



The voice of the
smart meter rollout

Smart energy outlook

August 2017



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Research methodology

Populus, an independent market research agency, conducted 9,494 interviews using a bespoke online survey, designed to be representative of the adult population of Great Britain aged 21+. The interviews took place between the 18th and 31st May 2017.

Previous publications of *Smart energy outlook* used a representative sample of the adult population of Great Britain aged 18+. Billing responsibility amongst 18-20 year olds is very low in comparison to the rest of the British population.

Smart meter customers featured in this publication did not necessarily take part in the Populus research.

Executive summary

Background

Almost seven million smart gas and electricity meters have now been installed across Great Britain.* The national rollout of smart meters will see 26 million households in England, Scotland and Wales upgraded by their energy supplier at no extra cost – the biggest transformation to our energy infrastructure in a generation.

Energy is a fundamental necessity for every home. But without a modern and digitised system, gas and electricity remains invisible. It is difficult to keep under control, hard to understand, and impossible to monitor costs accurately.

People with smart meters no longer need to rely on guesswork when it comes to household energy. Smart meters take accurate meter readings and send them to energy suppliers via a secure, wireless network – meaning an end to estimated bills.

Smart meters also empower consumers with the information they need to get their gas and electricity under control. Every upgrade will include a handheld in-home display (IHD), which shows near real time information on energy use, in pounds and pence. A language we can all understand.

The digitisation of Britain’s energy system is well underway and, as this report will show, it is already transforming the way consumers buy and use energy.

Smart energy outlook is the largest independent barometer of national public opinion on energy and smart meters, with a sample of almost 10,000 people across Great Britain.

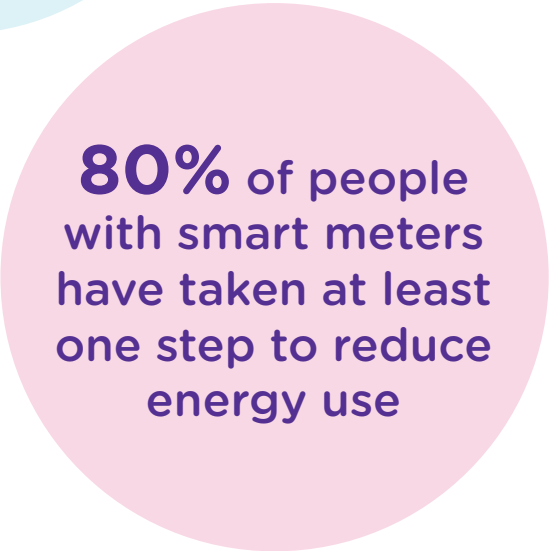
Published biannually and now in its third year, it provides an accurate snapshot of people’s awareness of smart meters and appetite to upgrade to the new technology across Great Britain. It also explores experiences of buying and using energy – and the impact of smart meters on those experiences.



97% of people across Great Britain are aware of smart meters**



49% would like to get one in the next six months***



80% of people with smart meters have taken at least one step to reduce energy use

*Department of Business, Energy and Industrial Strategy (BEIS), Smart Meters, Quarterly Report to end March 2017. Number of smart meters operating across homes and businesses in Great Britain

**Based on adult population of 48 million aged 21+ (ONS). Throughout this report, all references to people refer to this 21+ adult population

***Number of people who would like to get a smart meter in the next six months, of those who haven't upgraded yet. See p.9 for further detail

82% of people with smart meters have a better idea of their energy costs

Latest findings

An energy transformation is taking place across Great Britain, but it's not just our energy infrastructure that's changing. The people across Britain, who use energy day in day out to power their homes, are picking up on the smart meter revolution too.

The smart meter rollout has become part of our national public consciousness, with this *Smart energy outlook* report showing that nearly 100 per cent of the population of Great Britain is aware of smart meters.

Amongst those who haven't upgraded to the new technology yet, the enthusiasm to get a smart meter installed soon is also high. Almost half of people in Great Britain without smart meters say they would like one in the next six months.

For those who already have a smart meter, *Smart energy outlook* shows that smart meters are a huge motivator when it comes to behaviour change and reducing energy waste at home. Eight in ten people with a smart meter have taken steps to reduce their energy use, with high numbers also reporting greater consciousness around energy being used. People with smart meters are also more confident in their experience of using and buying energy, particularly when it comes to feeling informed about which energy supplier and tariff is right for them.

Smart energy outlook also shows that uptake of IHDs is high, with nine in ten people choosing to use the handheld device in their home. IHDs are also the most prevalent piece of tech for keeping a keen eye on energy use, with nearly three quarters of people checking their IHD regularly* and more than half of that number checking their IHD daily.

People across Great Britain remain overwhelmingly satisfied with their smart meters, with 76 per cent saying they would recommend one to others. And as the pool of people with smart meters grows, the number of people who would recommend the new technology does too - now more than 4.5 million people.

76% of people with smart meters would recommend them to others

74% of people with an IHD check it regularly

70% of people with smart meters feel more in control of their energy use

*At least a few times a month

Smart meters -
awareness, detailed
knowledge, and
people who would
like to upgrade

Almost everyone in Great Britain is aware of smart meters

The digital transformation of our energy system is fast becoming the social norm, with people overwhelmingly in the know about the modern smart meters available to them.

Awareness of smart meters is exceptionally high, with almost the entire population of Great Britain* saying they have heard of them.

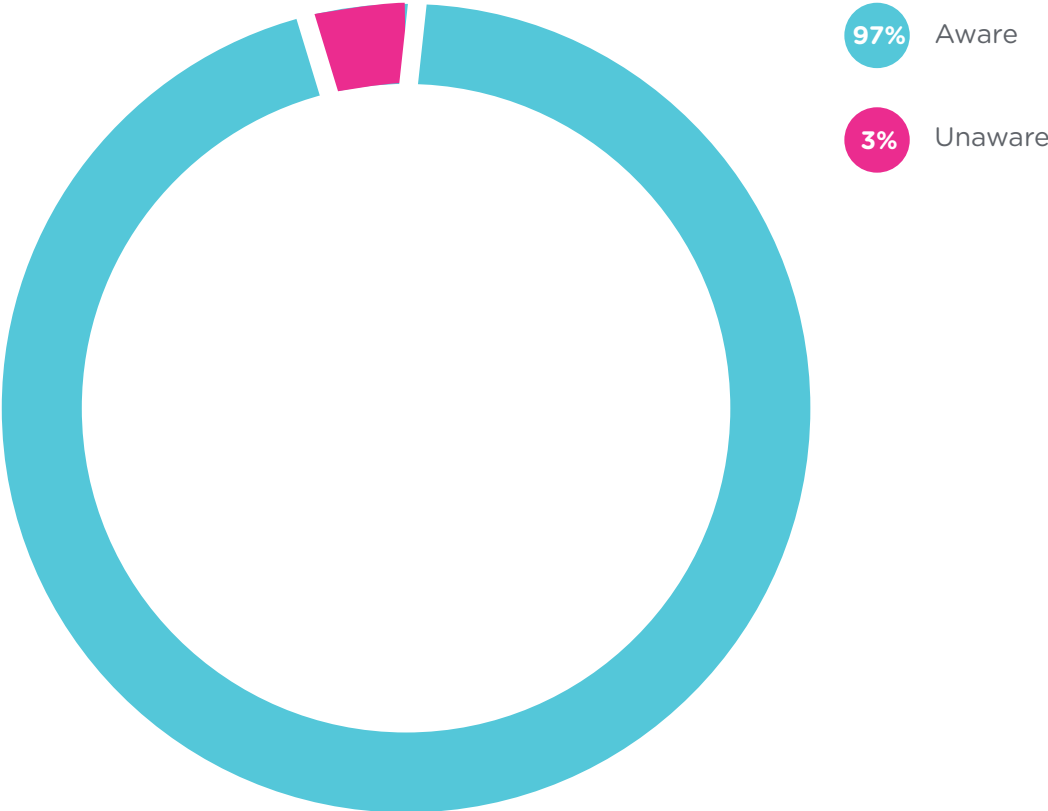


Figure 1. Percentage of people who say they are aware of smart meters

*Based on adult population of 48 million aged 21+ (ONS)

Millions of people across Great Britain would like to get a smart meter

Awareness of smart meters has already reached an impressive point – and the appetite to get a smart meter installed soon is not far behind.

At this point of the national rollout, 12 per cent of the population already has a smart meter in their home. This means more than one in ten people are reaping the benefits of accurate bills and near real time information in pounds and pence.

And nearly half of those who haven't upgraded yet are already saying they would like to get one – 49 per cent of people would request a smart meter or accept an offer for one in the next six months.*

This equates to more than 20 million people in Great Britain** who are keen to get a smart meter installed in their home soon.



Figure 2. Percentage of people who say they have a smart meter in their home***

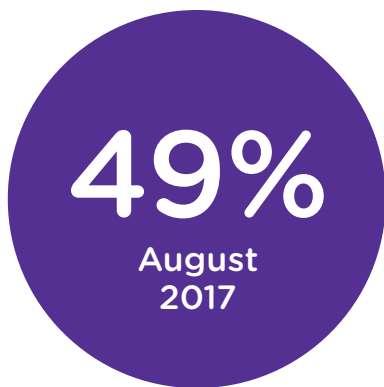


Figure 3. Number of people who would like to get a smart meter in the next six months, of those who haven't upgraded yet

*This refers to the people who haven't upgraded to a smart meter yet, but who say they are likely to contact their energy supplier about a smart meter installation or accept an offer of one, within the next six months. We no longer report on propensity to adopt, which measured the entire population and included people who already had a smart meter

**Based on adult population of 48 million aged 21+ (ONS)

***People who say they have a smart meter in their home are only included in this number if they have detailed knowledge of the key facts about smart meters

The appetite to upgrade to smart meters is consistent across Great Britain

More than 20 million people across Great Britain would like to get a smart meter installed in the next six months. The proportion of people who would like to upgrade remains consistent across

Great Britain, with people in the North East and Scotland particularly likely to request a smart meter or accept an offer for one in the next six months.

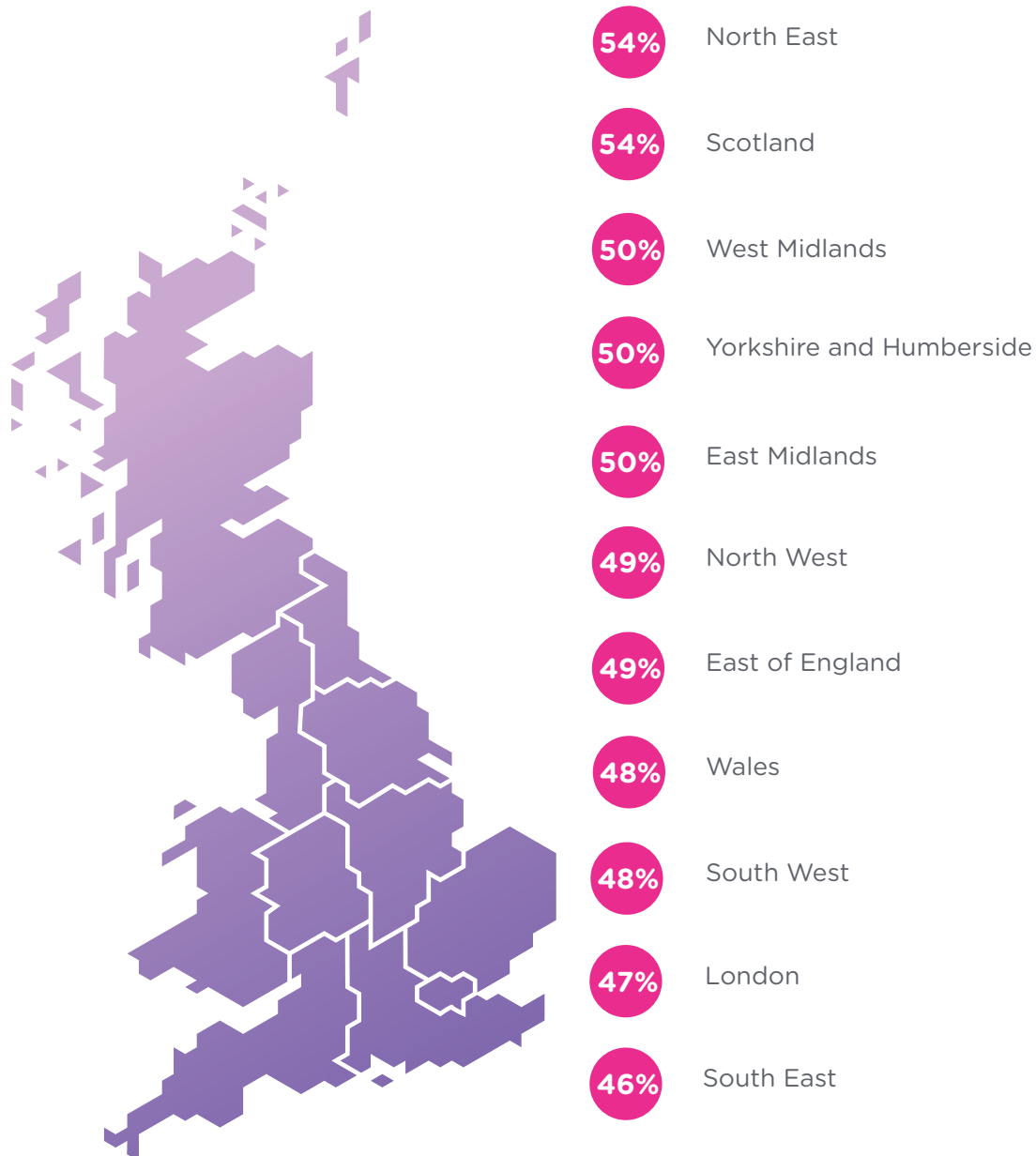


Figure 4. Geographical breakdown showing number of people who would like to get a smart meter in the next six months, of those who haven't upgraded yet

People’s appetite to upgrade to a smart meter in the next six months is strong across different demographic groups

Likelihood to request a smart meter or accept an offer of an installation in the next six months varies across demographic groups.* Young people and those renting

privately owned properties are particularly likely to want to upgrade to a smart meter in the next six months.

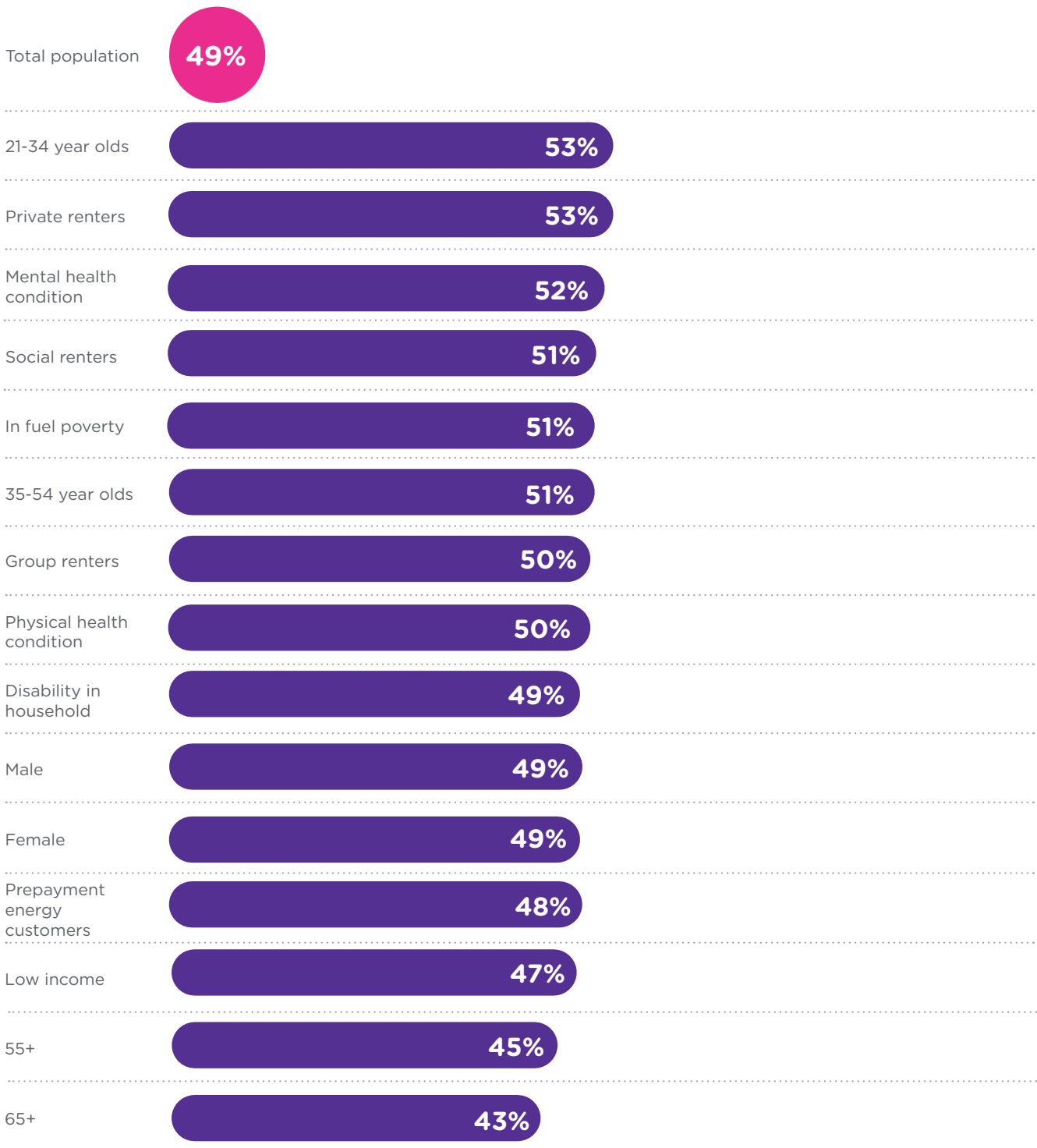


Figure 5. Demographic breakdown showing number of people who would like to get a smart meter in the next six months, of those who haven’t upgraded yet

*See p.30 for definitions of demographic groups

More than half the population of Great Britain has detailed knowledge about smart meters

Almost everyone is aware of smart meters, but levels of detailed knowledge are also high when it comes to key facts about the new digital meters.

Across England, Scotland and Wales, 55 per cent of people have detailed knowledge of what smart meters are and what they do, as well as how they can get one.

Within the population of adults aged 21 or over in Great Britain,* that's more than 26 million people who know what a smart meter is in detail.**

People who are counted in this number must be able to recognise that:

- you can only get a smart meter from an energy supplier
- smart meters give you accurate bills instead of monthly estimates
- smart meters allow you to see your energy use in pounds and pence, in near real time



Figure 6. Detailed knowledge of what a smart meter is among the population of Great Britain

*Based on adult population of 48 million aged 21+ (ONS)

**Changes to methodology

- Previous publications of *Smart energy outlook* used a representative sample of the adult population of Great Britain aged 18+. Billing responsibility amongst 18-20 year olds is very low in comparison to the rest of the British population. A sample of the adult population aged 21+ is now used
- The wording of the installation question has been updated from previous reports, to reflect that smart meters can only be obtained from an energy supplier but may be installed by a third party

Knowledge that smart meters provide information in pounds and pence is particularly high

When it comes to having detailed knowledge of smart meters, people need to understand three facts that make up detailed knowledge. The population of Great Britain is particularly in the know when it comes to each of these individual key facts about smart meters.

Around three quarters of those surveyed are aware that smart meters show you how much energy you're using in pounds and pence. A similar proportion knows that smart meters provide accurate bills, and that you can only get a smart meter from an energy supplier.



Figure 7. Percentage of the population that understands each standalone component of the three overall components that make up detailed knowledge of what a smart meter is

Knowledge about smart meters is high across the country

Detailed knowledge of smart meters is impressive across the country, with Wales and the North East showing particularly high levels of detailed knowledge.

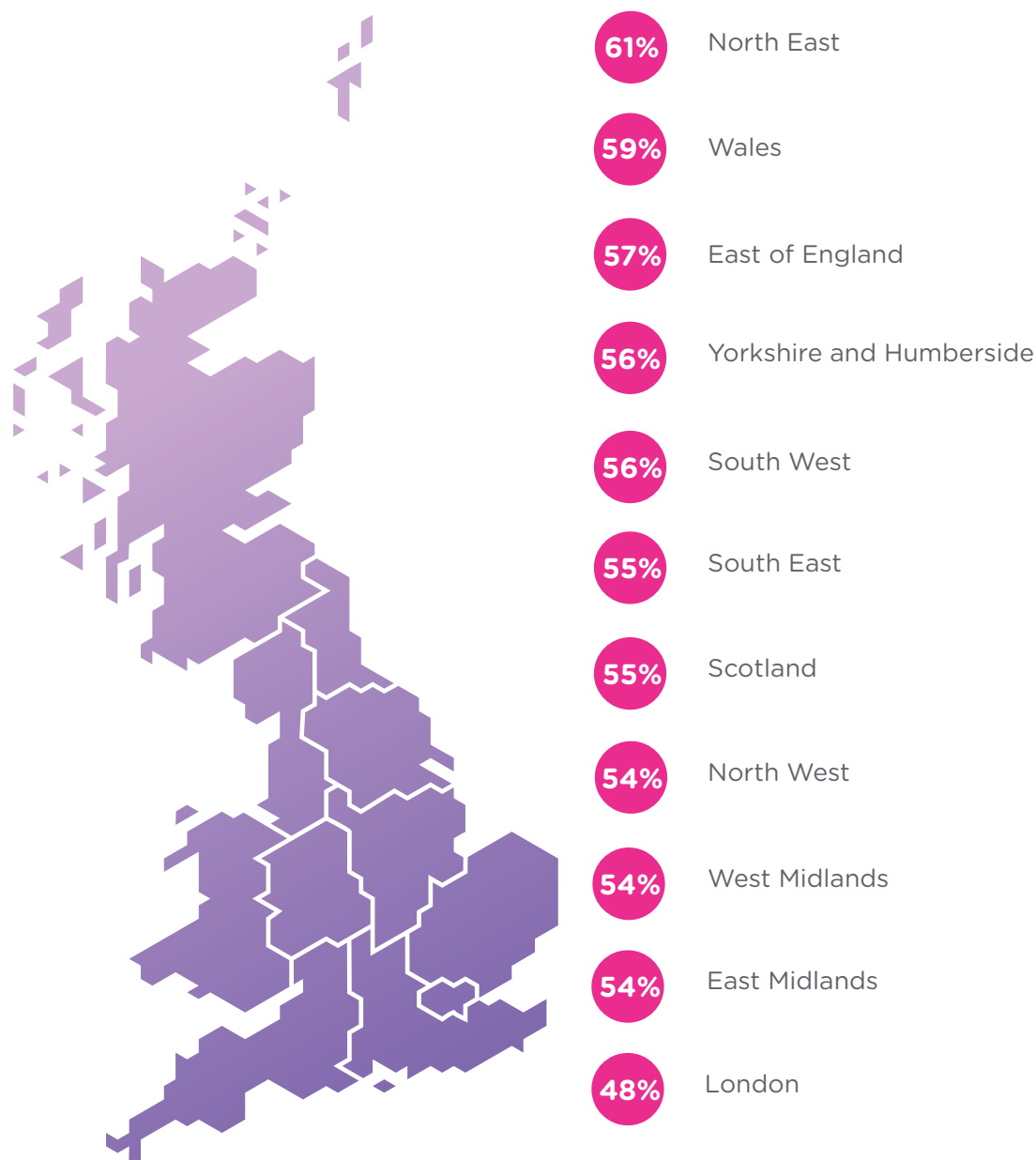


Figure 8. Geographical breakdown showing detailed knowledge of smart meters across Great Britain

Detailed knowledge varies across different demographic groups

Detailed knowledge is high across most demographic groups,* but some groups are more likely to have knowledge of key facts about smart meters than others.

The older you are, the more likely you are to have detailed knowledge of the new

technology, with the 55+ and 65+ groups both exceeding the national average for detailed knowledge by 10 and 11 percentage points respectively. People with a physical health condition or a disability in their household also have a higher than average level of knowledge about smart meters.

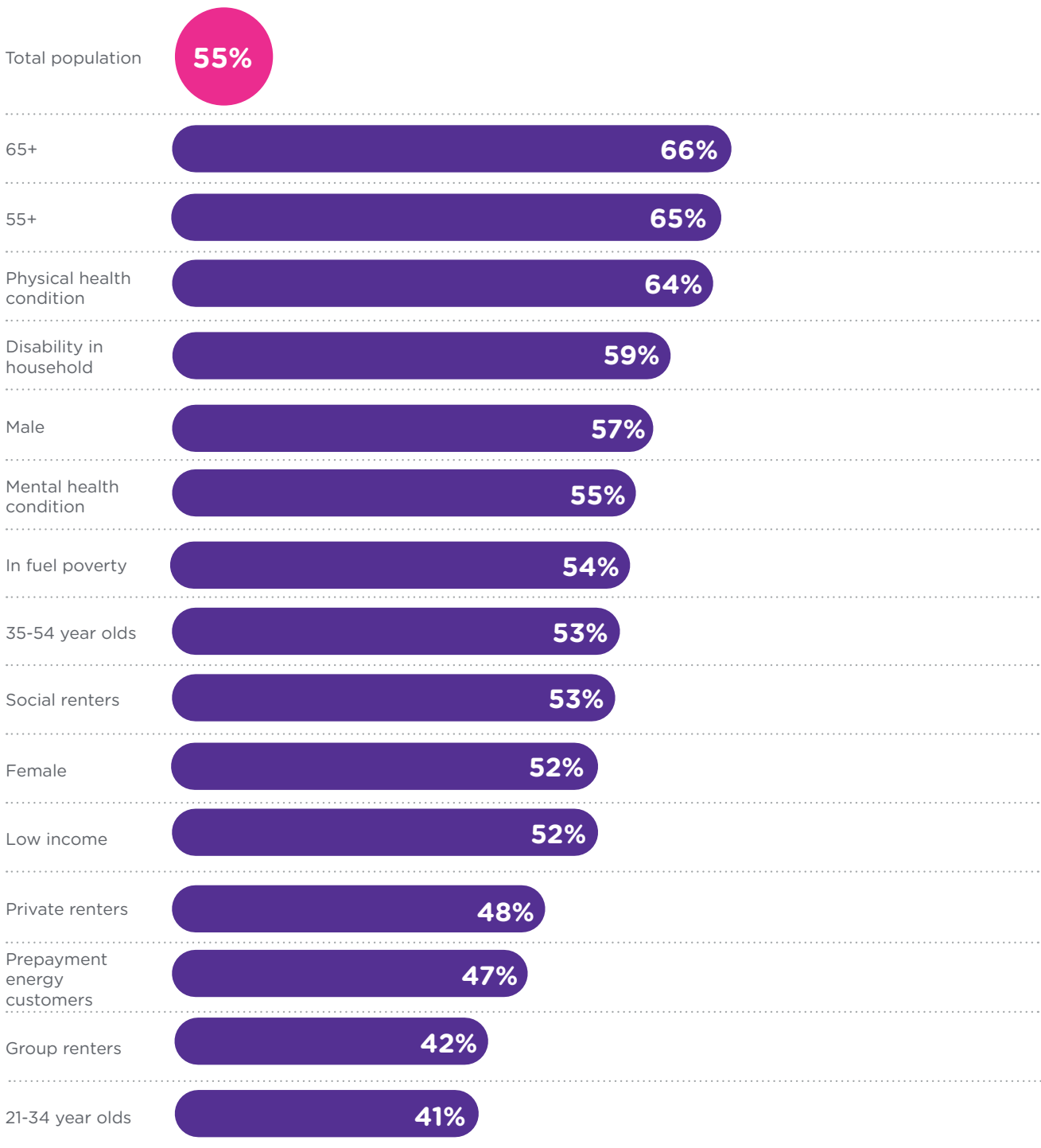


Figure 9. Detailed knowledge of smart meters broken down by demographic subgroup

*See p.30 for definitions of demographic groups

Case study:

Gen Shaw, Milton Keynes, Buckinghamshire

Gen loves the control her smart meter has given her when it comes to household energy. She no longer has to give meter readings or deal with the stress of estimated bills. She lives with her partner and two children in a three-bed semi in Milton Keynes.

“I decided to have a smart meter installed soon after someone came to read my meter and recommended the new technology to me. I used to have to go into my cupboard and manually get the readings and he said if I upgraded to a smart meter, I wouldn't have to do that anymore or deal with estimated bills.

“The installation was easy-peasy, really quick and no problems at all.

“Having a smart meter has given me so much more control. I no longer need to worry about whether I will be in debt or if I might end up in credit, which I just didn't know before.

“To be honest I didn't use to understand how billing worked at all but now, with my smart meter and in-home display, I can

see how much I have used over the past month and keep an eye on how much I am actually using at any given time. I also really like being able to see what our energy is costing in pounds and pence.

“I particularly like the coloured lights on the in-home display, which change from green to amber to red depending on how much energy we're using. It's a really quick and easy way to see if something is using a lot of energy or if you have left something switched on.

“One time just after we had the smart meter installed, the lights had changed to red and the kids started running around the house turning things off to get it to turn back to green.

“I keep the in-home display in the kitchen next to the kettle and I keep an eye on the colours every day and then I check every three weeks to see how much we are spending over the current month. Since getting our smart meter we have saved about £15-20 a month, most of which has been from our electricity bills.”



Smart meters -
the verdict from those
who already have one

Around three quarters of people with smart meters would recommend them to friends and family

Nearly two million more smart meters are now operating since the last *Smart energy outlook* report – meaning almost seven million smart meters are now operating across Great Britain. As more consumers experience managing their energy in the digital age, satisfaction with smart meters remains overwhelmingly high. Seventy six per cent of those who have upgraded to a smart meter would recommend them to their friends and family.

And as the pool of people with smart meters grows, so does the number of people likely to recommend, with more than 4.5 million people with smart meters in Great Britain giving the new technology the thumbs up. That’s an increase of nearly one million people reporting high levels of satisfaction with their smart meter since the last *Smart energy outlook* report.

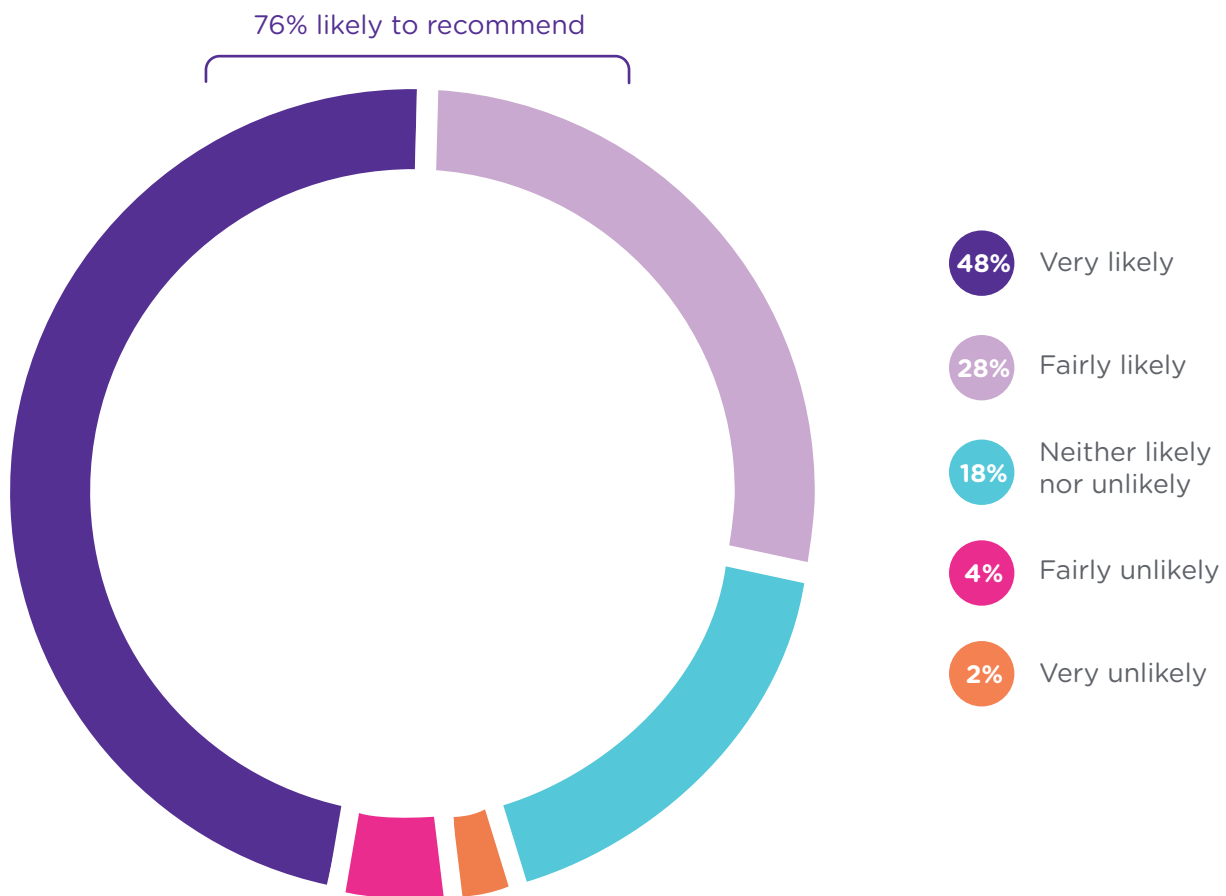


Figure 10. Likelihood to recommend a smart meter to others (among people with smart meters)

*Department of Business, Energy and Industrial Strategy (BEIS), Smart Meters, Quarterly Report to end March 2017. Number of smart meters operating across homes and businesses in Great Britain

People using smart prepay are particularly likely to recommend smart meters

People across all demographic groups* report a high level of satisfaction with their smart meters. People using smart prepay are particularly happy with their

smart meter upgrade, with almost nine in ten likely to recommend. Young people and people with children at home are also extremely positive about their smart meters.

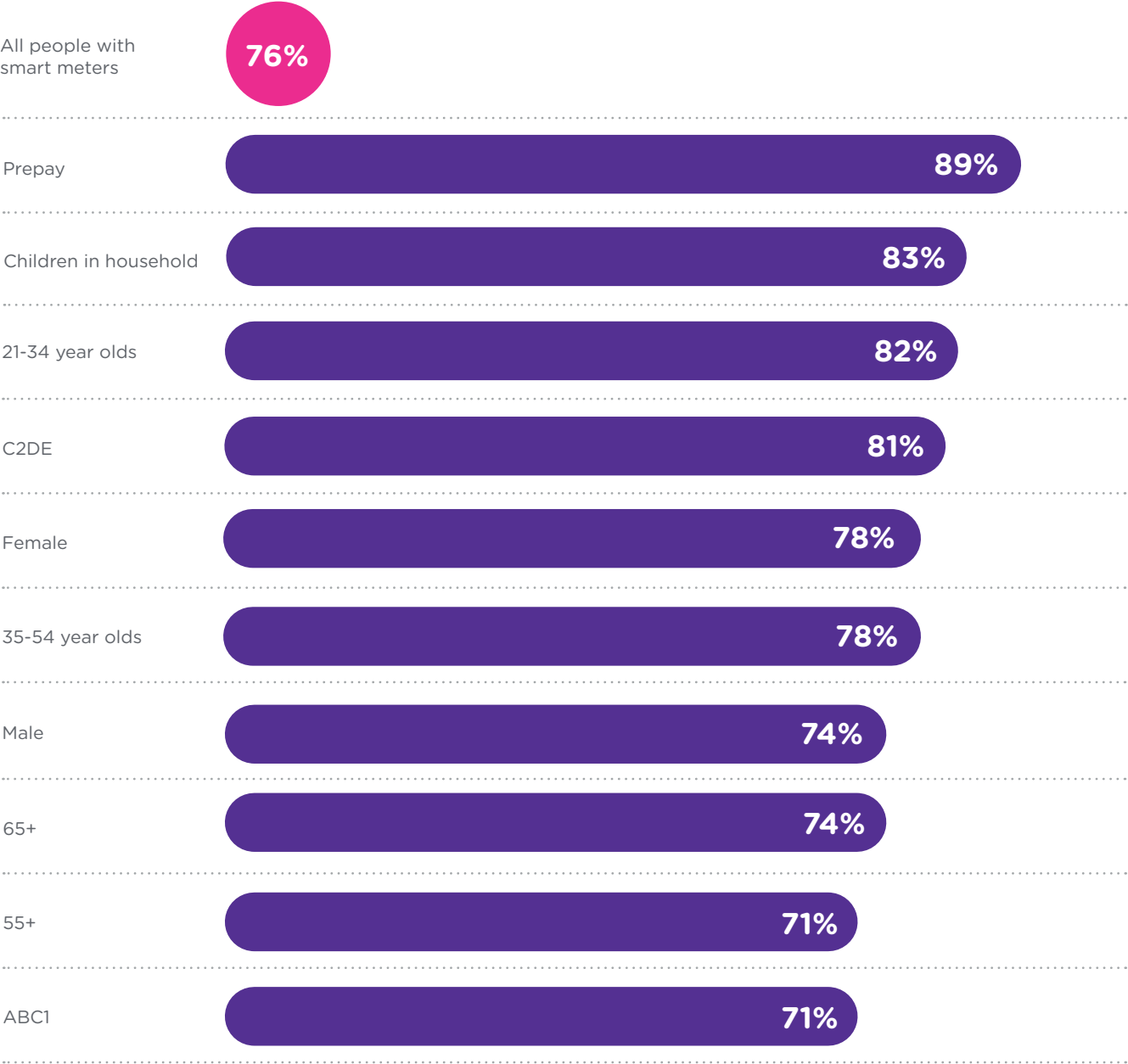


Figure 11. Likelihood to recommend a smart meter to others - demographic breakdown

*See p.30 for definitions of demographic groups

Seeing energy use in pounds and pence is the principal appeal of smart meters

Having immediate access to information about energy use is a key benefit of moving from an analogue energy system to digital smart meters. Visibility and keeping track of costs is a priority for most, with almost six in ten people viewing the availability of energy use in pounds and pence as a top benefit of smart meters.

Receiving accurate bills instead of estimates is another particular appeal for consumers, but there is also interest in availability of smart meters at no extra cost, and the flexible time-of-use tariffs that smart meters will enable.

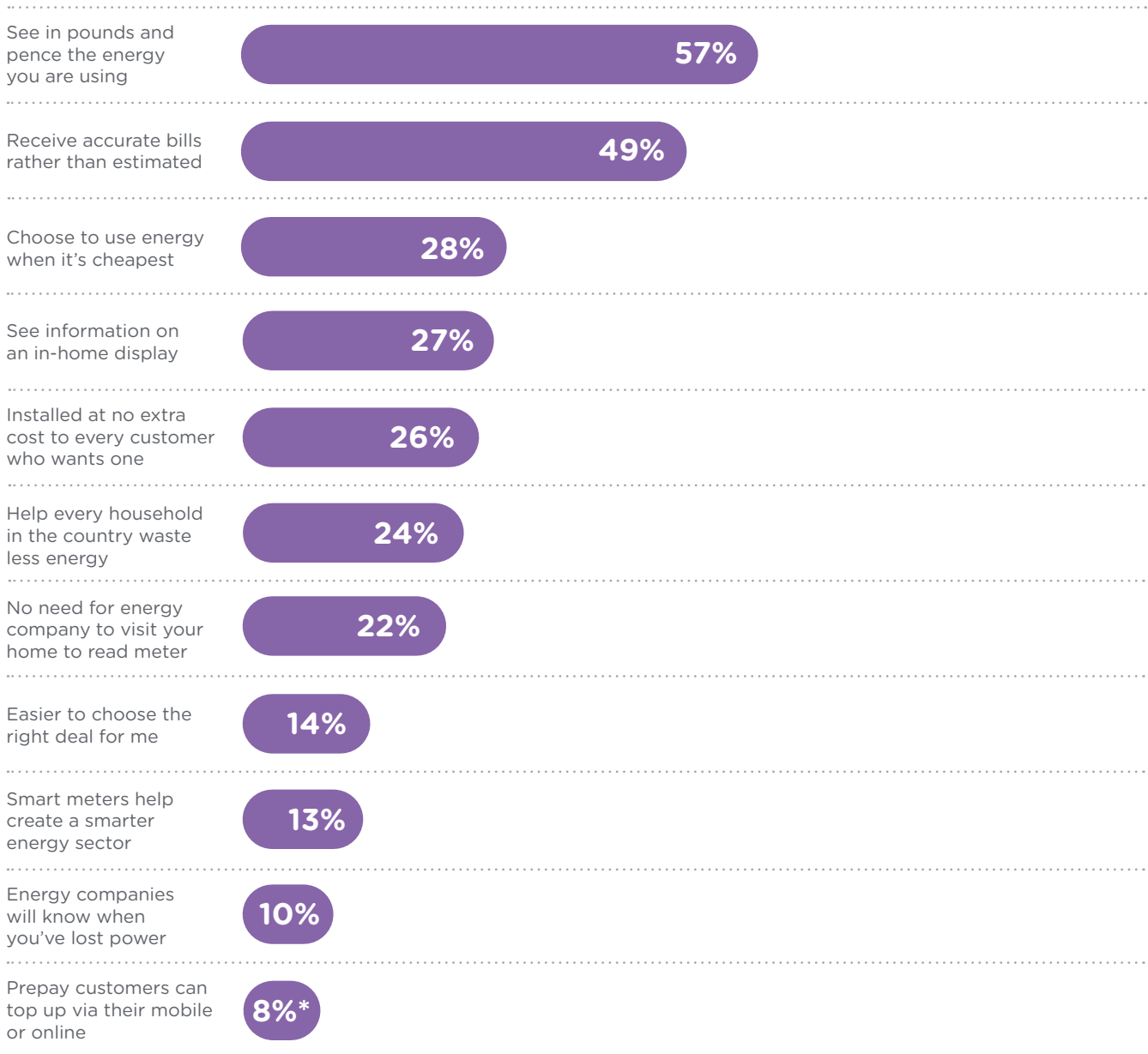


Figure 12. The appeal of smart meters (top three selected by those who have detailed knowledge of what a smart meter is)

*This figure is a percentage of all GB adults who have detailed knowledge of what a smart meter is. Among prepayment customers who have detailed knowledge of what a smart meter is, this figure is 48 per cent

8 in 10 people with smart meters have taken steps to reduce energy waste

The majority of people with smart meters have made changes to the way they use energy at home, and nearly one in three has encouraged others to do the same.

Many people are taking small steps to combat energy waste and be more sustainable, such as turning off unused lights and using appliances in more energy-efficient ways.

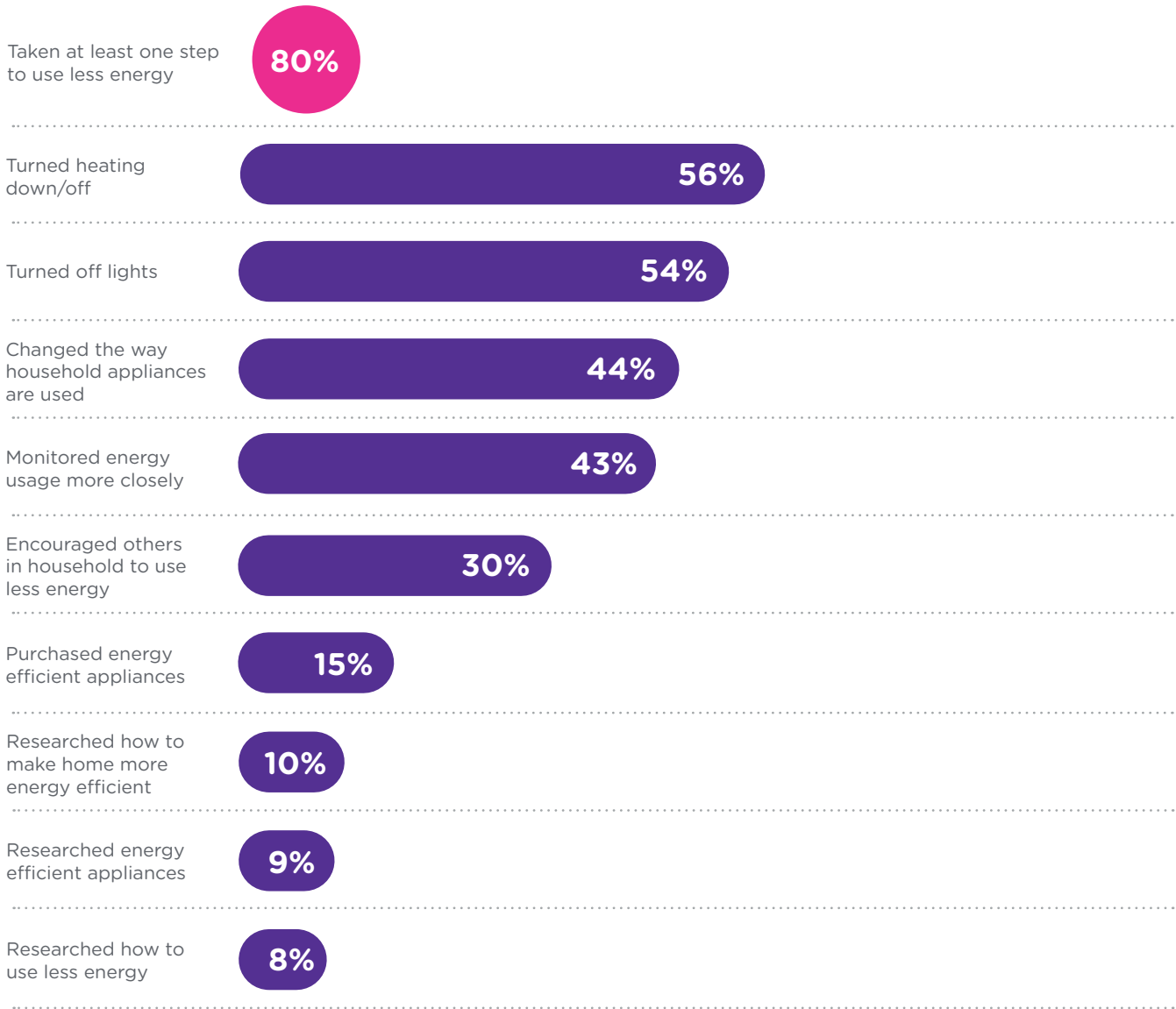


Figure 13. Steps taken to reduce energy use among people with smart meters

Smart meters help people feel more in control of how much energy they're using and what it's costing them

More than eight in ten people with smart meters feel they have a better understanding of how much they are spending on energy. With energy use displayed in pounds and pence, seven in ten people feel more in control of the energy they're using and half are saving money on their bills.

More than two in three people with a smart meter are more energy conscious and nearly two in three would think twice about using high-energy appliances.

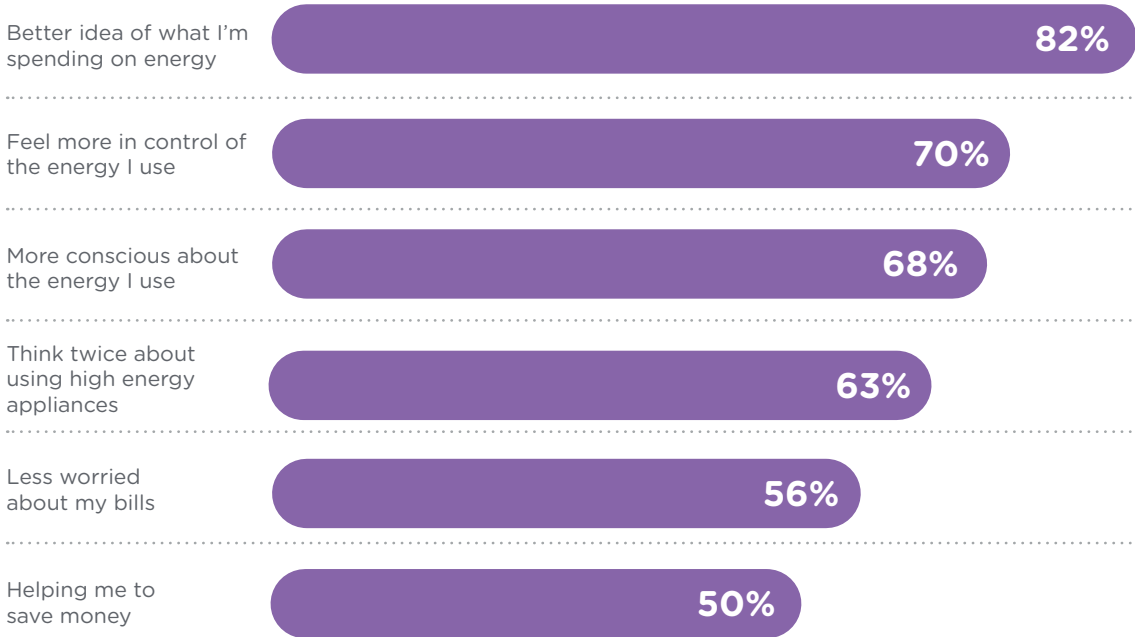


Figure 14.
Experience of people with smart meters

Smart meters mean a better and more informed experience of buying and using energy

People with smart meters are far more likely to think their bills are accurate than those with a traditional meter. They also feel more informed when it comes to choosing

the right energy supplier and tariff for them, and have more confidence that they understand their energy bills.

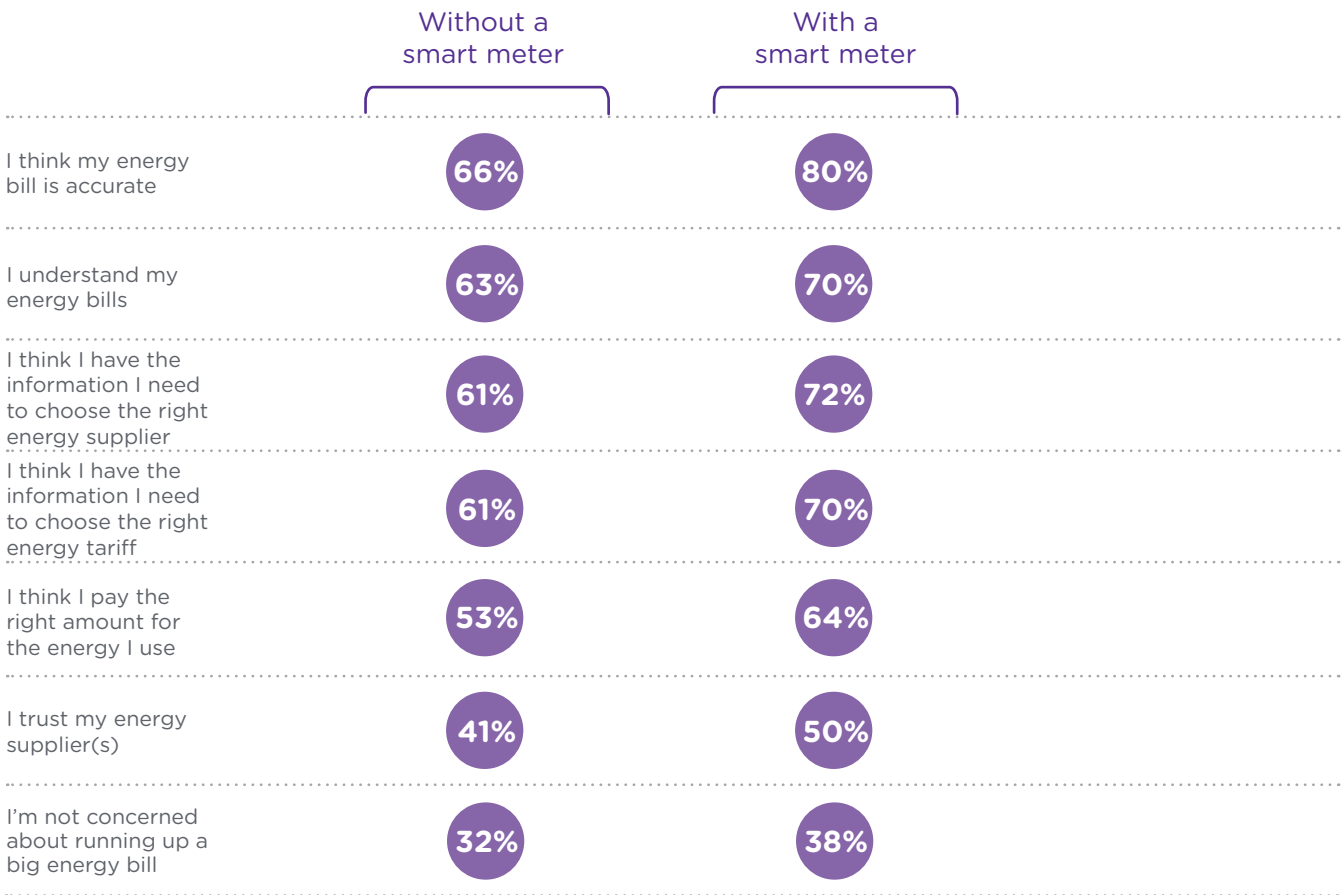


Figure 15. Attitudes towards energy: people with a smart meter vs. those without one

The benefits of a smart meter are highest for people who have had one for longer

People with smart meters report a more positive experience of buying and using energy, and those who have had the new technology for longer report even higher satisfaction. People who have had a smart meter for a year or longer are more likely to

feel they understand their bills than those who upgraded less than a year ago – by nine percentage points. Similarly, people who have had their smart meters for longer are more confident about the accuracy of their bills.

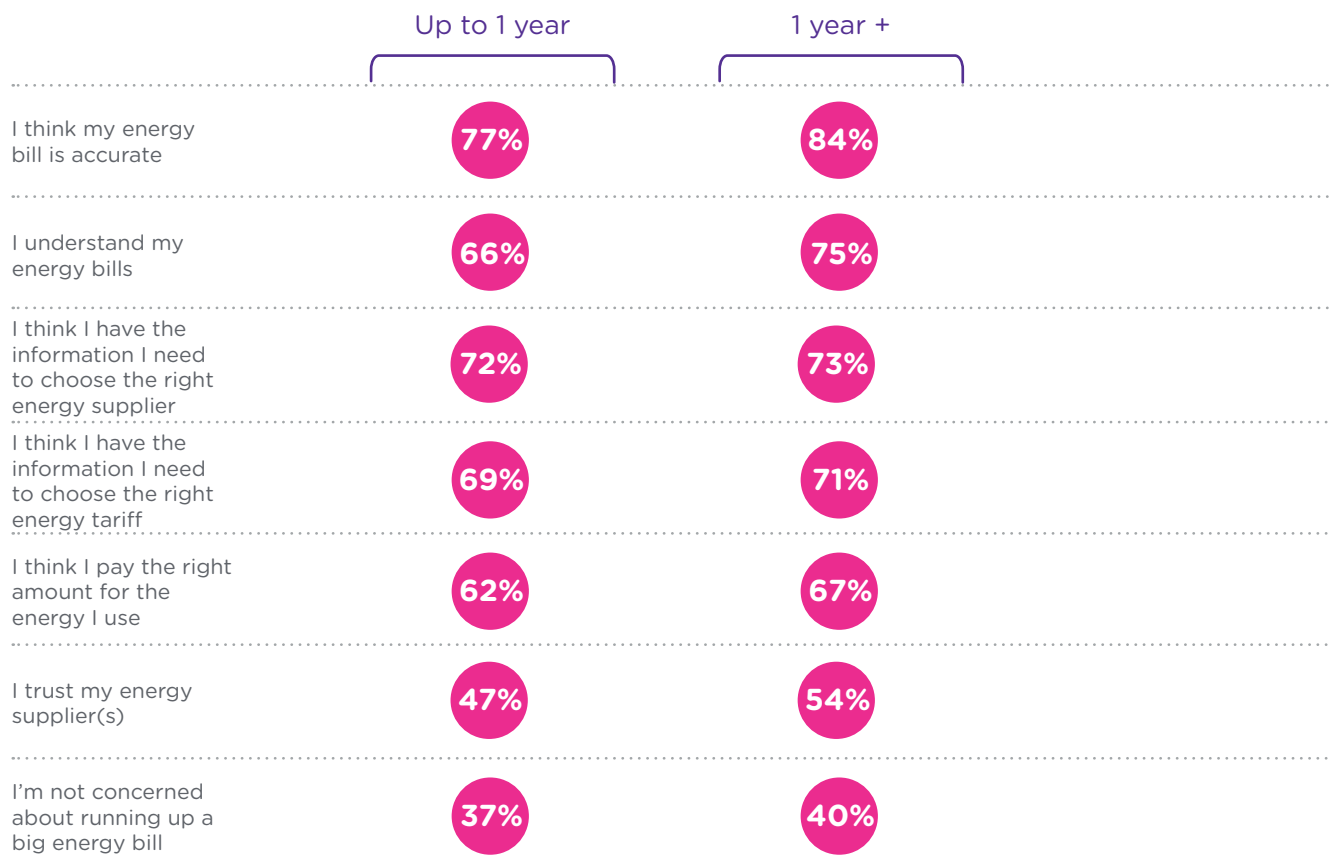


Figure 16. Attitudes towards energy: people who have had a smart meter less than a year vs. those who have had one longer than a year

Case study:

Robert Kirkwood, Ayrshire, Scotland

The traffic light system on Robert's in-home display has made a big difference to his son's understanding of energy use at home, and has provided Robert himself with a new understanding of which appliances use most energy. Robert is a radio producer and single dad to his nine-year-old son.

"My smart meter was installed shortly after I switched energy suppliers – I can never resist a gadget and although at first it seemed too good to be true, I did some research and was reassured to discover that every household in Great Britain was eligible to have one fitted.

"My favourite thing is the in-home display. Our old traditional meter was locked away out of sight under the stairs, so it's great to have a digital display in the living room which provides me with a regular reminder of the amount of energy we are using and what it costs.

"The traffic light system on the display has been of particular interest to my son – when we first got the smart meter he took great delight in turning on all our appliances to make the light turn red,

and unplugging them again to see when it would turn to amber and then green. He now has a really good understanding of the appliances that use most energy, which has been an unexpected but really positive aspect of having a smart meter.

"It has been an educational experience for me as well. I was sure that the TV must waste a lot of energy, but was surprised to find that it uses very little. In contrast, the coffee machine turned out to be one of my most inefficient gadgets. I used to turn the shower on to heat it up before I got in as well, but now I can see how much energy that uses I'm much more careful.

"I think the control that smart meters provide is the most important thing. Being able to see what I'm spending makes it much easier to reduce my bills by curbing energy waste, particularly if I'm having a lean few months, and is a really valuable feature of the smart meter."



In-home displays (IHDs) give people a better idea of what they're spending on gas and electricity

An IHD is a handheld device that allows people to keep track of their energy use in pounds and pence, in near real time. Just like glancing at a digital clock, this information is readily available and easy to read – giving people a better idea of what they're spending on energy and helping to motivate them to be more energy conscious.

IHDs are offered to everyone when their smart meter is installed, and nine in ten of those surveyed took up the offer. Around three quarters of people who have an IHD would recommend a smart meter to others.

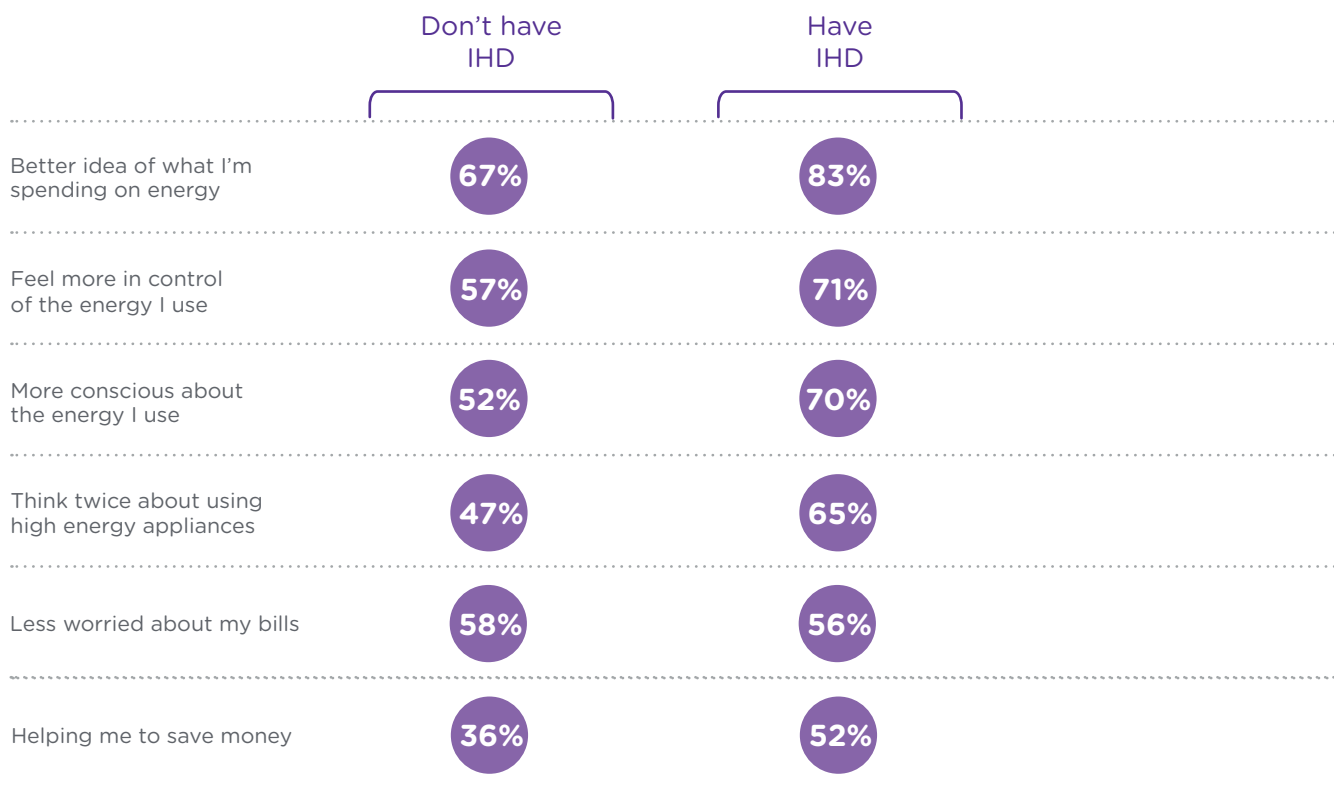


Figure 17. Attitudes towards energy: people with smart meters who have an IHD vs. those who don't have an IHD

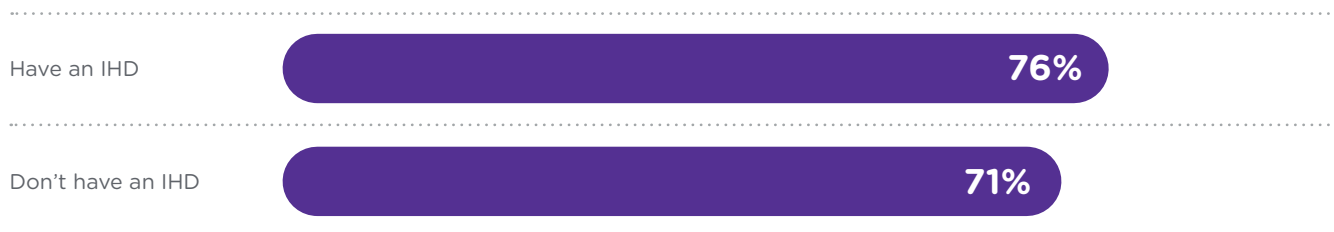


Figure 18. Likelihood to recommend a smart meter to others: people with smart meters who have an IHD vs. those who don't have an IHD

People use their IHDs more frequently than apps or websites

Nine in ten people with smart meters have an IHD to keep track of their energy use in pounds and pence. And 36 per cent choose to use more than one method of accessing energy data, with access via an app or website.

Importantly, IHDs are lending themselves more to frequent checking than other platforms, with 74 per cent checking their IHD at least a few times a month and more than half of that number checking their IHD daily. That's compared to only nine per cent of people who check an app every day, and just two per cent who check an online account.

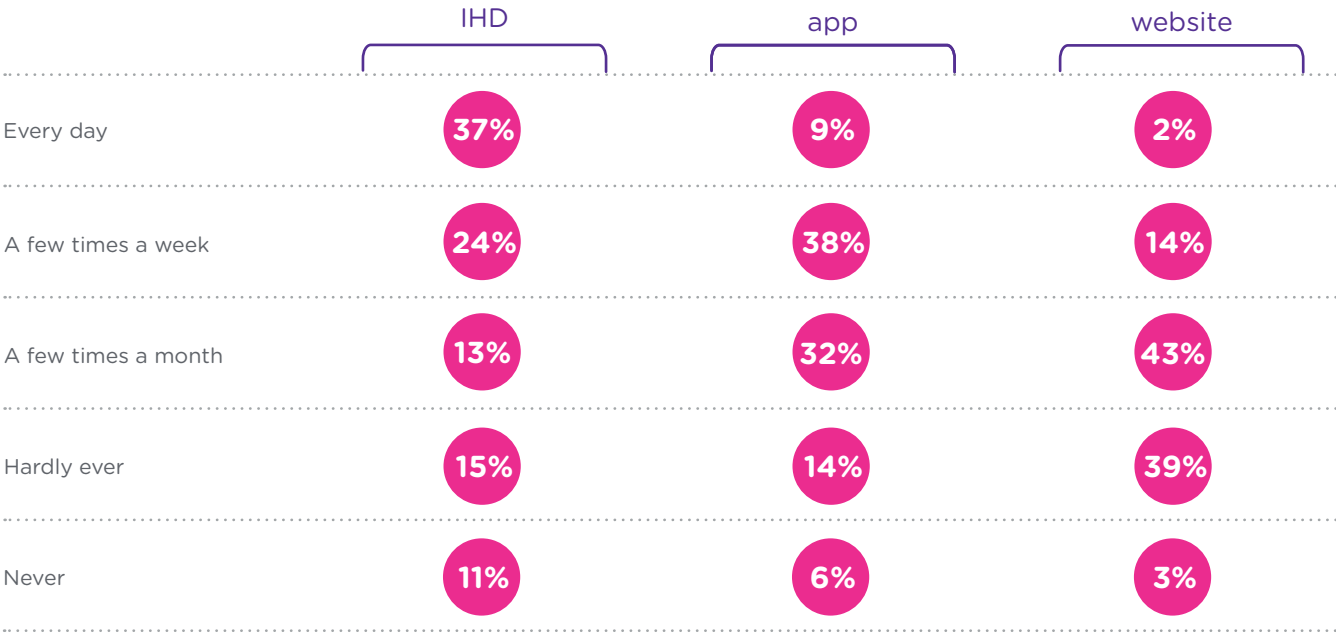


Figure 19. Frequency with which people with smart meters check their IHDs vs. an app vs. a website

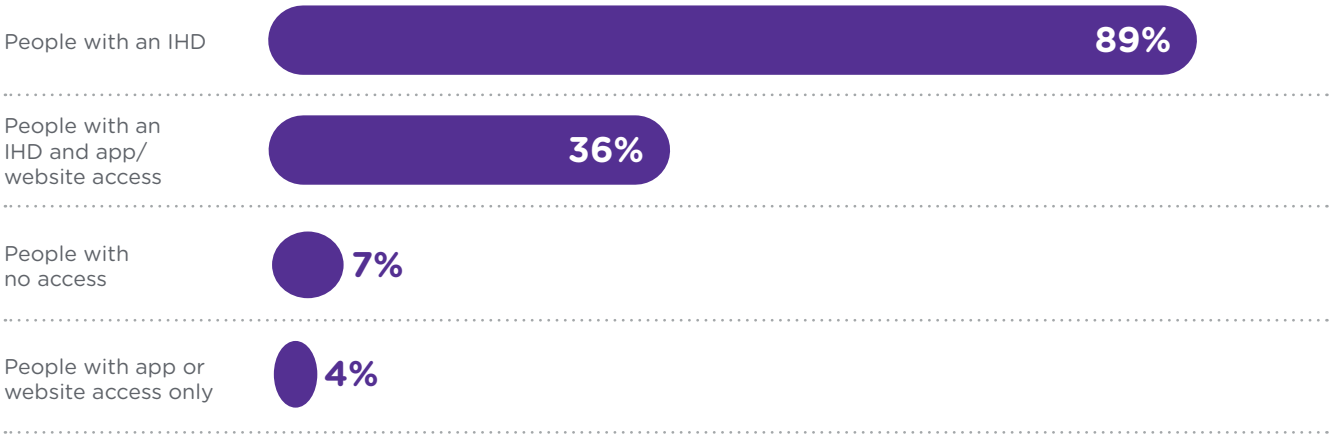


Figure 20. People with smart meters that have an IHD vs. those with an app or website access

There are low levels of consumer concerns about smart meters

Smart energy outlook also reflects the extent to which any stories about smart meters may be causing consumer concerns about the new technology. Only four per cent of people

in Britain mention privacy as a concern, and only one per cent question whether smart meters might increase their bills.

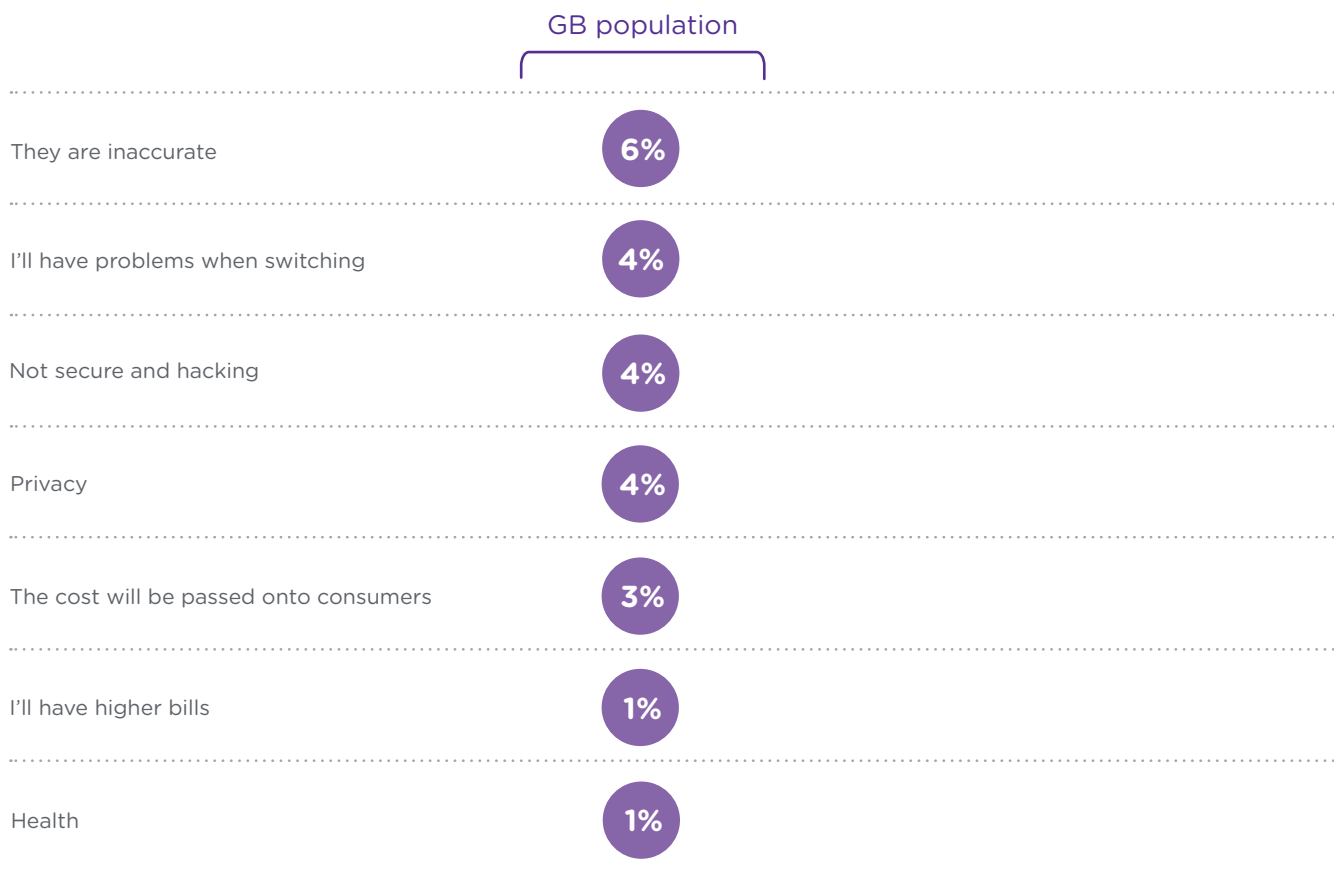


Figure 21. Concerns expressed about smart meters

Subgroup definitions

As well as age, gender, region and socio-economic group, the data has been segmented by 'audience with additional barriers'. These are defined as:

Pay by prepay meter

those who pay for their electricity or gas via a prepay meter

Fuel poverty

those who spend 10 per cent or more of their income on fuel

Low household income

those who have a household income of less than £13,999 per annum

Renters

those who rent the property in which they reside

Group renters

those who rent with at least two other adults who are not their partner

Disability in the household

those with a health condition that impacts ability to carry out day-to-day activities
- split by physical and mental health

ABC1, C2DE

demographic classification based on occupation of head of household, as defined by the Market Research Society



To find out more about smart meters please visit
smartenergyGB.org