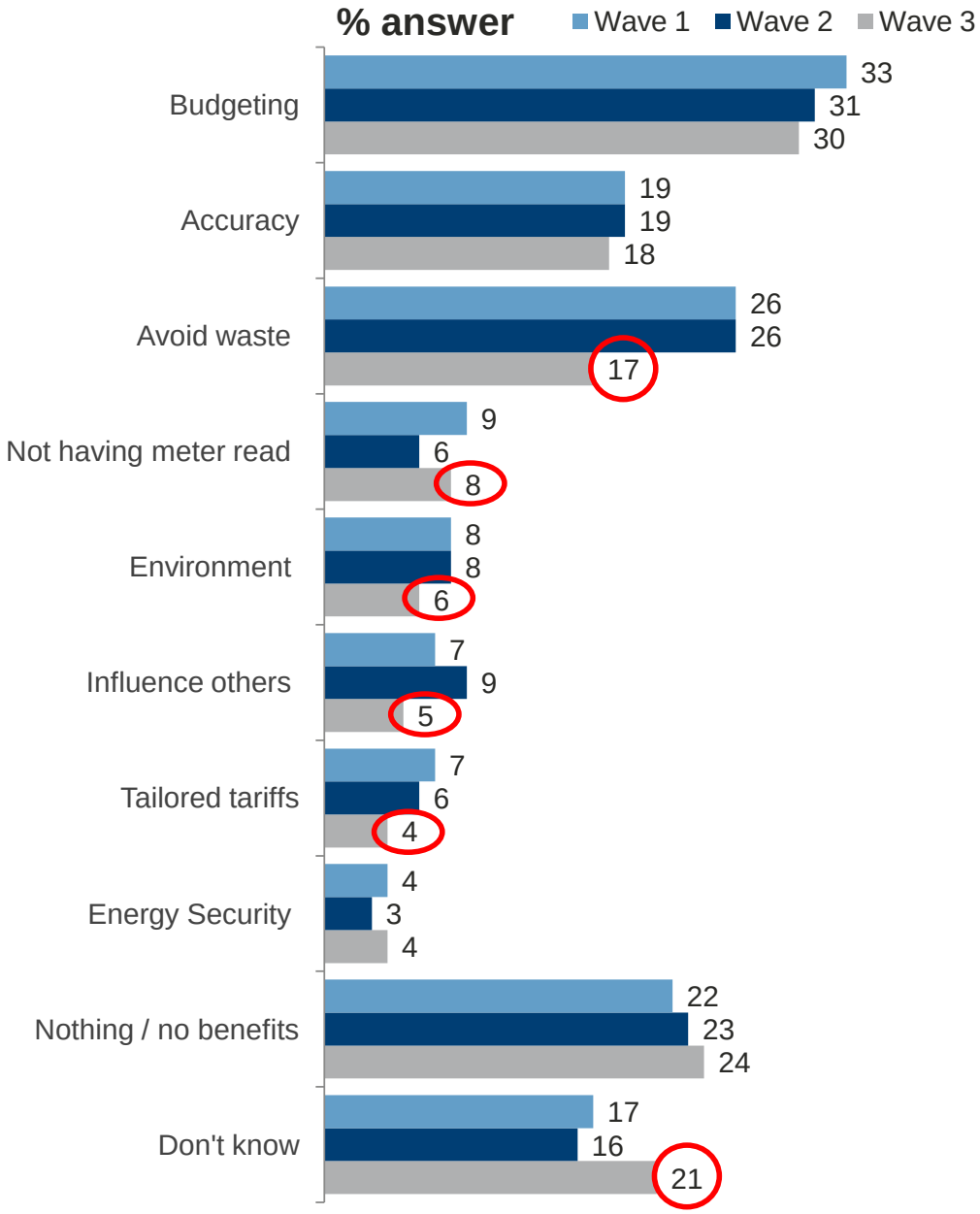
Again, the most frequently mentioned advantages were related to budgeting; almost a third (30%) mentioned either helping to reduce bills, helping to budget or to see what is being spent. This was followed by benefits linked to the accuracy of bills (18%) and avoiding waste (17%, down from 26% in both previous waves). The qualitative study on smart meter attitudes[3] previously commissioned by DECC suggested that not everyone associates reducing their energy usage with reducing their bills; there was a perception that energy companies would raise their prices so that a reduction in usage would not necessarily lead to a reduction in cost.

While the general pattern of responses remained consistent between the waves there were some benefits which were slightly less likely to be top of mind in Wave 3 than Wave 2 (see differences marked on the chart).

[3] https://www.gov.uk/government/publications/smart-meters-research-into-public-attitudes

Figure 8: Perceived benefits of smart meters to householders (spontaneous)

QUN1 What, if anything, do you think you would benefit from if you had a smart meter installed in your home? (spontaneous)



Red circles indicate a statistically significant change from Wave 2 to Wave 3, reported at the 95% confidence level

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills: Wave 1 (2,396), 30th March – 26th April 2012; Wave 2 (2,159) 5th – 20th October 2012; Wave 3 (2,210) 5th April – 2nd May 2013

Source: Ipsos MORI

Those who support smart meter installation in every home were again more likely to be able to think of at least one advantage (77% compared to 43% of those against). As in Waves 1 and 2, a minority of those who supported smart meter installation said that they didn't know of any benefits (10%) or could not think of any (13%).

The following sub-groups were more likely to be able to name a benefit than respondents overall (55%):

- Those earning an annual household income of £50,000 or more (69%);
- Those with children aged 10-15 (69%);
- Those who did not prioritise a warm and comfortable home over saving energy (67%);
- Those aged 35-44 (64%); and
- Those who felt they could do more to reduce their energy use (63%); and those who had tried to reduce their energy use (58%).

Conversely, the following sub-groups were less likely to be able to name a benefit than respondents overall (45%). These were the same groups as those identified in Waves 1 and 2 and included:

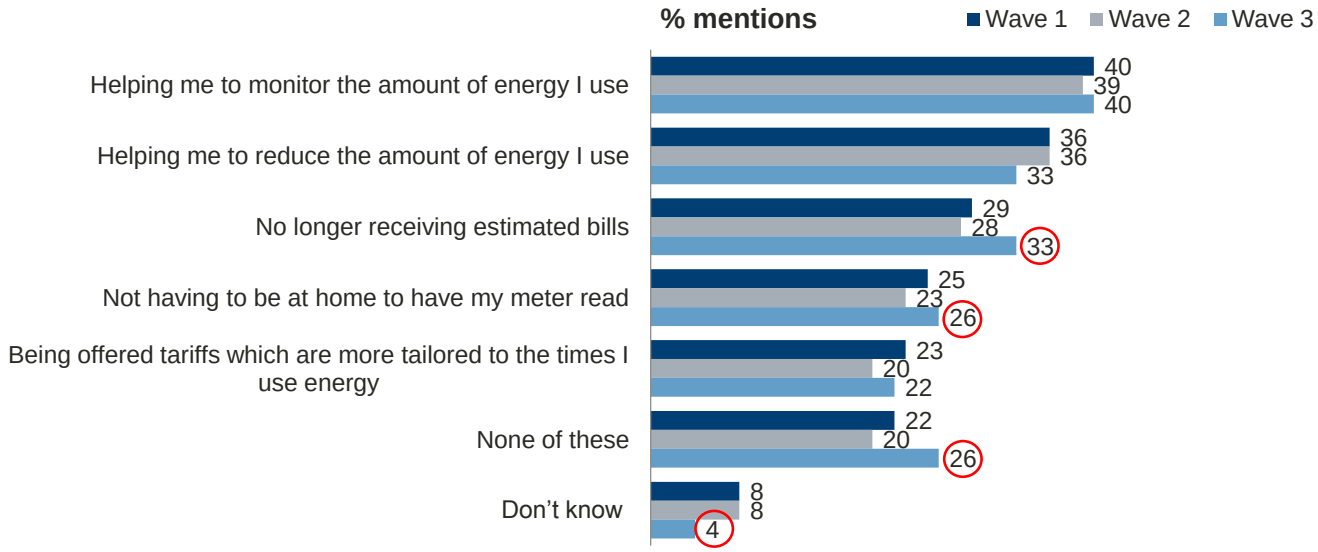
- Those aged 75+ (72% were unable to name one);
- People with no access to the internet (67%);
- Those with no formal qualifications (63%);
- Those who were retired (59%);
- Those in a lower social grade (57% of DEs);
- Those living in a single person household (55%);
- Those with a disability (50%); and
- Those with an annual household income of less than £15,500 (49%).

The specific benefits more likely to be mentioned by sub-groups echoed the reasons for which particular sub-groups were interested in having a smart meter, and also remained similar to Wave 1 and Wave 2.

Consistent with the pattern shown in Waves 1 and 2, when prompted, seven in ten (70%) felt they would benefit from one of a number of possible advantages (see figure 9). This compared to 55% who spontaneously named a benefit. As with previous waves, the most common answers related to monitoring energy use (40%), reducing energy consumption (33%) and avoiding estimated bills (33%).

Figure 9: Perceived benefits of smart meters to householders (prompted)

QUN2 Which, if any, do you think you would benefit from if you had a smart meter installed in your home? (choosing from list)



Red circles indicate a statistically significant change from Wave 2 to Wave 3, reported at the 95% confidence level

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills:
Wave 1 (2,396), 30th March – 26th April 2012; Wave 2 (2,159) 5th – 20th October 2012; Wave 3 (2,210) 5th April – 2nd May 2013

Source: Ipsos MORI

Again, most of those who supported the installation of smart meters perceived at least one benefit (88% compared to 70% of all bill-payers) although, as in previous waves, a small minority did not feel any of the potential benefits were applicable to them (10%), while 2% did not know.

There were a number of other statistically significant differences by the various demographic groups.

A number of groups were more likely than all respondents (70%) to feel at least one of the benefits would apply to them. These included:

- Those with children aged 10-15 (79%);
- Those who agreed they could do more to reduce their energy use (78%); and
- Those who did not prioritise a warm and comfortable home over saving energy (76%).

A number of groups were less likely to feel they would benefit from one of the potential advantages presented to them. This included:

- Those aged 65+ (55%);
- Those with no formal qualifications (54%);
- Those without internet access (49%); and
- People living on their own (61%).

In terms of other groups of interest to DECC, those with a disability did not see as many benefits as those without (63% selected a benefit, compared to 71% without a disability), while those who do not speak English as their first language were equally likely to select a benefit as those who do.

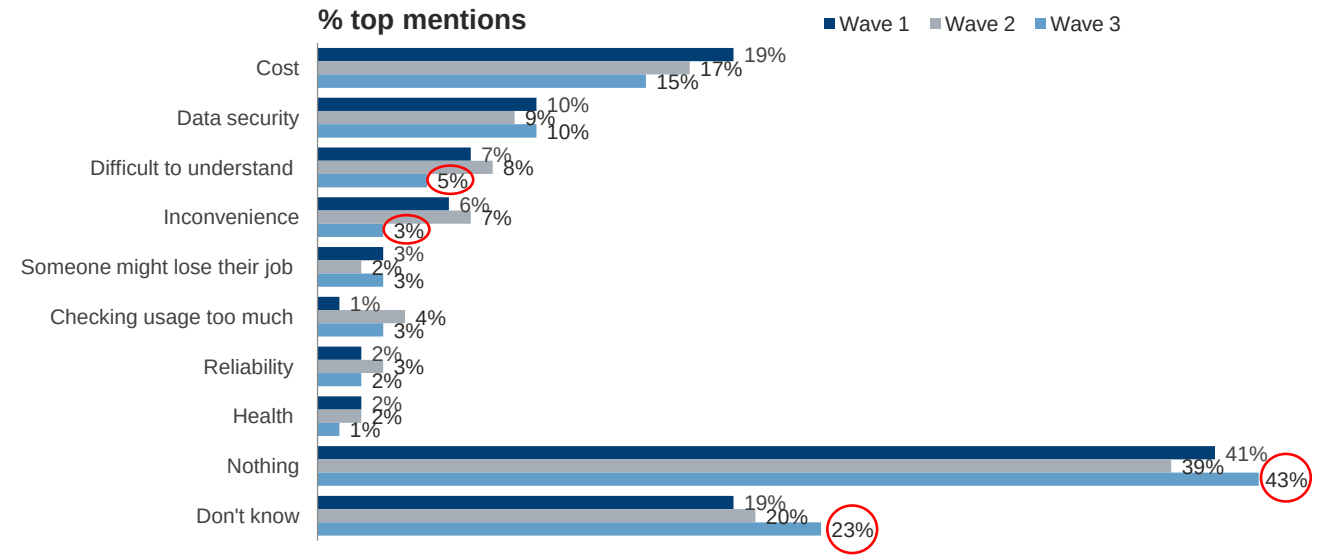
2.1.8 Perceived disadvantages of smart meters

Whilst a majority were able to spontaneously name a benefit, only one in three were able to spontaneously name a disadvantage of having a smart meter installed in their home (34%, down from 41% in Wave 2 and 40% in Wave 1). Just over four in ten bill-payers said that there were no disadvantages in installing a smart meter (43%), and a further one in four could not think of one (23%) (see figure 10).

The main concerns that were mentioned related to costs (15% compared to 17% in Wave 2 and 19% in Wave 1); either for themselves (7%), for the energy companies (2%), for taxpayers (2%) or for the Government (1%), while 6% specifically referred to energy bills rising as a result of the costs. There were also concerns around data security (10%), that the smart meter would be difficult to understand (5%) and that it would be inconvenient to have the meter installed (3%). The pattern of responses was largely consistent between waves although the circles on figure 10 indicate some small statistically significant differences. It should be noted that checking usage too much was only added as a pre-code in Wave 2 and so the Wave 1 results are not directly comparable for this response.

Figure 10: Perceived disadvantages of smart meters (spontaneous)

QUN3 What, if anything, do you think are the disadvantages if you had a smart meter installed in your home?



Red circles indicate a statistically significant change from Wave 2 to Wave 3, reported at the 95% confidence level

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills:
Wave 1 (2,396), 30th March – 26th April 2012; Wave 2 (2,159) 5th – 20th October 2012; Wave 3 (2,210) 5th April – 2nd May 2013

Source: Ipsos MORI

Different demographic groups continued to have slightly different concerns, reflecting their wider priorities. The differences highlighted between sub-groups are statistically significant.

As seen in previous waves, those in higher social grades were more likely to mention a disadvantage (42% compared to 34% of all respondents). This corresponds to education level

where those with a degree were most likely to mention a disadvantage (44%) falling to one in four of those with no formal qualifications (25%).

The disadvantages identified by bill-payers with a disability were broadly similar to those without in Wave 3. In contrast to Wave 2 they were no longer less likely to name a disadvantage.

Those who did not prioritise a warm and comfortable home over saving energy were more likely to name a disadvantage (42% compared to 34% for respondents overall). They were also more likely to name a benefit, which suggests they were more engaged with the topic area.

Men were more likely to mention data security as a disadvantage, with 13% mentioning this compared to 7% of women, as were those from higher social grades (14% compared to 10% of respondents overall). Again those aged 45-54 were the most likely to be worried about data security, with 13% mentioning this compared to 5% of those aged 75+.

Cost was mentioned more frequently by those aged 18-24 compared to those aged 75+ (20% compared to 9%), in particular that cost would be passed on through energy bills (10% compared to 4%).

Health issues were mentioned more frequently by those aged 18-24 (3% compared to 1% of respondents overall). Those who do not speak English as a first language also expressed higher concern that smart meters might have some form of health risk (4%).

Those with lower annual household incomes (less than £15,500) were the most likely to be concerned that smart meters would be difficult to understand (9% compared to 5% of respondents overall) and men were more likely to be concerned by the inconvenience (4% compared to 2% of women).

2.1.9 Health concerns around smart meters

In Wave 3, an open-ended question was asked of all bill-payers who mentioned that a health related issue was a potential disadvantage of smart meters. 1% of bill-payers mentioned a health related disadvantage and subsequently 31 responses were given to this question.

The main reason given was radiation without specifying the details; other reasons included a reference to a magazine article about smart meters affecting the brain, job losses and emitting harmful rays (see figure 11).

Figure 11: Perceived health disadvantages (spontaneous)

You mentioned that you think there is a health related disadvantage to having a smart meter installed. Why do you think this?

Radiation was the key mention, although many were unsure as to why they felt this.

- Read an article in NEXUS magazine / can get into brain
- Not enough information available to suggest safe
- Radiation which will cause side effects for human health
- Isotopic measurement or not
- Job losses for meter readers that will lead to stress and health risk
- Could lead to gas leak or emit harmful rays

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills and think smart meters could have health risks: Wave 3 (31) 5th April – 2nd May 2013

Source: Ipsos MORI

2.2 Experience of smart meter customers

In Wave 3, respondents who reported that they were smart meter customers were more likely to be satisfied with the installation process and their overall experience of using the meters (62%). This compares to 48% in Wave 1 and 46% in Wave 2. However, these findings need to be treated with some caution due to the potential overestimate in terms of smart meter ownership (see above) and the relatively small number of respondents on which these experiences are based.

Respondents who reported to be smart meter customers, and who supported the roll-out of smart meters in every home, were more likely to express satisfaction with arranging the appointment, their experience of the installation process, and their overall experience of using meters. This appears to show a relationship between perceptions of good customer service and support for the roll-out of smart meters.

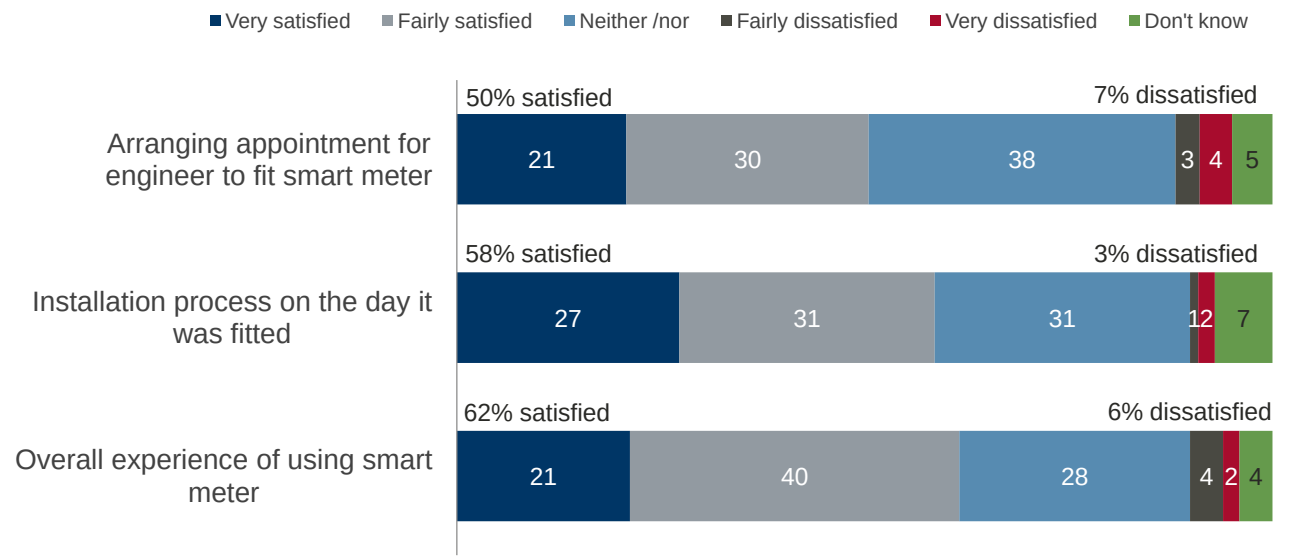
Those respondents who reported to have a smart meter were asked about their relative satisfaction with the installation process and their overall experience of using the smart meter. It should be noted that the responses to these questions had relatively low sample sizes for all three Waves (129, 110 and 226 respondents respectively). Therefore the findings should be treated be with some caution.

Compared with previous waves, smart meter customers were even more positive about their experience of the appointment, the installation process, and their overall experience of using the smart meter. For all three of these measures, the proportion satisfied greatly outweighed those dissatisfied (see Figure 12). In Wave 3, smart meter owners were more likely to be satisfied with the overall experience of using their smart meter (62%, up from 46% in Wave 2 and 48% in Wave 1).

On all three of these measures a high proportion are neutral or say that they don't know. It is felt that this is likely to reflect some confusion on the part of respondents as to whether they do in fact have a smart meter, in spite of steps taken in the questioning to minimise this. This could be especially prevalent in Wave 3 where 9% reported owning a smart meter (revised down to 2% as seen in section 2.1.1. As discussed in section 2.1.1, there is some doubt over whether respondents accurately reported whether they had a smart meter or not. When we include only those categorised under the 'adjusted ownership' figure, satisfaction on each of the three measures increases and stands at 73% for arranging the appointment, 84% for the installation process and 84% for the overall experience of using the smart meter.

Figure 12: Satisfaction with smart meter installation and performance

QEX1A Overall, to what extent have you been satisfied or dissatisfied with each of the following?



Base: Adults aged 18+ who are at least partly responsible for paying household energy bills and have a smart meter installed: Wave 3 (226) 5th April – 2nd May 2013

Source: Ipsos MORI

The small base size for respondents with smart meters means it is not possible to conduct sub-group analysis on Wave 3 alone. However, by combining Waves 1 to 3 some statistically significant differences can be detected.

Of note is that respondents who supported the roll-out of smart meters in every home were much more likely than all respondents with smart meters to express satisfaction with each of the three factors measured. Around seven in ten expressed satisfaction with each statement, while dissatisfaction for each statement was very low, ranging from 2% to 5%; the remaining responses were neutral. This appears to show a relationship between perceptions of good customer service and support for the smart meter programme.

In addition, those respondents who reported to have an IHD, and look at it, were more likely to be satisfied than all respondents with smart meters. Around two-thirds expressed satisfaction with each statement. This appears to show a further relationship between perceptions of good customer service and usage of IHDs.

Men showed more satisfaction with arranging the appointment for the engineer to fit the smart meter (59% compared to 42% women) and with the installation process on the day (66% compared to 51% women). Satisfaction with the overall experience of using the smart meter was very similar between the sexes.

2.3 Public attitude to IHDs

IHD ownership remained consistent in Wave 3 with the previous waves (at 15%). Almost three in five of those who reported to have an IHD said they looked at it at least occasionally, with most checking either the kilo-watt measure or the money display.

Over half of IHD owners received the device passively from their energy suppliers, rather than having actively requested or purchased them. Interest levels among those who do not have one remained consistent with previous waves, with two in five expressing an interest. As in previous waves, interest was lowest amongst older respondents, single person households and those without qualifications.

Customers who look at their IHDs remained generally positive about their impact in helping them understand and reduce their energy use; overall, three quarters were satisfied with their IHD.

Respondents were asked whether they had an in-home energy display or energy monitor in their home. This includes the type of in-home display installed by energy suppliers, which interacts with a smart meter and also other forms of energy display that are acquired separately as stand-alone devices. Stand-alone devices may have been provided by suppliers or purchased directly. In this report, the term 'IHD' is used to refer to both types of in-home energy display or energy monitor.

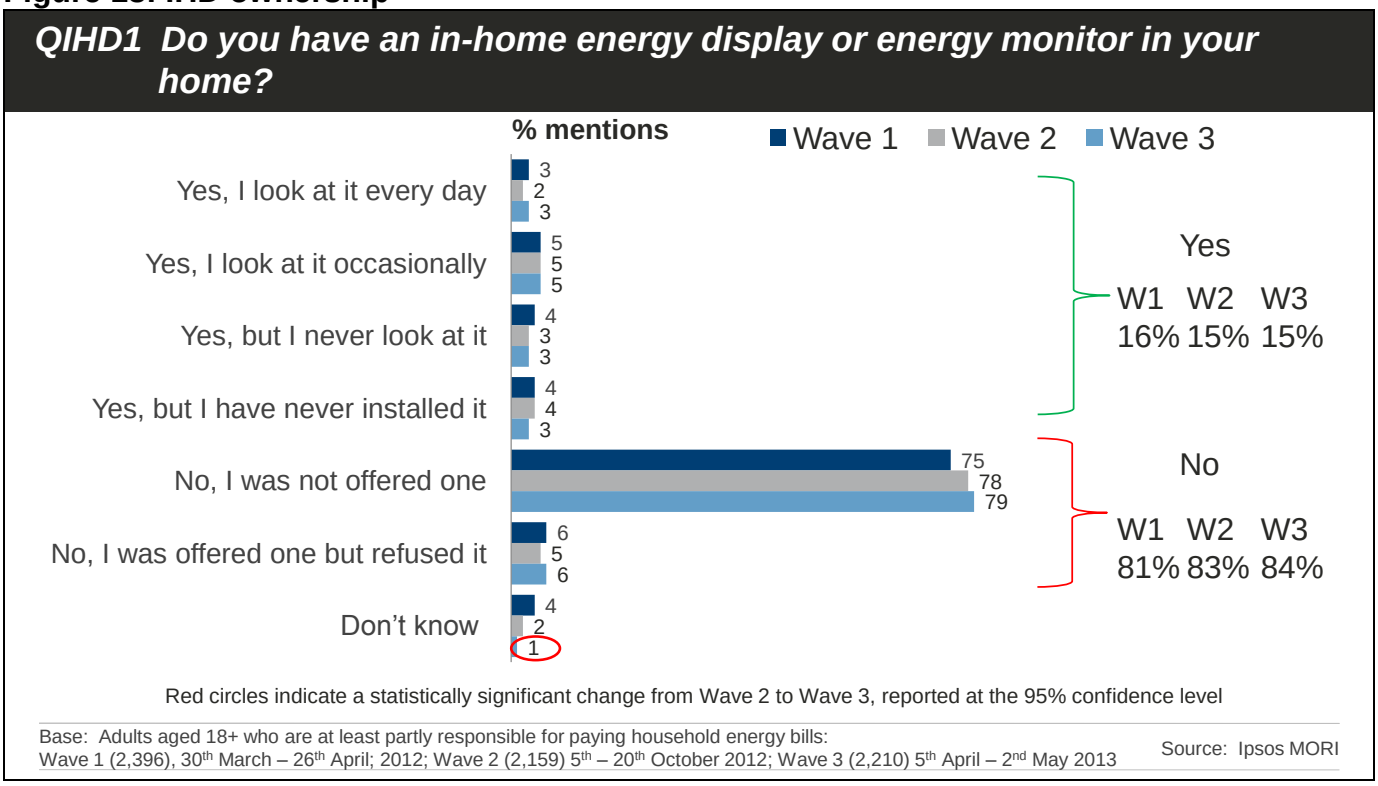
As with previous waves, it is clear that not everyone who has an IHD (either installed with a smart meter by a supplier or by themselves without a smart meter) is using it; one in five never looked at it, while a similar proportion had not installed it. The majority of those who said they had not installed their IHD indicated that it was stand-alone (92%), that is, they did not also report that they have a smart meter. However, this finding is based on a relatively small base size of 65 people and so should be treated with some caution.

2.3.1 Ownership of IHDs

IHD ownership remained consistent with previous waves at 15% in Wave 3, compared to 15% in wave 2 and 16% in Wave 1 (see figure 13). Over four in five did not have an IHD (84%), while a small proportion said they didn't know (1%). However, only around three in five of those who own an IHD reported to look at it at least occasionally (56%); one in five had never looked at it (21%), while a similar proportion (22%) reported not to have installed it. This is broadly in line with the findings from previous waves.

The majority of those who said they had not installed their IHD indicated that it was stand-alone (92%), that is, they did not also report that they have a smart meter. However, this finding is based on a relatively low sample size of 65 people and so should be treated with some caution.

Figure 13: IHD ownership



As with previous waves, sub-group analysis showed that the level of IHD ownership varied between demographic groups, and was higher amongst the following groups:

- Those aged 35-74; 17% reported to own one compared to 8% of those aged 75 and over;
- Those in higher social grades; 20% of ABs compared to 14% of C2s and 13% of DEs;
- Owner occupiers; 17% compared to 10% of those living in rented accommodation;
- Those with a higher level of education; 19% among those with a degree or higher compared to 12% of those with no formal qualifications; and
- Those who pay their bills by Direct Debit; 16% compared to 11% of those who pay quarterly.

Conversely, there were some sub-groups where IHD ownership was lower than it was among respondents overall (15%):

- Unemployed people (4%);
- Single person households (11%);
- Tabloid readers (11%); and
- Those without any form of internet access (6%).

IHD ownership was also lower among those with lower annual household incomes; 13% of those with household incomes of less than £15,500 compared to 18% of those with household incomes higher than £15,500.

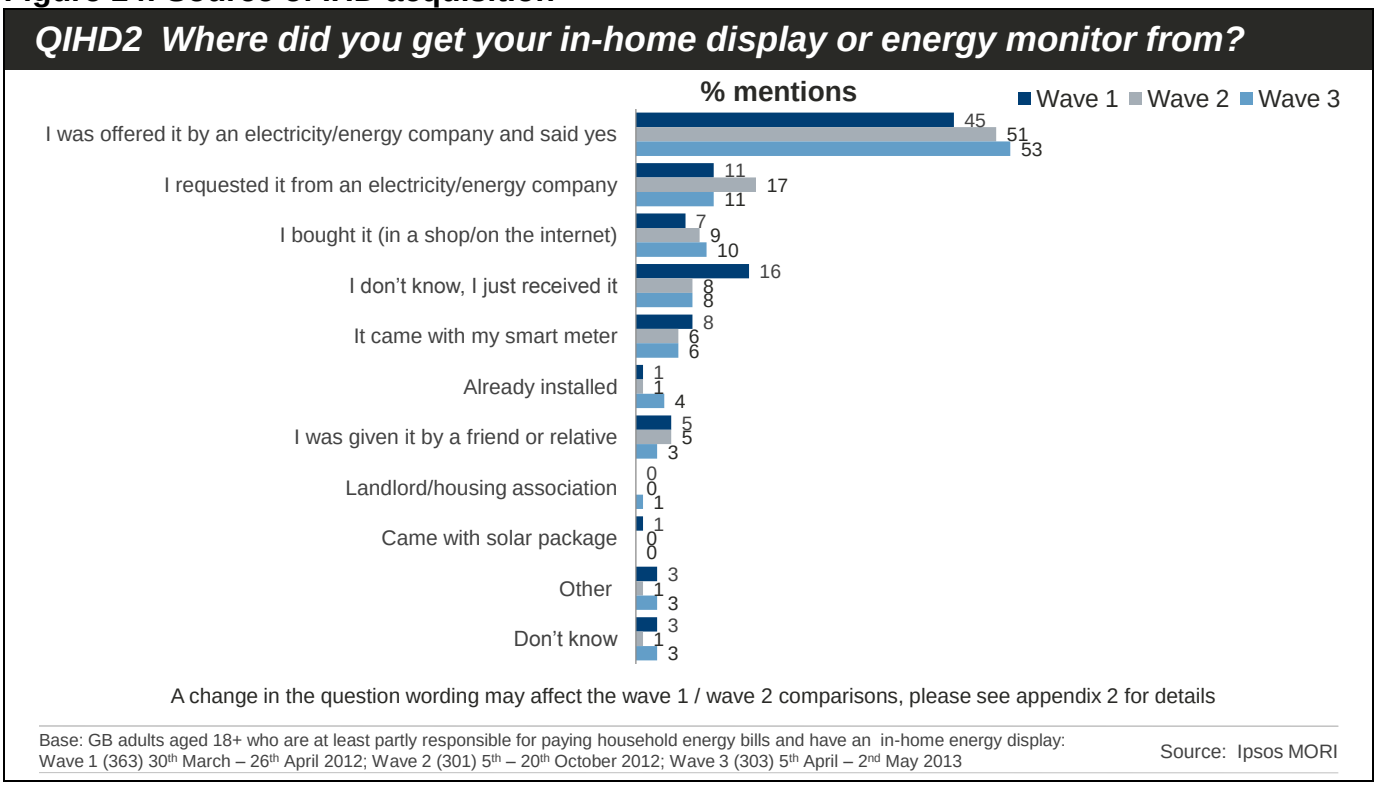
There were a number of other groups of particular interest to DECC where ownership did not vary significantly, including those with children in the household, those with a disability and those whose first language was not English.

2.3.2 Source of IHDs

Results from Wave 3 were broadly in line with results from previous waves, in that most customers were passive recipients of IHDs rather than actively requesting or purchasing them (see figure 14). Over half reported that their energy company offered them their IHD (53%) which was broadly in line with the two previous waves (51% in Wave 2 and 45% in Wave 1); the differences between the waves were not statistically significant.

Around one in ten people in Wave 3 had actively requested their IHD from an energy company (11%) or had bought it themselves (10%), which was also consistent with previous waves. The proportion of IHD owners who said their IHD was already installed increased significantly compared with Wave 1 (4% compared to 1%).

Figure 14: Source of IHD acquisition



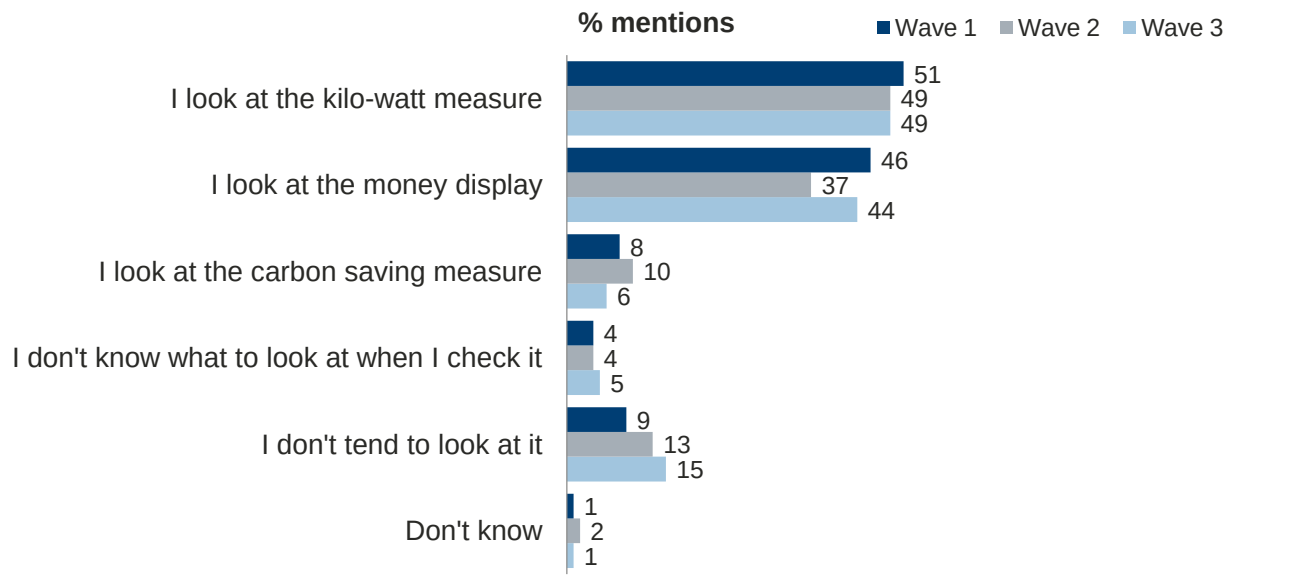
2.3.3 Usage of IHDs

Those IHD owners who reported to look at their device occasionally were asked about the features they refer to. As with previous waves, half said they looked at the kilo-watt measure (49%), with a slightly lower proportion saying they looked at the money display (44%) (see figure

15). Around one in seven (15%) said they did not tend to look at it and one in twenty (5%) said they did not know what to look at when they checked it.

Figure 15: IHD measures used

QIHD4 Which of the following, if any, describe the measures you look at when you check your in-home display or energy monitor



Base: Adults aged 18+ who are at least partly responsible for paying household energy bills and look at their in-home energy display at least occasionally: Wave 1 (198), 30th March – 26th April 2012; Wave 2 (157) 5th – 20th October 2012; Wave 3 (170) 5th April – 2nd May 2013

Source: Ipsos MORI

Low base sizes for a number of the key demographics of interest to DECC limits the scope for sub-group analysis. In Wave 3, there were no statistically significant differences compared with the overall total for those on low incomes, those with a disability, pensioners, those with children in the household and those whose first language is not English.

Some groups who look at their IHD at least occasionally were more likely to look at the kilowatt measure; however, these figures should be treated with caution due to the smaller base sizes. These groups included:

- AB social grades (66% of ABs compared to 30% of DEs);
- Those with at least a degree (69% compared to 34% of those with GCSEs or equivalent); and
- Owner occupiers (56% compared to 49%).

As in previous waves, the results showed that, generally speaking, users who looked at their displays at least occasionally felt that they knew how to get the most out of their IHD (68% agree) and had used them to find out which appliances used the most electricity (71% agree). One in five (18%) reported that they don't understand how to get the most out of their IHD, in addition to those respondents who reported they had either not set-up or had never looked at their IHD (44% of all IHD owners).

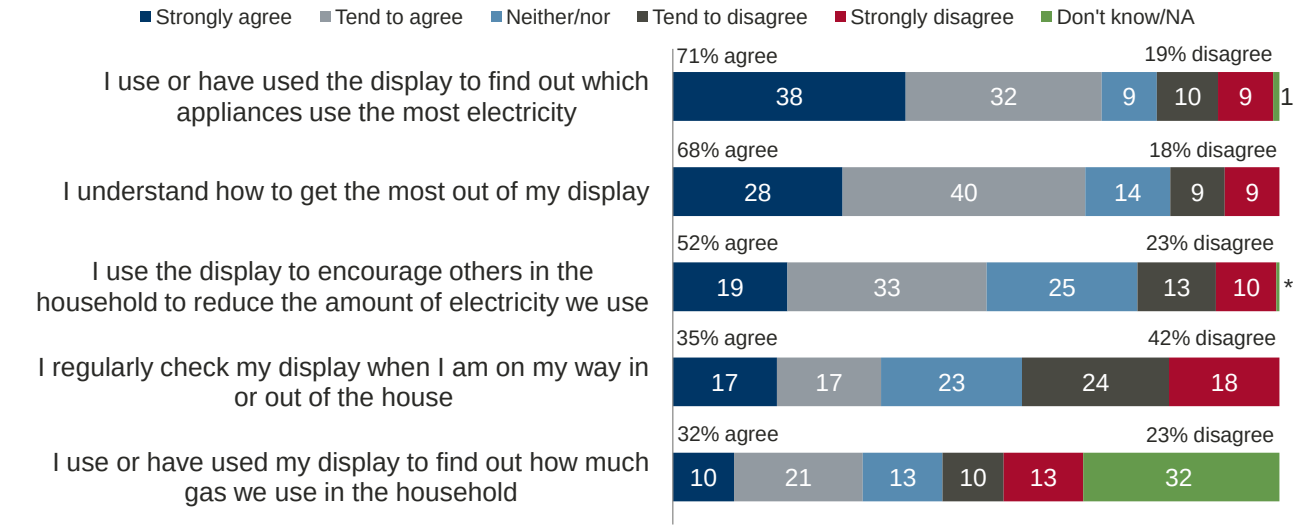
Half of those who look at their IHD at least occasionally use the display to encourage others in the household to reduce their electricity use (52% agree). Whilst more than a third regularly

check their display on the way in or out of the house (35% agree), there are still a higher proportion saying they do not (42% disagree).

There were no significant differences in the net totals that 'agree' or 'disagree' with the statements compared with either of the two previous waves. In Wave 2 the proportion of respondents who agreed they used the display to encourage household members to reduce their electricity use fell significantly from 55% to 44%, but was back to 52% in Wave 3.

Figure 16: IHD usage

QIHD3 Thinking about how you use your in-home energy display or energy monitor, to what extent do you agree or disagree with the following statements?



an asterisk (*) denotes a figure less than 0.5% but greater than zero

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills and look at their in-home energy display at least occasionally; Wave 3 (170), 5th April – 2nd May 2013

Source: Ipsos MORI

As with previous waves, the relatively small base size for those people who own an IHD and look at it at least occasionally limits the potential for sub-group analysis for Wave 3. However, with a slightly larger base, the combined data from all three waves helps to draw out a number of differences.

A number of significant differences amongst demographic sub-groups emerged and the findings below are all based on those who look at their IHD at least occasionally.

Those who were more likely to have used their IHDs to find out which appliances use the most electricity included:

- Those in higher social grades; 76% of ABs compared to 50% in DE social grades;
- Those who paid electricity bills by Direct Debit; 73% compared to those who use a pre-payment meter (55%); and
- Those who agreed they had tried to reduce their energy use (78%) compared to all respondents who claimed to look at least occasionally at their IHD (71%).

Those more likely to check the display on the way in and out of the house included:

- Those with lower annual household incomes of less than £15,500; 42% compared to those whose annual household income is over £15,500 (29%); and
- Those who live in single person households (46%) compared to all respondents who claimed to look at least occasionally at their IHD (35%).

Those more likely to use the display to encourage others in the household to reduce their electricity use included:

- Women (57%) compared to men (46%);
- Respondents in larger households with four people or more; 68% compared to all respondents who claimed to look at least occasionally at their IHD (51%);
- Households with older children aged 10-15 (73%) compared to all respondents who claimed to look at least occasionally at their IHD (51%); and
- Those who agreed they had tried to reduce their energy use (59%) compared to all respondents who claimed to look at least occasionally at their IHD (51%).

Pensioners were less likely to use IHDs to encourage others to reduce electricity usage (34% of those aged 65 and over, falling to 18% of those aged 75 and over, compared to 51% of all respondents who claimed to look at least occasionally at their IHD);

Those more likely to understand how to get the most out of their display included respondents who agreed they had tried to reduce their energy use (76%) compared to all respondents who claimed to look at least occasionally at their IHD (68%).

There were no significant differences for those with disabilities or whose first language is not English.

2.3.4 Perceived impact of IHDs

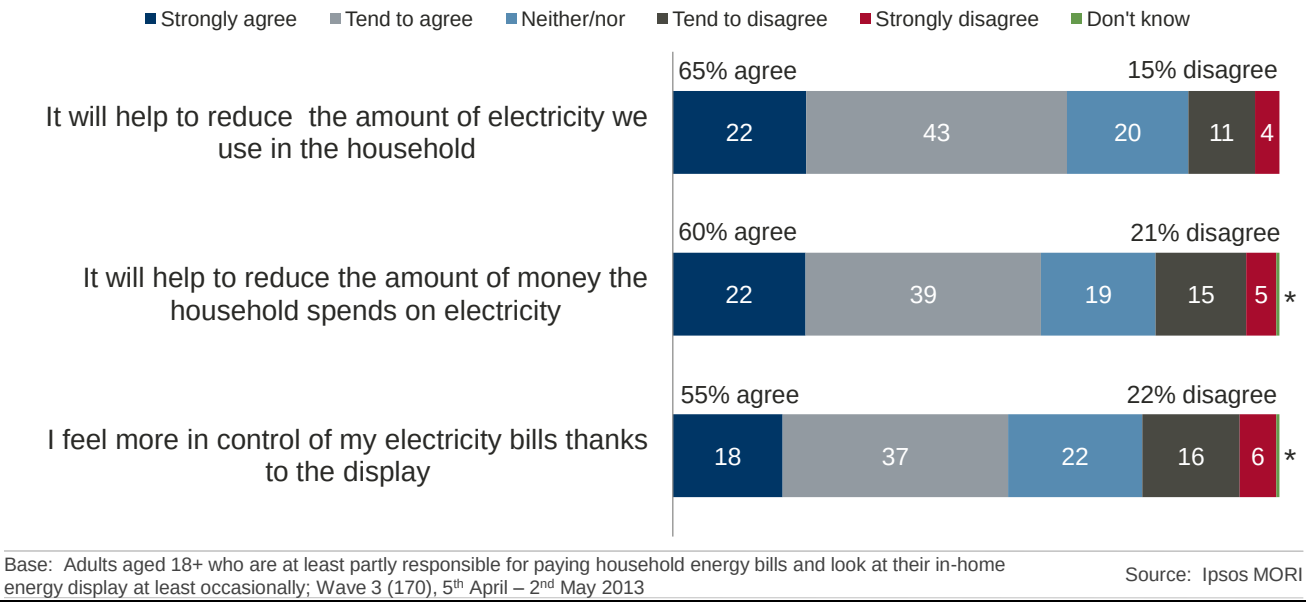
Previous waves showed that IHD customers remained generally positive about the impact of the IHD on their electricity use and household finances.

Over half of those who looked at their IHD felt more in control of their electricity bills (55%), although one in five (22%) disagreed with this statement (see figure 17). Three in five felt that the IHD would help them to reduce the household spend on electricity (60%) as well as the amount of electricity used (65%), although again a sizeable minority disagreed with both statements (21% and 15% respectively).

There were no significant differences in the total proportion of respondents that agreed (either tend to or strongly) or disagreed (either tend to or strongly) with the statements compared with either of the two previous waves.

Figure 17: Perceived impact of IHDs

QIHD3 Thinking about how you use your in-home energy display or energy monitor, to what extent do you agree or disagree with the following statements?



Base: Adults aged 18+ who are at least partly responsible for paying household energy bills and look at their in-home energy display at least occasionally; Wave 3 (170), 5th April – 2nd May 2013

Source: Ipsos MORI

The base sizes for these questions are relatively small for Wave 3 and so sub-group analysis has been completed on the combined data for all three waves. The findings are all based on those who look at their IHD at least occasionally.

Those less likely to say that their IHD helped them to feel in control of their electricity bills included:

- Pensioners; 46% of those aged 65 and over compared to 54% for all those respondents who claimed to look at their IHD at least occasionally; and
- Those with no formal qualifications; 38% compared to 59% of those with a degree.

Those less likely to say that their IHD helped them to reduce the amount of electricity they use included:

- Pensioners; 51% compared to 65% for all those respondents who claimed to look at least occasionally look at their IHD; and
- Those with no formal qualifications; 51% compared to 71% of those with a degree or higher.

Those more likely to say that their IHD helped them to reduce the amount of electricity they use included:

- Those in higher social grades (AB); 72% compared to 57% of DEs;
- Those with higher annual household incomes of £50,000 or more; 82% compared to 62% for those on less than £15,500;

- Those with older children (aged 10-15); 77% compared to 65% for all those respondents who claimed to look at least occasionally look at their IHD;

- Those who agreed they had tried to reduce their energy use; 72% compared to 65% for all respondents who claimed to look at least occasionally at their IHD; and

- Those who felt they could do more to reduce their energy use; 74% compared to 65% for all respondents who claimed to look at least occasionally at their IHD.

Those less likely to say that their IHD helped them to reduce the amount they spend on electricity included:

- Pensioners: 49% compared to 63% for all those respondents who claimed to look at least occasionally look at their IHD; and

- Those with no formal qualifications; 41% compared to 67% of those with a degree or 72% with A-Levels;

Those more likely to say that their IHD helped them to reduce the amount they spend on electricity included:

- Those in higher social grades (AB); 67% compared to 52% of DEs; and

- Those who agreed they had tried to reduce their energy use; 68% compared to 60% for all respondents who claimed to look at least occasionally at their IHD.

Those more likely to say that their IHD helped them to feel more in control of electricity bills included:

- Those who agreed they had tried to reduce their energy use; 62% compared to 55% for all respondents who claimed to look at least occasionally at their IHD; and

- Those who felt they could do more to reduce their energy use; 62% compared to 55% for all respondents who claimed to look at least occasionally at their IHD.

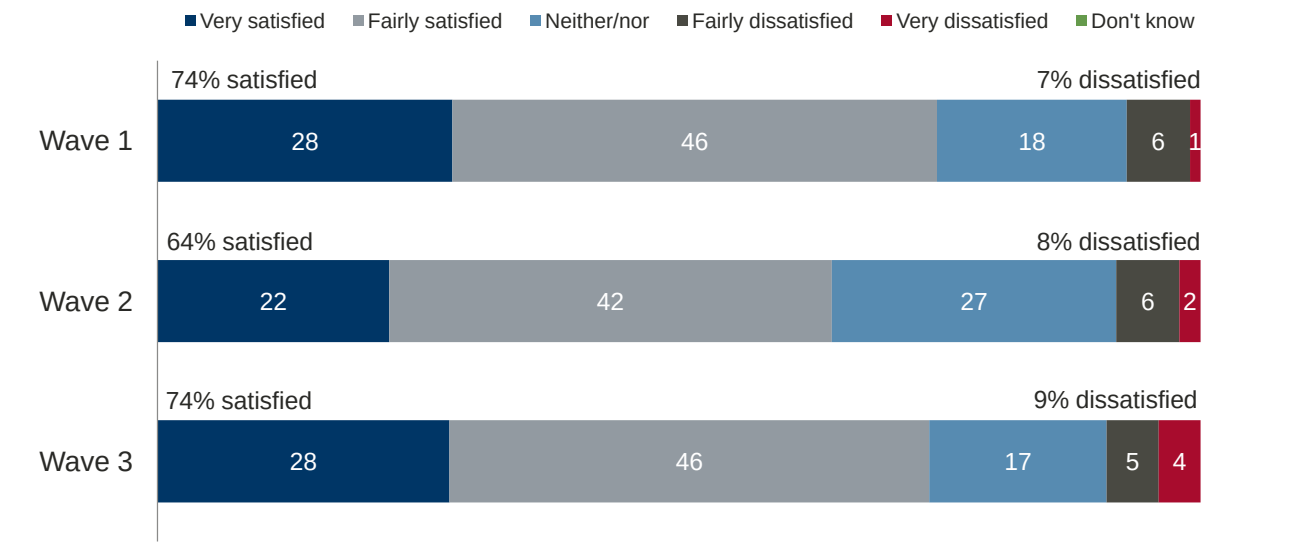
There were no significant differences for those with disabilities or whose first language is not English.

2.3.5 Customer satisfaction with IHDs

Reflecting the positive perceptions of IHDs in terms of impact, customer satisfaction with IHDs remained high during Wave 3 (see figure 18). As with the two previous waves, a majority were satisfied with their overall experience of using an IHD; in Wave 3, three-quarters were satisfied (74%), including over a quarter that were very satisfied (28%) and almost half that were fairly satisfied (46%). The increase in satisfaction from Wave 2 (64%) was not statistically significant due to the relatively low sample sizes. The proportion of respondents who expressed dissatisfaction with their IHD also remained consistent in Wave 3 (9% compared with 8% in Wave 2 and 7% in Wave 1).

Figure 18: Customers satisfaction with IHDs

QIHD5 Overall, how satisfied or dissatisfied are you with your in-home energy display or energy monitor?



Base: Adults aged 18+ who are at least partly responsible for paying household energy bills and look at their in-home energy display at least occasionally: Wave 1 (198), 30th March – 26th April 2012; Wave 2 (157) 5th – 20th October 2012: Wave 3 (170) 5th April – 2nd May 2013

Source: Ipsos MORI

Once again, the Wave 3 base size is relatively small and so sub-group analysis has been completed on the combined findings for the three waves:

- Pensioners were less likely to be satisfied with their IHD (61% of those aged 65 or over compared to 71% of all respondents who look at their display at least occasionally); and
- Those in higher social grades (ABs) were more likely to be satisfied with their IHD (76% compared to 61% of those in DE social grades).

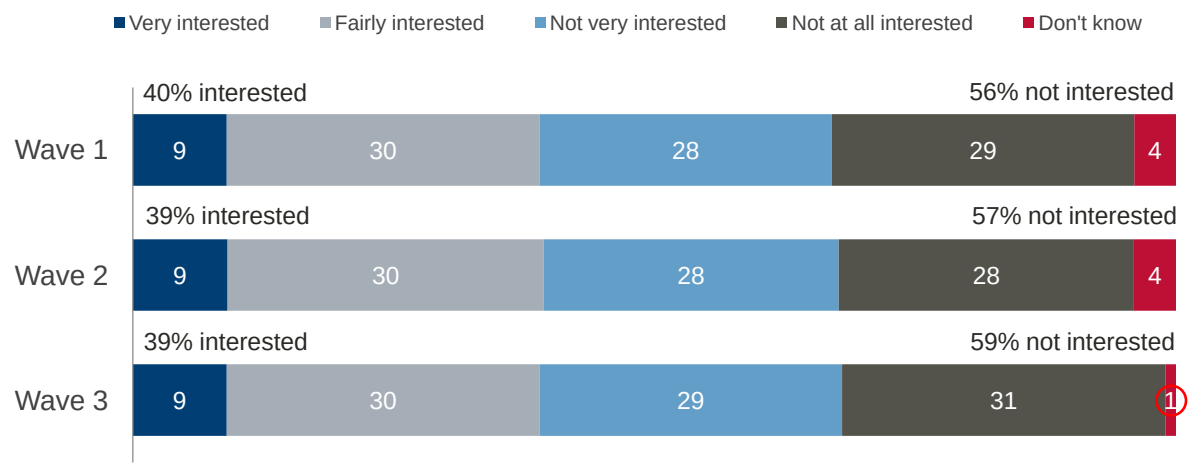
There were no statistically significant differences for those who have an annual household income of less than £15,500, those with a disability, those who had children present in the household, or those whose first language is not English.

2.3.6 Future interest in IHD ownership

The results from previous waves revealed that bill-payers were split as to their relative interest in having an IHD installed (similar to smart meters). This finding was repeated in Wave 3, with a similar split: nearly four in ten bill-payers without an IHD were interested in getting one in the near future (39%), while a majority (59%) said that they were not very interested or not interested at all (see figure 19).

Figure 19: Interest in installing an IHD

QIHD6 To what extent would you be interested, or not, in having an in-home energy display or energy monitor installed in your home in the near future?



Red circles indicate a statistically significant change from Wave 2 to Wave 3, reported at the 95% confidence level

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills and do not have an in-home energy display: Wave 1 (2,033), 30th March – 26th April 2012; Wave 2 (1,858) 5th – 20th October 2012; Wave 3 (1,907) 5th April – 2nd May 2013

Source: Ipsos MORI

Wave 3 results reveal similar patterns to those noted during previous waves across different sub-groups. The following sub-groups were more likely to be interested in IHDs:

- Those with either a great deal or fair amount of knowledge; 50% compared to 39% of all respondents who reported not to have an IHD);
- Multi-person households with four or more people; 49% compared to 27% of single person households;
- Households with at least one child; 49% compared to 34% of those without children;
- Those with access to the internet; 44% compared to 21% of those without access;
- Private renters; 50% compared to 37% of owner occupiers;
- Those concerned about climate change (46%), their household finances (43%) or their energy bills (42%); compared to 39% of all those without an IHD;
- Respondents who supported the installation of smart meters in every home; 68% compared to 21% who opposed it;
- Those who had tried to reduce their energy use; 43% compared to 31% who had not done so;
- Those who agreed they could do more to reduce their energy use; 50% compared to 25% of those who disagreed; and

- Those in the North West (49%) and Yorkshire and Humberside (50%) compared to those in the South West (29%) and Wales (28%).

Some key sub-groups were less likely to be interested in IHDs, including:

- Pensioners; 24% of those aged 65 and over compared to 50% of those aged 25-44;
- Respondents with no formal qualifications; 26% compared to 46% of those with at least a degree;
- Those in lower social grades (DE); 34% compared to 46% of those in AB social grades; and
- Those with annual household incomes of less than £15,500; 41% compared to 57% of those with annual household incomes of £50,000 or above.

There were no statistically significant differences for those with disabilities, or whose first language is not English.

2.4 Further information needs

The proportion of respondents who were interested in further information about smart meters and IHDs fell significantly from five in ten in Wave 2 to around four in ten in Wave 3.

The groups with fewest information needs tended to be those that were least engaged with smart meters and IHDs, including older people, those without children, those with no formal qualifications and those with no access to the internet.

As with previous waves, internet search engines (37%), energy companies (32%), the Government (7%), and word of mouth (7%) continued to be the main sources of information about smart meters or IHDs for bill-payers.

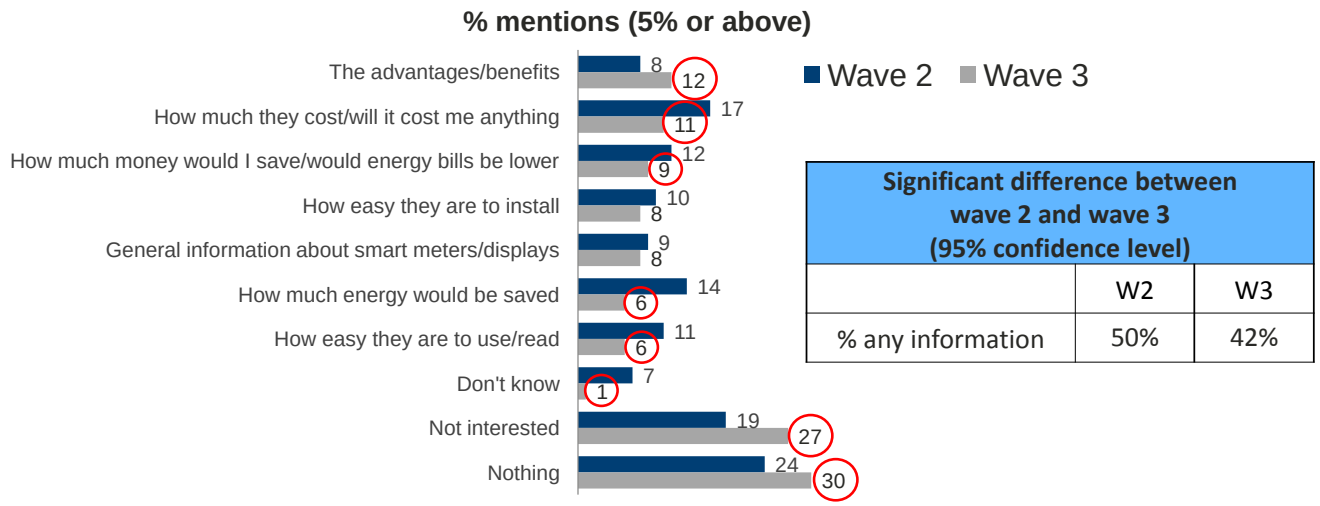
Again, the most trusted sources of information about smart meters or IHDs still included energy companies (32%), Which? magazine (23%), the Government (16%), the Energy Saving Trust (14%) and word of mouth (14%).

2.4.1 Further information needs

Bill-payers were asked what, if anything, they would like to know about smart meters and IHDs. In Wave 3, there appeared to be a reduction in the appetite for knowledge around smart meters, with only 42% mentioning an information need compared to 50% in Wave 2 (see figure 20). The most frequently mentioned information needs were around the potential advantages (12% compared to 8% in Wave 2) and whether they would cost the bill-payer anything (11% compared to 17% in Wave 2). Around three in ten said they were not interested (27%) or would not require any information (30%).

Figure 20: Information needs on smart meters and IHDs (spontaneous)

QKN1 What, if anything, would you like to know in relation to smart meters or in-home energy displays?



Due to a change in the question methodology in wave 2, only wave 2 and 3 results are shown here

Red circles indicate a statistically significant change from Wave 2 to Wave 3, reported at the 95% confidence level

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills; Wave 2 (2,159) 5th – 20th October 2012; Wave 3 (2,210) 5th April – 2nd May 2013

Source: Ipsos MORI

Sub-groups that were shown in previous sections to be more supportive of, interested in, and knowledgeable about smart meters typically had higher information needs. For instance, the following groups were more likely to have some form of information need than respondents overall (42%):

- Those with an annual household income of £50,000 or more (50% demonstrated an information need);
- Those in households with five or more people (49%);
- Those aged 35-44 (48%);
- Those who felt they could do more to reduce their energy use (47%);
- Those with higher education (46% who hold a degree or higher); and
- Those with children in their household (45%).

However, other key sub-groups were less likely to have any information needs than respondents overall (42%):

- Pensioners (33% of those aged 65 or above)
- Those with no access to the internet (29%).

The pattern of priorities in terms of information needs was largely consistent across the various sub-groups. However, some groups were more likely to be interested in how much smart meters and IHDs would cost than respondents overall (11%):

- Those in AB social classes (15%); and
- Those with an annual household income of £50,000 or more (16%).

Among the groups of particular interest to DECC, there were some significant differences in information needs:

- Respondents with children were more likely to be interested in how much energy could be saved (8% compared to 6% of respondents overall);
- Those on annual household incomes of less than £15,500 were more likely to be interested in how easy they are to install (11% compared to 8% of respondents overall); and
- Those who do not speak English as their first language were more likely to be interested in any associated health risks (6% compared to 3% of respondents overall).

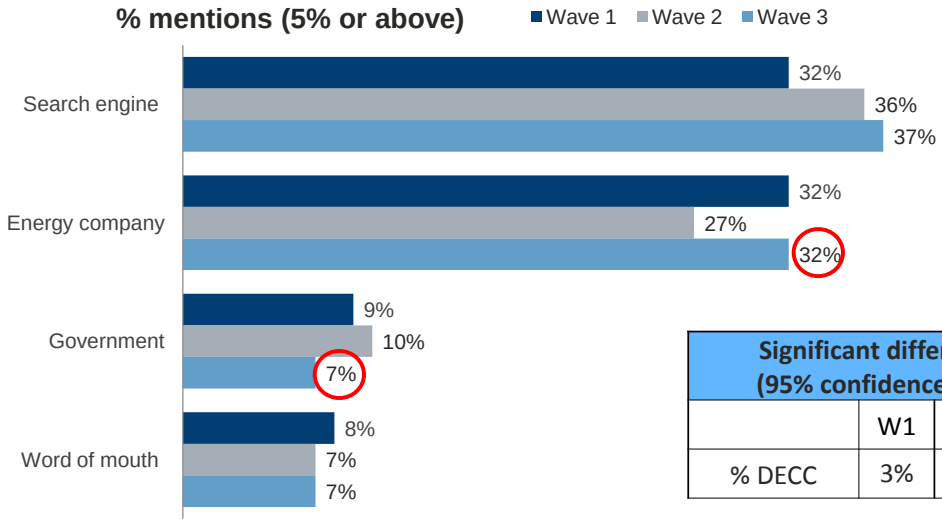
There were no significant differences with regard to information needs for those with disabilities.

2.4.2 Sources of information

The main sources of information about smart meters or IHDs which bill-payers said they would refer to changed slightly in Wave 3 (see figure 21 below). A similar proportion of respondents said they would use search engines (37% compared to 36% in Wave 2), but a significantly higher proportion said they would use energy companies as a source of information (32% compared to 27% in Wave 2). In Wave 3, respondents were less likely than in Wave 2 to say they would use Government sources (7% compared to 10% in Wave 2 and 9% in Wave 1), with just 2% citing DECC as the most likely destination (compared to 6% in Wave 2 and 3% in Wave 1).

Figure 21: Sources of information for smart meters and IHDs (spontaneous)

QKN2 If you wanted to know more about Smart Meters or in-home displays, where would you go for this information?



Significant differences (95% confidence level)			
	W1	W2	W3
% DECC	3%	6%	2%

Red circles indicate a statistically significant change from Wave 2 to Wave 3, reported at the 95% confidence level

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills;
Wave 1 (2,396) 30th March – 5th April 2012; Wave 2 (2,159) 5th – 20th October 2012; Wave 3 (2,210) 5th April – 2nd May 2013

Source: Ipsos MORI

As in previous waves, different demographic groups referred to different preferred sources of information which they would go to if they wanted to know more. The differences highlighted are all statistically significant.

There were a number of subgroups who were more likely to mention using internet search engines, including:

- Younger age groups; 50% of 25-34 year olds compared to 26% of those aged 65-74, or 11% of those aged 75+;
- Those with at least a degree; 48% compared to 14% of those with no formal qualifications; and
- Those with children; 46% compared to 33% of those without children.

Those less likely to mention using internet search engines, included:

- Those on lower annual household incomes (less than £15,500); 27% compared to 49% of those earning over 15,500; and
- Those with a disability; 30% compared to 39% without.

Those less likely to mention using the Government included:

- Those on lower annual household incomes (less than £15,500); 4% compared to 8% over £15,500; and
- Those with a disability; 4% compared to 8% without.

Those more likely to mention using their energy company included:

- Older groups; 40% of those aged 65-74 compared to 24% of those aged 25-34.

Those less likely to mention using their energy company included:

- Respondents who do not speak English as their first language; 27% compared to 32% of respondents overall.

Those more likely to mention sourcing advice from friends or relatives included:

- Those aged 75 or over; 15% compared to 10% of those aged 18-74;
- Those on lower annual household incomes (less than £15,500); 10% compared to 4% earning more than £15,500; and
- Those with no internet access; 14% compared to 5% of those who have any form of internet access.

Those more likely to mention using their local authority, included:

- Those on lower annual household incomes (less than £15,500); 4% compared to 2% earning more than £15,500; and
- Those with no internet access; 4% compared to 2% of respondents overall).

Overall, those with no qualifications were less likely to want further information (22% said they would not look for it anywhere or did not need it compared to 8% of those with at least a degree.

2.4.3 Trusted sources of information

As in previous waves, respondents were prompted as to which sources of information they would be most likely to trust to provide them with accurate information on smart meters or IHDs if they had any concerns about either. Again, the most trusted sources included energy companies (32%), Which? magazine (23%), the Government (16%) and the Energy Saving Trust (14%) (see figure 22 below).

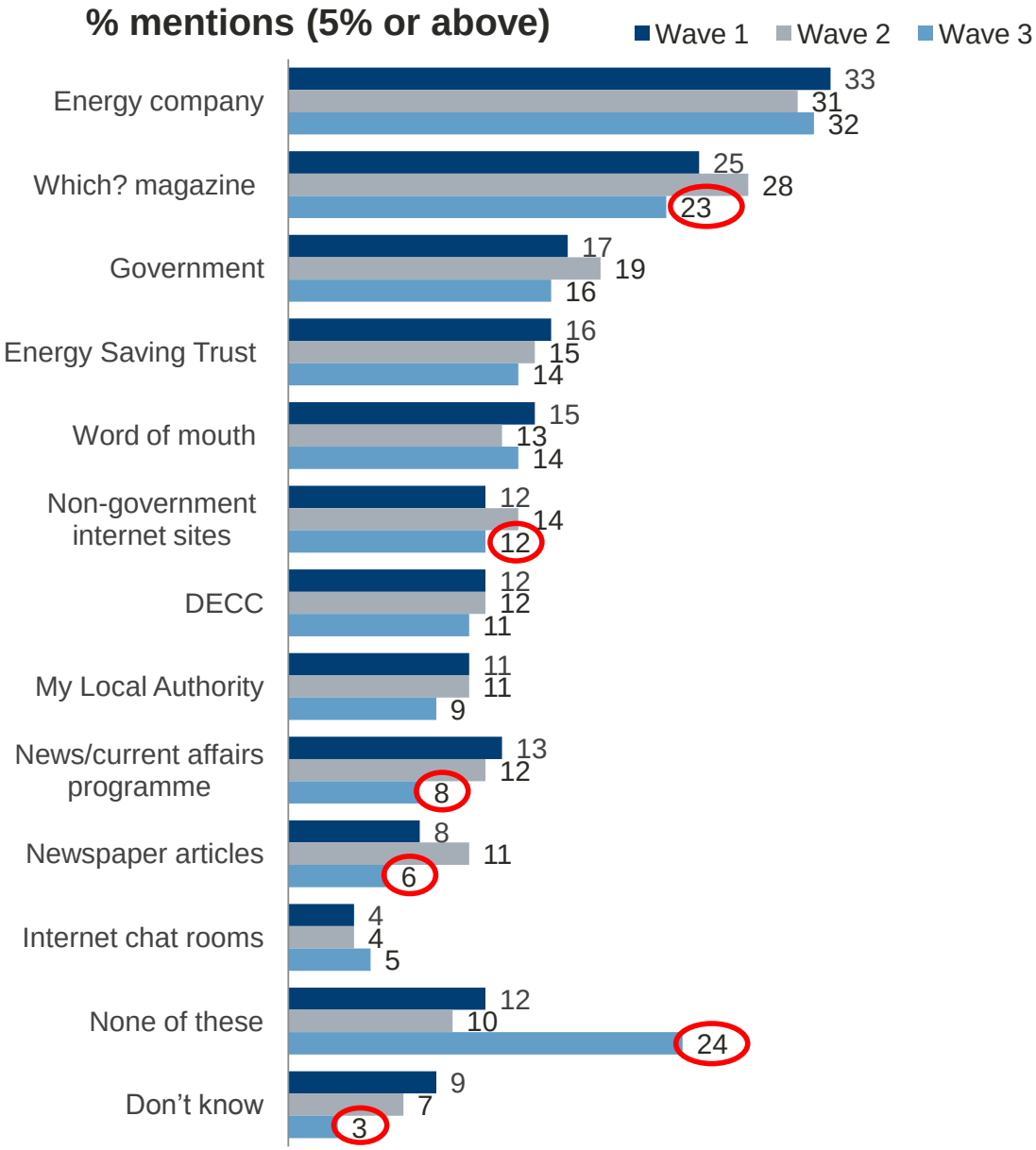
The proportion of respondents that mentioned Which? magazine as a trustworthy source was significantly lower than in previous waves (23% compared to 28% in Wave 2 and 25% in Wave

1), while those that said non-Government websites was also lower than in Wave 2 (12% compared to 14%).

The proportion of respondents who would trust at least one of the presented information sources has fallen significantly from 79% in Wave 1 and 83% in Wave 2, to 74% in Wave 3. In particular, there appears to be a shift away from those trusting media sources with news and current affairs programmes down from 12% in Wave 2 to 8% in Wave 3 and in newspaper articles from 11% in Wave 2 to 6% in Wave 3.

Figure 22: Trusted sources of information for smart meters and IHDS (prompted)

QKN3 Thinking about any concerns you may have about smart meters or in-home displays, which, if any, of these would you trust to give you accurate information about smart meters or in-home displays?



Red circles indicate a statistically significant change from Wave 2 to Wave 3, reported at the 95% confidence level

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills; Wave 1 (2,396) 30th March – 5th April 2012; Wave 2 (2,159) 5th – 20th October 2012; Wave 3 (2,210) 5th April – 2nd May 2013

Source: Ipsos MORI

There were a number of significant differences between demographic sub-groups. Those more likely to be trustful overall included:

- Older bill-payers; 30% of those aged 65+ and 40% of those aged 75+ would not trust any of the sources presented to give them accurate information compared to 24% for all respondents;

Those more likely to trust in their energy companies included:

- Those with lower annual household incomes (less than £15,500); 36% compared to 32% of respondents overall.

Those more likely to trust Which? magazine included:

- Those with a university degree or higher; 32% compared to 23% of respondents overall; and
- Those in the higher social grades; 34% of ABs compared to 14% of DEs.

Those less likely to trust Which? magazine included:

- Those with lower annual household incomes (less than £15,500); 19% compared to 23% of respondents overall; and
- Those who do not speak English as their first language; 13% compared to 23% of respondents overall.

Those less likely to trust the Government included:

- Pensioners; 10% of those aged 65+ and 5% of those aged 75+ compared to 16% of respondents overall;
- Those with lower annual household incomes (less than £15,500); 14% compared to 16% of respondents overall; and
- Those who do not speak English as their first language; 12% compared to 16% of respondents overall.

Those more likely to have trust in the Energy Saving Trust included:

- Those in higher social grades; 18% of ABs compared to 11% of DEs; and
- Those with children in the household; 17% compared to 14% of respondents overall.

Those more likely to trust in their housing association included:

- Those with lower annual household incomes (less than £15,500); 5% compared to 2% of respondents overall.

Those more likely to trust in their landlord included:

- Those with lower annual household incomes (less than £15,500); 5% compared to 3% of respondents overall; and
- Those who do not speak English as their first language; 7% compared to 3% of respondents overall.

There were no significant differences of note for those respondents with a disability in terms of trust.

3. Demographic summary

Some key demographic differences identified by the survey are summarised below.

Household income

Those with a household income of less than £15,500 per annum had lower awareness of smart meters (52% had heard of them) than respondents overall (57%) and were less likely to be interested in having a smart meter installed in their home if they didn't have one already; 35% of those earning less than £15,500 were interested, compared to 60% of those with an annual household income of £50,000 or more.

There were no significant differences found in support for the roll-out for those with the lowest incomes but those earning an annual household income of £50,000 or more were more likely to support the roll-out (43% compared to 32% of respondents overall).

Ownership of IHDs continued to be lower amongst those with annual household incomes less than £15,500 – 13% compared to 18% of those with annual household incomes more than £15,500. Ownership peaked at 23% for those with an annual household income of between £40,000 and £50,000.

As with smart meters, those with annual household incomes of £15,500 or below were less likely to be interested in having an IHD installed in their home in the near future (41% were interested) than those with annual household incomes of £50,000 or above (57% interested).

Disability

Awareness was consistent between those with a disability (58%) and those without (57%). However, those with a disability or long-standing illness were more likely to report they had heard of smart meters but knew nothing about them (27% compared to 20% without a disability or long-standing illness). Those who do have a disability or long-standing illness were less likely to be interested in having a meter installed than those who do not have a disability (32% compared to 40%).

While the level of opposition towards the roll-out was higher amongst those with a disability or long-standing illness in Wave 2, no difference was found in Wave 3.

Ownership of an IHD did not vary significantly, neither did interest in having one installed.

Age

Those aged 45-74 were more likely to report they had heard of smart meters than the other age groups; 62% compared to 52% of those aged 18-44 and 53% of those aged 75+. Respondents aged 34-44 were more likely to be interested in having a smart meter installed if they didn't have one already; 48% compared to 18% of those aged 75+.

In previous waves, respondents aged 35-44 were most likely to support the installation of smart meters but in Wave 3 the level of support (tend to / strongly support) was highest amongst those aged 25-34 (40%).

Those aged 35-74 were more likely to have an IHD, with 17% owning an IHD, compared to just 8% of those aged 75 and over. Pensioners were less likely to be interested in having an IHD installed (24% of those aged 65 and over), particularly compared with those aged 25-44 where more were interested (50%).

Do not speak English as first language

Those who do not speak English as their first language had lower awareness of smart meters (42% had heard of them) than respondents overall (57%). However, those who had heard of them claimed to know more about them; 35% knew at least a fair amount compared to 23% who spoke English as their first language.

There were no differences found in support for the roll-out for those who do not speak English as their first language and those who don't. As in previous waves, there were also no differences in level of interest in having one installed.

Ownership of an IHD did not vary significantly for this group, nor did interest in having one installed.

Families with children aged 15 or under in the household

Families with children aged 15 or under had lower awareness of smart meters (54% had heard of them) than respondents overall (57%). However, those with children were more likely to support the roll-out (37% tend to / strongly support) compared to those with no children (30%).

Respondents with at least one child were more likely to be interested in having a smart meter installed if they didn't have one already compared to those without a child, (47% interested compared to 34% without a child).

Ownership of an IHD did not vary significantly. As in previous waves, demographic groups with potentially high energy use were more likely to be interested in having an IHD installed in their home if they didn't already have one, including households with at least one child (49% interested), in contrast to those without children (34%).

Gender

Men were more likely to report they had heard of smart meters (66% had heard of them) than women (49%), and those who had heard of them claimed to know more about them; 29% said that they know at least a fair amount about them compared to 18% of women.

Men were more likely to support the roll-out than women; 36% tend to / strongly support the roll-out compared to 29% of women.

Social Grade

The higher social grades were more likely to report they had heard of smart meters, including 66% of ABs compared to 45% of DEs. Those in higher social grades who didn't already have a smart meter installed were also more likely to be interested in having one in the near future; 46% of ABs were interested compared to 30% of DEs.

Those in higher social grades were more likely to have an IHD in their home (20% of ABs compared with 14% of C2s and 13% of DEs) and were more likely to be interested in having an IHD installed in the near future if they didn't have one already (46% of ABs were interested compared to 34% of those in DE social grades).

Household size

Those in larger households were equally likely to have heard of smart meters as those in smaller households. Those living in larger households who had heard of smart meters claimed to know more about them, 30% in households with four or more people knew at least a fair amount, compared to 20% of those living on their own.

Larger households were more likely to be interested in having a smart meter installed if they didn't have one already; 46% were interested in households with four or more people compared to 29% living in single person households.

IHD ownership was lower among single person households (11%) than respondents overall (15%). Those in households with four or more people were more likely to be interested in having an IHD installed in their home if they didn't already have one (49% interested), in contrast to single person households (27% interested).

4. Conclusions

The third wave of this study has borne out many of the findings from the first two waves when it comes to measuring public views on smart meters and IHDs. A high proportion of consumers remain undecided about the roll-out of smart meters, although support clearly outweighs opposition. The key conclusions from these findings are presented below.

There is scope to increase awareness and knowledge of smart meters. 57% of British energy bill-payers report that they are aware of smart meters, and of these people, around one in four claim to know a fair amount about them. This relative lack of familiarity with smart meters may help to explain some of the results in the study including the high proportion who are undecided about the roll-out of smart meters.

There appears to be a relationship between knowledge and support, although the nature of this relationship is unclear. The findings continue to show a clear relationship between those with greater knowledge of smart meters and support for the roll-out and interest in having a smart meter installed. It is not clear whether knowledge is driving support and it will be important to monitor how the two develop over time.

How communications around smart meters are framed is likely to be important in terms of building support. The data from all three waves show that views are not yet entrenched about smart meters, with over half undecided about the roll-out. DECC's qualitative research on smart meters has highlighted the way in which communications around smart meters can influence support. Given that bill-payers are generally unclear and want more information on the costs and potential benefits of installing smart meters, clear and informative communications are likely to be very important.

IHDs are viewed positively by customers, but there is still the potential for consumers to use them more. The majority of customers who use IHDs felt they were useful in helping them reduce the amount of electricity they use and reducing their electricity bills. Over half also use them to make other members of their household aware of their electricity use.

However, just under half of all customers who own an IHD report that they have either never looked at it or have not even set it up. This means that fewer than one in ten people (9%) are actively using an IHD. Subsequently, there is potential to substantially increase ownership and use, and ensure that more people benefit from them.

In addition, there is an appetite for greater provision of IHDs, with 39% of those who do not currently have an IHD saying they would be very or fairly interested in having one installed.

Interest in smart meters and IHDs appears to be related to energy usage. Certain key demographics that would be linked to high energy use such as larger households, including families with children, as well as wealthier households are all more likely to be interested in IHDs and smart meters. These are all groups who are much more likely to agree they could do more to reduce their energy use at home. However, single person households, those on lower incomes and older age groups are less positive overall. They in turn are much less likely to agree they could do more to reduce their energy use.

Communications around the smart meter roll-out will need to take account of why energy bill-payers are more or less likely to be interested in smart meters, and how this varies

amongst different demographic groups. Those bill-payers interested in having a smart meter installed tend to focus on how it might help them to improve their budgeting and avoid waste. Avoiding waste is of particular importance to those on lower incomes who say they are interested in smart meters. While elderly people tend to be less interested in smart meters, those who are interested are more likely than other age groups to say this is because they do not have to have the meter read. This suggests there is a personal security dimension to smart meters which is of importance to them. The potential to use smart meters to influence the behaviours of others is also of particular appeal to families with older children.

Those who are less likely to be interested in having a smart meter tend to be less specific in terms of their reasons why. The leading reason (mentioned by two in five respondents) is that they are generally not interested. This is followed by those who feel it would be too much effort or hassle or they have a lack of knowledge about smart meters. This indicates that in the main those who are less likely to be interested in having a smart meter installed do not necessarily feel hostile to them, but are more likely to be ambivalent towards them. While fewer than one in ten specifically mentioned reasons relating to data security this was more prevalent amongst higher social grades, while lower social grades were more likely to be concerned with the functionality (i.e. thinking they would be difficult to use or understand).

There is an appetite for greater information on smart meters and IHDs, although a high proportion of bill-payers are currently ambivalent. Over two in five would like more information around smart meters and this is of particular interest amongst those who feel they could do more to reduce their energy use.

The energy companies have an important role to play in communications on smart meters, but this can be supported by other organisations. The energy companies were perceived as a natural source for further information on smart meters and IHDs and were also the most trusted source. However, Which? and Energy Saving Trust, as well as the Government were also seen as important trusted sources, in particular amongst the higher social grades.

In summary

Overall the findings from the third wave of this research have confirmed patterns noted during the first two waves, and it is clear that the public's views on smart meters are still being formed. While half of British bill-payers are undecided, the balance of opinion is in support rather than opposition to smart meters. The majority of householders continue to be able to recognise a potential benefit to them, but are less able to name a potential disadvantage. In order to build support for smart meter roll-out it will be important to consider how communications are framed, and it will also be important to reinforce messages around the benefits as well as mitigate potential concerns such as cost and data security.

5. Appendix 1 – Technical details

5.1 Conducting the fieldwork (Capibus)

Capibus was launched in 1992 and was the first omnibus of its kind to use 'computer assisted personal interviewing' (CAPI) to administer the questionnaire. This new approach instantly improved the quality and accuracy of the information collected and has become a quality standard in the omnibus industry worldwide.

How Are People Selected?

Capibus provides a high quality sample of adults aged 15+, representative of the population at a national and regional level. In this respect it is ideal for reporting what the population at large feels about current issues or certain products.

Capibus uses a two stage random location design to select respondents to take part in the weekly survey. The two stages are as follows:

i) Stage One - Selection of Primary Sampling Units

The first stage is to define primary sampling units which will be fixed for one year. A total of 154-180 Local Area Authorities are randomly selected from our stratified groupings with probability of selection proportional to size. This ensures that the most populated areas in Britain are always represented in the sample.

ii) Stage Two - Selection of Secondary Sampling Units (currently use Double OA's)

The second stage of sampling happens every week on Capibus. At this stage, two output areas (DOA) are randomly selected from each Local Area Authority; this then becomes the secondary sampling unit.

An Output Area (OA) is a very small area made up of between 60 to 100 addresses. Although we could just choose 154-180 Double Output Area's (DOA's) each week completely at random and set our interviewer quotas for sex, age, working status and social grade - a common approach for ensuring a sample is nationally representative - we use the CACI ACORN geo-demographic system in the selection process.

Adopting this approach helps to eliminate any possible bias in the sample caused by interviewing people all with the same background. Using CACI ACORN allows us to select OA's with differing profiles such that we can be sure we are interviewing a broad cross-section of the public; since clearly even people of the same age and working status may have a different viewpoint depending on their background.

Because the sampling process is repeated every week, the Capibus sample is matched wave on wave, making it ideal for taking successive measurements on the same issue.

The Interviewing Process

The Capibus questionnaire is collected by the interviewers via modem and is downloaded onto their laptop computer. The computer controls which questions are asked, depending on the respondent's particular circumstances, and will rephrase questions to respond to previous answers. This makes the questionnaire 'intelligent' allowing the interviewing process to be more interactive; in turn this allows for more complex questionnaire design and provides more accurate and insightful research findings.

Quality Control

Ipsos MORI employ the strictest quality control procedures. In all markets our interviewers are trained to a recognised standard and one in ten interviews is back-checked by telephone. Furthermore, we use the CAPI software to monitor both the overall length of each interview and the time taken over individual questions in the questionnaire.

In Great Britain, Ipsos UK is ISO9001, ISO 20252, BS7911 and ISO27001 accredited - a mark of our commitment to quality and integrity.

5.2 Accuracy of reported differences between sub-groups (statistical reliability)

The confidence intervals, or margins of error, that apply to the percentage results in this report are given in the table below. This table shows the possible variation that might be anticipated because a sample, rather than the entire population, was interviewed.

As indicated, confidence intervals vary with the size of the sample and the size of the percentage results. The confidence interval is widest at a finding of 50% and narrows the nearer we get to absolutes of 0 or 100%. This table shows the confidence interval at the 95% level, which means we can be 95% certain that the result lies somewhere within the margin of error indicated by the confidence interval.

Strictly speaking the margins of error shown here apply only to random samples; in practice good quality quota sampling has been found to be as accurate.

Table 1: 95% Confidence Intervals (individual results)

	10% or 90%	30% or 70%	50%
Approximate size of sample on which survey results are based	±	±	±
2,210 (bill-payers aged 18+)	1.2	1.9	2.1
1,081 (male bill-payers aged 18+)	1.8	2.7	3.0
378 (bill-payers aged 45-54)	3.0	4.6	5.0

Source: Ipsos MORI

Tolerances are also involved in the comparison of results from different parts of the sample, or of results from this survey and another survey. A difference, in other words, must be of at least a certain size to be considered statistically significant. The following table is a guide to the sampling tolerances applicable to comparisons.

Table 2: 95% Confidence Intervals (comparing sub-groups)

	10% or 90%	30% or 70%	50%
Approximate size of sample on which survey results are based	±	±	±
2,000 on 2,000	1.9	2.8	3.1
1,000 on 1,000	2.6	4.0	4.4
500 on 500	3.7	5.7	6.2
150 on 150	6.8	10.4	11.4

Source: Ipsos MORI

Sample composition

The table below details how the sample was comprised, in particular the size of sub-groups that have been reported on.

Table 3: Composition

	Wave 1	Wave 2	Wave 3	Combined
GB adults aged 18+ who are at least partly responsible for paying household energy bills	*2,396*	*2,159*	*2,210*	*6,766*
Gender				
Male	1,208	1,089	1,081	3,378
Female	1,188	1,070	1,129	3,387
Age				
18-24	150	152	150	452
25-34	328	308	328	964
35-44	370	335	345	1,050
45-54	442	333	378	1,153
55-64	445	408	395	1,248
65-74	379	347	363	1,089
75+	282	276	251	809

	Wave 1	Wave 2	Wave 3	Combined
Social grade				
AB	556	394	463	1,413
C1	764	646	690	2,100
C2	502	502	484	1,488
DE	574	617	573	1,764
Education level				
GCSE / O-Level / CSE / NVQ12	656	595	709	1,960
A-Level or equivalent	351	362	324	1,037
Degree / masters / PhD	671	508	561	1,740
No formal qualifications	501	527	431	1,459
Number in household				
1	638	557	547	1,742
2	885	795	776	2,456
3	361	333	342	1,036
4	323	295	336	954
5+	181	176	204	561
Housing tenure				
Owner / mortgage	1,544	1,261	1,336	4,141
Renter	637	698	654	1,989
Household income				
Up to £7,499	219	223	193	635
£7,500 - £13,499	303	269	303	875
£13,500 - £17,499	179	185	168	532
£17,500 – £24,999	175	147	140	462
£25,000 - £29,999	109	127	127	363
£30,000 - £39,999	151	132	148	431
£40,000 - £49,999	128	111	119	358
£50,000 - £74,999	169	113	123	405
£75,000 - £99,999	61	42	59	162
£100,000+	36	34	39	109

	Wave 1	Wave 2	Wave 3	Combined
Heard of smart meters?				
Yes	1,175	1,018	1,236	3,429
No	1,221	1,141	974	3,336
Knowledge about smart meters?				
Great deal	49	37	64	150
Fair amount	237	201	239	677
Just a little	595	562	658	1,815
Only heard of, know nothing about	288	217	275	780
IHD at home?				
Yes	363	301	303	967
No	1,939	1,799	1,888	5,626
Region				
North	165	153	136	454
North West	207	223	257	723
Yorkshire & Humberside	207	172	209	588
West Midlands	188	185	196	569
East Midlands	182	183	160	525
East Anglia	129	105	78	312
South West	223	210	122	555
South East	407	331	405	1,143
Greater London	303	228	287	818
Wales	116	86	121	323
Scotland	269	247	239	755
Work status				
Full-time	784	682	683	2,149
Part-time	233	183	232	648
Self-employed	115	76	101	292
Not working – housewife	135	144	147	426
Still in education	58	73	78	209
Unemployed	145	118	113	376
Retired	781	732	707	2220
Other	145	151	149	445

	Wave 1	Wave 2	Wave 3	Combined
Age of children in household				
Aged 0-3	244	246	267	757
Aged 4-5	142	149	183	474
Aged 6-9	241	230	248	719
Aged 10-15	302	247	296	845
At least one child 0-15	631	588	670	1,889
No children under 16	1,757	1,569	1,540	4,886
Daily newspaper readership				
Broadsheet	321	266	292	879
Mid-market	402	311	268	981
Tabloid	391	348	333	1,072
Access to internet				
Home	1,741	1,567	1,707	5,015
Work	561	437	517	1,515
Any	1,775	1,586	1,737	5,098
None	621	573	473	1,667
Support for smart meters				
Support	N/A	630	705	2,053
Oppose	N/A	414	394	1,282
Disability				
Yes	568	491	518	1,577
No	1,828	1,668	1,692	5,188
Language				
English as first language	1,596	1,972	1,906	5,474
English not first language	168	187	304	659
Interest in smart meters				
Interested	N/A	N/A	725	2,413
Not interested	N/A	N/A	1,211	3,609
Interest in IHD				
Interested	N/A	N/A	715	2,172
Not interested	N/A	N/A	1,161	3,426

	Wave 1	Wave 2	Wave 3	Combined
Electricity bill payment method				
Direct Debit / Standing Order	1,520	1,319	1,437	4,276
Quarterly bill (payment on demand)	387	357	316	1.060
Pre-payment meter	418	440	417	1,275
Other	63	37	34	134
Concern about climate change				
Concerned	1,515	1,288	1,345	4,148
Not concerned	803	759	767	2,329
Concern about energy bill				
Concerned	1,997	1,784	1,817	5,598
Not concerned	374	336	372	1,082
Concern about household finances				
Concerned	1,493	1,325	1,221	4,039
Not concerned	858	786	961	2,605
Reducing energy at home				
Agree	N/A	N/A	1,619	1,619
Neither	N/A	N/A	291	291
Disagree	N/A	N/A	296	296
Could do more to reduce energy				
Agree	N/A	N/A	1,246	1,246
Neither	N/A	N/A	344	344
Disagree	N/A	N/A	613	613

Source: Ipsos MORI

6. Appendix 2 – Questionnaire

6.1. Copy of the final questionnaire

Smart Meter Research for DECC
Questionnaire – Omnibus

Index

Changes for Wave 3 highlighted in yellow
ERA Smart Meter question
Departmental public attitude tracker question

I would now like to talk to you about energy use.

Introduction

QDEM1
ASK ALL AGED 18+
SINGLE ANSWER
DO NOT READ OUT
Are you either jointly or solely responsible for paying your household gas and/or electricity bills?
IF YES ASK: **Is that jointly or solely?**

1) Yes, jointly
2) Yes, solely
3) No

QDEM2
ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
SINGLE ANSWER
SHOWCARD (R)
How do you currently pay for the electricity you use in your home? Please read out the letter that applies.

1) A – Direct Debit/Standing Order
2) B – Quarterly bill (payment on demand)
3) C – Pre-payment meter (PPM, or card or key meter)
4) D – Other
5) Don't know (NOT ON SHOWCARD)

QDEM3

ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
SINGLE ANSWER FOR EACH PART
SHOWCARD (R)

How concerned, if at all, are you about each of the following? Please read out the letter that applies.

DOWN SIDE OF GRID:

a) Climate change, sometimes referred to as 'global warming'
b) The price of your household energy bills
c) The state of your overall household finances

ACROSS TOP OF GRID:

1) A – Very concerned
2) B – Fairly concerned
3) C – Not very concerned
4) D – Not at all concerned
5) E – Don't know
6) F – No opinion

Awareness

1) Have consumers heard of smart meters?
2) If so from what source?

QAW1
ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
SINGLE ANSWER
DO NOT READ OUT
The next question is about smart meters. Here are some pictures of smart meters:

Smart meters are able to communicate with energy suppliers by sending and receiving information about the amount of energy being used. Smart meters are installed by a professional engineer from your gas or electricity company, unlike an energy monitor which can be installed by householders themselves.

Before today, had you heard of smart meters?
IF YES ASK: **Do you have one?**

1) Yes, I have one
2) Yes, but I do not have one
3) No – I have never heard of them

QAW2
ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS AND WHO HAVE HEARD OF SMART METERS (CODES 1-2 AT QAW1)
SINGLE ANSWER
SHOWCARD (R)
How much, if anything, would you say you know about smart meters?

1) A great deal
2) A fair amount
3) Just a little
4) Heard of, know nothing about
5) Don't know (NOT ON SHOWCARD)

QAW3

ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS AND WHO HAVE HEARD OF SMART METERS (CODES 1-2 AT QAW1)

MUTLIPLE ANSWER

DO NOT READ OUT

Where did you hear about Smart Meters?

IF FROM THE INTERNET: **Which website did you go to?**

IF FROM ENERGY SUPPLIER: **Was it an advert or information sent directly to you?**

IF ON TV: **Was it an advert or a TV programme?**

IF ON RADIO: **Was it an advert or a radio programme?**

PROBE: **Anywhere else?**

1) DECC (Department of Energy and Climate Change) – including the website
2) Energy Saving Trust
3) From a friend or relative/Word of Mouth
4) From an organised charity
5) From central Government/the Government
6) From my housing association
7) From my Local Authority
8) From my landlord
9) From my energy supplier/another energy supplier (information – e.g. email, letter, leaflet)
10) From my energy supplier/another energy supplier (advert – e.g. TV or newspaper advertising)
11) Read about them in a newspaper article
12) Seen on TV (news/current affairs programme - Panorama, World in Action, Dispatches, etc.)
13) Seen on TV (advert)
14) Heard on radio (programme)
15) Heard on radio (advert)
16) Through the internet (search engine – Google, Bing, etc.)
17) Through the internet (chat rooms, Facebook, Twitter, etc.)
18) Through the internet (government site such as Directgov, etc.)
19) Through the internet (non-government site such as money-saving expert, Consumer Focus, etc.)
20) Which? consumer magazine
21) Workplace
22) It was already installed when I moved in
23) Other (please specify)
24) Don’t know

Understanding and attitudes

1) What do those aware of smart meters understand about them and what are their attitudes towards them?
2) Among those not aware, when presented with the concept, what is their reaction?
3) What are the perceived benefits? Are there any concerns?

QUN1

ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
MULTIPLE ANSWER
DO NOT READ OUT

What, if anything, do you think you would benefit from if you had a smart meter installed in your home?
PROBE: **Anything else?**

1) Avoid wasting gas and electricity
2) Being offered tariffs which are more tailored to the times I use energy (i.e. the amount I use and the times of day I use it/'time of use' tariffs)
3) Do my bit for the environment
4) Encourage others in my home to think about how they use energy/save money
5) Getting accurate energy bills/stop overcharging
6) Help me to budget
7) Help me to reduce my energy bills
8) Help teach my children the importance of energy reduction/budgeting
9) Help the country to monitor/manage energy supplies
10) No longer receiving estimated bills
11) Not having to have my meter read
12) Secure energy supplies for our children/grandchildren
13) See what I'm spending on electricity and gas in real time/as I go
14) Other (please specify)
15) Nothing/no benefits
16) Don't know

QUN2

ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
MULTIPLE ANSWER
SHOWCARD (R)

Looking at the list on this card, which, if any, do you think you would benefit from if you had a smart meter installed in your home? Please read out the letter or letters that apply.

1) A – No longer receiving estimated bills
2) B – Not having to be at home to have my meter read
3) C – Being offered tariffs which are more tailored to the times I use energy (i.e. the amount I use and the times of day I use it)
4) D – Helping me to monitor the amount of energy I use
5) E – Helping me to reduce the amount of energy I use
6) F – None of these
7) Don't know (NOT ON SHOWCARD)

QUN3

ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
MULTIPLE ANSWER
DO NOT READ OUT

What, if anything, do you think are the disadvantages if you had a smart meter installed in your home?
PROBE: **Anything else?**

1) Difficult to use/understand
2) Having to be at home to have the meter changed
3) Health risks (general mention)
4) Installation will take a long time
5) Invasion of privacy/they will know exactly what I'm doing
6) It will be expensive for me
7) It will be expensive for the energy companies
8) It will be expensive for the government
9) Not being installed correctly (general mention)
10) Paying too much attention to the smart meter/checking it too much
11) Radiation from the meter
12) Someone might lose their job (meter checker)
13) The data could get into the wrong hands
14) The data could lead to greater chance of terrorist attacks
15) The installation will be expensive for taxpayers
16) The cost will be passed on to energy bills/energy prices will rise as a result
17) Too ugly for my home
18) Other (please specify)
19) Nothing/no disadvantages
20) Don't know

QUN3a
ASK ALL AGED 18+ WHO THINK SMART METERS COULD HAVE HEALTH RISKS ATTACHED (CODES 3 OR 11 AT QUN3)
OPEN ENDED
You mentioned that you think there is a health related disadvantage to having a smart meter installed. Why do you think this?

[INSERT RESPONSE]
Don't know

QUN4
ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS AND WHO HAVE NOT HAD A SMART METER INSTALLED (CODES 2-3 AT QAW1)
SINGLE ANSWER
SHOWCARD (R)
Smart meters are installed by the energy suppliers. You can still switch energy supplier after the installation. To what extent would you be interested, or not, in having a smart meter installed in your home in the near future?

1) Very interested
2) Fairly interested
3) Not very interested
4) Not at all interested
5) Don't know (NOT ON SHOWCARD)

QUN4a
ASK ALL AGED 18+ WHO ARE INTERESTED IN RECEIVING A SMART METER (CODES 1-2 AT QUN4)
MULTIPLE ANSWER
DO NOT READ OUT
Why do you say that you are interested in having a smart meter installed in your home in the near future?

PROBE: **Any other reasons?**

1) Avoid wasting gas and electricity
2) Being offered tariffs which are more tailored to the times I use energy (i.e. the amount I use and the times of day I use it/'time of use' tariffs)
3) Do my bit for the environment
4) Encourage others in my home to think about how they use energy/save money
5) Generally interested
6) Getting accurate energy bills/stop overcharging
7) Help me to budget
8) Help me to reduce my energy bills
9) Help teach my children the importance of energy reduction/budgeting
10) Help the country to monitor/manage energy supplies
11) I like to have the latest technology / gadgets
12) No longer receiving estimated bills
13) Not having to have my meter read
14) Recommendation from friends/family
15) Secure energy supplies for our children/grandchildren
16) See what I'm spending on electricity and gas in real time/as I go
17) Other (please specify)
18) Don't know

QUN4b
ASK ALL AGED 18+ WHO ARE NOT INTERESTED IN RECEIVING A SMART METER (CODES 3-4 AT QUN4)
MULTIPLE ANSWER
DO NOT READ OUT

Why do you say that you are not interested in having a smart meter installed in your home in the near future?

PROBE: **Any other reasons?**

1) Difficult to use/understand
2) Friends / family have advised against it
3) Generally not interested
4) Having to be at home to have the meter changed
5) Health risks (general mention)
6) I don't know enough about it / I've not heard of it before
7) Installation will take a long time
8) Invasion of privacy/they will know exactly what I'm doing
9) It will be expensive for me
10) It will be expensive for the energy companies
11) It will be expensive for the government
12) I've had my meter replaced recently
13) Not being installed correctly (general mention)
14) Paying too much attention to the smart meter/checking it too much
15) Radiation from the meter
16) Someone might lose their job (meter checker)
17) The data could get into the wrong hands
18) The data could lead to greater chance of terrorist attacks
19) The installation will be expensive for taxpayers
20) The cost will be passed on to energy bills/energy prices will rise as a result
21) Too much effort / hassle
22) Too ugly for my home
23) Other (please specify)
24) Don't know

QUN5

ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
SINGLE ANSWER
SHOWCARD (R)

To what extent do you support or oppose the installation of smart meters in every home? Please read out the letter that applies.

1) A – Strongly support
2) B – Tend to support
3) C – No feelings either way
4) D – Tend to oppose
5) E – Strongly oppose
6) Don't know (NOT ON SHOWCARD)

Experience of and attitude towards installation of a smart meter

1) Have respondents had a smart meter installed
2) If so, how was the experience for them?
3) What is the reaction to the idea of having their meter replaced with a smart meter?

Just to keep it fresh in your mind, a smart meter is a more sophisticated, electronic version of the gas and electricity meters. Smart meters are able to communicate with energy suppliers by sending and receiving information about the amount of energy being used.

QEX1A

ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS AND WHO HAVE A SMART METER INSTALLED (CODE 1 AT QAW1)
SINGLE ANSWER FOR EACH PART
SHOWCARD (R)

Overall, to what extent have you been satisfied or dissatisfied with each of the following?

DOWN SIDE OF GRID:

a) Arranging the appointment for the engineer to fit your smart meter
b) The installation process on the day your smart meter was fitted
c) The overall experience of using your smart meter

ACROSS TOP OF GRID:

1) Very satisfied
2) Fairly satisfied
3) Neither satisfied nor dissatisfied
4) Fairly dissatisfied
5) Very dissatisfied
6) Don't know (NOT ON SHOWCARD)

Awareness, understanding and experience of in-home energy display units (IHD)

1) Do respondents have one installed?
2) If yes, where did they get it (e.g. from supplier)
3) If yes, what has their experience been?

QIHD1
ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
SINGLE ANSWER
SHOWCARD (R)
Do you have an in-home energy display or energy monitor in your home? An in-home energy display is a portable device that displays current and past energy usage and how much it is costing or will cost. You may also know these as a Real Time Display. If you have a smart meter installed, it should have come with one of these displays.

Here are a few pictures of what in-home energy displays may look like:


IF YES: **How often, if at all, do you look at the display or monitor?**
IF NO: **Have you been offered one in the past?**

1) Yes, I look at it every day
2) Yes, I look at it occasionally
3) Yes, but I never look at it
4) Yes, but I have never installed it
5) No, I was not offered one
6) No, I was offered one but refused it
7) Don't know (NOT ON SHOWCARD)

QIHD2

ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS AND HAVE AN IN-HOME ENERGY DISPLAY (CODES 1-4 AT QIHD1)
SINGLE ANSWER
DO NOT READ OUT

Where did you get you in-home energy display or energy monitor from?
IF FROM ENERGY COMPANY: **Did you request it or was it offered to you?**

1) I was offered it by an energy company and said yes
2) I requested it from an energy company
3) It came with my smart meter
4) I bought (it in a shop/on the internet)
5) I was given it by a friend or relative
6) I don't know, I just received it
7) Other (please specify)
8) Don't know

QIHD3

ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS, HAVE AN IN-HOME ENERGY DISPLAY IN THEIR HOME AND LOOK AT IT (CODES 1-2 AT QIHD1)
SINGLE ANSWER FOR EACH PART
RANDOMISE ORDER OF STATEMENTS
SHOWCARD (R)

Thinking about how you use your in-home energy display or energy monitor, to what extent do you agree or disagree with the following statements?

DOWN SIDE OF GRID:

a) I feel I understand how to get the most out of my display
b) I use or have used my display to find out which appliances use the most electricity
c) I regularly check my display when I am on my way in or out of the house
d) I use the display to encourage others in my household to reduce their electricity use
e) I feel more in control of my electricity bills thanks to the display
f) It will help to reduce the amount of electricity we use in the household
g) It will help to reduce the amount of money my household spends on electricity
h) I use or have used my display to find out how much gas we use in the household

ACROSS TOP OF GRID:

1) Strongly agree
2) Tend to agree
3) Neither agree nor disagree
4) Tend to disagree
5) Strongly disagree
6) Don't know (NOT ON SHOWCARD)
7) Not applicable (ONLY FOR STATEMENT h)

QIHD4

ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS, HAVE AN IN-HOME ENERGY DISPLAY IN THEIR HOME AND LOOK AT IT (CODES 1-2 AT QIHD1)

MUTIPLE ANSWER

SHOWCARD (R)

Which of the following, if any, describe the measures you look at when you check your in-home energy display or energy monitor?

1) I look at the kilo-watts measure
2) I look at the money display
3) I look at the carbon saving measures
4) I don't know what to look at when I check it
5) I don't tend to look at it
6) Don't know (NOT ON SHOWCARD)

QIHD5

ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS, HAVE AN IN-HOME ENERGY DISPLAY IN THEIR HOME AND LOOK AT IT (CODES 1-2 AT QIHD1)

SINGLE ANSWER

SHOWCARD (R)

Overall, how satisfied or dissatisfied are you with your in-home energy display or energy monitor?

1) Very satisfied
2) Fairly satisfied
3) Neither satisfied nor dissatisfied
4) Fairly dissatisfied
5) Very dissatisfied
6) Don't know (NOT ON SHOWCARD)

QIHD6

ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS AND WHO DO NOT HAVE AN IN-HOME ENERGY DISPLAY IN THEIR HOME (CODES 5-7 AT QIHD1)

SINGLE ANSWER

SHOWCARD (R)

To what extent would you be interested, or not, in having an in-home energy display or energy monitor installed in your home in the near future?

1) Very interested
2) Fairly interested
3) Not very interested
4) Not at all interested
5) Don't know (NOT ON SHOWCARD)

Knowledge

1) To explore where consumers would expect to find out about smart meters/IHD.
2) What are considered the most trusted sources of information?
3) What type of information consumers would be looking for?

QKN1
ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
MUTLIPLE ANSWER
DO NOT READ OUT
What, if anything, would you like to know in relation to smart meters or in-home energy displays?
PROBE: **Anything else?**

1) Are there any health risks?
2) How easy they are to use/read
3) How easy they are to install
4) How much energy would be saved
5) How much money would I save/would energy bills be lower
6) How much they cost/will it cost me anything
7) How secure would the data/information collected be
8) How the smart meters/displays work
9) General information about smart meters/displays
10) More or clearer literature/leaflets
11) The advantages/benefits
12) The disadvantages
13) Where could I get one/see one?
14) Where smart meter funding is coming from/who is paying
15) Who would have access to the data/information collected
16) Other (please specify)
17) Don't know
18) Not interested
19) Nothing

QKN2

ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
MUTLIPLE ANSWER
DO NOT READ OUT

If you wanted to know more about Smart Meters or In Home Displays, where would you go for this information?

IF FROM THE INTERNET: **Which website would you go to?**
PROBE: **Anywhere else?**

1) DECC (Department of Energy and Climate Change) – including the website
2) The Energy Saving Trust
3) To a friend or relative/Word of Mouth
4) To an organised charity
5) Central Government/the Government
6) My housing association
7) My Local Authority
8) My landlord
9) My electricity supplier/another electricity supplier
10) My gas supplier/another gas supplier
11) Newspaper articles
12) News/current affairs programme (Panorama, World in Action, Dispatches, etc.)
13) The internet (search engine – Google, Bing, etc.)
14) The internet (chat rooms, Facebook, Twitter, etc.)
15) The internet (government site such as Directgov, etc.)
16) The internet (non-government site such as money-saving expert, Consumer Focus, etc.)
17) Which? consumer magazine
18) Other consumer bodies (non-internet)
19) Other (please specify)
20) Don’t know
21) Nowhere/I wouldn’t need any information

QKN3

ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
MUTLIPLE ANSWER
SHOWCARD (R)

Please take a look at this card. Thinking about any concerns you may have about smart meters or In Home Displays, which, if any, of these would you trust to give you accurate information about smart meters or in-home displays?

PROBE: **Any others?**

1) DECC (Department of Energy and Climate Change) – including the website
2) The Energy Saving Trust
3) A friend or relative/Word of Mouth
4) An organised charity
5) Central Government/the Government (including websites such as Directgov)
6) My housing association
7) My Local Authority
8) My landlord
9) My electricity supplier/another electricity supplier
10) My gas supplier/another gas supplier
11) Newspaper articles
12) News/current affairs programme (Panorama, World in Action, Dispatches, etc.)
13) Internet chat rooms (Facebook, Twitter, etc.)
14) Non-government Internet sites such as money-saving expert, Consumer Focus, etc.
15) Which? consumer magazine
16) Other consumer magazines
17) None of these
18) Don’t know (NOT ON SHOWCARD)

List of demographics

QENER
ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
SINGLE ANSWER FOR EACH PART
SHOWCARD (R)
I am now going to read out a number of statements that other people have made about the energy they use at home. For each statement, please tell me to what extent you agree or disagree? Please read out the letter that applies.

DOWN SIDE OF GRID:

a) I have tried to reduce the amount of energy I use at home
b) I think there is more I could do to reduce the amount of energy I use at home
c) I am more concerned about having a warm and comfortable home than saving energy

ACROSS TOP OF GRID:

1) A – Strongly agree
2) B – Tend to agree
3) C – Neither agree nor disagree
4) D – Tend to disagree
5) E – Strongly disagree
6) Don't know (NOT ON SHOWCARD)

QDIS
ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
MULTICODE CODES 1-2, SINGLE CODE 'NO'
DO NOT READ OUT
Do you have any long-standing illness, disability or infirmity? By long-standing, I mean anything that has troubled you over a period of time or that is likely to affect you over a period of time.

1) Yes – long-standing illness
2) Yes – long-standing disability or infirmity
3) No

QLAN
ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
SINGLE ANSWER
SHOWCARD (R)
Which of the following best describes you?

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) I can't speak English

QACC
ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
SINGLE ANSWER
SHOWCARD
Which of the following types of property best describes your accommodation?

1) Flat or Maisonette
2) Terrace Property
3) Semi Detached Property
4) Detached Property
5) Other (specify)
6) Don't know (NOT ON SHOWCARD)

QROOM
ASK ALL AGED 18+ WHO ARE RESPONSIBLE FOR PAYING HOUSEHOLD ENERGY BILLS (CODES 1-2 AT QDEM1)
NUMERICAL ANSWER
How many rooms are available for use by this household? Do not count bathrooms, toilets, halls or landings and rooms that can only be used for storage such as cupboards.

Please do include all other rooms including kitchens, living rooms, utility rooms, bedrooms, studies and conservatories.

If two rooms have been converted into one, count them as one room.

[ENTER NUMBER]

Don't know

ACORN classification

1) Wealthy Achievers
2) Urban Prosperity
3) Comfortably Off
4) Moderate Means
5) Hard Pressed

Age

1) 18-24
2) 25-34
3) 35-44
4) 45-54
5) 55-64
6) 65+

Sex

1) Male
2) Female

Number in household

1) 1
2) 2
3) 3
4) 4
5) 5+

Number of children in household

1) 1
2) 2
3) 3
4) 4
5) 5+

Household income

1) Up to 4,499
2) 4,500 - 6,499
3) 6,500 - 7,499
4) 7,500 - 9,499
5) 9,500 - 11,499
6) 11,500 - 13,499
7) 13,500 - 15,499
8) 15,500 - 17,499
9) 17,500 - 24,999
10) 25,000 - 29,999
11) 30,000 - 39,999
12) 40,000 - 49,999
13) 50,000 - 74,999
14) 75,000 - 99,999
15) 100,000 or more

Social Grade

1) AB
2) C1
3) C2
4) DE

Marital status

1) Married / Living as married
2) Single
3) Widowed / Divorced / Separated

Working status

1) Working – full-time
2) Working – part-time
3) Self-employed
4) Not working – housewife
5) Still in education
6) Unemployed
7) Retired
8) Other

Daily newspaper readership

1) Broadsheet
2) Mid-markets
3) Tabloid

Sunday newspaper readership

1) Broadsheet
2) Mid-markets
3) Tabloid

Government Office Region

1) North
2) North West
3) Yorkshire
4) West Midlands
5) East Midlands
6) East Anglia
7) South West
8) South East
9) London
10) Wales
11) Scotland

Education

1) GCSE/O Level/NVQ12
2) A-Level or equivalent
3) Degree/Masters/PhD
4) No formal qualifications

Tenure

1) Own outright
2) Buying on mortgage
3) Rent – Local Authority
4) Rent – Private
5) Other

Access to internet

1) Access at home
2) Access at work
3) No access

Area

1) Rural
2) Suburban
3) Urban
4) Metropolitan

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