

Clear and in control

Energy consumers' views on data sharing and smart devices



Contents

- 3 Recommendations
- 4 What we found
- 5 Previous research
- Research approach
- 6 Experience of having a smart meter
- 7 Understanding what data a smart meter collects
- 8 Views on smart devices
- 9 How comfortable people feel with sharing data
- 10 Differences between those who have or don't have smart meters
- 11 Attitudes to getting a smart meter
- 12 Attitudes to different data sharing purposes
- 13 Outline of the trade-off exercise
- 14 Results of the trade-off exercise
- 15 Attitudes to sharing more detailed data
- 16 Awareness of permissions
- 17 The importance of choice
- 18 Protections give consumers confidence



Energy use data is key to achieving net zero

In June 2019 the UK became the first major economy in the world to pass laws to end its contribution to global warming by 2050.

This will require significant investment in the energy market, and a faster pace of change.

Smart meters are a vital part of a smart and flexible future energy system. They can support better integration of renewable power by using near-real time energy data efficiently manage energy supply and demand. This is crucial for Great Britain to reduce its carbon emissions and reliance on unsustainable energy sources.

At the same time, digitisation, decentralisation and decarbonisation are driving radical change in the products and services that energy companies offer consumers. This depends on access to data about how and when people use energy.

Engagement from energy consumers will be vital to the transition to a low carbon and high tech market.

Data and technology offer an opportunity to reshape the energy market to make sure the needs of consumers come first.

Understanding and managing when, how and why we use energy in our homes could make the future energy market more attractive and easier to navigate.

Recommendations



Consumer protections for energy data are crucial.

People are reassured by having clarity about how and why their data will be used, as well as control over who can see it. This should be built in from the outset.



Data choices must remain central to the smart meter rollout.

Almost a third of people who currently want a smart meter would not want one if they did not have these choices.



Information about data options should be accessible by all.

Low income consumers are less likely to be aware of choices and permissions about data. A focus on good communication and accessibility will be crucial to ensure these households are not left behind.

What we found

Most people agree that smart technology is the future. There is a strong appetite for smart meters and devices. But where data is shared, people worry that their personal information may be used for something they haven't agreed to.

➤ **Permissions and opt-outs are essential**

9 in 10 people think opt-outs are important. Without consent to data sharing, the number of people who want a smart meter drops by almost third. The right protections can reassure people that their data will not be misused.

People are often not aware of their data choices

- Less than a quarter of those with smart meters said they were fully aware of the choices they had about data sharing when they got their meter. Many could not recall how frequently they had agreed to share their data. Also, there was significant variation in perceptions and understanding about what data is collected by smart meters

➤ **People need to be able to control their data**

People vary in how frequently they want to share their data, and what they want to share it for. Being able to choose settings that reflect their preferences can improve trust and encourage people to engage.

➤ **Engaging some consumers in the smart meter roll out will continue to be a big challenge**

People without smart meters are less likely to trust their supplier and more likely to think that smart meters collect intrusive information. But those who have smart meters are generally satisfied, even if they do have some concerns about how their data is used.

➤ **People tend not to want targeted advertising based on their smart meter data**

The research showed that consumers are most likely to share their smart meter data to take advantage of lower cost energy through time of use tariffs. Advertising and marketing is likely to put them off sharing data.

Attitudes towards data: our previous research

In 2016 we published **Fairness and Flexibility**, a report about qualitative research into people's attitudes towards personal data, including smart meter data.

This showed

- People want transparency and control over their data
- People might still use a service even when they are not comfortable with it. Just because someone uses a service, it does not mean that they are happy with the data sharing aspect of it.
- People find business models based on data, opaque and hard to understand. As a result, they trust them less.
- People think terms and conditions about data are hard to understand, and tend not to read them. In practice, complicated terms and conditions can undermine people's trust.
- People consider it to be very important that they are able to choose when to share their data and what happens with it. They are more likely to engage with a service if it offers this choice, even if they ultimately do not take advantage of the choices on offer.

Our research approach

We commissioned research consultancy **Accent** to conduct in-depth and representative qualitative research to better understand consumer attitudes to data and smart devices.

The surveys included detailed trade-off exercises to tease out how attractive consumers found different data sharing options.

The research was conducted in spring 2019. It comprised of a representative sample of 3,221 energy consumers across Great Britain, through:

- 3,008 online interviews
- 213 face to face interviews.

41 percent of the sample had a smart meter.

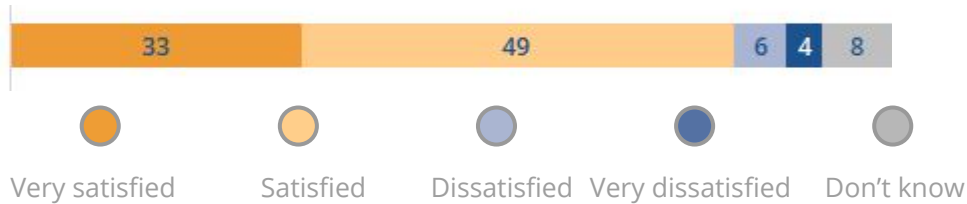
The interview materials went through a rigorous design process including:

- 16 cognitive interviews, to assess understanding of the research questions
- a pilot of 50 interviews to test all aspects of the survey design.

Experience of having a smart meter

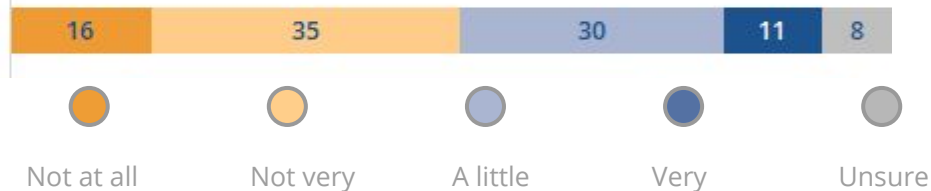
People who have a smart meter tend to be satisfied with it

Overall, how satisfied or dissatisfied are you with your smart meter?



But nearly half are concerned about their data being used

How concerned are you about either your energy supplier or other approved organisations using the information gathered through your smart meter?



Many people are satisfied with their smart meter in general, but not comfortable with the data use aspects of it.

Consumers who were concerned about their data being used often struggle identify the cause of this concern. This reflects existing research which shows that people often find data-based business models hard to understand (see page 5)

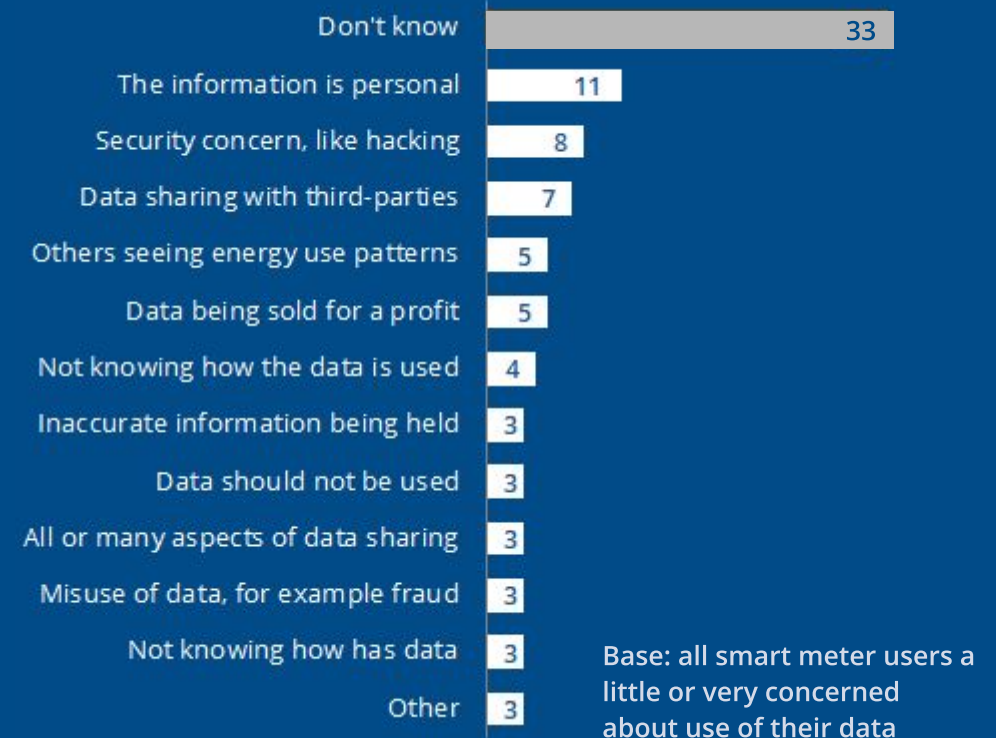


"I don't know how they are using my data"

Reasons for concern about smart meter data

The highest proportion, a third, are unable to explain what they are concerned about. The main concerns that were specified included the collection of personal information and the risks about what could happen to their data.

What aspect of the use of this information is it that you're concerned about?

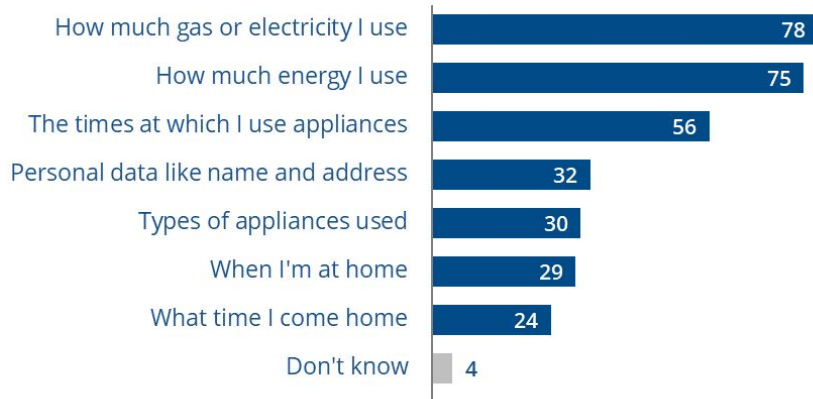


Understanding what data a smart meter collects

We asked about why types of data people thought smart meters collected

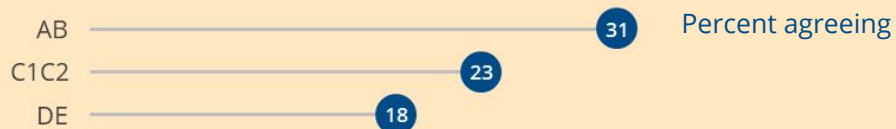
Around a third of people thought their smart meter would collect intrusive information, like the time they are at home or what appliances they use.

What kind of information do you think your smart meter can/could record?



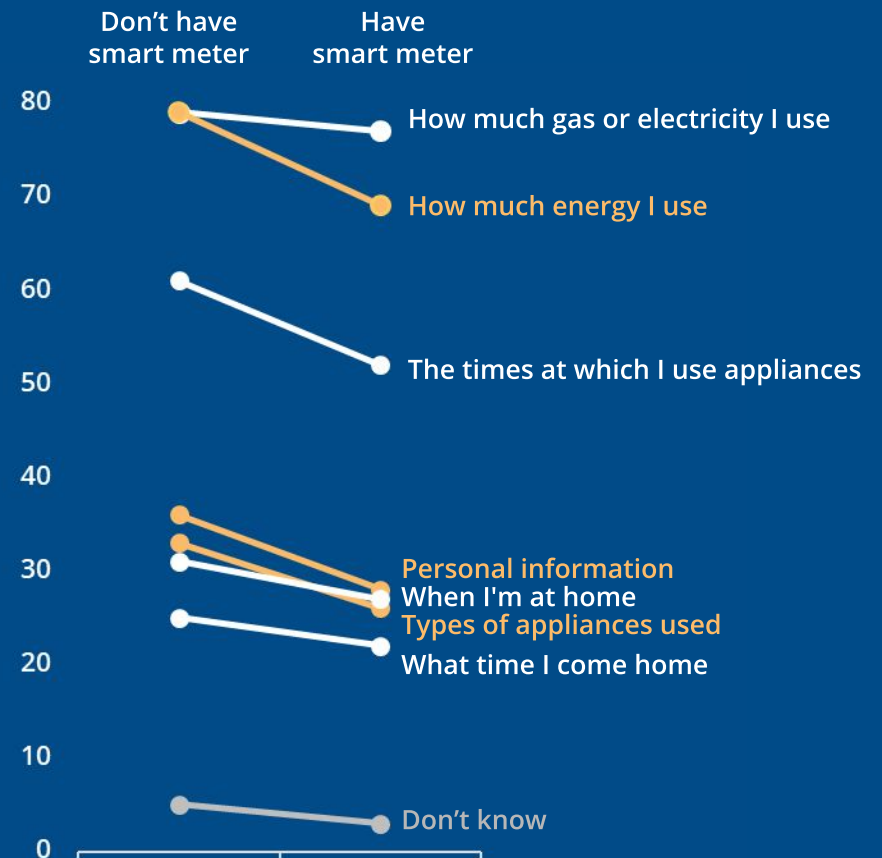
Higher socio-economic groups are more likely to think the smart meters collect more intrusive types of data.

My smart meter can/could record the time I come home By socio-economic group



People without a smart meter are more likely to think it would collect intrusive data

What kind of information do you think your smart meter can/could record?



Views on smart devices

People expect to use smart devices more, but worry about how their data might be used

We asked people if they agreed or disagreed with certain statements about smart devices



Most people agree that smart devices are the future

Around half think that smart devices improve the service they get



But over half of people are concerned about their data being shared by companies whose smart products they use

Over half of people did not trust that their personal data was safe. Only a third of people said they trusted that their personal data was safe.

Top positive sentiments

Smart devices are the future

A smart device means I generally get a better service

Top concerns

I'm worried companies might use data in ways that are not in best interest

I don't trust my personal data is safe



"Big companies seem obsessed with gathering data"



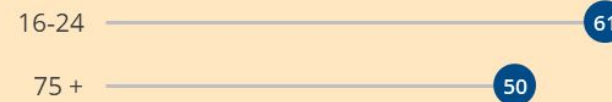
How comfortable people feel with sharing data

People vary in how comfortable they feel with sharing data, and the level of benefit they expect to get in return

Most people will share data with companies, subject to what they will get in return. Just under a fifth do not want to share data in any circumstances.

Younger people are moderately more likely to be comfortable sharing their data with companies than older people

Percent comfortable sharing data, selected age groups



What describes your general attitude to sharing data with companies?

Comfortable sharing my data with companies whose products and services I use



Comfortable sharing my data with companies whose products and services I use, but only if there is a clear benefit for me



Uncomfortable sharing my data with companies, but do on rare occasions, if it means I get a much better product or service, or a cheaper price



Uncomfortable sharing my data with companies in any circumstances. Try to avoid it at all costs



Differences between those who have or don't have smart meters

People who have a smart meter tend to be more comfortable sharing data with third parties

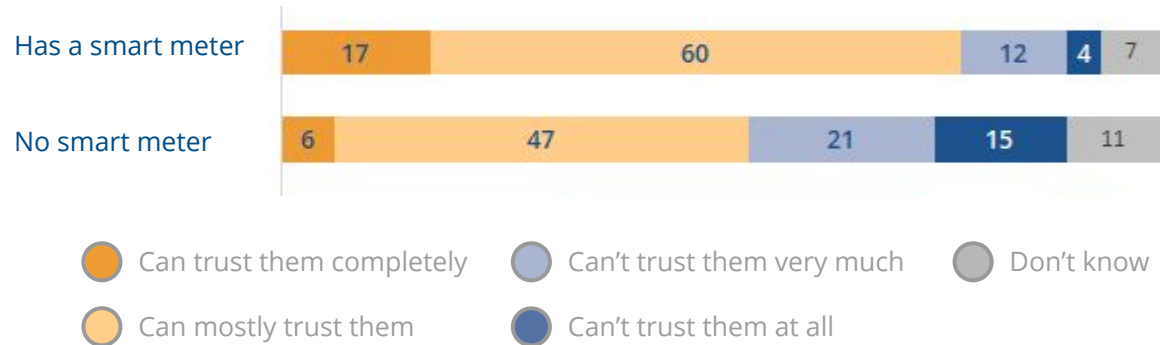
It is unclear if this was a result of their experiences with their smart meter, or if people with higher levels of trust are more likely to want a smart meter in the first place.

People with a smart meter were significantly more likely to be reassured by the information shown to them during this research

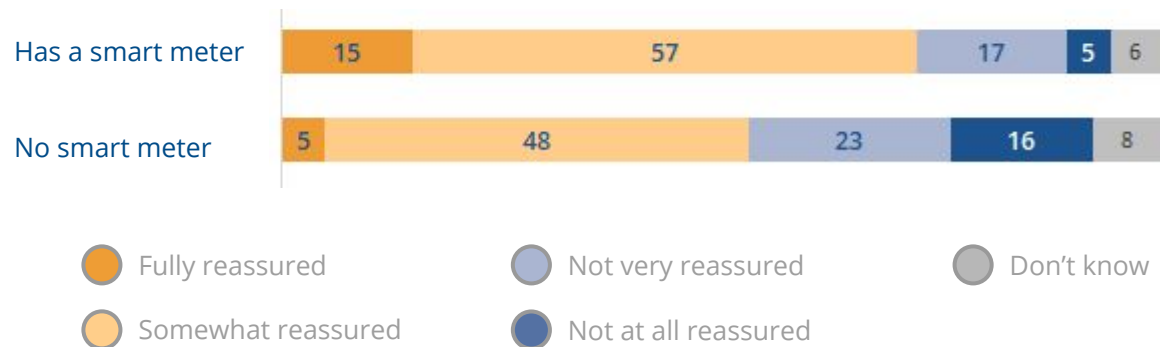
Trust was also higher in some demographic groups than others

Younger people were more likely to trust their supplier with their smart meter data.

To what extent do you feel you can trust/would you feel you could trust your supplier with data collected by a smart meter?



Based on the information you have seen, so far, how reassured do you feel about how suppliers might or can use your smart meter data?



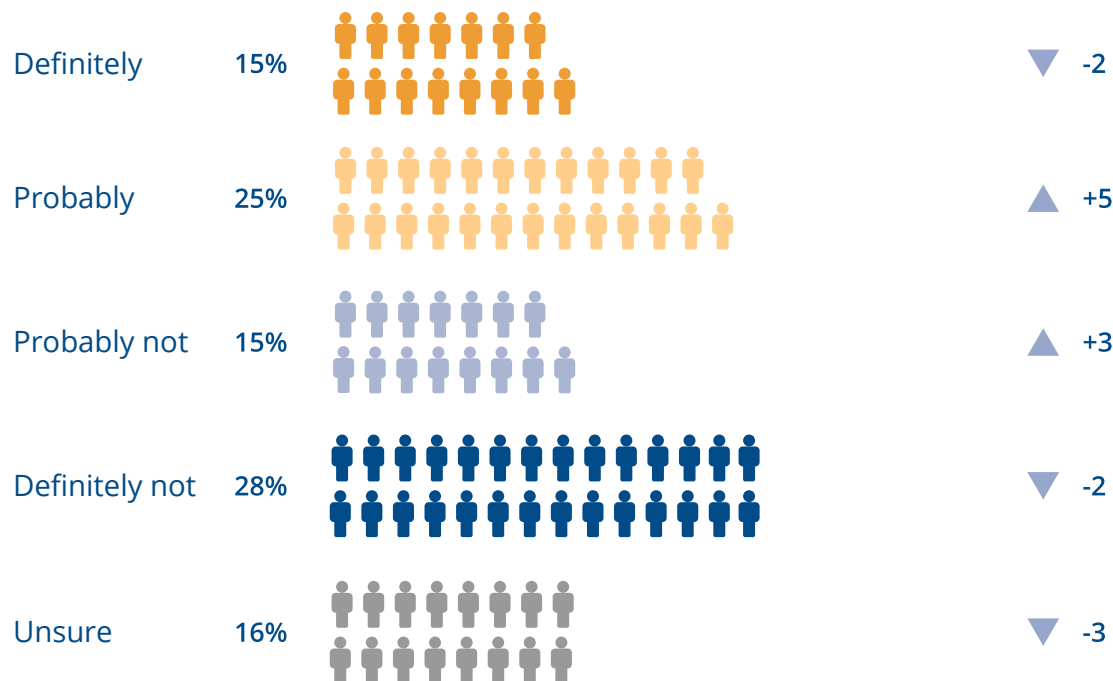
Attitudes to getting a smart meter

Many people without a smart meter do not want one

For people without a smart meter, similar numbers say they wouldn't want one (44%) to those that say they would (40%). However they are much more likely to say they **definitely** would not want one.

At the end of the survey we asked their preference, to see if it changed in response to the information provided. The split between those interested and not interested remained similar, but opinions have become less outspoken.

Based on the description of what a smart meter does, please can you tell us whether you would like one?



Base: all consumers without a smart meter

Reasons for not wanting a smart meter

Common reasons for not wanting a smart meter related to not seeing the need for the change. Negative media stories, like publicity around problems with switching, also play a role.

Why would you not want a smart meter?



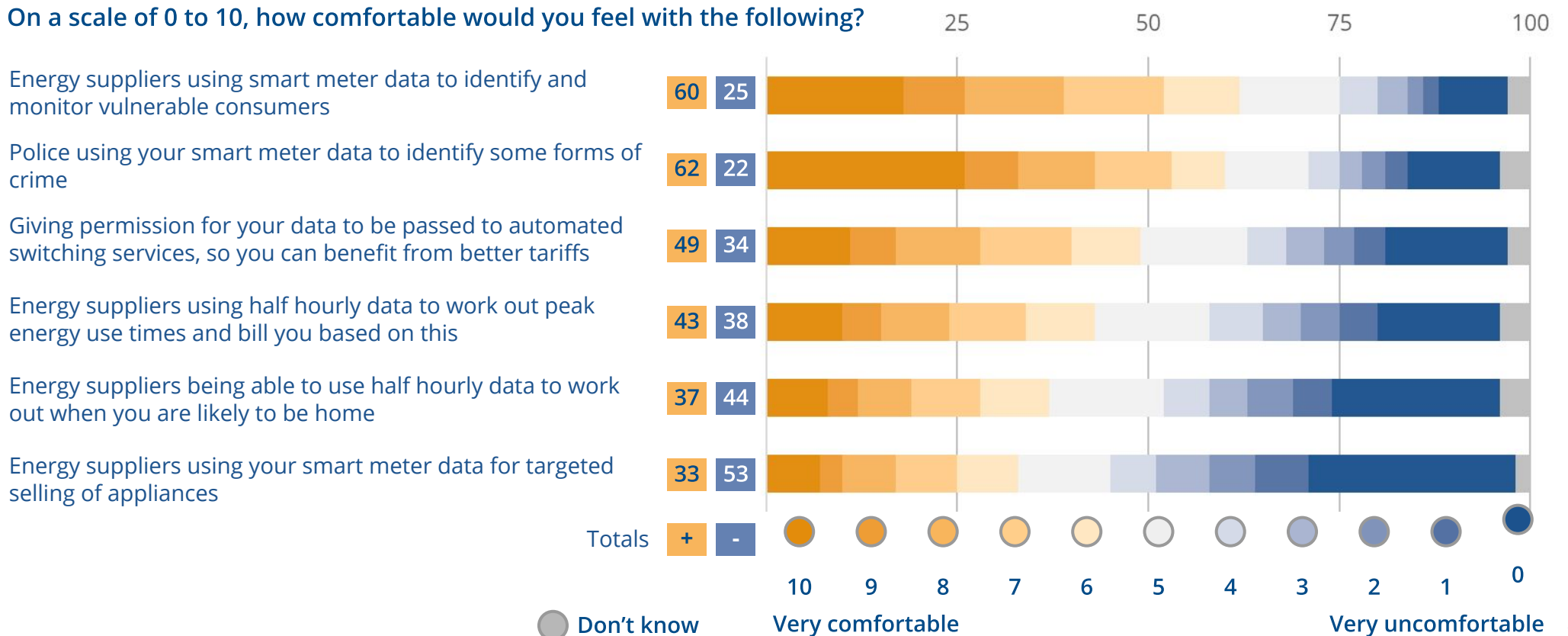
Attitudes to different data sharing purposes

People feel more comfortable sharing data for some uses than for others

- ✓ They are most comfortable sharing data for public goals, like tackling crime and helping vulnerable customers.
- ✗ They are least number of people were comfortable with use of their data for targeted marketing. This was also least attractive in the trade off exercise (see the following page).

While identifying vulnerable consumers was the option that the most people were comfortable with, there are limits to this. The proportion comfortable with this declined by around a third when it was specified this would involve their energy supplier collecting **their** smart meter energy data to identify if they were vulnerable.

On a scale of 0 to 10, how comfortable would you feel with the following?



Outline of the trade-off exercise

We used a choice exercise to find what services consumers would be most likely to share their data in exchange for

In this exercise consumers were asked to pick one of two scenarios of what their energy company could offer in return for using the data from their smart meter.

Each offer was made up of a certain level of data sharing in relation to six factors. For example, marketing or support for vulnerable customers. For each factor, one scenario would mean

a higher level of data sharing, while the other would mean a lower level of data sharing, for example: some identification of crime vs higher levels of identification of crime.

Consumers were asked to pick which of a number of offers they would prefer - in other words which they were more likely to share their data for. Certain options were more likely to lead to an offer being picked or rejected. This led to a ranking of which data sharing purposes consumers find most attractive.

This shows one example set of offers

For this example, for each factor we have coloured to show which offer has the higher level of data sharing

	Offer A	Offer B
Identifying and monitoring vulnerable customers	Some identification and monitoring of vulnerable customers	Higher level of identification and monitoring of vulnerable customers
Tailored energy savings advice	Advice based on your household's general behaviours such as heating settings you might use for different days of the week	Advice based on households similar to yours, in terms of overall energy use
Time of use tariffs	Able to take advantage of lower cost energy through 'time of use tariffs'	Unable to take advantage of lower cost energy through 'time of use tariffs'
Identification of crime	Some identification of crime	Higher level of identification of crime
Marketing	More general offers to sell you more energy efficient appliances for your home	Targeted offers to sell you more energy efficient appliances for your home
Energy grid efficiency	Higher level of information for suppliers to manage the grid efficiently	Some information for suppliers to manage the grid efficiently

Results of the trade-off exercise

Making choices about their data reveals different priorities for consumers than what they say they are most comfortable with

The trade-off exercise showed the services people were most likely to exchange their data for were different to those they say they are most comfortable with, as shown on slide 12.

✓ The trade-offs show people are most likely to share data to take advantage of lower cost energy though time of use tariffs.

The next most attractive was tailored energy efficiency advice. However, this option becomes much less attractive if it requires particularly detailed data.

✗ Targeted marketing was the least attractive option.

Results of the trade-off exercise

Level of attractiveness compared to other options

Most attractive	Able to take advantage of lower cost energy through time of use tariffs	
More attractive	Advice based on your household's general behaviours such as heating settings you might use for different days of the week	
Neither more or less attractive	Higher level of identification of crime	Information for networks to manage the grid effectively
	Higher level of identification and monitoring of vulnerable customers	
Less attractive	Advice at a very detailed level - based on your household's circumstances and energy usage	More general offers to sell you more energy efficient appliances for your home
Least attractive	Targeted offers to sell you more energy efficient appliances for your home	

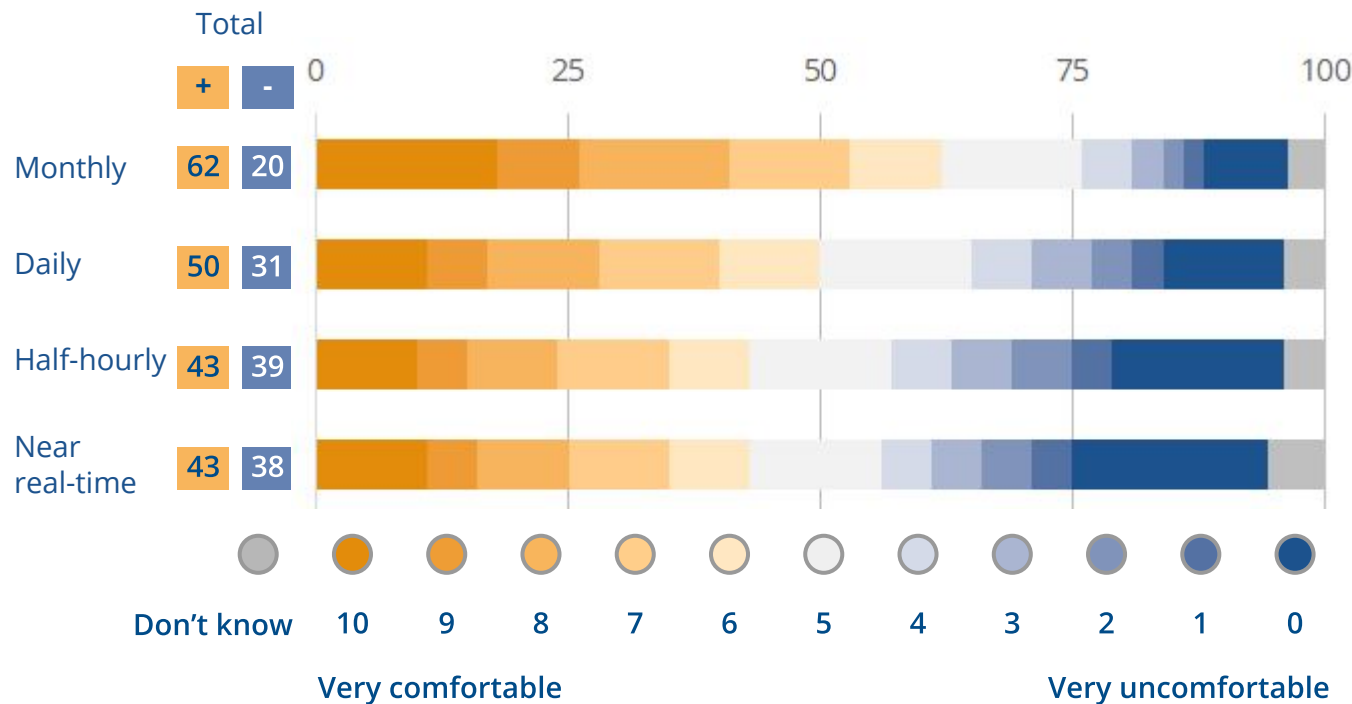
Attitudes to sharing more detailed data

The more detailed data is the less comfortable people are sharing it

Over 6 in 10 people are comfortable sharing data on a monthly basis. This declines to 5 in 10 for daily data and just over 4 in 10 for more frequent data sharing.

The same number of people are comfortable with sharing data on a half-hourly or near real-time. However, the number who are very uncomfortable increases with near-real time sharing.

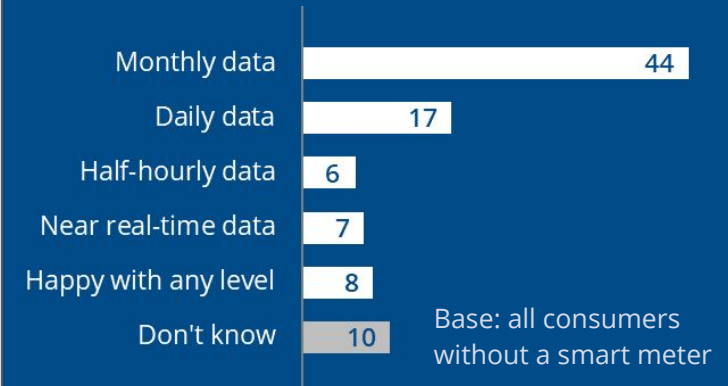
How comfortable do/would you feel about sharing data from your smart meter with your energy supplier at the following levels?



This impacts the likelihood of consumers sharing this data

Consumers without a smart meter would be more likely to opt for monthly data sharing than more frequent sharing.

If you had a smart meter, which level of data do you think you would consent to your energy supplier having access to?



"I don't like the idea that someone has such detail in my life...when I'm using electricity, dates and times. It makes me feel very uncomfortable"

Awareness of permissions

When they accept a smart meter, most people are not fully aware of the choices and permissions available

Before you got your smart meter, to what extent were you aware of the choices around the levels of data sharing and types of permission energy suppliers would need to ask you for?



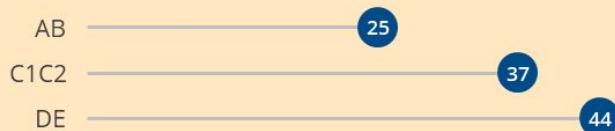
Base: all consumers with a smart meter

This reflects existing research that indicates consumers tend not to read terms and conditions about data use. When they do, they often do not understand them. However, this does not mean that these protections are not important to people.

Awareness varies by demographic

People from lower socio-economic groups were less likely to be aware of choices around data

Percent not aware of choices and permissions
By socio-economic group

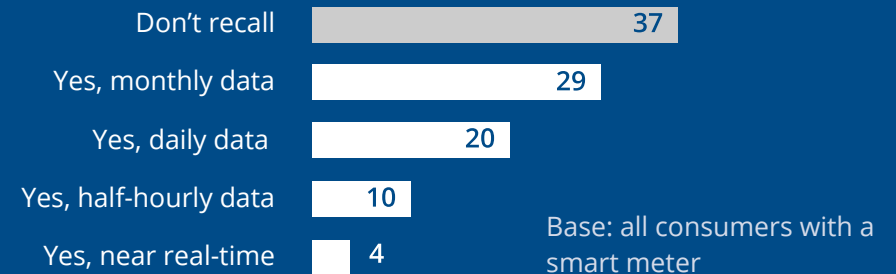


Many of those with a smart meter don't recall the level of consent they gave.

A third of people didn't recall what level of data they gave consent to share - the most common single response.

We did not confirm whether or not the other responses given were an accurate reflection of the level of consent given.

Do you recall what consent you provided in relation to your smart meter data?



"Who is my data being shared with and why?"

The importance of choice

Across the board, people think opt-outs are important

9 in 10 people thought opt-outs were an important condition for data sharing.



"They should always ask before using any of my data"

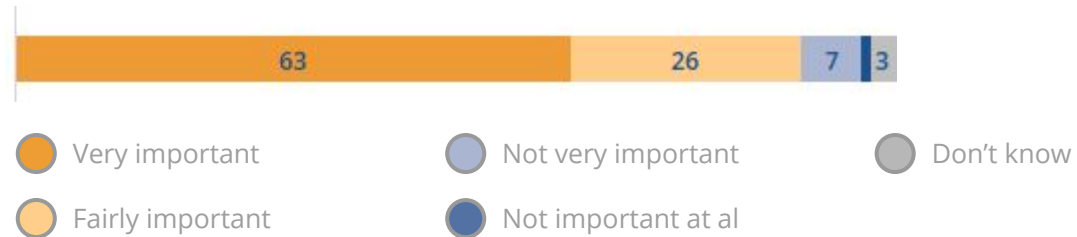
Without permissions, interest in getting a smart meter drops

Almost a third of those who currently want a smart meter would not want one if they did not have these choices.



"It should be data that I want to share, not what other people decide"

How important do you feel it is that consumers are given options to opt out of the providing access to their data?

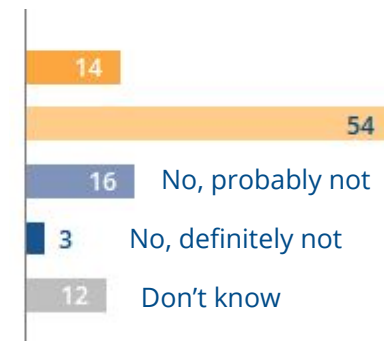


If you did not have different choices around the levels of data sharing and the types of permission energy suppliers would need to ask you for, would you still want a smart meter?

Original response



If choice was limited



Base: all consumers interested in getting a smart meter

Protections give consumers confidence

We asked people about different measures that could help give them better transparency and control over how their data was used

All the measures we asked about would help reassure most consumers. This suggests a range of protections can all contribute to consumer trust. However, a minority of consumers will not be reassured even with these protections.



(There should be) "a simple way to access what they hold... preferably they have to send you all data to check once a year"

To what extent would each of the following reassure you about what happens with your smart meter data?

Supplier needing to get my explicit permission to use the data for marketing

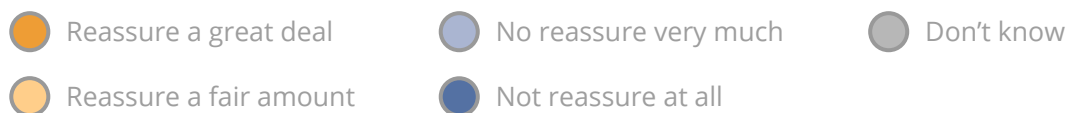
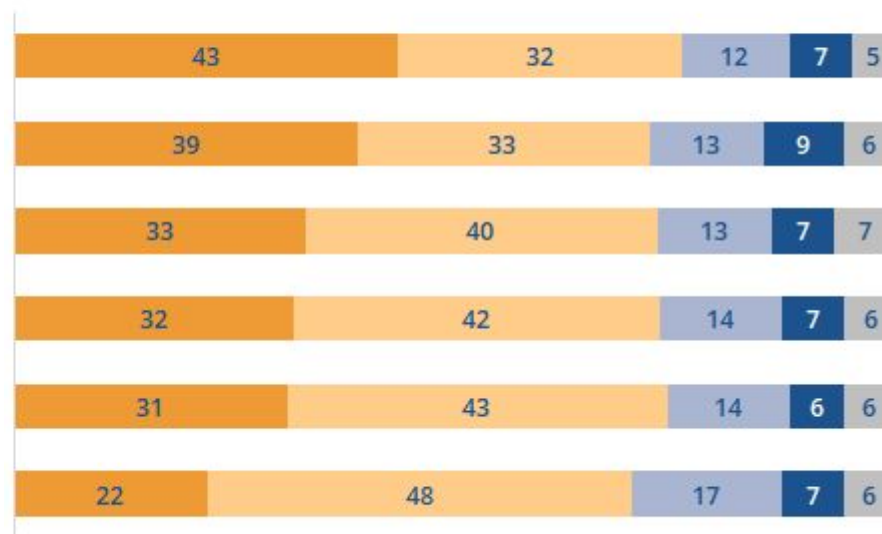
Preventing companies sharing my data with others

Being able to change settings for different suppliers or organisations accessing my data

Supplier having to remind me regularly what level of data I am sharing with me

Making it easy to opt out of sharing data more than once a month

Supplier being clear about how they intend to use my data, what data they use and what for



Good quality, independent advice. For everyone, for 80 years.

We give people the knowledge and confidence they need to find their way forward - whoever they are, and whatever their problem.

Our network of charities offers confidential advice online, over the phone, and in person, for free.

With the right evidence, we show companies and the government how they can make things better for people.



citizensadvice.org.uk

Published November 2019

Citizens Advice is the operating name of The National Association of Citizens Advice Bureaux. Registered charity number 279057.