

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

**(Wave 1 of 3)**

**Research conducted by Ipsos MORI for DECC**

21 August 2012

# Executive Summary

## Background to the research

Installation of smart meters by energy suppliers 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 ensure installation of smart meters in all homes in Britain by 2019.

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 study comprises three nationally representative surveys, conducted face-to-face in homes across Great Britain in April 2012, October 2012 and April 2013. The overall objective of this project is to understand consumer awareness, understanding of and attitudes towards domestic smart meters and to see how these are changing over time.

The first wave of the survey comprised 2,396 in-home, face-to-face 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.

The key findings from wave one are presented below.

## Awareness and attitudes towards smart meters

Half of energy bill-payers living in Great Britain had heard of smart meters (49%), with one in twenty claiming that they have one installed (5%). The ownership figure is clearly an overestimate, which the report authors believe is principally due to some respondents failing to understand what a smart meter is despite the explanation provided (see page 8).

A third (32%) expressed support for the installation of smart meters in every home in the country, while one in five (20%) were opposed. Almost half (48%) of all respondents are undecided about smart meters.

Four in ten (42%) of those without a smart meter in their home were interested in having one installed. Support for smart meters, and interest in installation, were both highly correlated to age and size of household; with younger and larger households expressing greater support and interest.

The perceived benefits of having a smart meter installed included being able to better manage household finances (33%), to help avoid waste (26%) and produce a greater accuracy of billing (19%). Perceived disadvantages included cost (either to themselves, the taxpayer, the government or the energy companies) (19%) and data security (10%).

Positively, the more respondents felt they knew about smart meters the more likely they were to support their roll-out and want one..

## Experience of self-reported smart meter customers

Respondents who claimed to have a smart meter were broadly positive about their experience of the appointment and installation process, as well as their overall experience of using the smart meter; around half were satisfied with all three of them. Only a minority were unsatisfied with these experiences, 4% for arranging the appointment, 5% for the installation and 8% for the overall experience of using the smart meter. The high proportion of respondents who expressed neither satisfaction nor dissatisfaction is likely to be due to over-claim in terms of smart meter ownership.

## Public attitude to IHDs

One in six (16%) bill-payers in Great Britain claimed to have an IHD in their home, with higher social grades and Direct Debit customers most likely to claim to have one. Over half of those who had claimed to have one said they looked at it at least occasionally (56%). Most check either the energy usage or the money display.

Customers tend to passively receive IHDs rather than actively request them and interest levels among those who do not have one were comparable to smart meters, with four in ten (40%) expressing interest. Interest is lowest amongst older respondents, single person households, and those without qualifications.

IHD customers who refer to their display were generally positive about its impact on their electricity use and household finances. Almost six in ten bill-payers who look at their IHD agreed that they felt more in control of their energy bills thanks to the IHD (57%). In addition, almost seven in ten believed that the IHD would help them reduce the amount of money they spend on electricity, and the amount of electricity they use in the household (69% each).

However, not everyone who received an IHD is using it; 44% of customers who said they had one had either never looked at it (22% of IHD customers) or not installed it (22% of IHD customers).

## Further information needs about smart meters and IHDs

Only three in ten (31%) bill-payers expressed an information need around smart meters and IHDs. This was higher among certain groups such as the middle-aged (40% for those aged 35-44), larger households (38% for households with 5 or more people) and those who do not speak English as their first language (38%). The most common information needs include functionality, costs and benefits.

Main sources of information about smart meters or IHDs for bill payers included the energy companies (32%), internet search engines (32%) and word of mouth (24%).

When prompted, the most trusted sources included energy companies (33%), Which? (26%), the Government (17%) and Energy Saving Trust (16%).

# Contents:

	Page
<b>1. Introduction</b>	<b>5</b>
1.1 Background to the research	5
1.2 Methodology	6
1.3 Reporting the findings	7
<b>2. Main findings</b>	<b>8</b>
2.1 Awareness and attitudes towards smart meters	8
2.2 Experience of smart meter customers	20
2.3 Public attitude to IHDs	21
2.4 Further information needs	29
<b>3. Conclusions</b>	<b>33</b>
<b>4. Appendix 1 – Technical details</b>	<b>35</b>
4.1 Conducting the fieldwork (Capibus)	35
4.2 Accuracy of reported differences between sub-groups (statistical reliability)	37
4.3 Comparing results to Energy UK studies	38
<b>5. Appendix 2 – Questionnaire</b>	<b>39</b>
5.1. Copy of the final questionnaire	39

# 1. Introduction

## 1.1 Background to the research

Installation of smart meters by energy suppliers 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 ensure installation of smart meters in all homes in Britain by 2019. It will involve a visit to every home, and many businesses, in Great Britain, and the replacement of around 53 million gas and electricity meters. Smart meters can pave the way for a transformation in the way energy is supplied and used. They will provide consumers with near real-time information about energy use, and more accurate bills.

Households in Britain are responsible for 32% of the UK's final energy consumption. Since the early 1970s there has been a steady upward trend in domestic energy consumption, however, the latest statistics from DECC show that domestic consumption has actually fallen in the most recent years. The drivers of this downturn include high fuel prices, relatively warm weather and also actions by consumers, including making physical improvements to their homes such as insulation, and changes in behaviour such as turning electrical equipment off instead of leaving it on stand-by. Greater change is required, however, to ensure Britain is less exposed to risk in terms of energy supply and that emissions are reduced in line with targets.

Trials of smart meters have been shown to effect reductions in energy use of between 5 and 15%. Much of this reduction is achieved through consumers seeing the direct impact of their day-to-day behaviour at home on their energy usage. Providing greater levels of feedback on energy usage also encourages consumers to invest in better energy saving equipment and micro-generation. DECC estimates that the introduction of smart meters will save consumers c.£5.98 billion over 20 years.

The overall objective of this research project was to understand consumer awareness and 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 three nationally representative surveys, conducted face-to-face in homes across Great Britain:

- Wave 1 – April 2012
- Wave 2 – October 2012
- Wave 3 – April 2013

### 1.2.1 National survey (wave 1)

The questionnaire was drafted and agreed with DECC before. A cognitive pilot was completed 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.

The survey was conducted on Ipsos MORI's weekly omnibus, Capibus, and comprised 2,396 in-home, face-to-face 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.

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

## 1.3 Reporting the findings

This report presents the findings from the first wave of the study. Findings from a recent qualitative research study for DECC around public attitudes and understanding of smart meters is also referenced where appropriate. See <http://www.decc.gov.uk/assets/decc/11/tackling-climate-change/smart-meters/5424-smart-meters-research-public-attitudes.pdf>

Each section begins with a summary of the findings, followed by analysis of each question in text and chart format. Various sub-group analysis is presented below each chart. It has not been possible to include *all* statistically significant differences, therefore, each question has been analysed and the most relevant and interesting differences included. Full data tables are available on request.

Findings from any survey have a confidence interval, or margin of error, associated with them due to the fact that we have taken a sample of the population and have not interviewed everyone. 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 two findings is statistically significant, taking account of their confidence intervals.

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

Half of energy bill-payers living in Great Britain had heard of smart meters (49%), with one in twenty claiming that they have one installed (5%). The ownership figure is clearly an overestimate, which the report authors believe is principally due to some respondents failing to understand what a smart meter is despite the explanation provided.

A third expressed support for the installation of smart meters in every home in the country, while one in five were opposed. Half of all respondents are undecided about smart meters.

Four in ten of those without a smart meter in their home were interested in having one installed. Support for smart meters, and interest in installation, were both highly correlated to age and size of household; with younger and larger households expressing greater support and interest.

The perceived benefits of having a smart meter installed included being able to budget a bit better, to help avoid waste and produce a greater accuracy of billing. Perceived disadvantages included cost (either to themselves, the taxpayer, the government or the energy companies) and data security.

Positively, the more respondents felt they knew about smart meters the more likely they were to support their roll-out and want one.

#### 2.1.1 Awareness

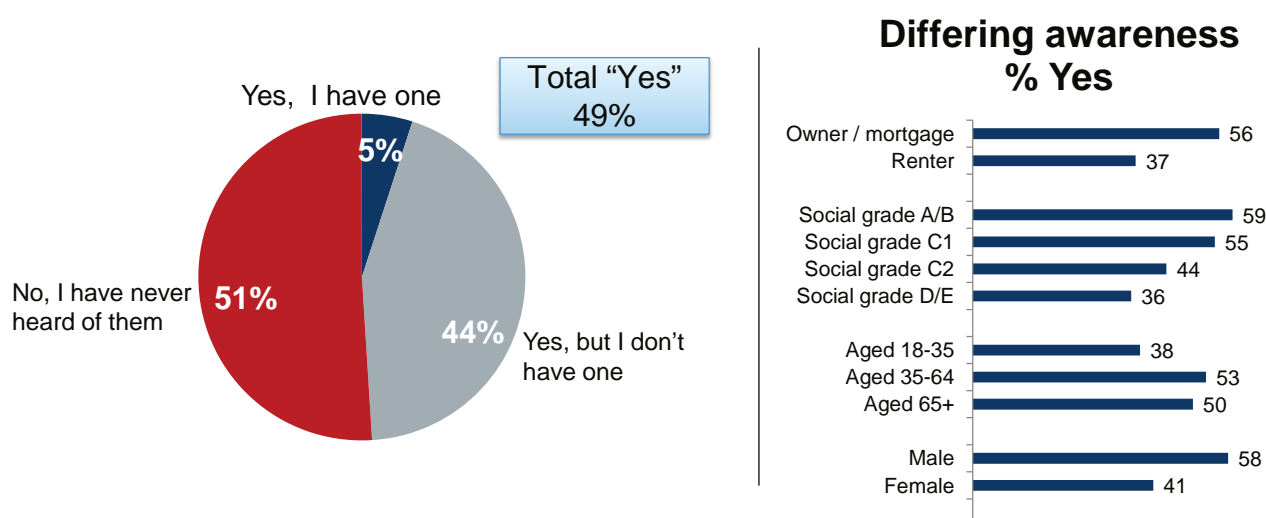
Half of all energy bill-payers living in Great Britain had never heard of smart meters (51%). One in twenty claimed that they owned one (5%), while the remaining 44% claimed that they had heard of them without owning one.

Each respondent was read a thorough description of a smart meter before they were asked this question (see questionnaire at Appendix 2 for details) and this description was cognitively tested. However, the 5% ownership figure 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 (IHD).

Further 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 and satisfaction with their smart meter. This revised figure produce an ownership figure of 2% (more in line with expectations).

**Figure 1: Awareness of smart meters**



**QAW1 Before today, had you heard of smart meters?**

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills (2,396), 30<sup>th</sup> March – 26<sup>th</sup> April 2012

Source: Ipsos MORI

The analysis showed a number of demographic differences in terms of awareness of smart meters.

Men were more likely to claim to have heard of smart meters (58% vs. 41% of women), but there was no significant difference concerning how many men and women actually have one installed.

Awareness of smart meters was lowest among younger adults; around a quarter of bill-payers aged 18-24 had heard of smart meters (27%). This rose steadily to around six in ten aged 55-64 (61%) and 65-74 (58%) but dropped again among those aged 75+ (to 40%).

Those in the higher social classes were more aware, with around six in ten in the AB grade having heard of smart meters (59%), dropping to around a third from the DE grade (36%). A similar pattern emerged when looking at the highest education level achieved, with knowledge as low as 37% among those with no formal qualifications, rising to 57% with A-Level qualifications or higher.

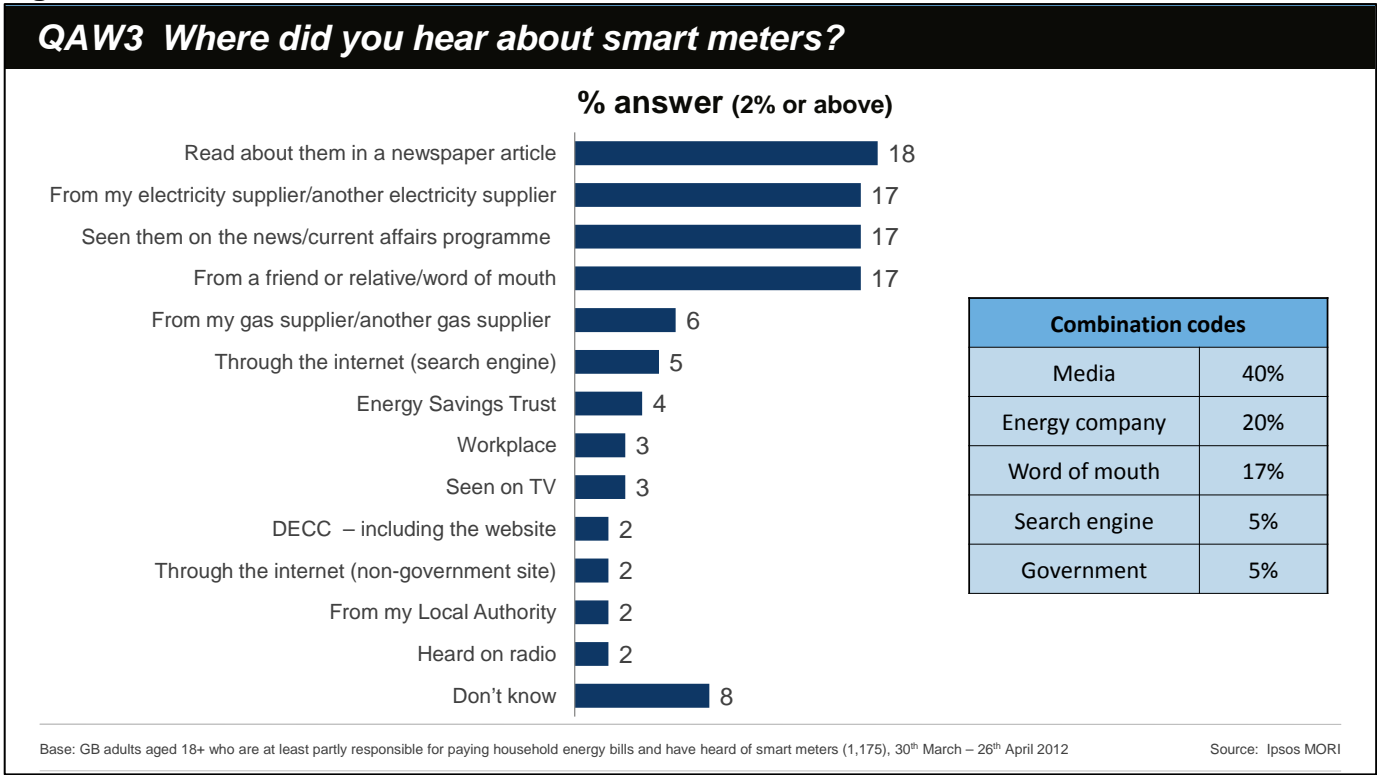
Homeowners were more aware than those living in rented accommodation; 56% had heard of smart meters compared to 37% living in rented accommodation. Those paying their electricity bills by Direct Debit were also more likely to have heard of smart meters (56%), as were those who did not have any children (52% vs. 43% with children).

2.1.2 Source of awareness

The media and energy companies are the main sources of people’s awareness. Among those that had heard of smart meters, two in five people had heard about them through the media, either from a newspaper article (18%), on a news or current affairs programme (17%) or simply on TV (3%) or on the radio (2%). One in five learned about them through an energy company, mainly from their electricity supplier (17%) but also from their gas supplier (6%), with ‘word of mouth’ the next most popular medium, almost one in five having heard of smart meters through a friend or relative.

One in twenty had heard of smart meters from the government, with 2% specifically mentioning DECC.

Figure 2: Sources of awareness of smart meters



Different demographic groups were more likely to be made aware of smart meters by different sources.

Women were more likely to mention ‘word of mouth’ than men; one in five did so (21%) against only one in seven men (14%); and women were more likely to have seen them on the news or a current affairs programme (21% vs. 15% of men). Men were more likely to say that they read about them in a newspaper article (21% vs. 14% of women).

Older bill-payers were more likely to have heard of smart meters more through the media, than younger people. Of those aged 65-74, 27% had heard about them in a newspaper article compared to 9% aged 18-24.

Bill-payers from the DE social group frequently mentioned word of mouth (25%, falling to 13% of ABs), but rarely heard about it from their energy supplier (13%, against 20% overall).

Some groups were more likely to have heard of smart meters through the government; bill-payers who do not speak English as their first language (14%), people with children in their household (9%), especially if they had a child aged 0-3 years (14%), those aged 35-44 (9%) and those with at least a degree (7%). This compared to 5% overall. Of those respondents with a child aged 0-3, 11% had heard about smart meters directly through DECC.

Those who do not speak English as their first language were more likely to have heard about smart meters through the Energy Saving Trust (EST) (21% vs. 3% who speak English as their first language) and less likely to have heard of them through the media (24% vs. 42%).

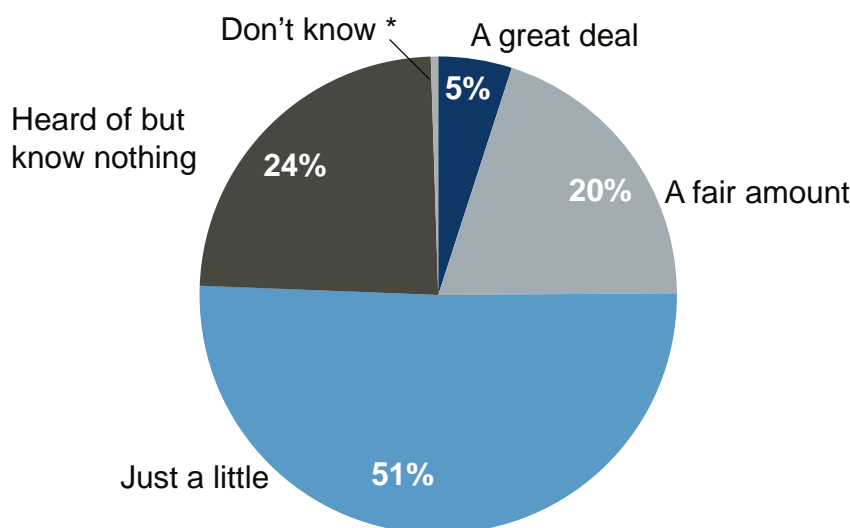
Among those who claimed to have a smart meter, 14% had heard about them from the media (compared to 40% overall) and 46% from an energy company (compared to 20% overall).

There were a number of differences between respondents who supported and opposed the installation of smart meters in every home. The differences indicate where respondents were likely to hear positive messages about smart meters, and more negative ones. Those who supported smart meters were more likely to have heard about them through an energy company (23% vs. 18% who opposed it), or through the workplace (5% vs. 3%). Those who opposed it had heard of it more through the media (47% vs. 37% who supported it) or through an internet search engine (8% vs. 4%).

### **2.1.3 Perceived knowledge of smart meters**

Half of British bill-payers who had heard of smart meters said they know only a little about them (51%) and another quarter had heard of but knew nothing about them (24%). Only one in four knew at least a fair amount (25%).

This equates to 12% of all British bill-payers who knew at least a fair amount about smart meters, and just 2% who claimed to know 'a great deal'. Further findings indicate that increased knowledge about smart meters would increase the level of support for their installation and interest in having one installed.

**Figure 3: Perceived knowledge of smart meters****QAW2 How much, if anything, would you say you know about smart meters?**

Base: Adults aged 18+ who are at least partly responsible for paying household energy bills and have heard of smart meters (1,175), 30<sup>th</sup> March – 26<sup>th</sup> April 2012

Source: Ipsos MORI

Once again there are a number of demographic differences in terms of claimed knowledge.

Men claimed to be more knowledgeable about smart meters than women; among those who had heard of smart meters, three in ten men said that they knew at least a fair amount about them (compared to 17% of women), with women more likely to claim that they had only heard of them but knew nothing about them (31% vs. 19% of men).

The level of knowledge was fairly consistent by age but the oldest age group were the least knowledgeable; 12% of those aged 75+ knew at least a fair amount (compared to 25% overall).

Those from higher social grades claimed to know more, with three in ten of those from the AB social group knowing at least a fair amount (29%) falling to 17% among the DE group. This is mirrored in the highest education level achieved, with those with no formal qualifications the least likely to know at least a fair amount (14% vs. 31% with a degree or above) and in household income level, with those earning below £7,500 a year the least knowledgeable (10% knew at least a fair amount).

Householders with children aged 0-3 tended to be more aware of smart meters, with 38% knowing at least a fair amount (compared to 25% on average).

Bill-payers who had access to the internet claimed better knowledge; just over a quarter who had access knew at least a fair amount (27%), falling to 15% among those without internet access and rising to 32% if they had access to the internet at work.

Even among those who claimed to have a smart meter installed, only six in ten claimed to know at least a fair amount (57%).

Finally, those who do not speak English as their first language were more likely to claim to know at least a fair amount about smart meters (38% vs. 22% who do speak English as their first language).

#### **2.1.4 Support and interest**

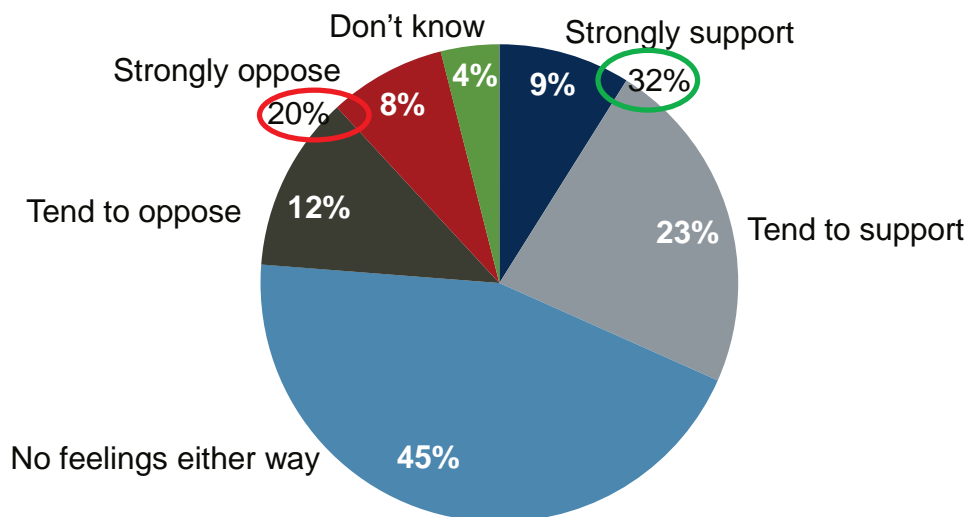
Half of British bill-payers were undecided about whether smart meter should be installed in every home. A third of bill-payers were in favour of installing smart meters in every home (32%), with 9% strongly supporting it and one in five opposed to it (20%). Almost half did not have a strong opinion about smart meters, most had no feelings either way (45%) and a minority said that they did not know (4%).

The DECC qualitative study from March 2012 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 is compulsory, they would be more likely to oppose it and, if it was a choice, would be more supportive. This study 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.

DECC qualitative study: <http://www.decc.gov.uk/assets/decc/11/tackling-climate-change/smart-meters/5424-smart-meters-research-public-attitudes.pdf>

**Figure 4: Support for smart meters**

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



Base: Adults aged 18+ who are at least partly responsible for paying household energy bills (2,396), 30<sup>th</sup> March – 5<sup>th</sup> April 2012

Source: Ipsos MORI

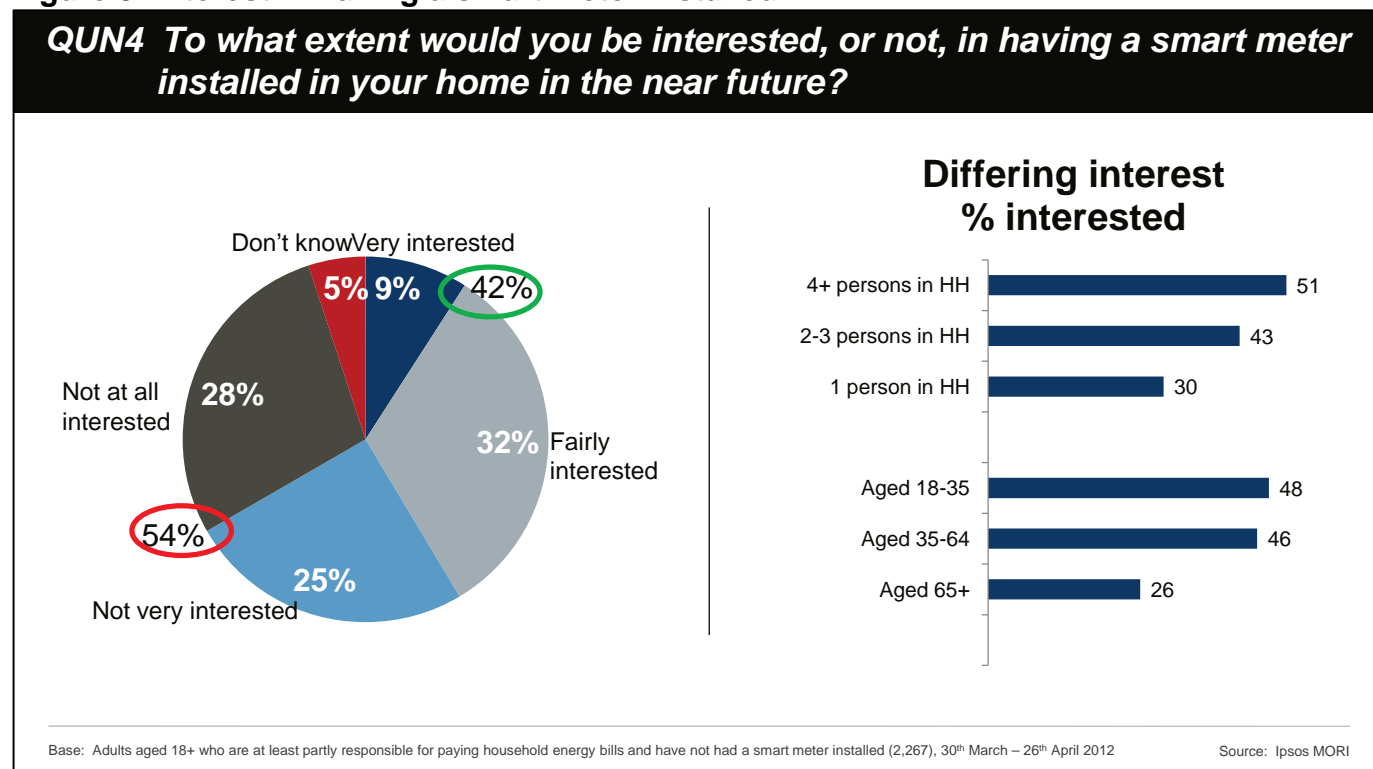
The study shows a clear relationship between knowledge and support, with the most knowledgeable also the most likely to support smart meters; two-thirds who claimed to know a great deal about smart meters support their installation in every home (66%), dropping to a quarter among those who had only heard of but know nothing about them (26%).

There were also a number of demographic differences in terms of support. Middle aged respondents (aged 35-44) were most likely to support the installation of smart meters (39%), whereas opposition was highest amongst those aged 75+ (25%). Other demographic groups which were more likely than average to support the installation of smart meters included families with children; almost four in ten bill-payers with at least one child were in favour (37% vs. 30% with no children) and support was even higher in families with younger children (40% for families with children aged 0-3 and 44% for families with children aged 4-5).

Support was also higher among those who claimed to be concerned about climate change (35% vs. 27% unconcerned), and was notably higher among those who claimed to have a smart meter (50%). Owner / occupiers were more likely to be opposed to the idea, with 22% opposed compared to 16% of those living in rented accommodation.

Respondents were split in terms of their interest in having a smart meter installed in the near future. Four in ten bill-payers who did not have a smart meter were at least fairly interested in having one installed (42%); more than half would currently not be interested (54%) with just over a quarter 'not interested at all' (28%).

**Figure 5: Interest in having a smart meter installed**



Again, knowledge was closely correlated with interest. Interest among those who knew a great deal about smart meters was 54%, falling to 35% among those who had only heard of but know nothing about them.

The main difference between the demographic groups was between small and larger households. Less than a third of respondents living alone were interested (30%), compared to more than half of those living in a household with four or more people (51%). Similarly, those with a child were more interested (52% vs. 37% with no children).

Older respondents tended to be less interested, with fewer than one in five aged 75+ interested (19%) rising to over half among those aged 35-44 (54%). Around half of those aged 18-34 were interested (48%).

Those in the highest social grades (AB) were the most interested (47%) with those in the C2 grade the least interested (36%). This is reflected within the highest achieved education level where similar proportions of those with a degree or above were interested as not interested (47% and 48%) compared to those with no formal education where around half as many were interested as not interested (32% and 62%). Households with higher incomes also tended to be more interested.

Interest was higher among those who were concerned about climate change (46% vs. 32% not concerned), energy bills (44% vs. 29% not concerned) and household finances (44% vs. 37%). Those with a disability were less likely to be interested (37% vs. 43% with no disability).

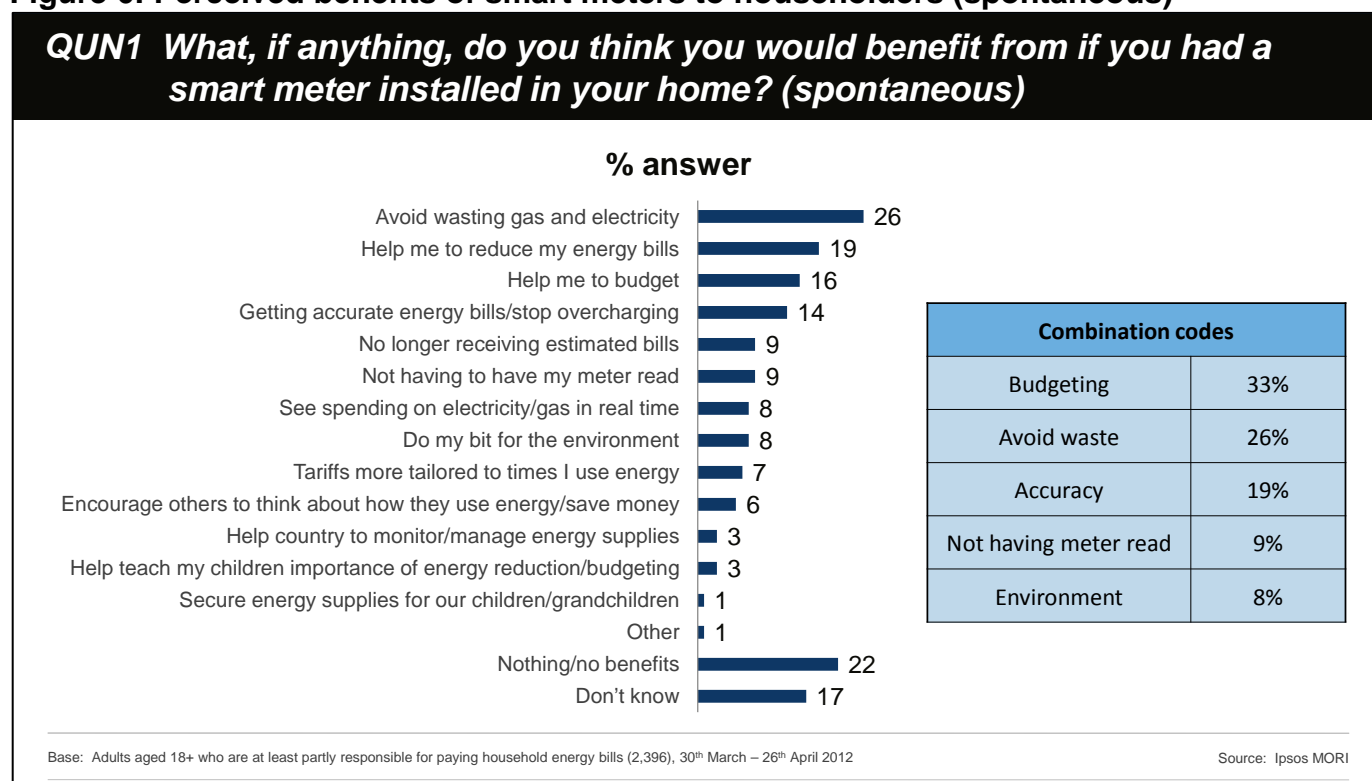
### 2.1.5 Perceived benefits of smart meters

The majority of respondents were able to spontaneously think of at least one benefit (61%) to having a smart meter installed in their home; a minority could not think of anything (22%) while another 17% said that they did not know.

The most frequently mentioned advantages were related to budgeting; a third (33%) mentioned either helping to reduce bills, helping to budget and to see what is being spent. This was followed by benefits linked to avoiding waste (26%) and the accuracy of bills (19%). Fewer than one in ten mentioned not having to have the meter read (9%) or doing their bit for the environment (8%).

The qualitative work 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 wouldn't necessarily lead to a reduction in cost.

**Figure 6: Perceived benefits of smart meters to householders (spontaneous)**



A number of subgroups were less able to name a benefit; around half of those who were retired could not give one (54%), people with no access to the internet (53%), those with no formal qualifications (52%), those with a disability (50%) and those living in a single person household (49%).

Older respondents were less able to think of benefits about smart meters; six in ten bill-payers aged over 75 could not think of a single benefit (60%) and this was still over half among those aged 65-74 (53%). The middle-aged (aged 35-44) were the most able to name a benefit with almost three-quarters able to do so (72%).



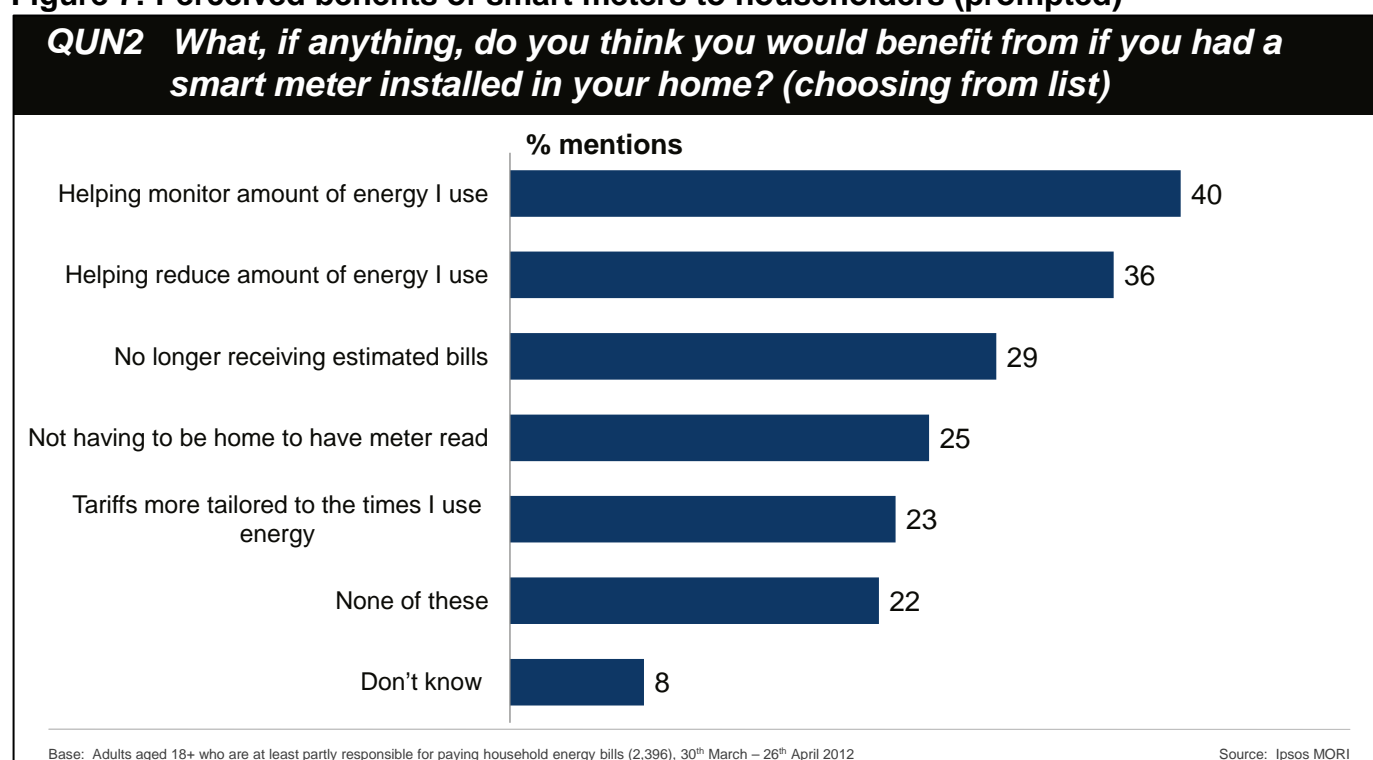
Different demographic groups were more likely to think of different benefits, reflecting their priorities. For example, younger bill-payers were more likely than average to think that smart meters would help with their budgeting (40% aged 25-34 mentioned this) and avoid waste (34% aged 25-34), while more middle-aged respondents were more likely than average to think they help with the accuracy of their bills (24% aged 35-44) and do their bit for the environment (12% aged 35-44).

Those on higher incomes were more likely to mention budgeting than average. This remained the top response amongst those on lower incomes but, typically, they were less likely to mention any of the benefits.

Those who support smart meter installation in every home were more likely to be able to think of at least one advantage (84%), however, this still left 8% saying don't know and 8% who could not think of any benefits.

When prompted, seven in ten felt they would benefit from one of a number of possible advantages. This compared to six in ten who spontaneously named a benefit. The most common answers related to monitoring energy use (40%), reducing energy consumption (36%) and avoiding estimated bills (29%).

**Figure 7: Perceived benefits of smart meters to householders (prompted)**



As previously noted, older bill-payers have less positive opinions towards smart meters; almost four in ten aged 75+ did not agree that any of these factors were an advantage if a smart meter was installed (39%), with a further 16% saying that they didn't know. That leaves fewer than half who agreed that they would benefit from at least one of these things (45%), compared to seven in ten overall.

Those in higher social grades were more likely to agree that at least one of these would be a benefit (75% among ABs, falling to 64% among DEs). Benefits were more likely to be chosen among those with a degree or higher qualification compared to those without any formal qualifications (55% compared to 46%).

People living on their own were less likely to see any benefits (only 58% choose one compared to 70%). Those without access to the internet were also less likely to choose one of the benefits (only 52% did so).

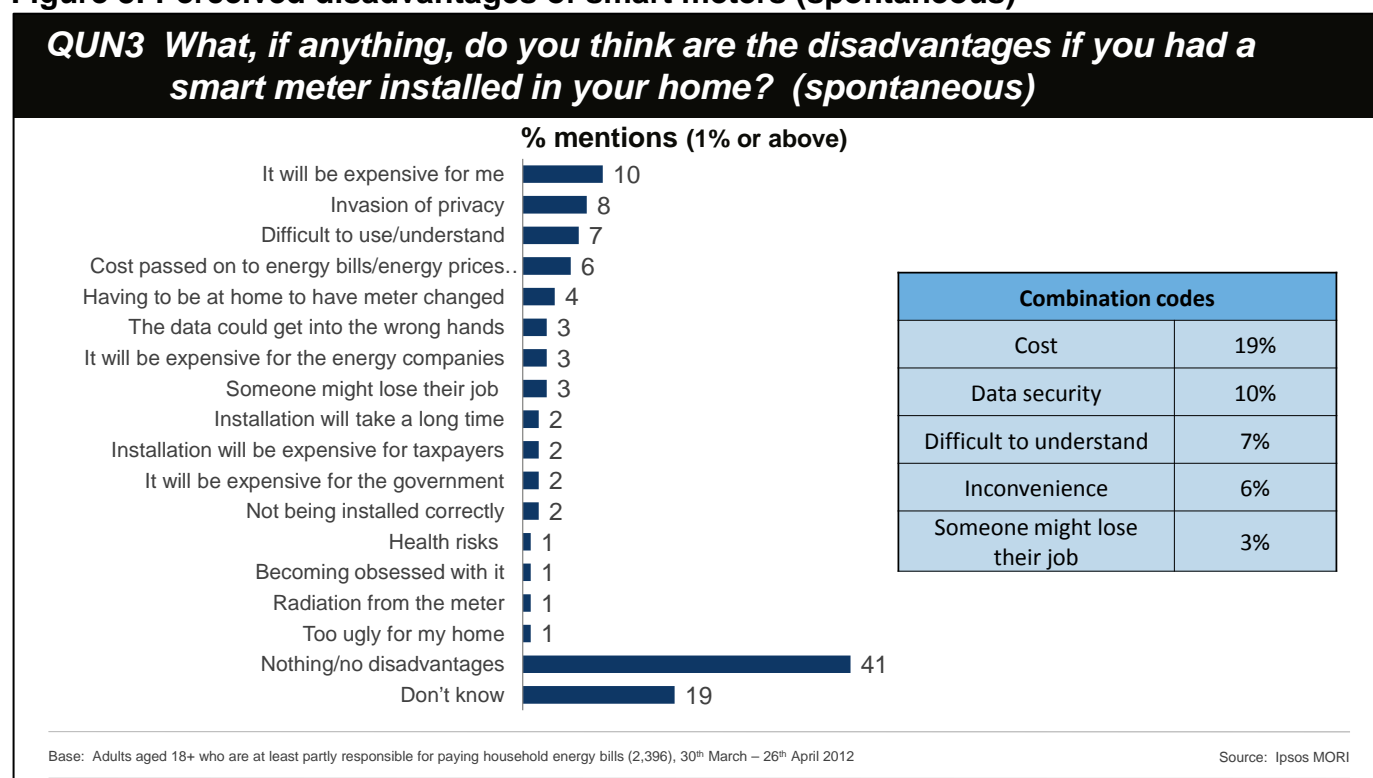
Again, most of those who support the installation of smart meters agreed that there were benefits, although 7% did not agree that they would benefit from anything on the list by having a smart meter installed.

Those with a disability did not see as many benefits as those without (36% did not select any of the benefits, compared to 29% without a disability).

### **2.1.6 Perceived disadvantages of smart meters**

While a majority (61%) were able to spontaneously name a benefit, only a minority were able to spontaneously name a disadvantage of having a smart meter installed in their home (40%). Four in ten bill-payers said that there were no disadvantages in installing a smart meter (41%) and a further two in ten could not think of one (19%).

The main concerns were related to cost (19%); either for themselves through higher energy bills, for the energy companies, for taxpayers or for the government. There was also concern that the data would be misused in some way (10%), that the smart meter would be difficult to use (7%) and that it would be inconvenient to have the meter installed (6%).

**Figure 8: Perceived disadvantages of smart meters (spontaneous)**

Different demographic groups had slightly different concerns, reflecting their wider priorities.

Cost was a bigger worry for those aged 25-34, where a quarter mentioned this as a disadvantage (25%); the majority worried that it would be expensive for them personally (15%). The middle-aged were the most worried about data security, with 17% aged 35-44 mentioning this and 14% aged 45-54. Data security was not on the minds of those aged 18-24 where only 1% mentioned this as a disadvantage nor was it among older bill-payers with 5% mentioning this among those aged 75+. The eldest group were most likely to think that smart meters would be 'difficult to understand' (12% vs. 7% overall). The youngest were most concerned about the inconvenience to them (10% falling to just 2% among those aged 75+).

Data security worried those within the AB social grade (15% falling to 7% among DEs) as well as those holding at least a degree (15%). DEs were more concerned that smart meters would be 'difficult to understand' (14% falling to 3% among ABs), as were those without any formal qualifications (13%) and those on lower incomes (11% among those earning less than £13,500pa).

Those with a disability were more worried about the smart meter being difficult to understand (10% vs. 6% without a disability) but were less worried about the cost (13% vs. 21%) and data security (7% vs. 11%).

## 2.2 Experience of smart meter customers

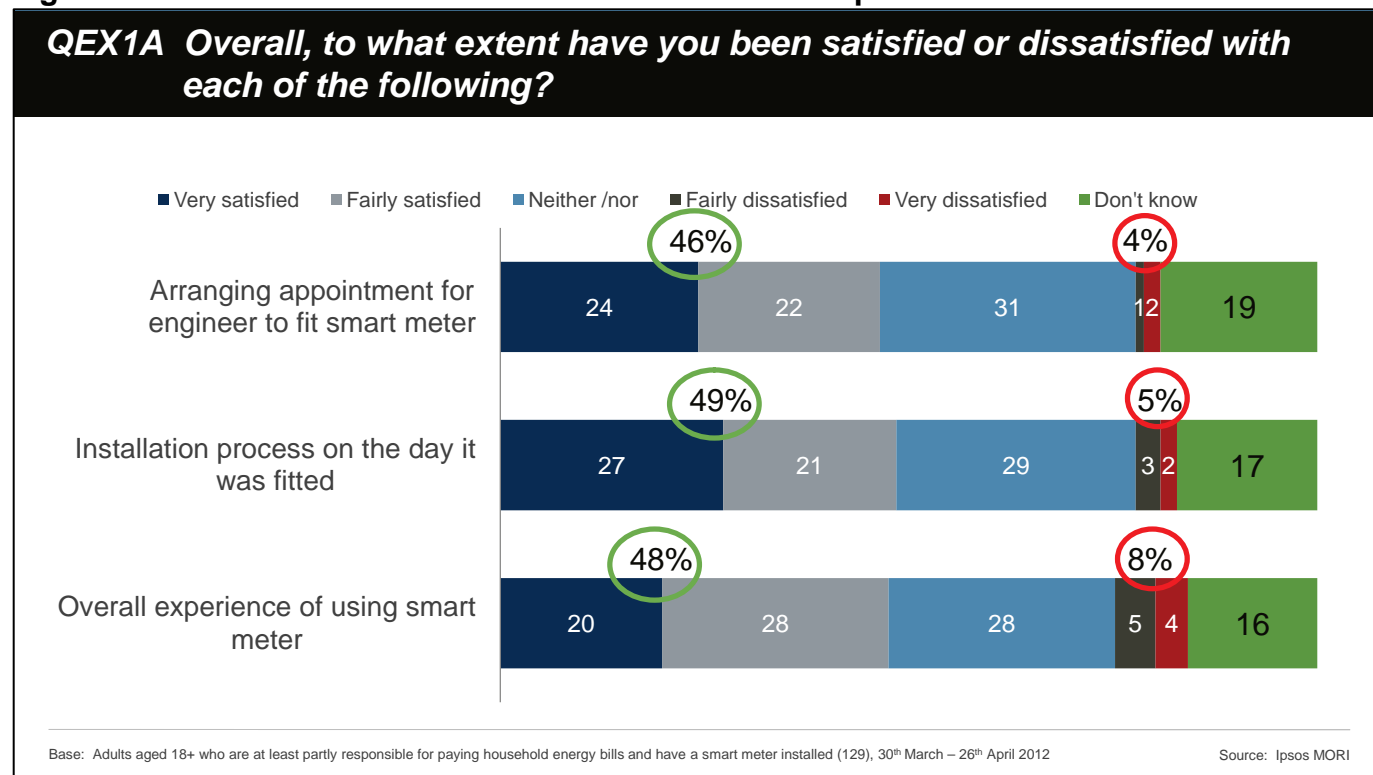
Respondents who claimed to be smart meter customers were much more likely to be satisfied than dissatisfied with the installation process and overall usage.

Those respondents who claimed to have a smart meter were asked about their relative satisfaction with the arranging the installation, and the installation itself, as well as the performance of the smart meter.

Smart meter customers were broadly positive about their experience of the appointment and installation process, as well as their overall experience of using the smart meter; around half were satisfied with all three of them. Only a minority were unsatisfied with these experiences, 4% for arranging the appointment, 5% for the installation and 8% for the overall experience of using the smart meter.

As mentioned previously, despite best efforts, there may have been some confusion over the definition of a smart meter and it is likely that not all of those who claimed to have a smart meter actually had one. The relatively high proportion of respondents who said that they 'don't know' or were neither satisfied nor dissatisfied about the installation process and the overall experience of using a smart meter are a strong indication of this.

**Figure 9: Satisfaction with smart meter installation and performance**



Around two in three expressed satisfaction with each statement, while dissatisfaction ranged from zero to 4%; the remaining responses were neutral. This suggests a correlation between good customer service and support for smart meter programme. Due to the small numbers of people having smart meters within each of the demographic breakdowns, very few statistically significant changes were found at this level.

## 2.3 Public attitude to IHDs

One in six bill-payers in Great Britain claimed to have an IHD in their home, with higher social grades and Direct Debit customers most likely to have one. Over half of those who claimed to have one said they looked at it at least occasionally (56%). Most check either the energy usage or the money display.

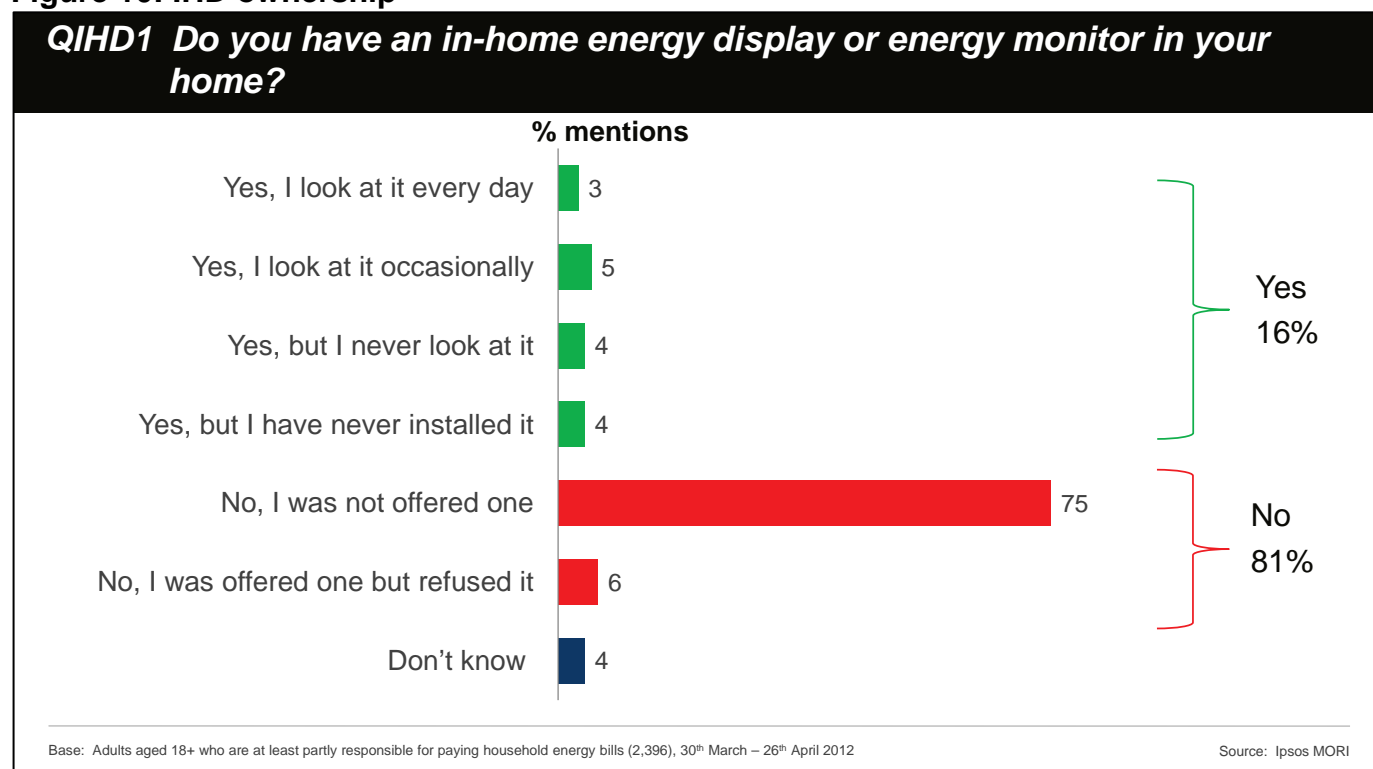
Customers tend to passively receive IHDs rather than actively request them and interest levels among those who do not have one were comparable to smart meters, with four in ten expressing interest. Interest is lowest amongst older respondents, single person households and those without qualifications.

Customers who look at their IHDs were generally positive about their impact in helping them understand and reduce their energy use. However, not everyone who received one is using it.

### 2.3.1 Ownership of IHDs

One in six bill-payers (16%) claimed to have an in home energy display (IHD). The majority do not have an IHD (81%), while 4% say don't know. However, only just over half of those (56%), who own an IHD claimed to look at it, while 22% have never looked at it, and a further 22% have not even installed it. This indicates that more needs to be done to encourage the use of IHDs when they are received.

**Figure 10: IHD ownership**



Ownership varied between demographic groups. The middle-aged were the most engaged, with bill-payers aged 35-44 the most likely to have an IHD in their home (20%) and those aged 75+ the least likely (8%). Those in higher social grades were also more likely to have an IHD in their home (21% of ABs falling to 12% of DEs) and were also more likely to look at it at least occasionally (13% vs. 5%).

Those without formal qualifications were half as likely as those with at least a degree to have an IHD (10% vs. 20%) and bill-payers with a higher household income were more likely (25% among households with income between £50k and £100k, compared to 11% with income less than £17,500).

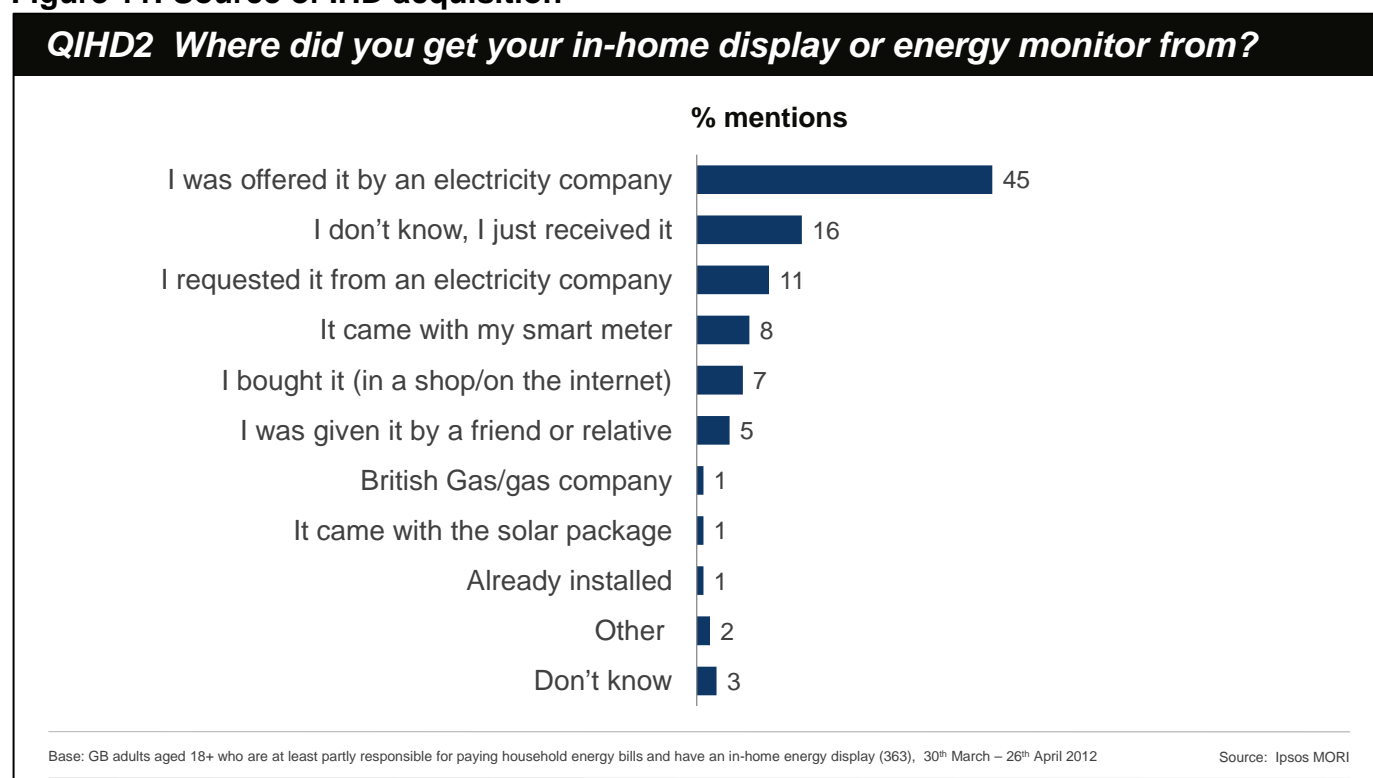
Households with at least one child were more likely than those with no children to have one (19% vs. 15%) and owner/occupiers were more likely to have one than those living in rented accommodation (17% vs. 13%).

Those who paid their electricity bills by Direct Debit were more likely to claim to have one in their home (18%), than those that paid by quarterly bill (14%) or using the Pre-Payment method (12%). This reflects the potential restriction of free IHDs on certain types of energy tariff.

Ownership of an IHD was lower among bill-payers with a disability (12% claimed to have one vs. 17% without).

### **2.3.2 Source of IHDs**

Most customers were passive recipients of IHDs rather than actively requesting or purchasing them. Most were offered it by an electricity company (45%), one in eight received it but were unsure of its origin (16%) and only one in ten specifically asked for it from an electricity company (11%). 8% said that it came with their smart meter and 7% bought it (in a shop or online).

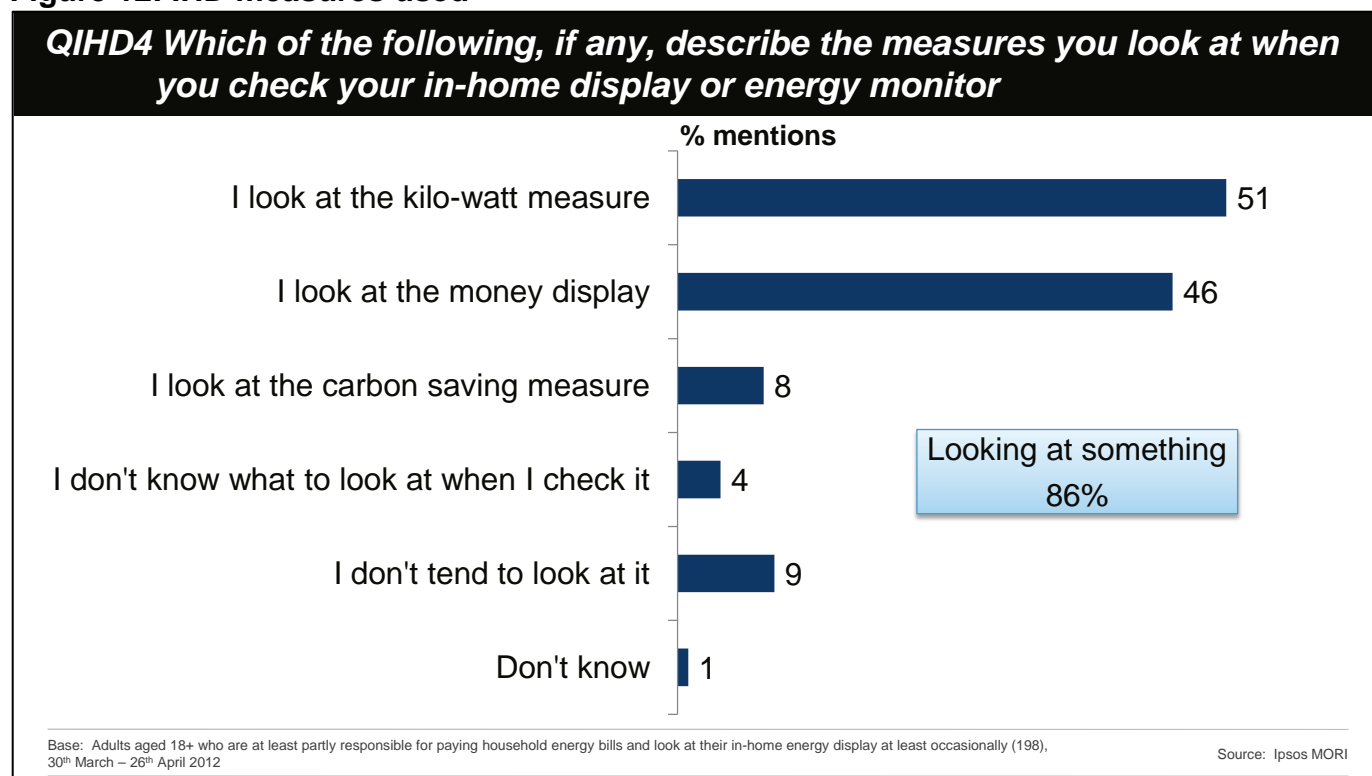
**Figure 11: Source of IHD acquisition**

The main demographic difference was seen among those who had received it but weren't sure where from; as many as a third of those with no formal qualifications said this (34%) and over a quarter of those in the DE social grade (28%). Renters were more likely to have said this than owner/occupiers (24% vs. 13%).

Those with access to the internet at work were most likely to have bought one themselves (13% vs. 7% overall).

### 2.3.3 Usage of IHDs

Energy usage and spend were both important features of the IHD. Among those that look at their IHD at least occasionally, half checked the kilo-watt measure (51%) and slightly fewer looked at the money display (46%). Only 8% checked the carbon saving measure and one in twenty-five did not actually know what to look for (4%).

**Figure 12: IHD measures used**

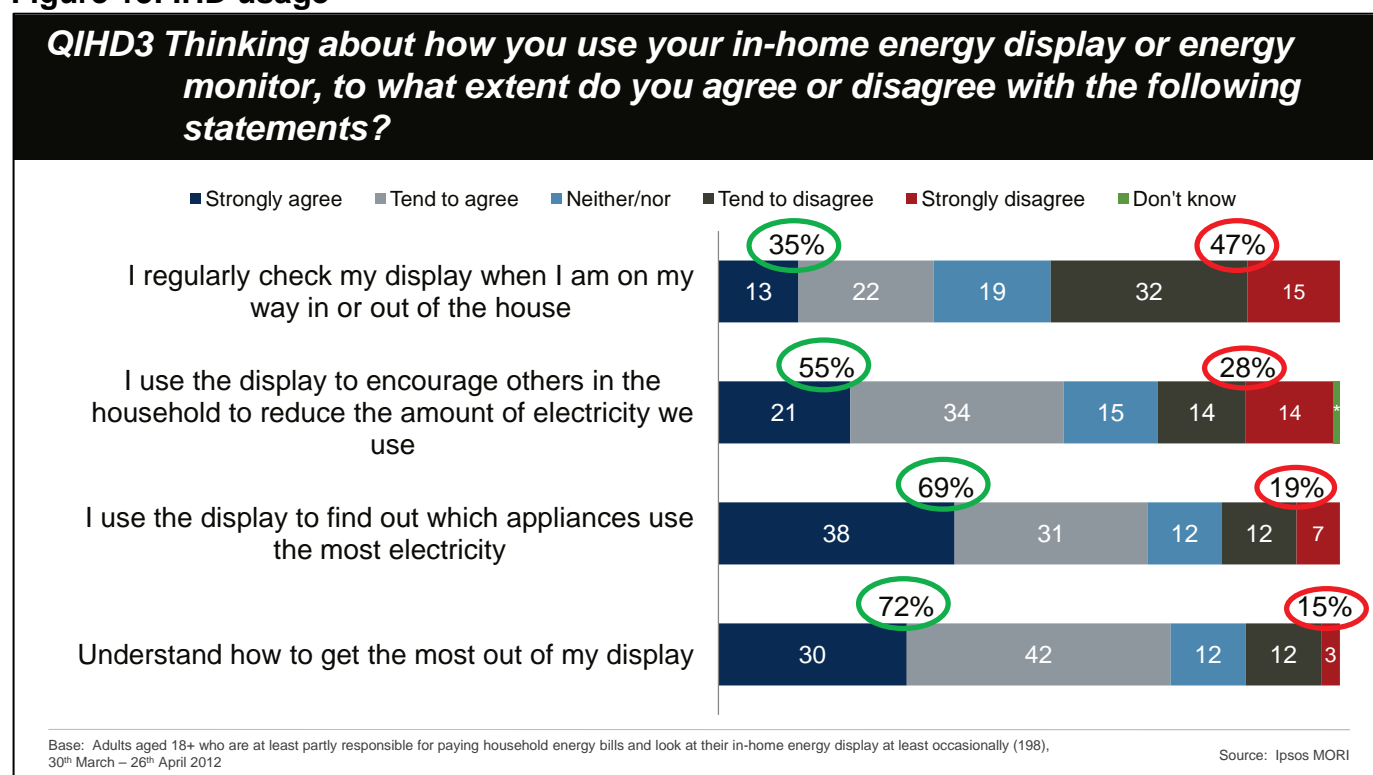
IHD users generally felt they knew how to get the most out of their display, and they are used in a variety of different ways, with the most common being to check the amount of electricity different devices use.

Over seven in ten bill-payers who look at least occasionally at their IHD agreed that they knew how to get the most out of it (72%). There is potential to increase knowledge, as one in six claimed they don't understand how to get the most out of their IHD (15%), in addition to those respondents who had not set-up or did not ever look at their IHD.

The majority of respondents who own and look at their IHD have used them to measure the energy efficiency of appliances (69%) and to influence others in their household to reduce their energy usage (55%). Over a third regularly checked their IHD on their way in or out of the house (35%).



Figure 13: IHD usage



The relatively small base size for those people who own an IHD and look at it, limits the potential for sub-group analysis. However a number of differences are noted below.

Women were more likely to use the IHD to encourage others in their households to reduce their electricity use; over three-fifths said this compared to fewer than half of men (64% vs. 48%). Those concerned about their household finances were also more likely to use their IHD to encourage others to reduce their electricity usage, with over six in ten saying this (63%) compared to only just over two-fifths of those who were not concerned (44%).

There was an indicative difference, rather than statistically significant, that households with children were more likely to use the display to encourage others to reduce their energy usage. This finding is line with the qualitative study which suggested that parents used displays to persuade children to behave more responsibly.

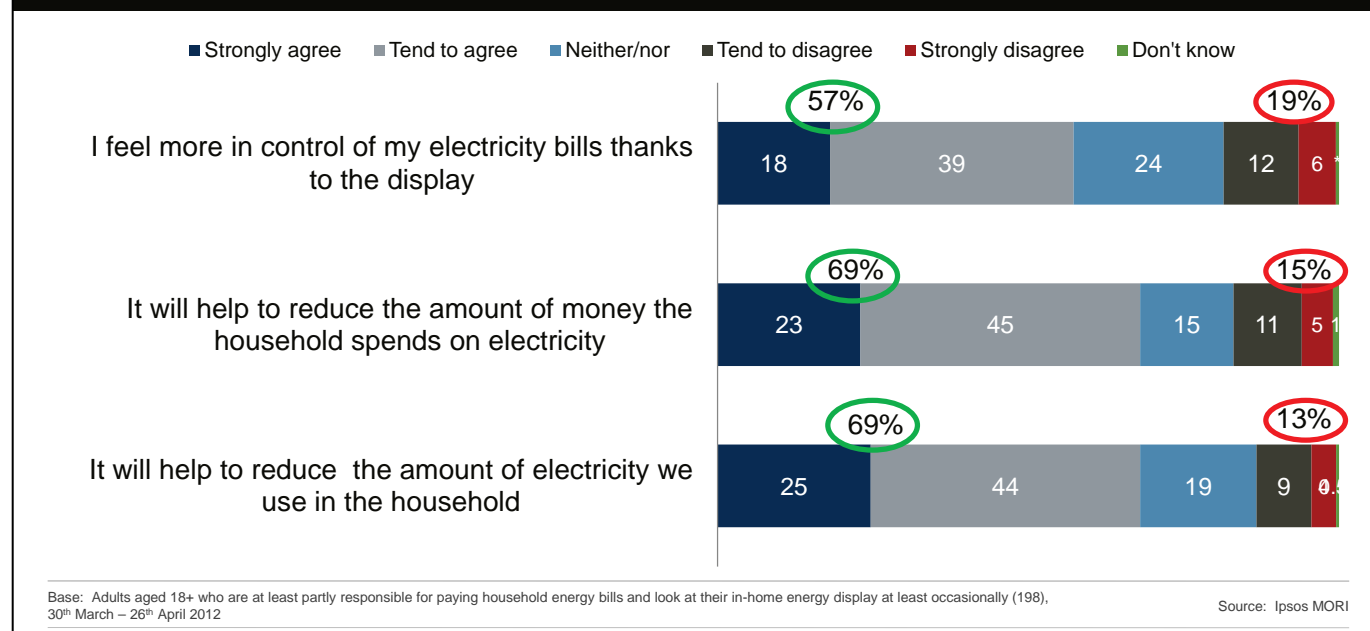
### 2.3.4 Perceived impact of IHDs

IHD customers were generally positive about the impact of the IHD on their electricity use and household finances. Almost six in ten bill-payers who look at their IHD agreed that they felt more in control of their energy bills thanks to the IHD (57%). However, almost a fifth disagreed with the statement (19%).

In addition, almost seven in ten believed that the IHD would help them reduce the amount of money they spend on electricity, and the amount of electricity they use in the household (69% each). It is important for future support of the roll-out programme, that these perceptions are realised and communicated to the wider public.

**Figure 14: 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?**

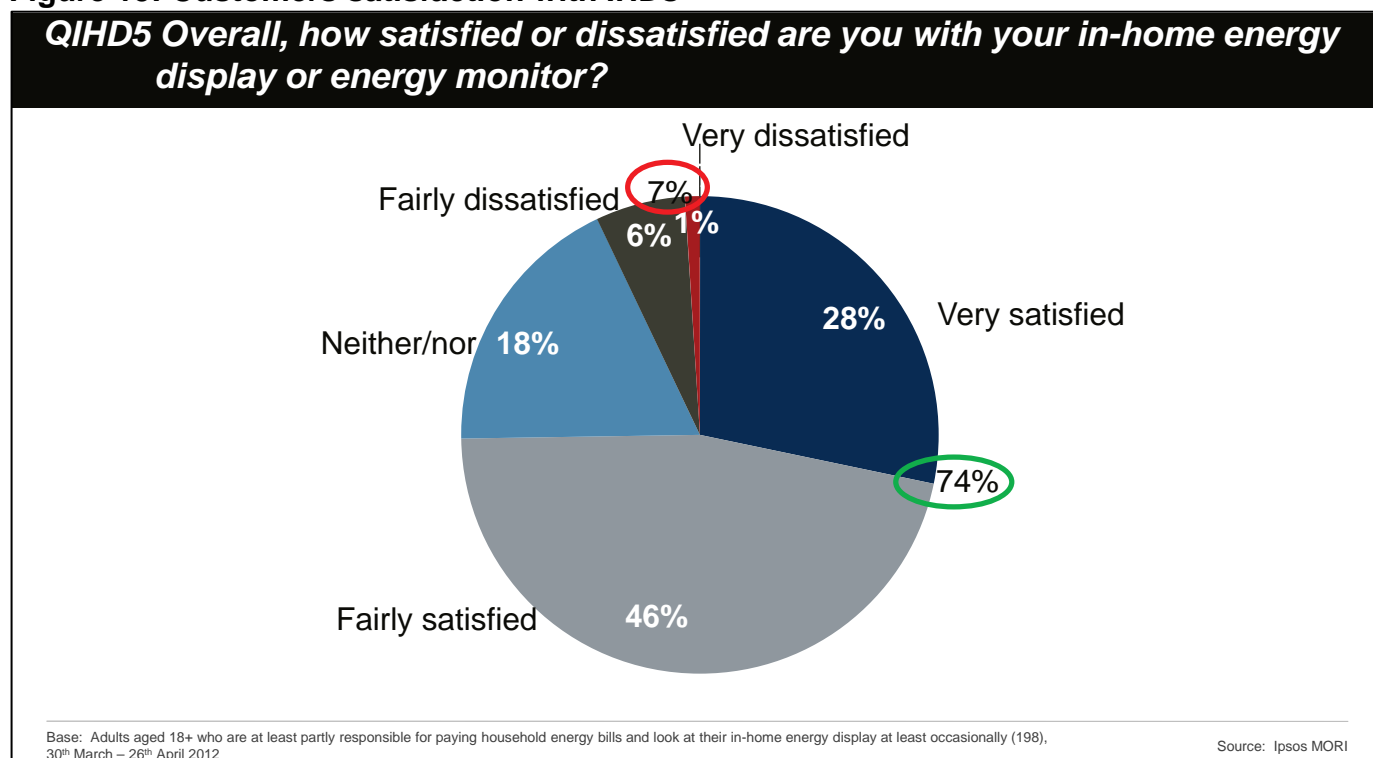


### 2.3.5 Customer satisfaction with IHDs

Reflecting the positive perceptions of IHDs, customer satisfaction with IHDs was relatively high. A majority were satisfied with their overall experience of using the IHD, more than a quarter being very satisfied (28%) and almost half being fairly satisfied (46%). Only 7% of respondents expressed dissatisfaction with the IHD.

Middle-aged respondents were most satisfied with their IHD (89%), with both the youngest and oldest age groups least satisfied (64% of those aged 18-24 and 60% of those aged 75+).

**Figure 15: Customers satisfaction with IHDs**

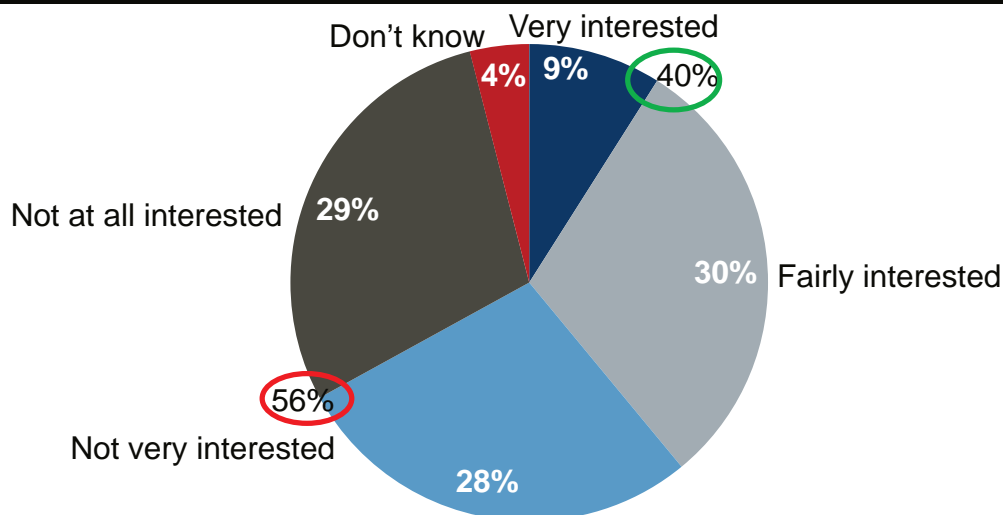


### 2.3.6 Future interest in IHD ownership

As with smart meters respondents were split as to their relative interest in having an IHD installed. Four in ten bill-payers without an IHD were interested in getting one in the near future (40%), while a majority of 56% said that they were not very interested or not interested at all.

**Figure 16: 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?**



Base: Adults aged 18+ who are at least partly responsible for paying household energy bills and do not have an in-home energy display (2,033), 30<sup>th</sup> March – 26<sup>th</sup> April 2012

Source: Ipsos MORI

Interest was again correlated with knowledge about smart meters. Those with either a great deal or fair amount of knowledge were more interested (48%) than average.

Interest in IHDs was higher amongst high energy users such as multi-person households with four or more people (50%) and households with children (50%), and lower amongst low energy users such as single person households (27%) and those without children (36%). In addition, wealthier households, with a household income of between £50,000 and £100,000 were more interested in IHDs than average (53%).

Interest in having an IHD installed was particularly high middle aged among younger adults, especially members of the 35-44 age group (51% were interested). In contrast just 28% of those aged 65-74 were interested and 17% of those aged 75+.

Respondents with no formal qualifications tended to be less interested, fewer than a third were interested (31%) which rose to almost half of those with at least a degree (45%) and, again, those with access to the internet were more likely to be interested than those without (44% vs. 26%).

Renters were more interested than owner/occupiers (48% vs. 37%), as were those who pay using Pre-Payment Meters (46% vs. 40% overall). Those who showed some concern about climate change (45%), their household finances (44%) and their energy bills (42%) were also more interested, as were bill-payers who support the installation of smart meters in every home (70% vs. 22% who oppose).

## 2.4 Further information needs

Only three in ten bill-payers expressed an information need around smart meters and IHDs. This was higher among certain groups such as the middle-aged, larger households and those who do not speak English as their first language. The most common information needs include functionality, costs and benefits.

Main sources of information about smart meters or IHDs for bill payers included the energy companies (32%), search engines such as google (32%) and word of mouth (24%).

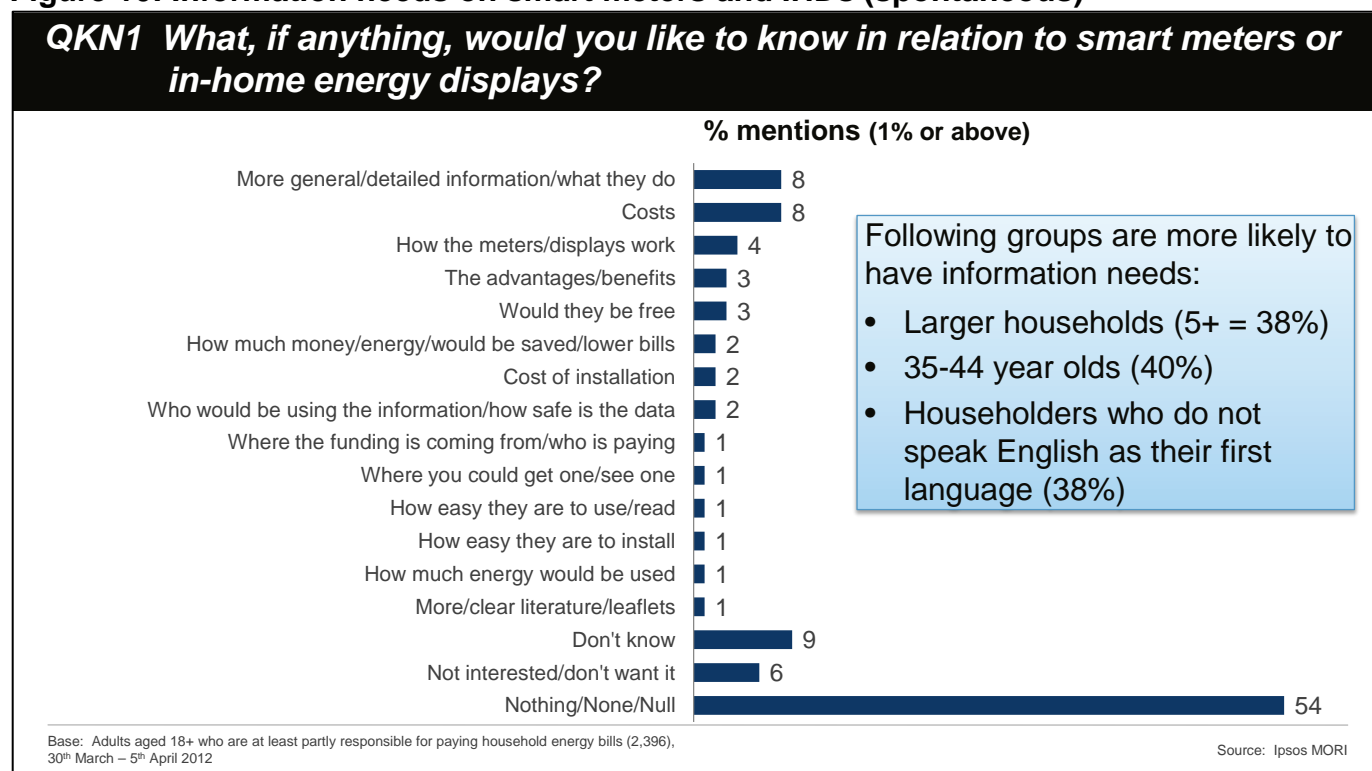
When prompted, the most trusted sources included energy companies, Which?, the government and EST.

### 2.4.1 Further information needs

Most bill-payers didn't express any specific information needs around smart meters and IHDs, but key mentions included functionality, costs and the benefits users could expect to achieve.

Over half of bill-payers claimed that they didn't wish to receive any more information about smart meters or IHDs (54%). Almost one in ten said that they "don't know" if they want any more information (9%), while just over one in twenty (6%) aren't interested in more information about smart meters or IHDs.

This leaves just over three in ten interested in more information about smart meters or IHDs (31%), with almost one in ten saying in general they wanted more detailed information about them (8%). Other leading responses included more information about costs (8%), how the smart meter and IHDs work (4%) and details on the benefits they are likely to generate from them (3%) and whether they would be free or not (3%).

**Figure 10: Information needs on smart meters and IHDs (spontaneous)**

Those aged 35-44 years old were most interested in finding out more about smart meters and IHDs in general with four in ten half mentioning a further information request. Younger respondents aged 18-44 were most interested in finding out more about the costs of the smart meter and IHDs; one in ten answered this (10%) compared to only one in twenty of those aged 65+ (5%).

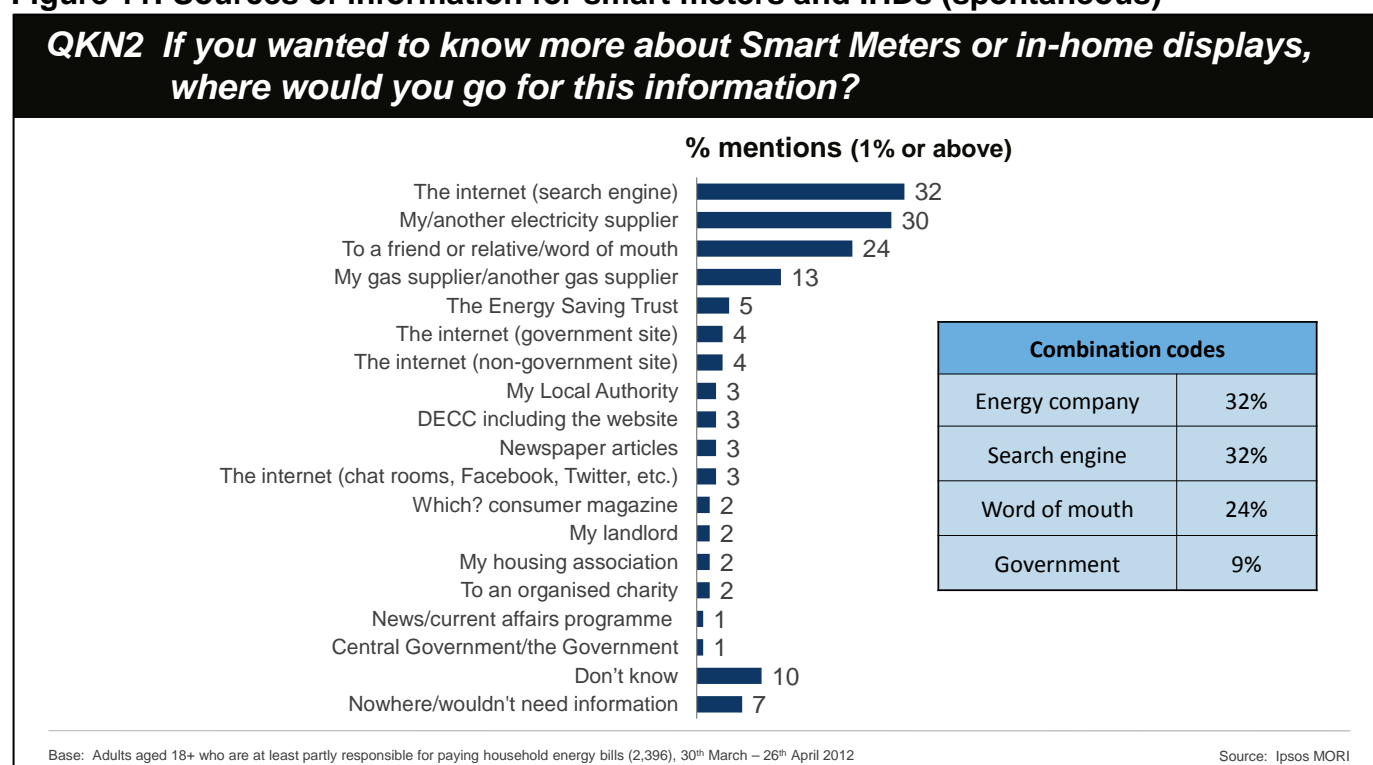
Larger households also tended to want more information; almost half of those in households with five or more people claim to want this (38%) compared to one in three overall (31%).

Almost four in ten of those who didn't speak English as their first language claimed they wanted more information (38%), compared to almost three in ten of those who do (28%).

## 2.4.2 Sources of information

Main sources of information about smart meters or IHDs for bill payers included the energy companies (32%), search engines such as google (32%) and word of mouth (24%). One in ten (9%) would currently look to a government source, which included DECC and its website (3%).

**Figure 11: Sources of information for smart meters and IHDs (spontaneous)**



Different demographics were more or less likely to use different sources of information.

Younger respondents aged 18-24 were less inclined to mention energy companies on average (23% vs 32%), whereas older respondents were more inclined to mention them (40% of those aged 65-74). However, older respondents were less likely to mention online search engines (11% of those aged 65+). Online search engines were less likely to be top of mind for those with no formal qualifications (13%), but much higher among those with at least a degree (43%).

Older people were more likely to get information from their friends or relatives, a third of those aged 75+ compared to only a fifth of those aged 18-44 (33% vs. 20%). Willingness to look for information from a governmental source was related to social grade, with those in the AB grade mentioning it twice as often as DEs (12% vs. 6%).

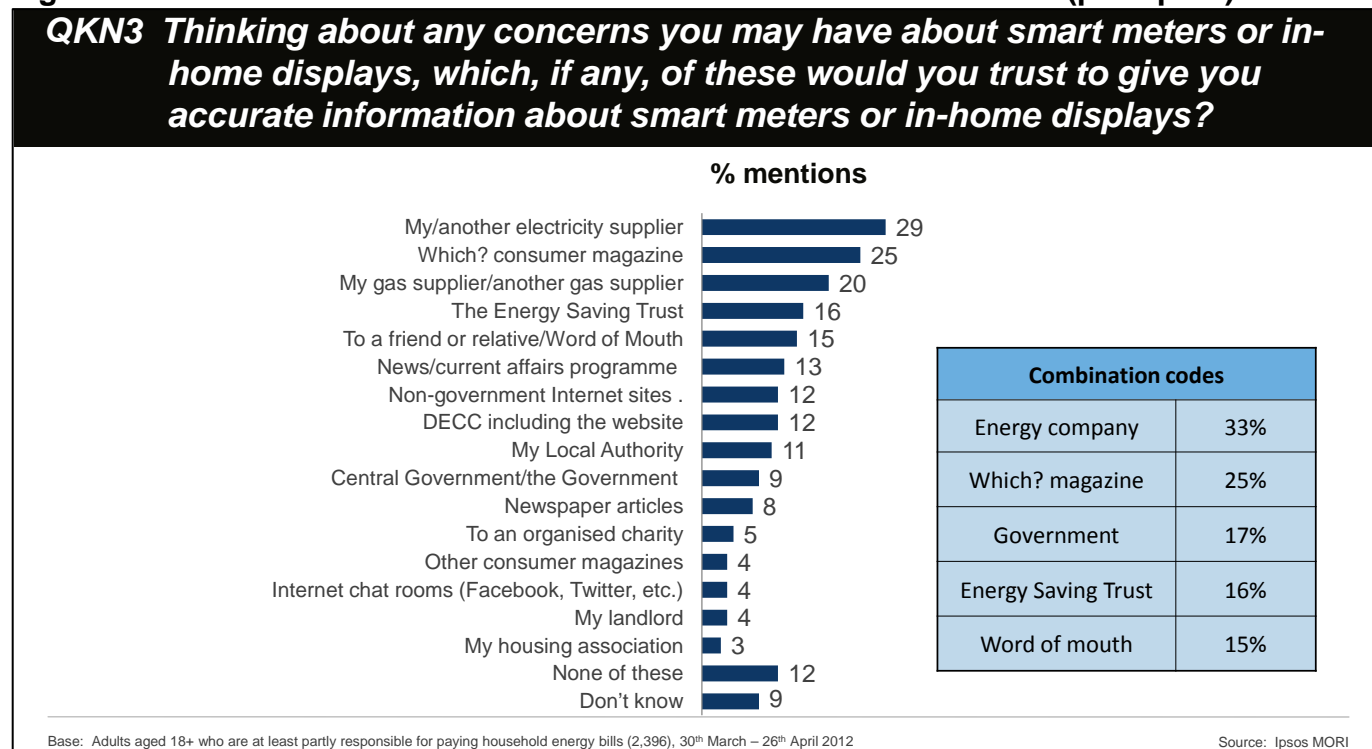
### 2.4.3 Trusted sources of information

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. The most trusted sources included energy companies, Which?, the government and EST.

A large proportion of people, a third, would trust information from an energy supplier (33%). This contrasts with other research, including the DECC qualitative study on smart meters, where respondents have expressed cynicism about energy companies.

Interestingly while Which? Consumer magazine was only mentioned spontaneously as a source of information by 2% of respondents, it was the second most trusted source when prompted (25%). Other leading sources included the Government (17%), the EST (16%) and word of mouth (15%).

**Figure 12: Trusted sources of information for smart meters and IHDs (prompted)**



Older bill-payers were more distrustful overall. One in four aged 65+ wouldn't trust any of the alternatives presented to give them accurate information (25% vs. 12% overall). In particular they were less likely to trust the government, (8%) compared to almost a fifth overall (17%).

While one in four respondents trusted Which? magazine on average, it was particularly high among those with a university degree (33%) and those in the higher social grades (36% of ABs compared to 16% of DEs). Trust for the EST was also higher amongst the higher social grades (23% compared to 16%). However trust in the energy companies showed no significant differences by social grade.

There were some differences by newspaper readership. Tabloid newspaper readers were more likely to trust energy companies than broadsheet readers (41% vs. 30%), however, they were less likely to trust the government, (13% vs. 22%).



### 3. Conclusions

The first wave of this study measuring public views on smart meters and IHDs has brought forward a number of interesting findings that will be important to consider in terms of the future strategy for the continued roll out of smart meters. The key conclusions from these findings are presented below.

**More needs to be done to increase awareness and knowledge of smart meters.** Only around half of all British energy bill payers are aware of smart meters, and of these people, only around one in four know a fair amount about them.

**How communications around smart meters are framed is likely to be important in terms of building support.** The data suggests these views can potentially be easily influenced in terms of how communications around smart meters are framed. The DECC qualitative study also highlighted the importance of how smart meters are framed, and that support may be higher if householders believe they have a choice rather than them being compulsory.

**IHDs are viewed positively by customers, but more needs to be done to ensure customers set them up and look at them.** Seven in ten 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 have either never looked at it or have not even set it up. This means that less 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.

**There is a correlation between interest in smart meters and IHDs and energy use, with households with high energy use most interested.** Interest in smart meters and IHDs was higher amongst certain key demographics that would be linked to high energy use such as larger households, including families with children, as well as wealthier households.

**Communications around smart meters will need to take account of the fact different demographic groups place different emphasis on the perceived benefits and concerns.** For instance younger bill payers tended to be more pre-occupied with finance and were more likely to mention budgeting as a benefit, but also the cost of a smart meter as concern. However middle aged respondents, while also recognising finance as important, were also more likely than average to mention other benefits such as accuracy of their bills or doing their bit for the environment. In terms of concerns middle aged respondents were more likely than average to be concerned about data security, whereas the elderly were more concerned about smart meters being easy to understand.

**The energy companies have an important role to play in communications on smart meters, but this can be supported by other key players such as Which? or EST.** 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 EST, as well as the government were also seen as important trusted sources, in particular amongst the higher social grades.

## **In summary**

Overall the research has shown the public's views on smart meters are still being formed, but there are positive signals. While half of British bill payers are undecided, the balance of opinion is in support rather than opposition to smart meters. In addition, the majority of householders are able to recognise a potential benefit to them, but unable to name a potential disadvantage. The following two waves will provide further insight into the direction of travel of public opinion, and what might be affecting this.

## 4. Appendix 1 – Technical details

### 4.1 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 are 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.

## 4.2 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)**

	<b>10% or 90%</b>	<b>30% or 70%</b>	<b>50%</b>
<i>Approximate size of sample on which survey results are based</i>	±	±	±
2,396 (bill-payers aged 18+)	1.2	1.8	2.0
1,208 (male bill-payers aged 18+)	1.7	2.6	2.8
442 (bill-payers aged 45-54)	2.8	4.3	4.7

*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 subgroups)**

	<b>10% or 90%</b>	<b>30% or 70%</b>	<b>50%</b>
<i>Approximate size of sample on which survey results are based</i>	±	±	±
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*

## 5. Appendix 2 – Questionnaire

### 5.1. Copy of the final questionnaire

#### Smart Meter Research for DECC

#### Questionnaire – Omnibus

##### Index

Energy UK Smart Meter question

Departmental public attitude tracker question

##### 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

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 is a picture of a smart meter:



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)

MUTIPLE ANSWER

DO NOT READ OUT

**Where did you hear about Smart Meters?**

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

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 electricity supplier/another electricity supplier (advertisement or information)
- 10) From my gas supplier/another gas supplier (advertisement or information)
- 11) Read about them in a newspaper article
- 12) Seen them on the news/current affairs programme (Panorama, World in Action, Dispatches, etc.)
- 13) Through the internet (search engine – Google, Bing, etc.)
- 14) Through the internet (chat rooms, Facebook, Twitter, etc.)
- 15) Through the internet (government site such as Directgov, etc.)
- 16) Through the internet (non-government site such as money-saving expert, Consumer Focus, etc.)
- 17) Which? consumer magazine
- 18) It was already installed when I moved in
- 19) Other (please specify)
- 20) 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) Radiation from the meter
- 11) Someone might lose their job (meter checker)
- 12) The data could get into the wrong hands
- 13) The data could lead to greater chance of terrorist attacks
- 14) The installation will be expensive for taxpayers
- 15) The cost will be passed on to energy bills/energy prices will rise as a result
- 16) Too ugly for my home
- 17) Other (please specify)
- 18) Nothing/no disadvantages
- 19) 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)

**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

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 your in-home energy display or energy monitor from?**

IF FROM ELECTRICITY COMPANY: **Did you request it or was it offered to you?**

- 1) I was offered it by an electricity company and said yes
- 2) I requested it from an electricity 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

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)

#### 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)  
OPEN-ENDED QUESTION

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

PROBE: **Anything else?**

WRITE IN FULL RESPONSE

**QKN2**

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

MUTIPLE 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****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

**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

© Crown copyright 2011  
Department of Energy & Climate Change  
3 Whitehall Place  
London SW1A 2AW  
[www.decc.gov.uk](http://www.decc.gov.uk)

URN