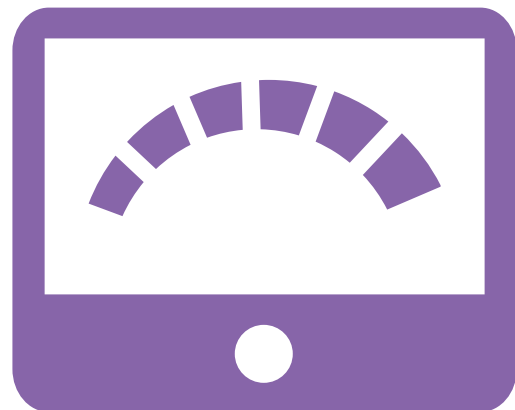




The voice of the
smart meter rollout

Smart energy outlook

March 2018



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Research methodology

Populus, an independent market research agency, conducted 9,557 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 17th and 30th November 2017.

Publications of *Smart energy outlook* prior to August 2017 used a representative sample of the adult population of Great Britain aged 18+. People aged 18-20 are less likely to be responsible for managing energy bills in comparison to the rest of the British population.

Due to this methodological change, and others signposted in the report, comparisons over time have not been made.

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

Executive summary

Background

The national rollout of smart meters will see 26 million households in England, Scotland and Wales have their analogue meters upgraded by their energy supplier at no extra cost – a vital modernisation to our outdated energy infrastructure.

More than 8.6 million smart gas and electricity meters have already been installed across Great Britain.* As installations continue across the three nations – and with around one in five people (18 per cent) now up and running with their new smart meters – the technology is fast becoming a recognisable and commonplace part of British households.

Gas and electricity is a basic necessity, but without a modernised energy system we remain stuck in the past – grappling with manual meter readings, estimated bills and an invisible supply of gas and electricity that we can't cost up until long after we've already used it.

Smart meters take accurate meter readings and send them to energy suppliers via a secure, wireless network, meaning an end to manual meter readings and estimated bills. Smart meters also come with an in-home display (IHD) which shows near real time information on energy use, in pounds and pence.

At last, we're now empowered with the information we need to make informed choices about buying and using household energy with the same level of confidence we have in other areas of our lives. As Britain's energy system becomes truly digitised, we will also start

to see how smart meters are the bedrock for a host of new products and services in our day-to-day lives – the heart of an energy system that's fit for the 21st century.

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 twice a year, every year, the report provides a snapshot into the many ways households across Britain are benefiting from upgrading to modern smart meters.

From exploring the impact of smart meters on prompting behaviour change, to showcasing how smart meters change the way people feel when it comes to their energy bills and choice of supplier, *Smart energy outlook* is the biggest source of evidence for the necessity of this nationwide digital transformation. As the rollout gathers pace, the report also provides important insight into Britain's awareness of smart meters and people's appetite to upgrade to the new technology.

98%
of people across
Great Britain are
aware of smart
meters**

48%
would like to get
a smart meter
in the next six
months***

82%
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 September 2017. The number of smart meters operating across homes and businesses in Great Britain, including where customers have two meters for gas and electricity in their home or business. This figure is not indicative of the number of households who have upgraded and cannot be compared to the percentage of people who say they have a smart meter in their home in this report

**Based on adult population of 48 million aged 21+ (ONS). Throughout this report, the term "people" refers to this 21+ adult population

***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. Reports prior to August 2017 featured propensity to adopt, which measured the entire population and included people who already had a smart meter

Latest findings

Almost everyone in Britain is now aware of smart meters and as the new technology becomes the social norm, our attitudes to energy are changing.

Smart energy outlook shows that smart meters are having a demonstrable impact on the way people consume gas and electricity.

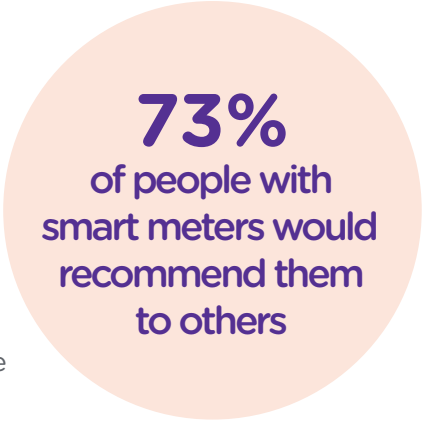
More than eight in ten people with smart meters have taken steps to reduce energy waste, with high numbers also reporting increased consciousness around energy use. Smart meters are even starting conversations about energy, with one in three people with smart meters saying they've encouraged others in their household to use less.

Smart energy outlook also shows that smart meters are changing the way people feel about their gas and electricity. People with smart meters are more likely to say they understand their energy bills and are even more likely to have confidence that their energy bill is accurate compared to those with traditional meters.


People with smart meters are more likely to feel they have the information they need to choose the right energy supplier, compared to those without a smart meter. People who have already upgraded to smart meters also say they have a better idea of what they're spending on energy.

As more smart meters are installed, the pool of people waiting to be upgraded to a digital system for their household energy gets smaller – but the appetite to upgrade soon remains high. Almost half of those yet to get their smart meter say they would like one in the next six months.

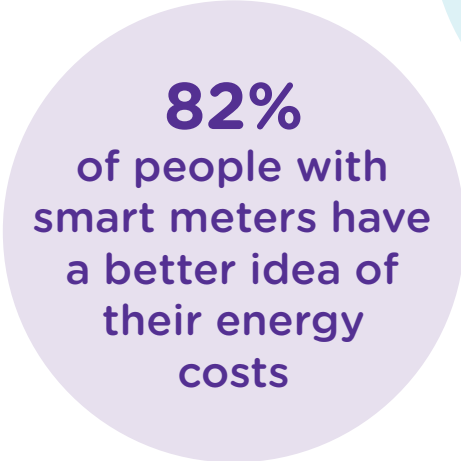
People across Great Britain are also very satisfied with their smart meters, with 6.3 million people saying they would recommend a smart meter to family, friends or neighbours. That's almost three quarters of people with a smart meter who would recommend one to others.



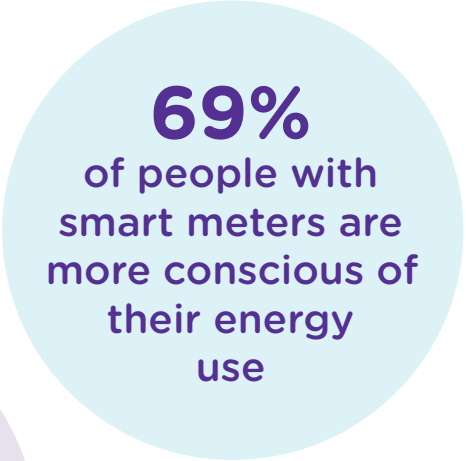
73%
of people with
smart meters would
recommend them
to others



72%
of people with
an IHD check it
regularly*



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



69%
of people with
smart meters are
more conscious of
their energy
use

*At least a few times a month



Smart meters —
awareness and people
who would like to upgrade

National awareness of smart meters is at an all-time high

Almost everyone in Great Britain has heard of smart meters, the new digital meters that are fast becoming a recognisable part of British homes.

Awareness of smart meters has risen yet again, with 98 per cent of the population aged 21 or over* now saying they know about the modern smart meters replacing traditional gas and electricity meters across the country.

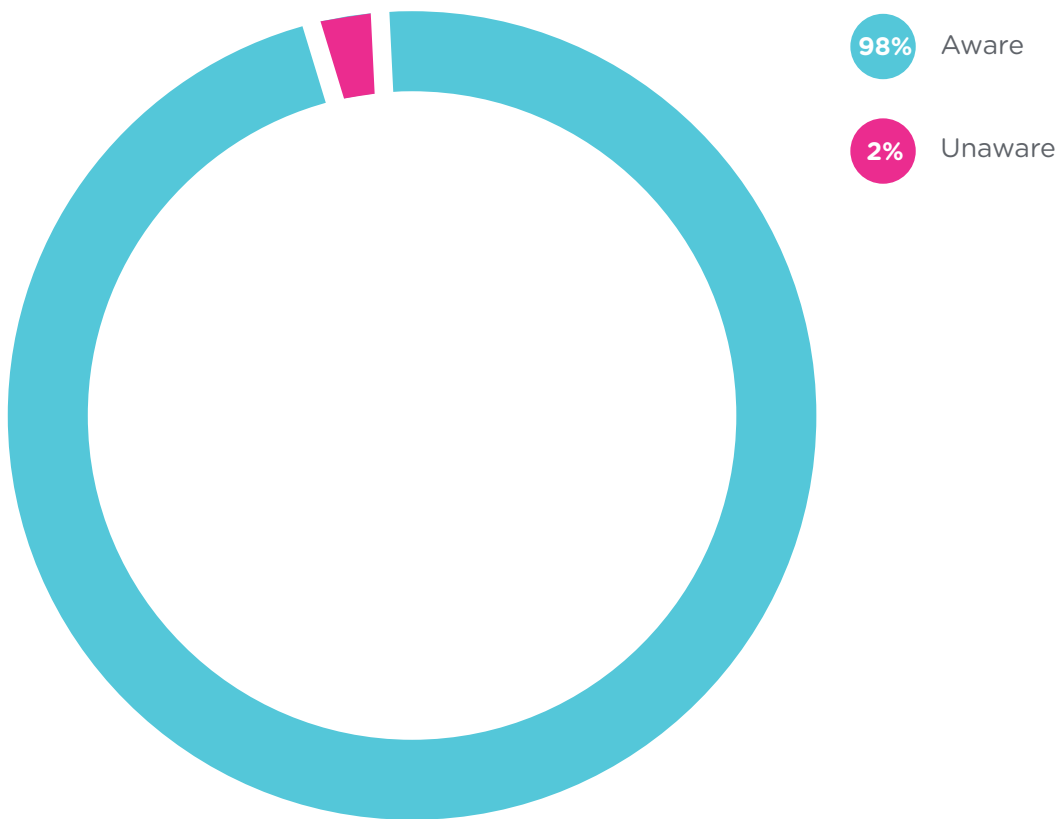


Figure 1. Percentage of people who say they are aware of smart meters

*Based on adult population of 48 million aged 21+ (ONS). Prior to August 2017, *Smart energy outlook* reports featured a representative sample of the adult population of Great Britain aged 18+. People aged 18-20 are less likely to be responsible for managing energy bills in comparison to the rest of the British population. A sample of the adult population aged 21+ is now used

Almost one in five people have a smart meter – with millions of others keen to upgrade soon

At this point in the rollout, 18 per cent of the population* has a smart meter in their home, which means around one in five people are already enjoying the benefits of a modern, digital system for managing their household energy.

The appetite amongst those with traditional meters to become part of Britain’s smart transformation is also high – and there’s a real sense of immediacy too. Nearly half (48 per cent) of those who haven’t been upgraded yet say they would request a smart meter or accept an offer for one in the next six months.**

This equates to around 19 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

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

**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.

***Please note the definition of smart meter ownership has been updated and now differs from the ‘detailed knowledge’ measure used in previous reports. Higher volumes of smart meters in homes across Britain means people with smart meters may not have experienced an installation first hand.

Throughout this report, people who say they have a smart meter in their home are counted as smart meter owners if they understand two key facts:

- smart meters allow you to see your energy use in pounds and pence

- smart meters give you accurate bills instead of estimates

People who say they have a smart meter but do not understand these two facts are not counted as smart meter owners

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

Around 19 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 largely consistent across the three nations, with people in Scotland, the East of England, the North West and Yorkshire and Humberside particularly likely to arrange a smart meter installation in the next six months.

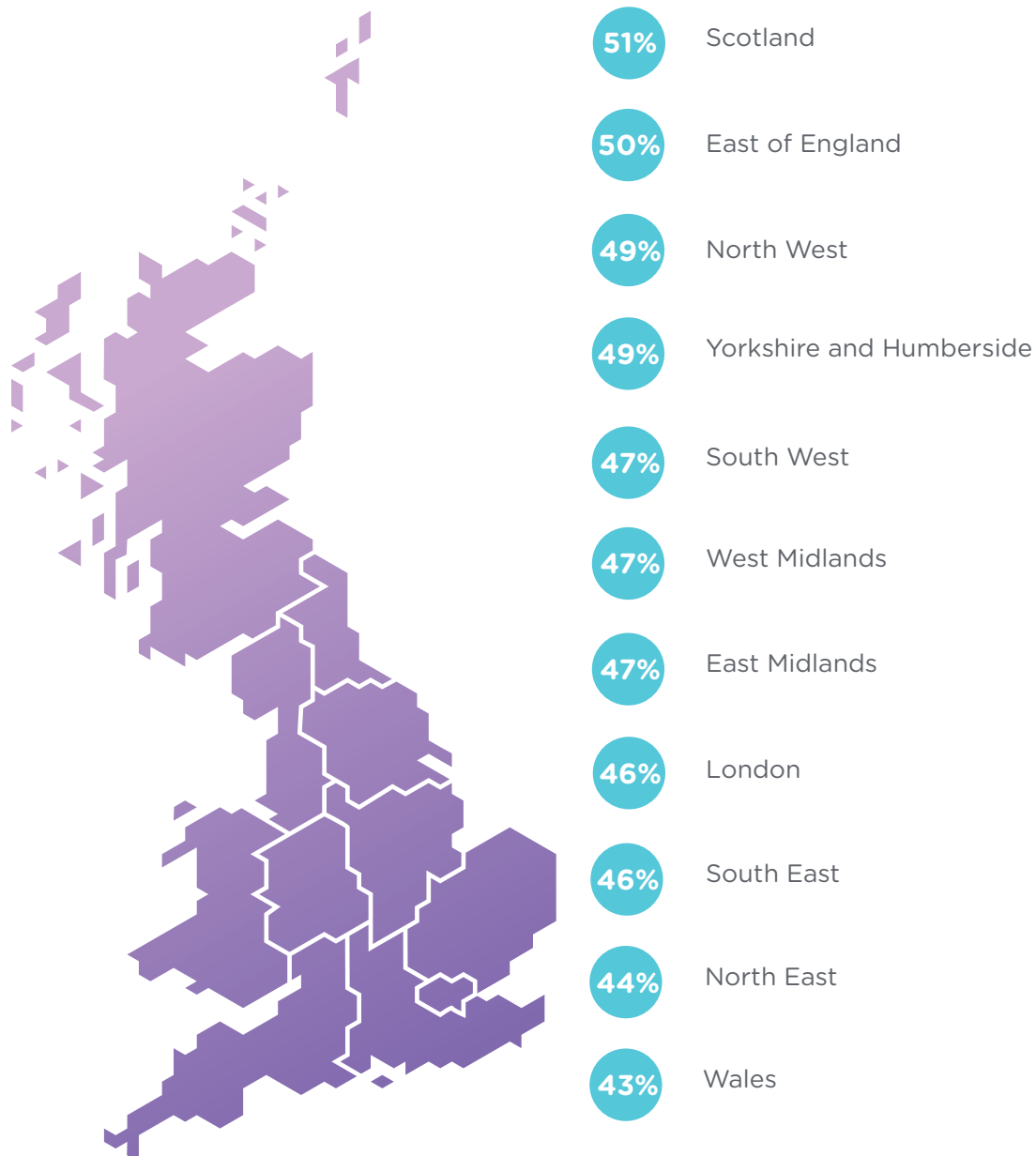


Figure 4. Geographical breakdown showing number of people who would like to get a smart meter in the next six months, of those who haven't upgraded yet

*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

Young people are most likely to say they would like to upgrade to a smart meter soon

Likelihood to request a smart meter or accept an offer of installation in the next six months varies across different demographic groups.*

Young people are most likely to say they would like to adopt the new technology soon, with appetite amongst those aged 21-34 above that of the general population by 12 percentage points. Appetite to upgrade soon is also notably high amongst private renters.

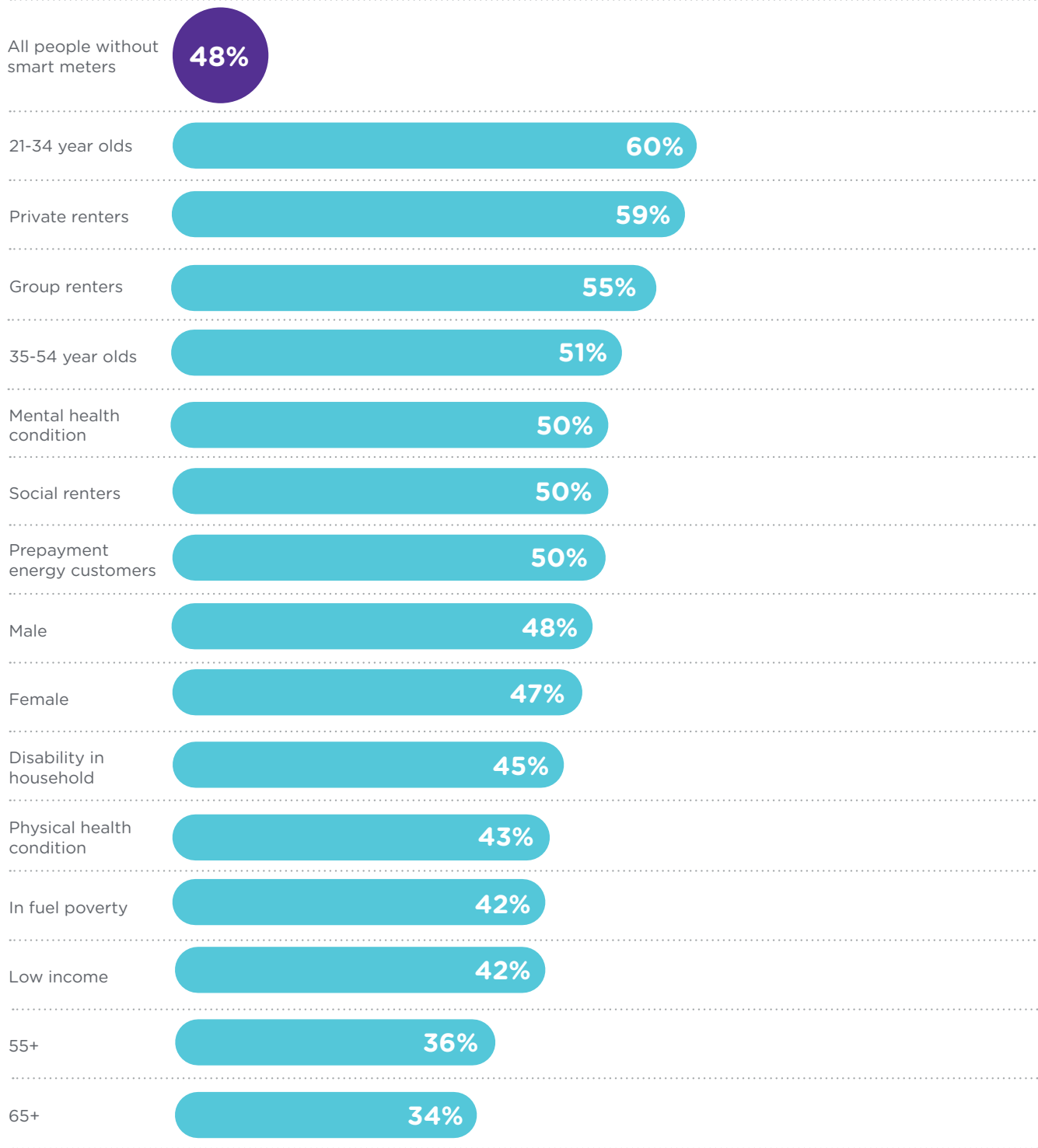


Figure 5. Demographic breakdown showing number of people who would like to get a smart meter in the next six months, of those who haven't upgraded yet

*See p.26 for definitions of demographic groups

Case study:

Pawandeep from Turnpike Lane, London

After using tracking technology to stay motivated and set personal goals while cycling, Pawandeep wanted to try the same approach to his energy use with a smart meter in his home. Pawandeep rents his flat with his girlfriend and since having a smart meter installed, he has been able to save energy using the in-home display to track what he's spending in near real time.

"Once I heard that a smart meter could help me keep an eye on my energy usage at home, I knew I wanted to get one and as it's my name on the bills I could arrange it really easily. The actual installation was fine and it took less time than I thought it would, about two hours in total.

"I use tracking technology to keep fit, mostly when cycling and it's great to look back over my achievements, like how far I've travelled and how quickly. It motivates me to improve on my times and to keep trying to beat my personal best.

"My smart meter is having exactly the same effect. It's inspiring me to save money and reduce energy waste whenever I can. I can see what I'm using in near real time and how much it's costing, so I can work out ways to be more efficient without having to make any big changes.

"When we moved in we were getting estimated bills. It was hard to understand what we were actually paying for, but now they're accurate and I know exactly what we're spending on what, things are much easier.

"I originally wanted a smart meter so we could see how much energy we use as we go along and not have to always be giving meter readings to my supplier. It's really lived up to expectations – since I've had my smart meter I feel like it's really done all the leg work for me.

"I check the in-home display regularly and keep it by the front door so I can easily see it. I'm looking forward to using the history function to compare my usage over time and hopefully see how much I've saved.

"It's handy to be able to work out how much energy my appliances use and how I can use them more efficiently. I'm already doing the simple things like turning the lights off and the heating down a degree or two. I'm tracking the impact it's having on my bills with the display. It's really helping to see the difference."



Smart meters — the verdict from those who already have one



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

More than 8.6 million smart meters are now operating across Great Britain, with just over 1.8 million installed in people's homes since the last *Smart energy outlook*.*

Almost three quarters of people with smart meters say they would recommend the technology to friends, neighbours or relatives. That's 6.3 million people giving smart meters the thumbs-up.

As increasing numbers of people experience the benefits of accurate bills and easy-to-access information about their energy use, recommendation rates for smart meters remain high.

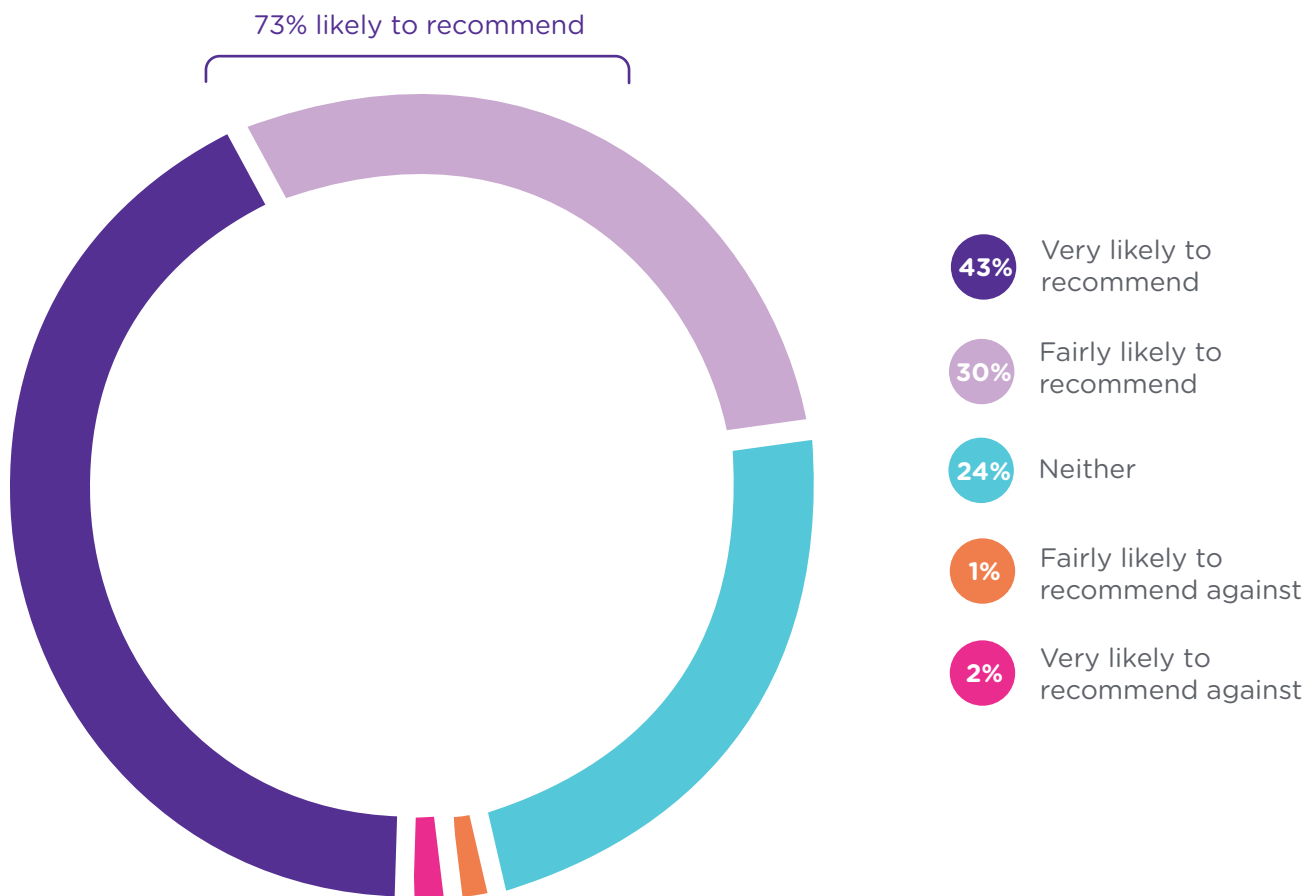


Figure 10. Likelihood to recommend a smart meter to others (among people with smart meters)**

*Department of Business, Energy and Industrial Strategy (BEIS), Smart Meters, Quarterly Report to end September 2017. Number of smart meters operating across homes and businesses in Great Britain. The August 2017 edition of *Smart energy outlook* referenced the BEIS Smart Meters Quarterly Report to end March 2017

**Please note this question has been updated from previous reports to measure the percentage of people who would recommend against smart meters, in place of the percentage who say they would not recommend smart meters

People using smart prepay are most likely to recommend smart meters

Satisfaction rates for smart meters remain high across all demographic groups, but people using smart prepay are particularly impressed with their upgrade, with 85 per cent saying they would recommend a smart meter to others. Upgrading to a smart meter means people using prepay can keep an eye on their credit and top up their energy from the comfort of home.

Young people and people with children at home are also extremely positive about their smart meters.

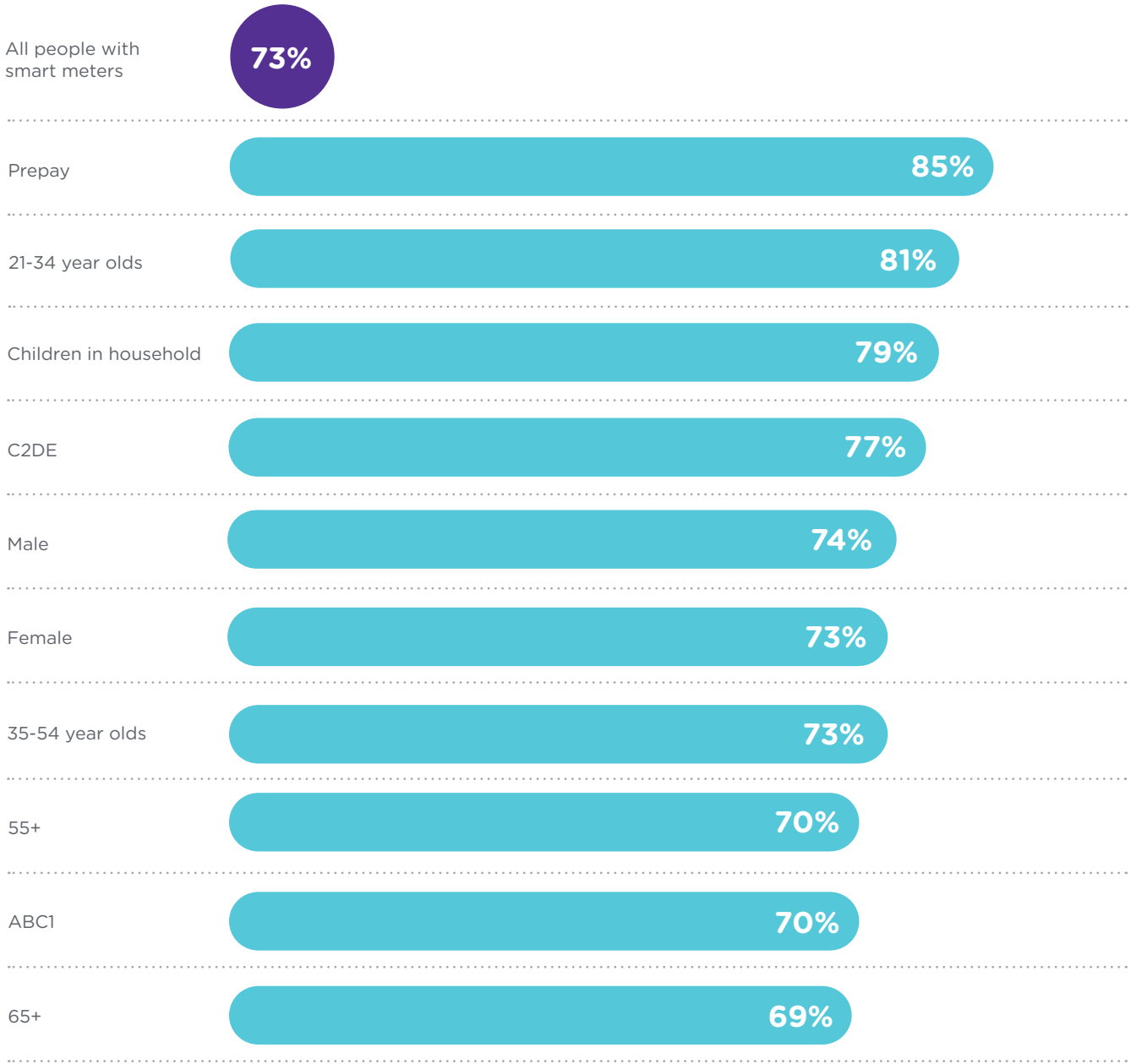


Figure 11. Likelihood to recommend a smart meter to others (among people with smart meters) - demographic breakdown

*See p.26 for definitions of demographic groups

Seeing energy use in pounds and pence and having accurate bills are the most appealing smart meter benefits

Moving from an analogue energy system to a digital one means an end to manual meter readings and estimated bills. It also means being able to keep track of how much energy is being used and how much it is costing on a handy display screen – a key part of why modernising Britain’s energy system is important for everyone on an individual level.

When it comes to the appeal of smart meters, keeping an eye on costs is important for most, with half the population seeing this as a key benefit. Receiving accurate bills instead of estimates is another appealing benefit of smart meters. A quarter of people are interested in the national benefit of helping every household to waste less energy.

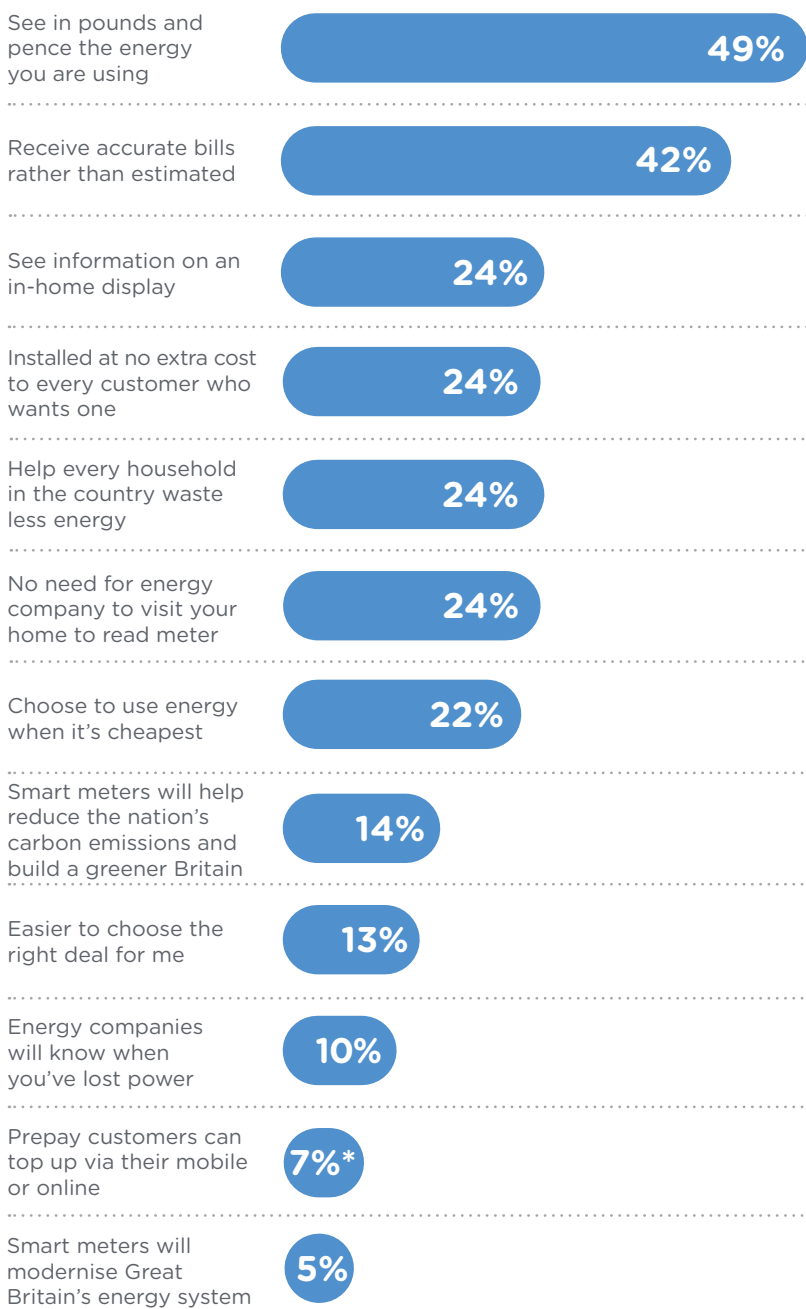


Figure 12. The appeal of smart meters (top three benefits selected by people across Great Britain)**

*This figure is a percentage of all GB adults aged 21+. Among prepayment customers, this figure is 37 per cent

**The appeal of smart meters is now measured amongst the population of Great Britain aged 21+. In previous reports, the appeal of benefits was measured amongst people with detailed knowledge of three key facts about smart meters

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

Smart meters are motivating people all across Great Britain to make positive changes to the way they use energy at home.

More than eight in ten people with smart meters have taken action to reduce energy waste, with simple steps such as turning off unused lights or unnecessary heating proving the most popular. One in three people have even encouraged others in their household to use less energy.

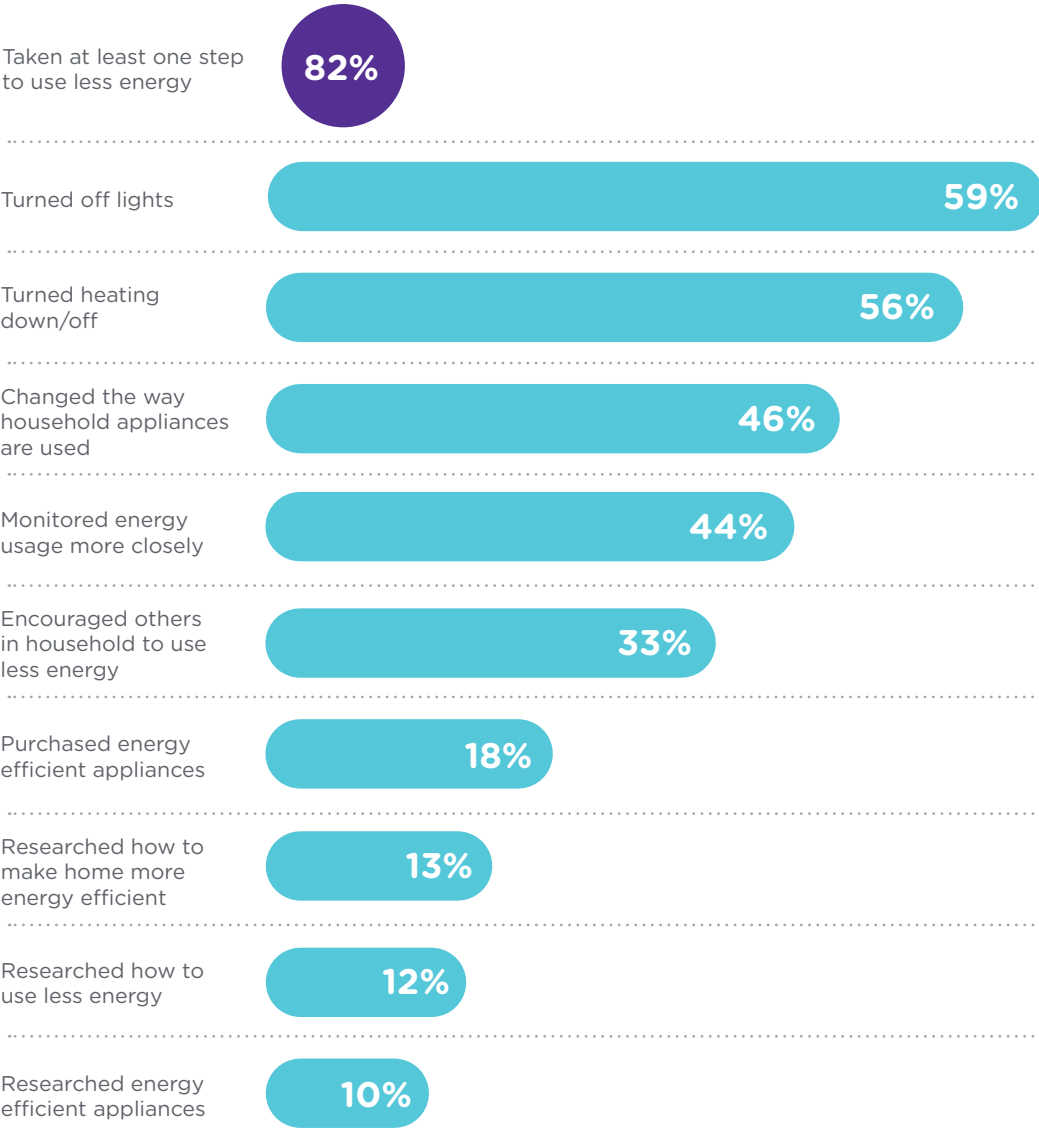


Figure 13. Steps taken to reduce energy use among people with smart meters

People with smart meters have a better idea of what they're spending on energy – and they're more conscious of energy waste too

More than eight in ten people with smart meters feel they are better informed when it comes to how much they are spending on energy.

With easy access to feedback on their energy use, people with smart meters also say they feel more in control, feel more conscious of energy use and would think twice about using high-energy appliances.

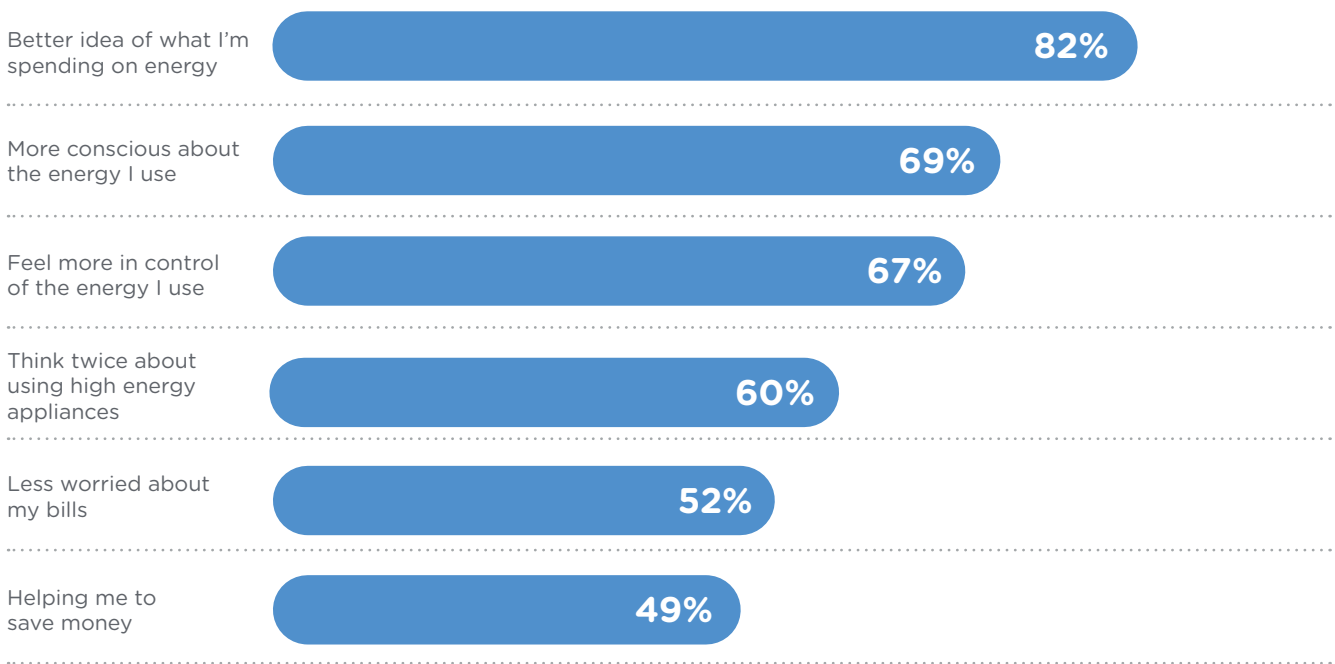


Figure 14. Experience of people with smart meters

People with smart meters have a better experience of managing their gas and electricity

Smart meters are already transforming the experience of managing household energy for millions of people – with a notable difference in the confidence, trust and comprehension of energy bills amongst those who have been upgraded.

Smart meters are also empowering people with the information they need to make educated choices about their energy supply. People with smart meters are more likely to say they have the information they need to choose the right energy supplier and tariff for them, compared to people with traditional meters.

People with smart meters are significantly more confident in the accuracy of their energy bills, 14 percentage points higher than those without a smart meter. They are also more likely to understand their bills.

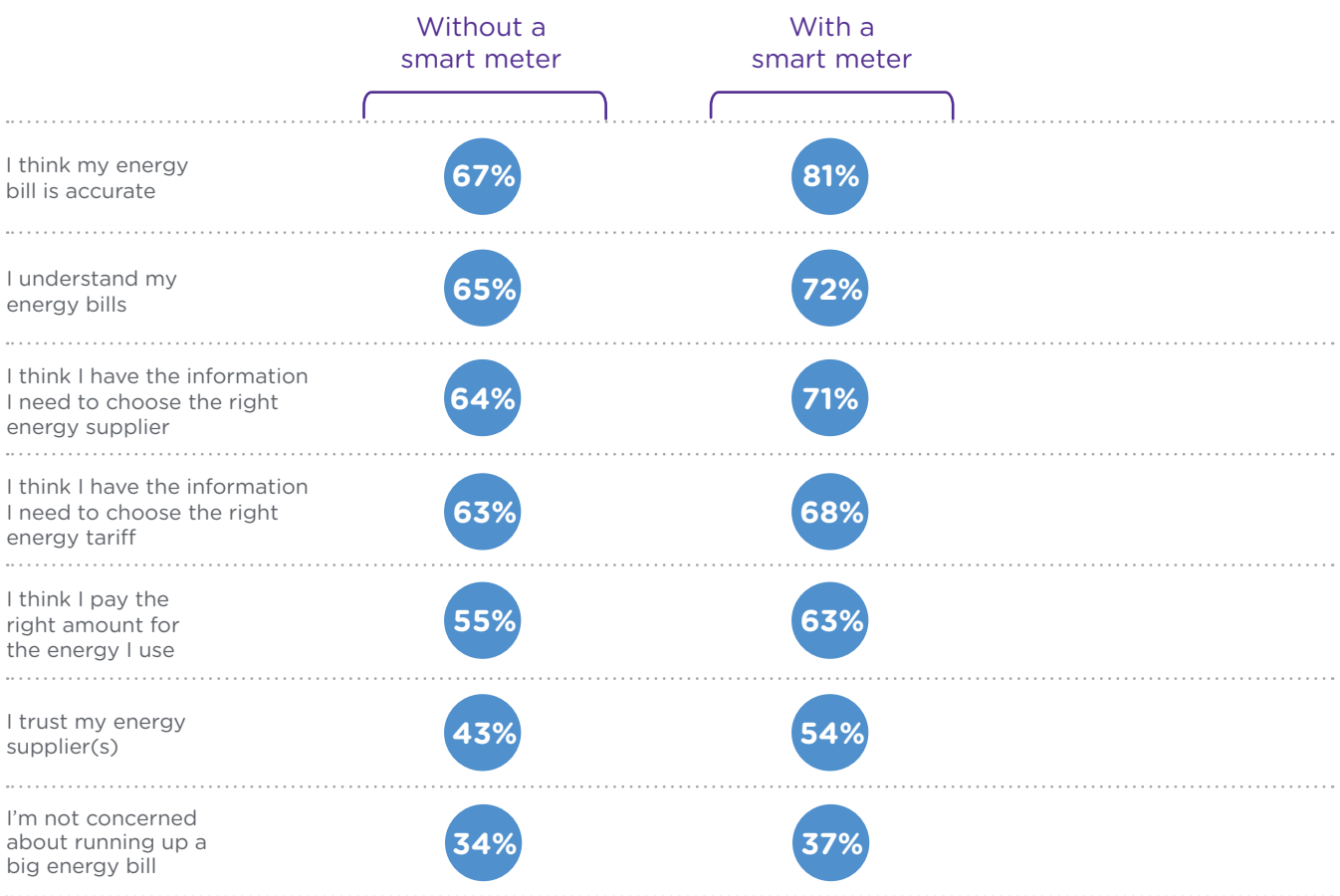


Figure 15. Attitudes towards energy: people with a smart meter vs. those without one

People who have had a smart meter for longer report a particularly positive experience

The positive impact of smart meters remains steadfast over time. People who have had a smart meter for longer are more confident in how they use energy than those who have upgraded to a smart

meter more recently. People who have had a smart meter for longer than a year are more likely to feel their energy bill is accurate and to say they are not concerned about running up a big energy bill.

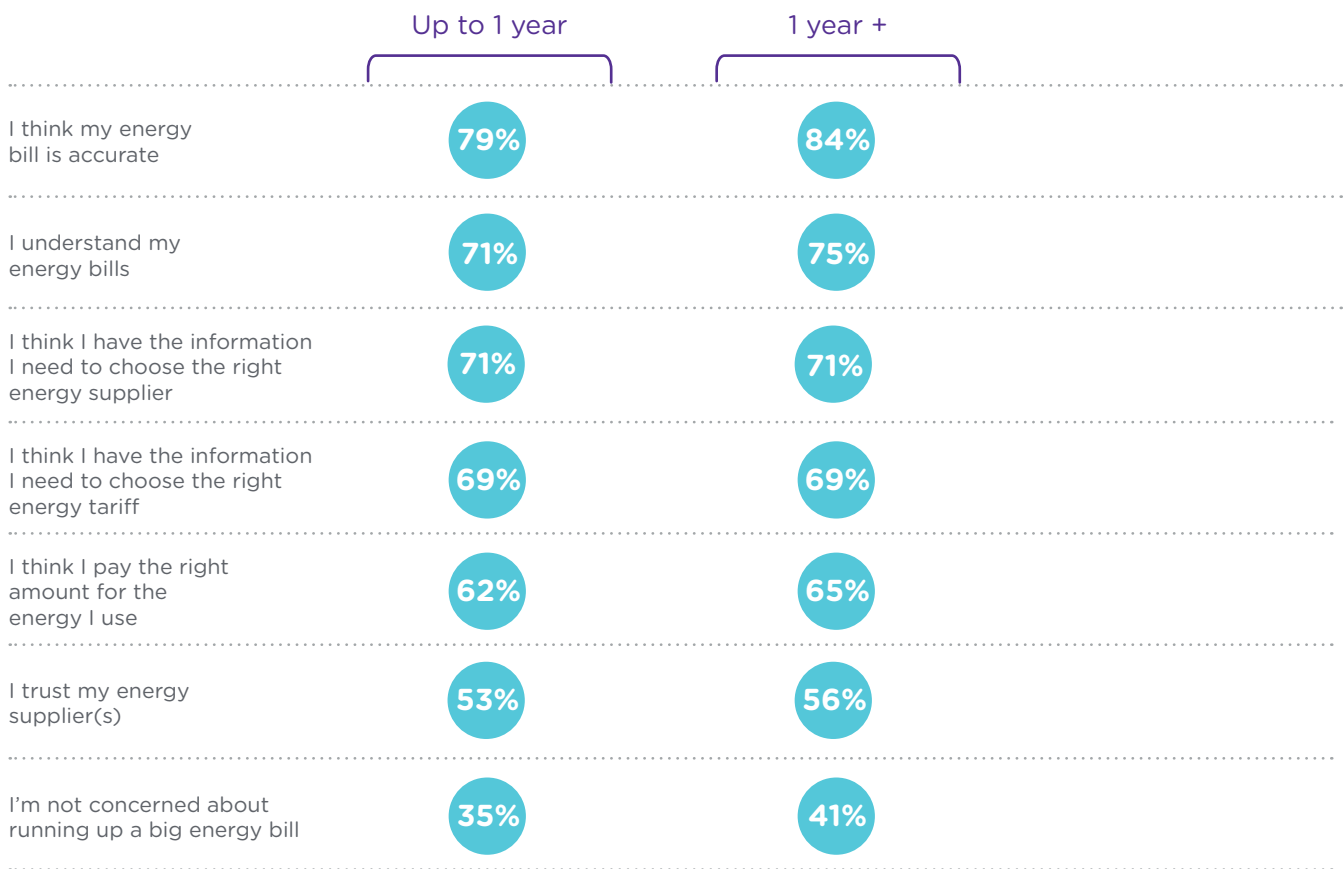


Figure 16. Attitudes towards energy: people who have had a smart meter for less than a year vs. those who have had one for longer than a year

Case study:

Elspeth from Drumchapel, Glasgow

Elspeth's smart meter means that she no longer needs to struggle with accessing her prepayment gas and electricity meters to top them up. Elspeth, a local councillor, lives with her husband and two grown-up daughters in a house in Drumchapel, a suburb of Glasgow.

"Our gas meter is located outside, on the ground. Before we got our smart meter installed I would have to get down on my hands and knees to read it or to top the meter up. This was particularly difficult as I suffer from a frozen shoulder which made it tricky to put the card into the meter. Our electricity meter is buried in a cupboard under mountains of things, with tables, chairs and an ironing board stored in front of it. Topping it up meant having to move everything out of the way and then putting it all back again – not what you need when you're working full time and often in a hurry.

"Now that we have a smart meter I can easily see how much energy we're using in pounds and pence on the in-home display, which sits next to the sofa. I can also top up the credit online, so we never have to access the actual meters anymore.

"The display has been particularly useful in encouraging my daughters to be more conscious of the energy we use. They know that they can't put the heating on if the temperature is 22 degrees or above and I've shortened the length of their showers after seeing how much energy they use.

"When we had our old meters, I was always forgetting to take the key or card to the shop to get them topped up and we often ran out of credit at inconvenient times. Now, our smart meter warns us when we are close to running out of credit and I can see at a glance how much we have left. I can top up from home, whenever I need to.

"It's saved us money too – if the light on the in-home display turns orange then we check all our appliances to see whether they actually need to be on. Being more conscious of our energy use since getting a smart meter has reduced the money we spend on electricity from £80 a month to £60 a month.

"I'd recommend that everyone on a prepay meter upgrades to a smart meter – they give you all the best bits of prepay without the hassle and they can save you a fair amount of money."



People with an in-home display (IHD) have a more positive smart meter experience and are more likely to recommend the technology

Smart meters come with a handy in-home display that can be kept anywhere in the home, allowing people to track their household energy use in pounds and pence, in near real time. Nine in ten of those surveyed took up the offer of an IHD.

Just like glancing at a clock on the wall, IHDs provide instant access to information about energy use, giving people a better idea of what they're spending and making them more conscious of energy waste than those without an IHD. Those with an IHD with their smart meter are also more likely to recommend the technology to others.

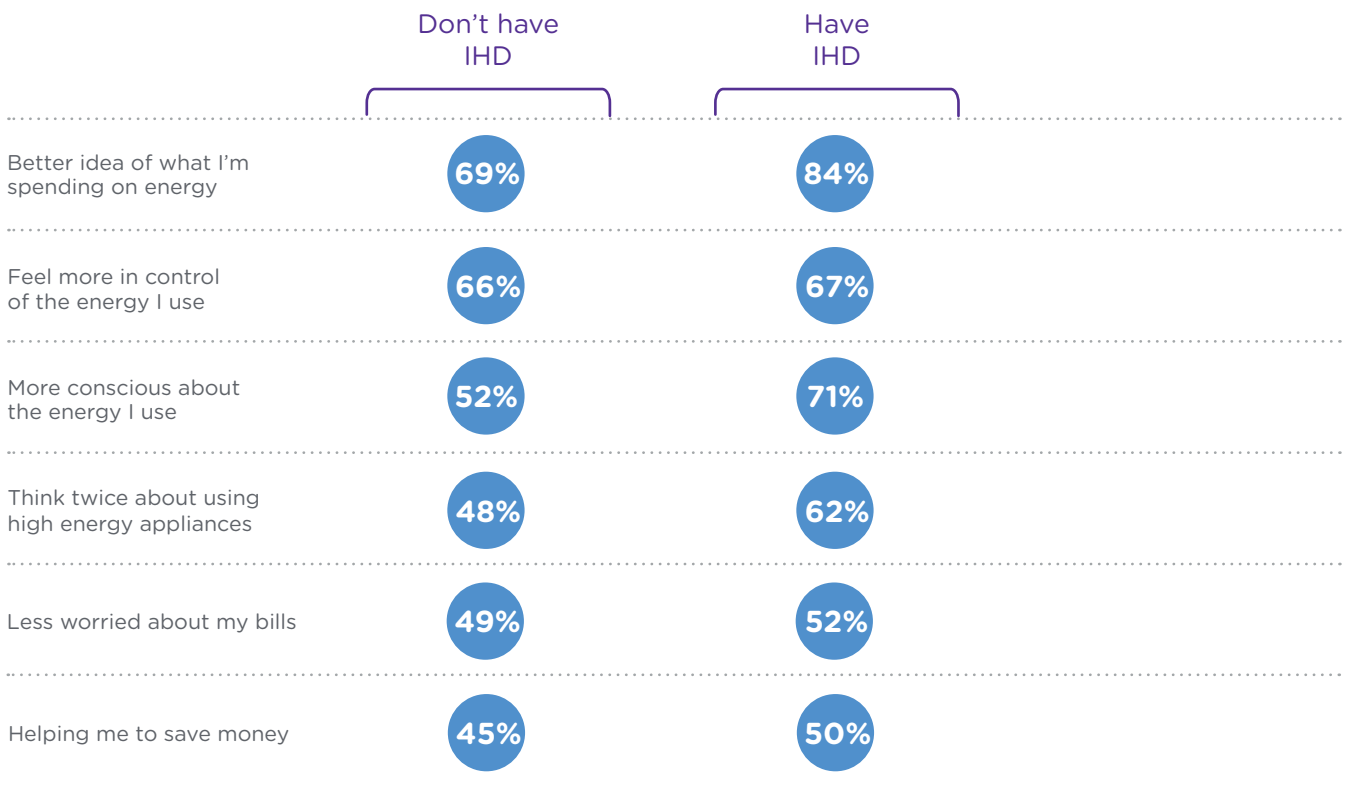


Figure 17. Attitudes towards energy: people with smart meters who have an IHD vs. those who don't



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

IHDs are the most prevalent method for checking information about energy use

Multiple viewing platforms are available for people with smart meters to access information about their energy use. IHDs provide feedback at a glance, while apps and online accounts can be actively engaged with via other platforms such as smartphones, laptops or tablets.

Nine in ten people with smart meters have an IHD that allows them to keep an eye on their energy use in pounds and pence. The majority check it regularly.*

Some have chosen multiple methods of monitoring their energy use, with 31 per cent saying they have an app or online account in addition to their IHD. But IHDs lend themselves more to frequent checking than other platforms, with one in three people with an IHD checking it daily compared to only 15 per cent who check an app daily.

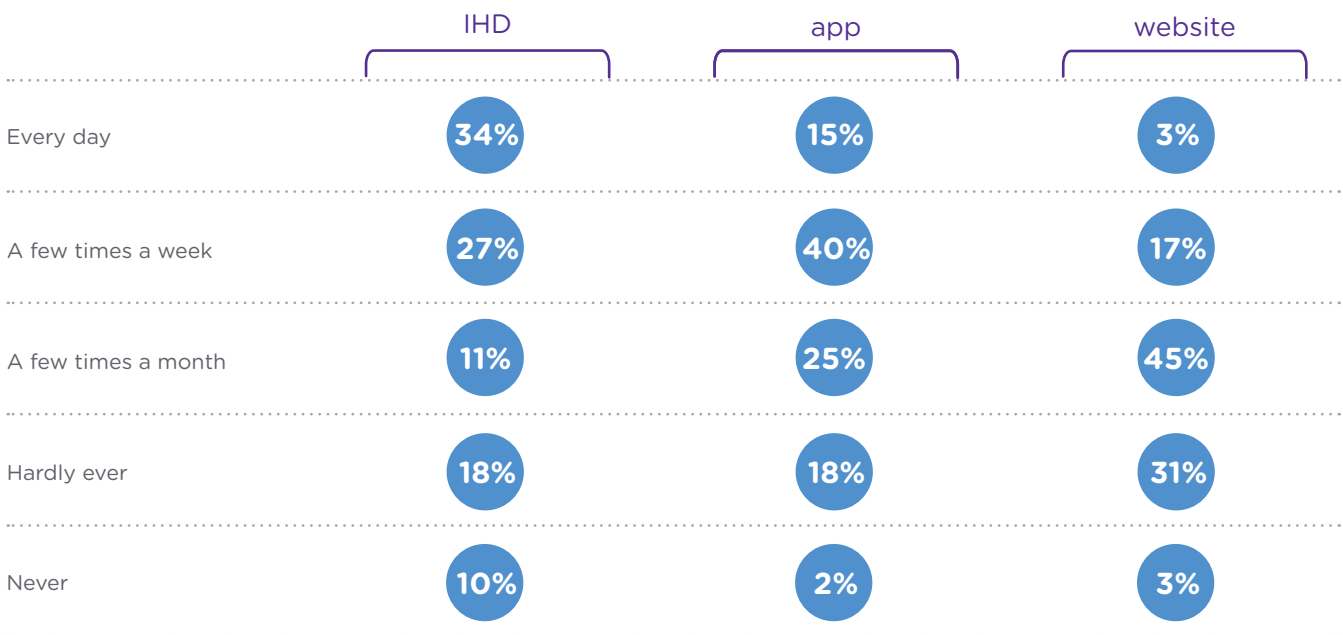


Figure 19. Frequency with which people with smart meters check their IHDs vs. an app vs. a website

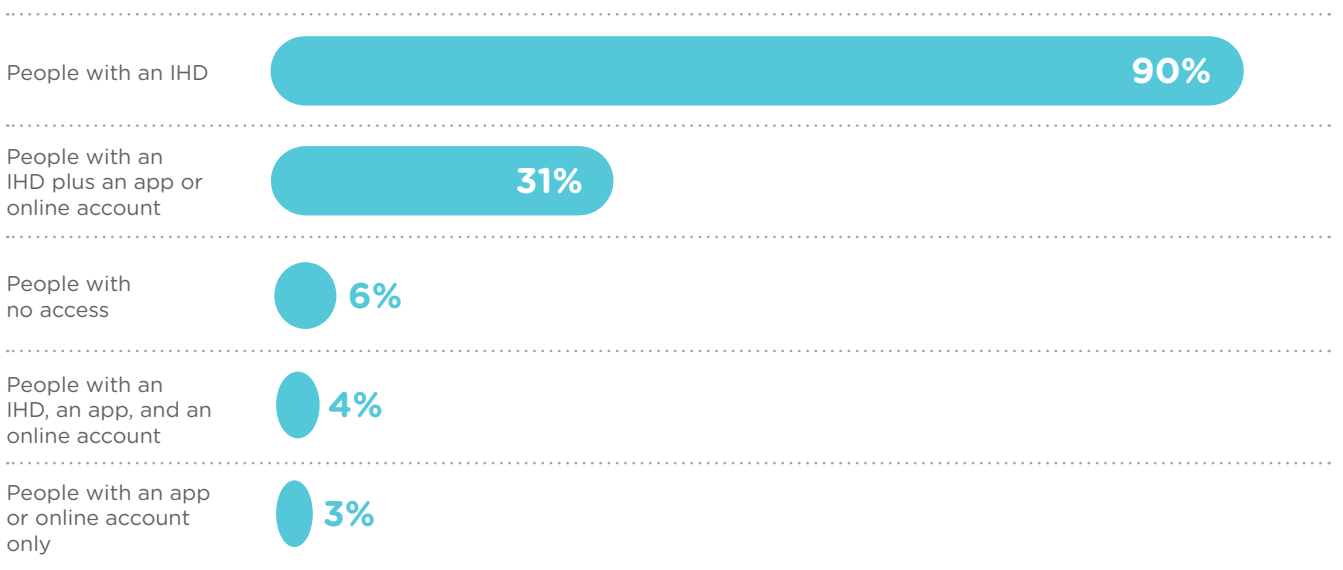


Figure 20. Access to different platforms to access information about energy use, amongst people with smart meters

*At least a few times a month

Concerns about smart meters are low across Great Britain

Smart energy outlook tests the extent to which any stories about smart meters may be prompting questions and concerns about the new technology. Concerns mentioned by

those surveyed remain low across all areas, with only one per cent mentioning health and only four per cent mentioning privacy.

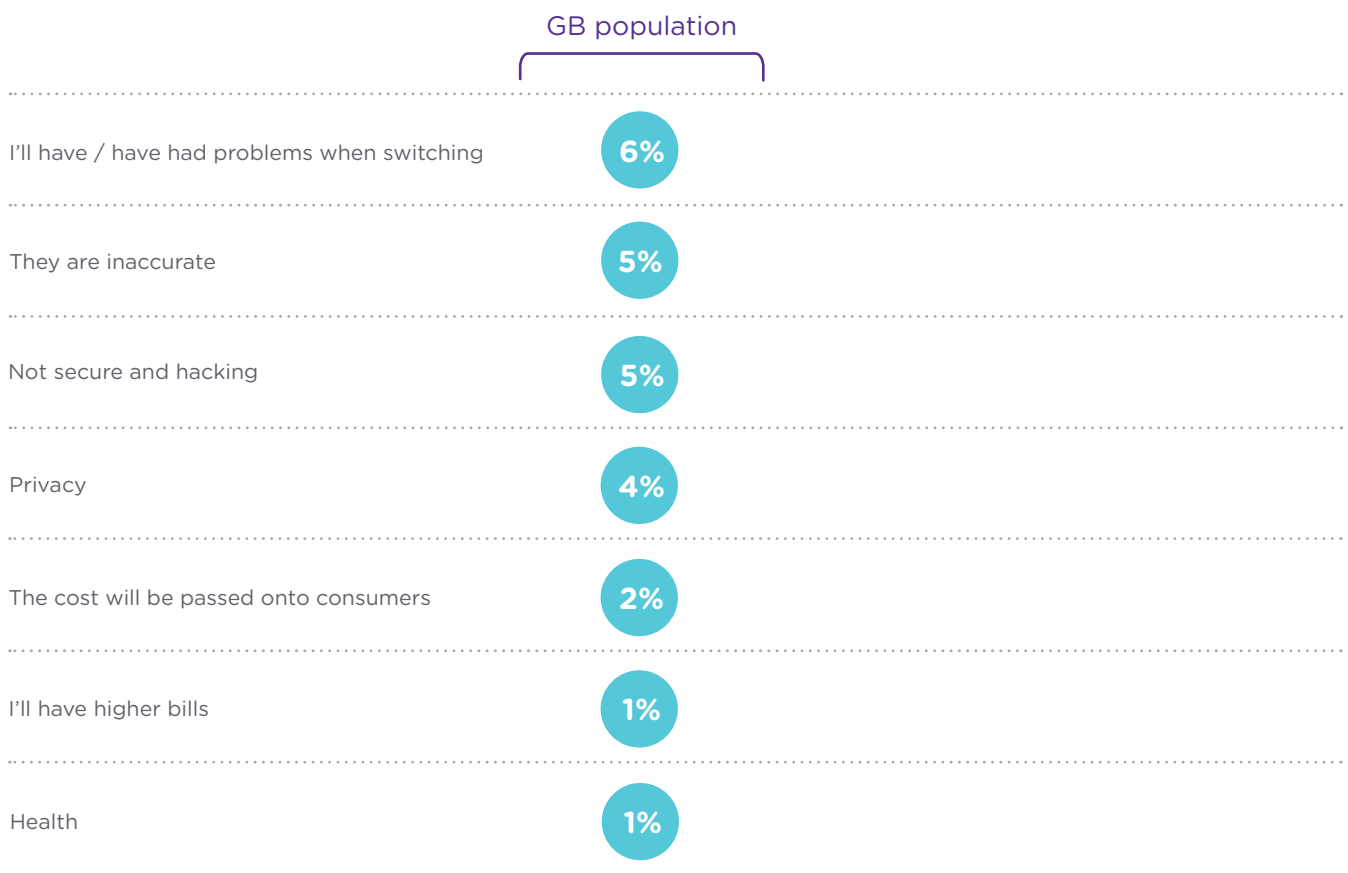


Figure 21.
Concerns expressed about smart meters

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
Private renters	those who rent from a private landlord
Social renters	those who rent from their council or other providers of social rented housing (e.g. housing associations)
Group renters	those who rent with at least two other people, neither of which is 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