

## BEIS Public Attitudes Tracker: Heat and Energy in the Home Spring 2022, UK

16 June 2022

Official Statistics

This report covers the results of questions on heating and energy usage in homes asked in the BEIS Public Attitude Tracker. It covers the quarterly questions on awareness of changes to the heating of our homes to reach Net Zero, and awareness of low carbon heating.

It also covers the annual questions asked on heating attitudes, low carbon heating, insulation and Energy Performance Certificates (EPCs) and the Spring 2022 questions on energy saving behaviours, smart meters, energy bills and switching suppliers.

**What you need to know about these statistics:** These results from the BEIS Public Attitudes Tracker (PAT) were collected using the Address Based Online Surveying (ABOS) methodology introduced in Autumn 2021, which uses random probability sampling. The results should not be compared with previous PAT surveys, which used different data collection methods. For details, see the Technical Overview. Some revisions were made following the publication of the Winter 2021 report. See the [Winter 2021 Revision Note](#) for details.

The table below shows the topics covered in this report and when these questions were included in the BEIS Public Attitude Tracker. Links are included to the findings for each topic.

Topic	When included	Link to findings
Awareness of heating changes to meet Net Zero targets and of low carbon heating	Quarterly	<a href="#">Link</a>
Low carbon heating systems	Winter 2021	<a href="#">Link</a>
Heating and cooling in the home	Winter 2021	<a href="#">Link</a>
Attitudes towards heating in the home	Winter 2021	<a href="#">Link</a>
Replacing heating systems	Winter 2021	<a href="#">Link</a>
Insulation in the Home	Winter 2021	<a href="#">Link</a>
Energy Performance Certificates (EPCs)	Winter 2021	<a href="#">Link</a>
Awareness of rental property energy standards	Spring 2022	<a href="#">Link</a>
Saving energy in the home and smart meters	Spring 2022	<a href="#">Link</a>
Concern about paying energy bills	Spring 2022	<a href="#">Link</a>
Perceived impact of renewables on energy bills	Spring 2022	<a href="#">Link</a>
Energy suppliers	Spring 2022	<a href="#">Link</a>

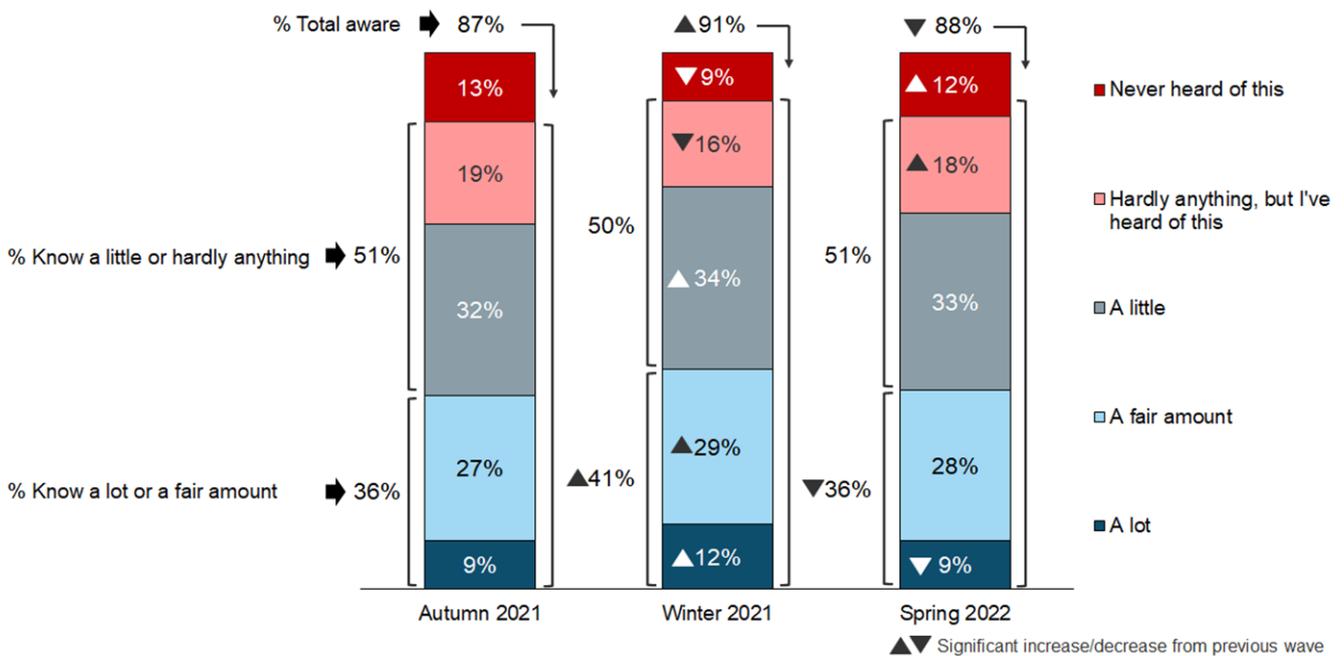
# Awareness of heating changes to meet Net Zero targets and of low carbon heating

## Awareness of need to change domestic heating to meet Net Zero target

Respondents were presented with the following explanation: 'In the lead up to 2050, the way we heat almost all of our homes and buildings will need to change in order to reach the UK government's net zero target'.

After reading this explanation, in Spring 2022, 88% of people said they had some awareness of this, a slight decline since Winter 2022 (91%). Overall, 36% said they knew either a fair amount (28%) or a lot (9%). Around half (51%) knew either a little (33%) or hardly anything (18%) (Figure 1.1).

**Figure 1.1: Awareness of the need to change the way homes are heated to reach Net Zero targets in 2050 (based on all people), Spring 2022**



HEATHOMEKNOW. In the lead up to 2050, the way we heat almost all of our homes and buildings will need to change in order to reach the UK government's net zero target. Before today, how much if anything did you know about this?

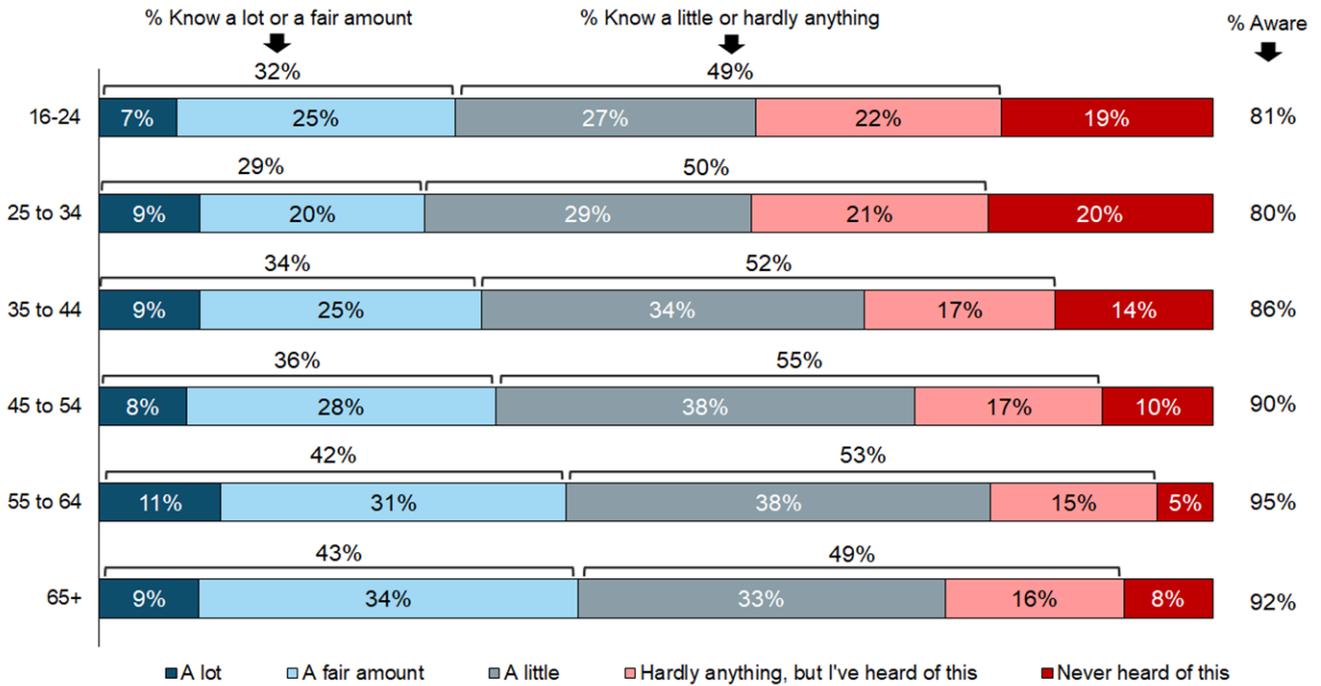
Base: All wave respondents – Autumn 2021 (5,552), Winter 2021 (3,705), Spring 2022 (4,374) (Asked Quarterly)

While there was only a small difference in overall awareness by gender (91% of men compared with 85% of women), men were considerably more likely to report knowing at least a fair amount about the need to change home heating systems (45%, compared with 28% of women).

Awareness was also higher among people living in owner-occupied homes (92% compared with 79% of people living in rented homes) as was knowing at least a fair amount about this (41% compared with 27% of renters).

The proportion of people who said they knew at least a fair amount was higher for people educated to degree level (52%, compared with 33% of those with another qualification and 19% of people with no qualifications) and for people aged 55 or over (43% of those aged 55 and over compared with 31% of those aged 16 to 34 and 35% of those aged 35-54), with similar patterns of difference in overall awareness (see Figure 1.2).

**Figure 1.2: Awareness of the need to change the way homes are heated to reach Net Zero targets in 2050 (based on all people) by age, Spring 2022**



HEATHOMEKNOW. In the lead up to 2050, the way we heat almost all of our homes and buildings will need to change in order to reach the UK government's net zero target. Before today, how much if anything did you know about this?

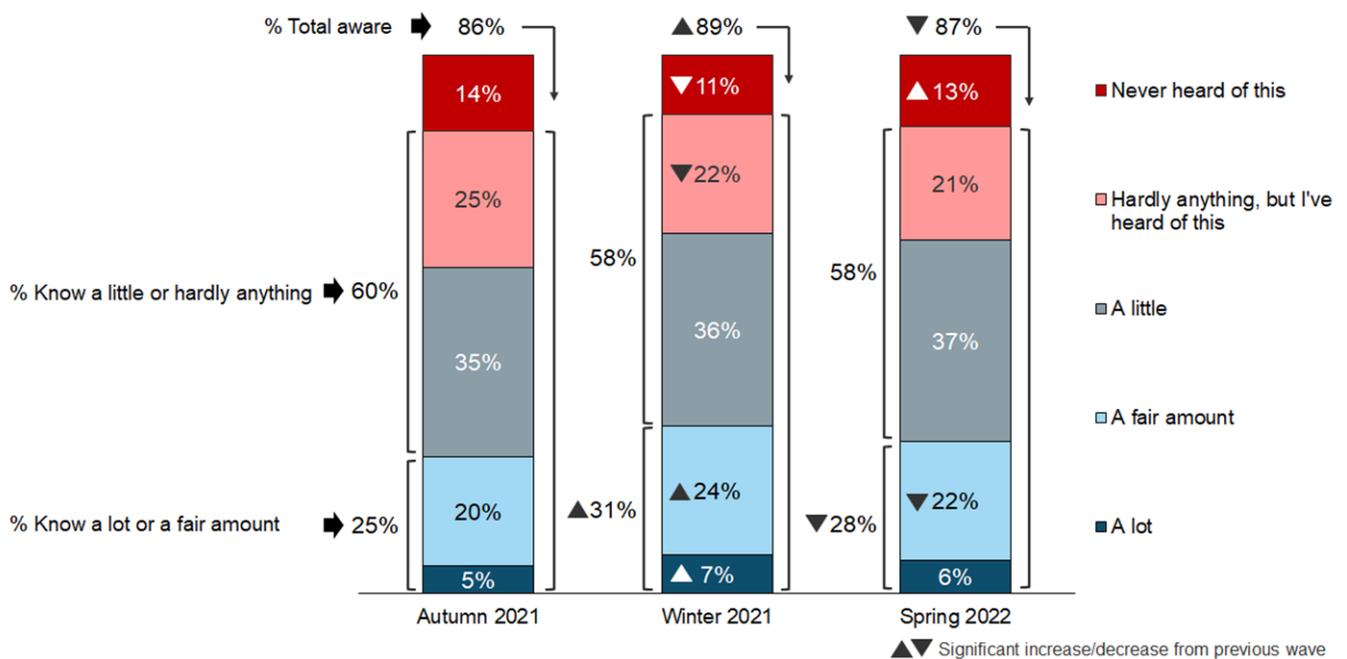
Base: All wave respondents – Spring 2022: 16-24 (254), 25-34 (561), 35-44 (569), 45-54 (683), 55-64 (834), 65+ (1,411)

## Awareness of low carbon heating systems

Low-carbon heating systems were first described to respondents in general terms as “environmentally friendly heating systems which no longer rely on conventional gas central heating but instead use energy from low-carbon alternatives such as hydrogen, the sun, or heat pumps which draw heat from the ground, air or water to heat homes”. More detailed awareness of different types of low carbon heating is covered in the next section.

After reading this explanation, 87% of people in Spring 2022 said they had heard of low carbon heating systems, lower than 89% in Winter 2021 (Figure 1.3). While there was no increase in awareness between Autumn 2021 and Spring 2022, there was a small but significant shift in knowledge, with 28% saying they knew at least a fair amount, up from 25%.

**Figure 1.3: Awareness of low-carbon heating systems (based on all people), Spring 2022**



LOWCARBKNOW. The next question is about low-carbon heating systems. By this we mean environmentally friendly heating systems which no longer rely on conventional gas central heating but instead use energy from low-carbon alternatives such as hydrogen, the sun, or heat pumps which draw heat from the ground, air or water to heat your home. Before today, how much if anything did you know about low-carbon heating systems?  
Base: All wave respondents – Autumn 2021 (5,552), Winter 2021 (3,702), Spring 2022 (4,376) (Asked Quarterly)

Differences in awareness by subgroup were very similar to those observed in relation to the need to change the way homes are heated. The proportion who knew at least a fair amount about low-carbon heating systems was higher among men (37%, compared with 20% of women), people aged 55 or over (33%, compared with 26% of those aged under 55) and people educated to degree level (41%, compared with 25% of those with another qualification and 15% of people with no qualifications), with similar subgroup differences in overall awareness.

# Low carbon heating systems

## Awareness of specific low carbon heating systems

In Winter 2021, people were then asked about their awareness and knowledge of different types of low carbon heating systems. A brief description of each type was provided as follows:

- **Air source heat pumps** - these extract heat from the outside air to heat your home and water.
- **Ground source heat pumps** - these extract heat from pipes buried in the ground to heat your home and water.
- **Hybrid heat pumps** - these combine heat pump and standard gas boiler technology to heat your home and water.
- **Heat networks (also known as communal or district heating)** – these take heat from a central source and distribute it to multiple customers in a building or across several buildings.
- **Biomass boilers** - these work in a similar way to standard gas boilers to heat your home and water but instead use a renewable material such as wood pellets as fuel.
- **Solar thermal panels** - these capture heat from the sun to provide hot water, typically in a storage tank. This is **not the same as solar panels** which use energy from the sun to produce electricity.
- **Hydrogen boilers** - these work in a similar way to standard gas boilers to heat your home and water, but use hydrogen rather than natural gas as fuel. This technology is not currently available in the UK.
- **Hydrogen-ready boilers** - These are designed to use hydrogen in the longer term but are initially constructed to use natural gas to heat your home and water. This technology is not yet available

In Winter 2021, awareness varied across the different types of heating system (Figure 2.1).

Awareness was highest for solar thermal panels (81%); however, it should be noted that we know that people often confuse these with the more common solar photovoltaic panels, so it is possible that this is an overestimate<sup>1</sup>. Awareness was also relatively high for air source heat pumps (71%), ground source heat pumps (67%) and biomass boilers (62%). Around half had heard of hybrid heat pumps (51%), heat networks (50%) and hydrogen boilers (50%), while people were least aware of hydrogen-ready boilers (40%).

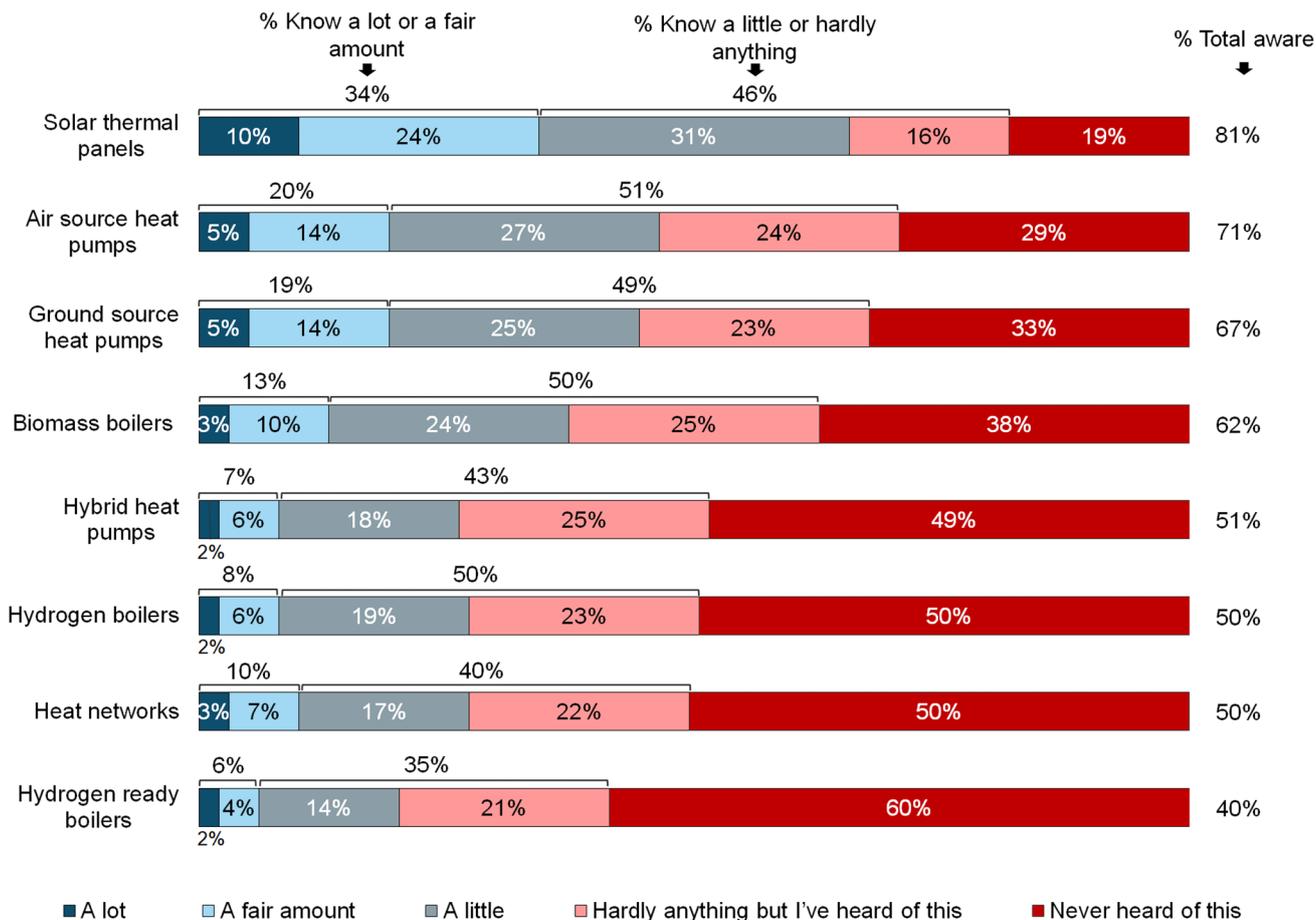
Although at least 40% had heard of at least one of these types of low carbon heating system, knowledge was considerably lower, and the variation in levels of knowledge of individual low carbon heating systems reflects the general patterns of awareness described above. The proportion who said they knew either a fair amount or a lot was highest for solar thermal panels (34%)<sup>2</sup>, reducing to around one in five for air source heat pumps (20%) and ground source heat pumps (19%). At the other end of the scale, less than 10% knew at least a fair amount about hydrogen boilers (8%), hybrid heat pumps (7%) and hydrogen-ready boilers (6%).

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<sup>1</sup> In the question wording, we explained that these were 'not the same as solar panels which use energy from the sun to produce electricity' although it is likely that some confusion remained.

<sup>2</sup> See comments above about this being a potential overestimate.

**Figure 2.1: Knowledge about specific low-carbon heating systems (based on all people), Winter 2021**



LCHEATKNOW1-8. How much would you say you know about the following low carbon heating systems?  
 Base: All wave respondents – Winter 2021: Air source heat pumps (3,696), Ground source heat pumps (3,693), Hybrid heat pumps, (3,690), Heat networks (3,686), Biomass boilers (3,692), Solar thermal panels (3,693), Hydrogen boilers (3,694), Hydrogen-ready boilers (3,688)

In line with the overall awareness of low carbon heating described in the previous section, across all low carbon heating types, men and those with higher levels of education displayed higher levels of awareness and knowledge. The age pattern, on the other hand, differed by type of heating system. The proportion who knew a fair amount or a lot about ground source and air source heat pumps increased by age (air source heat pumps: from 10% of 16-24s to 26% of over 65s; ground source heat pumps: from 12% of 16-24s to 25% of over 65s). On the other hand, awareness of solar thermal panels was highest for the youngest age groups (43% of 16-24s declining through the age groups to 32% of over 65s).

In general, awareness and knowledge of low carbon heating systems was higher for those who had a better knowledge of the concept of Net Zero. For example, 75% of those who were aware of Net Zero were also aware of air-source heat pumps, compared with only 34% of those who had never heard of Net Zero.

## Likelihood to install low carbon heating systems

In order to gauge the propensity to adopt low carbon heating systems, people were asked if they would consider installing one of five different low carbon systems the next time they need to change their heating system or boiler<sup>3</sup>.

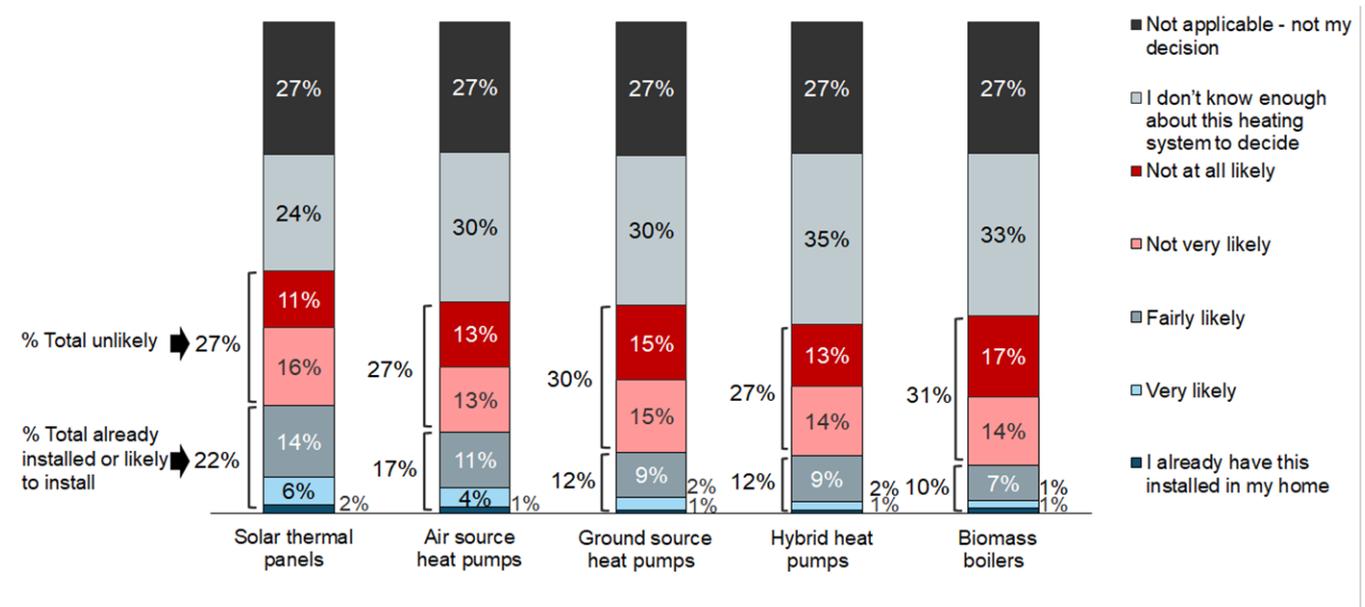
In Winter 2021, between a quarter and a third of people said they didn't know enough about these heating systems to decide, ranging from 24% who said they didn't know enough about solar thermal panels to 35% for hybrid heat pumps.

Where people did express an opinion, a greater proportion said they were unlikely to change to a low carbon heating system than the proportion who said they were likely to. Around three in ten (between 27% and 31%) said that they were unlikely to install each of these.

Including the very small proportions who had already installed these, people were most likely to adopt solar thermal panels (22%) or air source heat pumps (17%) and were least likely to adopt biomass boilers (10%).

22% of all respondents were likely to install any type of heat pump (air source, ground source or hybrid) or already had a heat pump installed. 21% of all respondents were likely to install a heat pump of any type but had not already got one installed.

**Figure 2.2: Whether likely to install specific low-carbon heating systems next time they need to change (based on all people), Winter 2021**



LCHEATINSTALLA-E. How likely is it that you would install each of the following heating systems in your home when you next need to change your heating system or boiler?

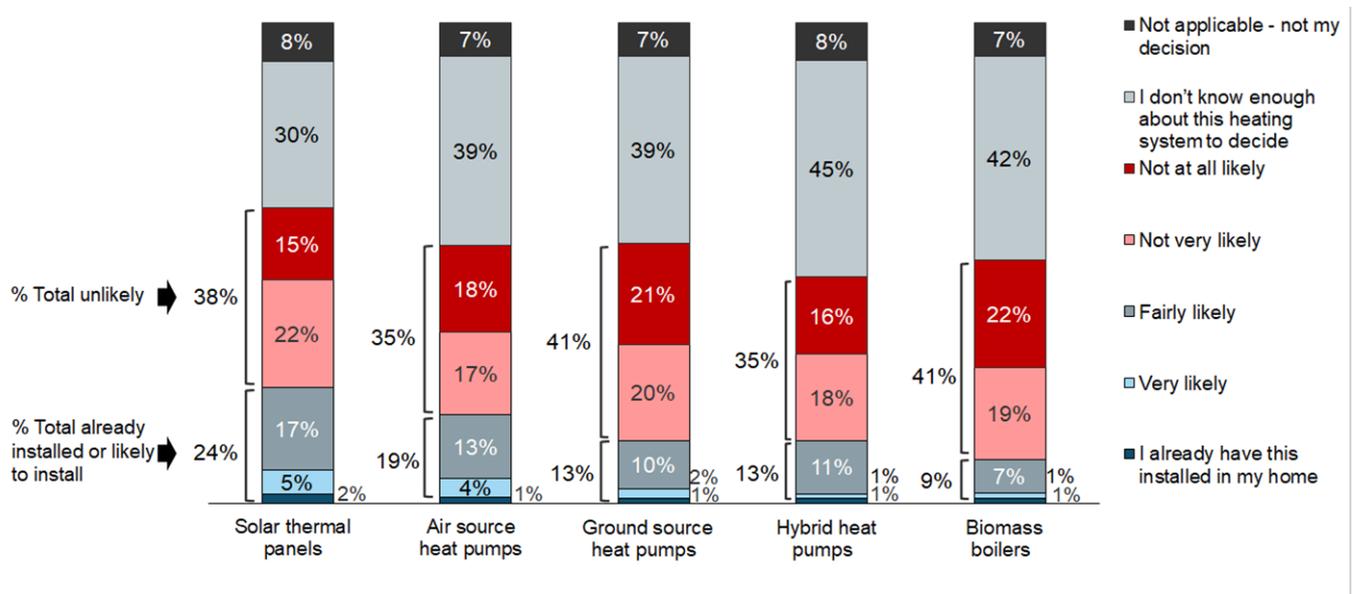
Base: All wave respondents – Winter 2021: Air source heat pumps (3,677), Ground source heat pumps (3,656), Hybrid heat pumps (3,656), Biomass boilers (3,652), Solar thermal panels (3,655)

Around a quarter (27%) said that this was not their decision to make. This was mainly explained by around seven in ten renters (between 67% and 69%) saying that this was not their decision to make for each given type of low-carbon heating system – a figure which was

<sup>3</sup> The differences between weighting these results by individual or by household are minor and do not change the narrative of the results. Results throughout this section are weighted by individual.

much lower among owner-occupier households (between 7% and 8%). Figure 2.3 shows the same results based only on people living in owner occupied households.

**Figure 2.3: Whether likely to install specific low-carbon heating systems next time they need to change among owner occupiers (based on people living in owner-occupied accommodation), Winter 2021**



LCHEATINSTALLA-E. How likely is it that you would install each of the following heating systems in your home when you next need to change your heating system or boiler?

Base: All wave respondents living in owner occupier households – Winter 2021: Air source heat pumps (2,738), Ground source heat pumps (2,728), Hybrid heat pumps (2,730), Biomass boilers (2,725), Solar thermal panels (2,727)

A high proportion of those living in owner-occupied households did not know whether they would install a low carbon heating system in the future. This was highest for hybrid heat pumps (45%) and lowest for solar thermal panels (30%).

Amongst those who did express an opinion, a greater proportion said they were unlikely to change to a low carbon heating system than the proportion who said they were likely to. More than a third of those living in owner-occupier households (between 35% and 41%) said that they were unlikely to install each of these. Those living in owner-occupier households were most likely to say they were likely to install solar thermal panels or already had them installed (24%) followed by an air source heat pump (19%). This subgroup were least likely to install a biomass boiler with only 9% saying they were likely to install a biomass boiler or had one already installed.

24% of those in owner-occupier households were likely to install any type of heat pump (whether air source, ground source or hybrid). This proportion rises to 26% if those who have already installed a heat pump are included.

Among people living in owner-occupied accommodation, younger people were more likely than older people to be receptive to the installation of solar thermal panels; 27% of those living in owner-occupier households aged 16-34 were either likely to install solar thermal panels or had already done so, compared with 22% of those aged 55 or over.

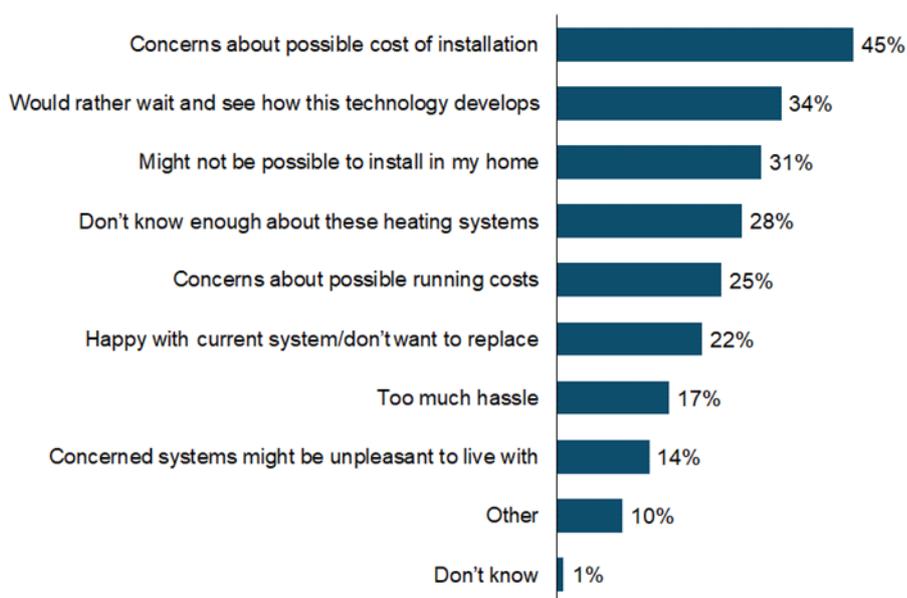
Including those who had already installed this, people living in owner-occupier households who were concerned about climate change were more likely to change to an air source heat pump (20% of those very or fairly concerned, compared with 10% of owner-occupiers not very or not at all concerned), and solar thermal panels (26% compared with 10%).

Overall, in Winter 2021, 56% of people living in owner-occupier households, said that they were unlikely to install at least one of the five different types of low carbon heating systems if they needed to replace their heating system. This subgroup was asked their reasons for this (Figure 2.4).

The main barriers to changing to a low carbon heating system included concerns about the cost of installation (45%), a preference to wait to see how the technology develops in time (34%), or a perception that it might not be possible to install in their home (31%). The latter view was especially prevalent among those living in a flat or maisonette (59%).

Other barriers mentioned by at least one in ten included not knowing enough about the heating systems (28%), concerns about running costs (25%), because they were happy with their existing system (22%), thinking it was too much hassle (17%), concerns that it might be unpleasant to live with (for example, that it may be noisy or unsightly) (14%), or other reasons (10%).

**Figure 2.4: Why unlikely to install specific low-carbon heating systems (based on owner occupiers unlikely to install one or more of the low carbon systems), Winter 2021**



LCNOWHY. You said you would be unlikely to install the following heating systems in your home [...] Why is this?  
Base: All owner occupier households who are unlikely to install one or more of low carbon types of heating in home – Winter 2021 (1,621)

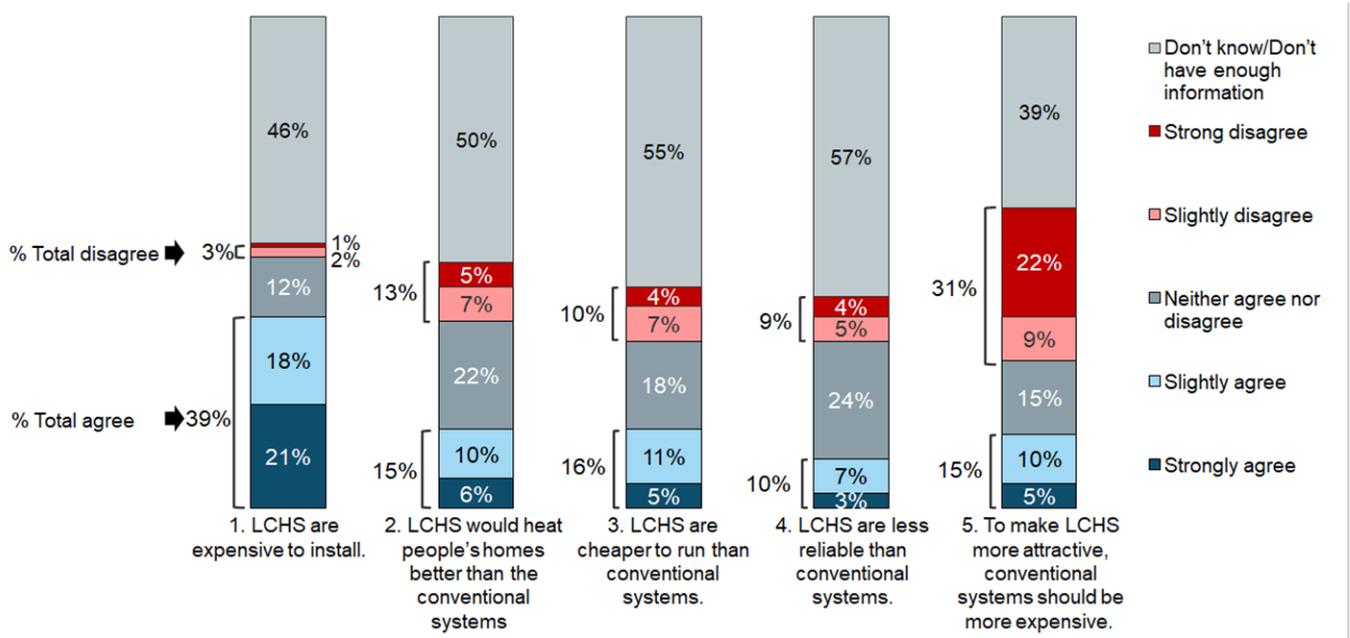
## Attitudes towards low carbon heating systems

The public were asked the extent to which they agreed or disagreed with the following five statements:

1. Low-carbon heating systems are expensive to install
2. Low-carbon heating systems would heat people’s homes better than the conventional systems (for example, gas or oil boilers)
3. Low-carbon heating systems are cheaper to run than conventional systems
4. Low-carbon heating systems are less reliable than conventional systems
5. To make low-carbon heating systems more attractive, conventional systems should be made more expensive

In Winter 2021, a large proportion said they either didn’t know, didn’t have enough information or neither agreed nor disagreed with each of these statements (Figure 2.5). This combined proportion ranged from 54% for Statement 5 to 81% for Statement 4.

**Figure 2.5: Attitudes towards low carbon heating systems (based on all people), Winter 2021**



LOWCARBATT1-5. How much do you agree or disagree with the following statements? NOTE – LCHS is included in full as ‘low-carbon heating systems’ in the questionnaire statements

Base: All wave respondents – Winter 2021: LCHS are expensive to install (3684), LCHS would heat people’s homes better than the conventional systems (3679), LCHS are cheaper to run than conventional systems (3680), LCHS are less reliable than conventional systems (3677), To make LCHS more attractive, conventional systems should be more expensive (3676)

Even among people who said they knew at least a little about low carbon heating systems, the level answering ‘neither agree nor disagree’ or ‘don’t know/don’t have enough information’ was still high, ranging from 33% for Statement 5 to 77% for Statement 4. This indicates that, even among those with a reasonable level of awareness, there is still a substantial lack of knowledge about how these systems work.

Reinforcing the results in Figure 2.4 which showed that the strongest barrier for rejecting low carbon systems was cost, the public were considerably more likely to agree (39%) than

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disagree (3%) that 'low carbon heating systems are expensive to install', although they were slightly more likely to agree (16%) than disagree (10%) that 'low carbon systems are cheaper to run than conventional systems'. The public were twice as likely to disagree (31%) than agree (15%) that conventional heating systems should be made more expensive to make low carbon alternatives more attractive.

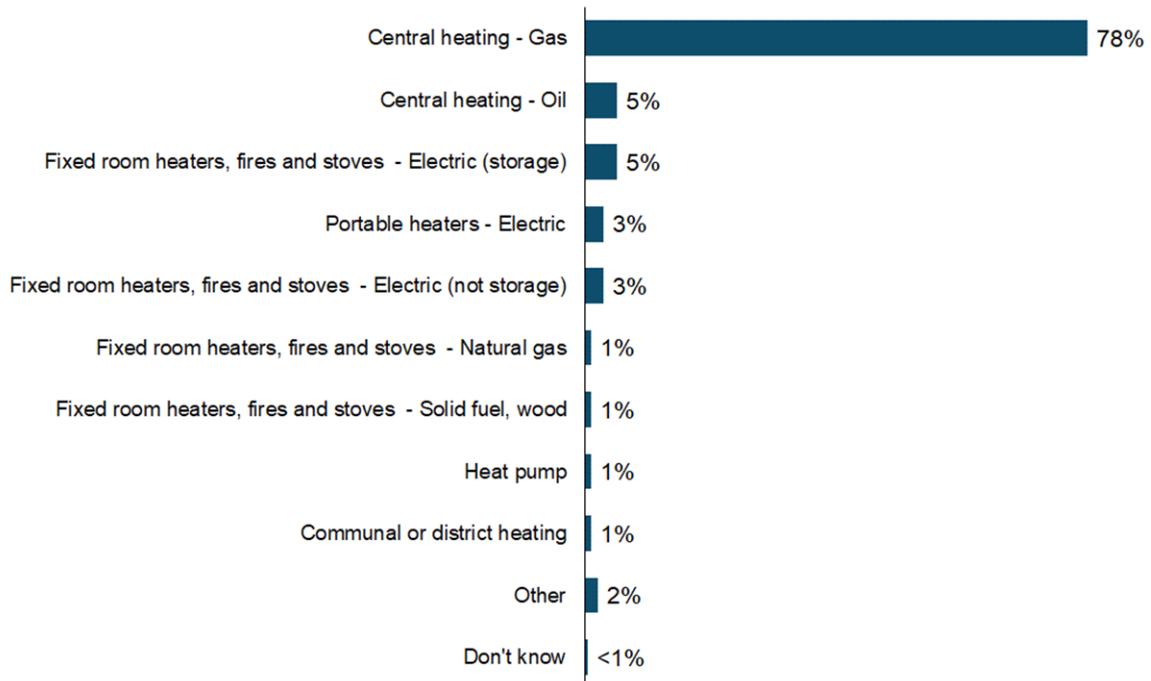
Views among those who felt able to offer an opinion were more evenly balanced when it came to efficiency ('Low-carbon heating systems would heat people's homes better than the conventional systems') and reliability ('Low-carbon heating systems are less reliable than conventional systems').

# Heating and cooling in the home

People were asked about the main systems used at home to heat and cool their homes. The results have been weighted to represent all households.

In Winter 2021, the main system for heating the home was gas central heating (78%), while 5% had oil central heating and a further 5% used electric storage heaters (Figure 3.1). All other methods were used by less than 5% of people.

**Figure 3.1: Main method of heating home (based on all households), Winter 2021**



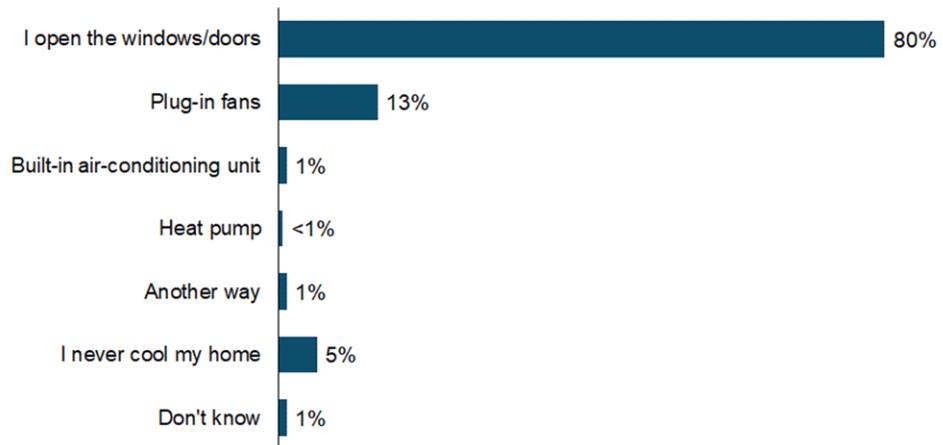
HEATMAIN. What is the main way you heat your home?

Base: All wave households – Winter 2021 (3,484)

Note: At this question, results are weighted to households (not individuals)

In Winter 2021, when households needed to cool their home, they mainly opened windows and doors (80%), although 13% used a plug-in fan as their main system of cooling (Figure 3.2).

**Figure 3.2: Main method of cooling home (based on all households), Winter 2021**



COOLMAIN. What is the main way you cool your home when you need to?

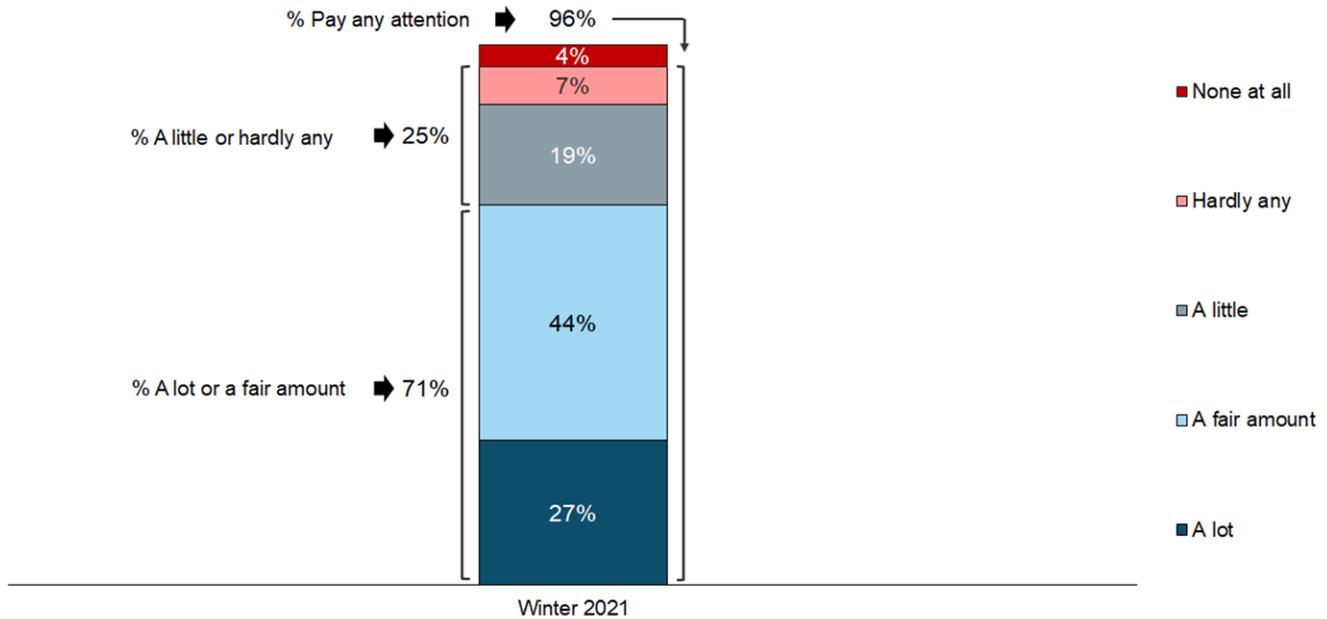
Base: All wave households – Winter 2021 (3,705)

Note: At this question, results are weighted to households (not individuals)

# Attitudes towards heating in the home

In Winter 2021, seven in ten (71%) of the public said that they paid either a lot (27%) or a fair amount (44%) of attention to the amount of heat they used in their home (Figure 4.1). One in five people (19%) said that pay only a little attention to the amount of heat they use in their homes, and a further 10% said they pay hardly any or no attention at all to this.

**Figure 4.1: How much attention paid to amount of heat used in home (based on all people), Winter 2021**

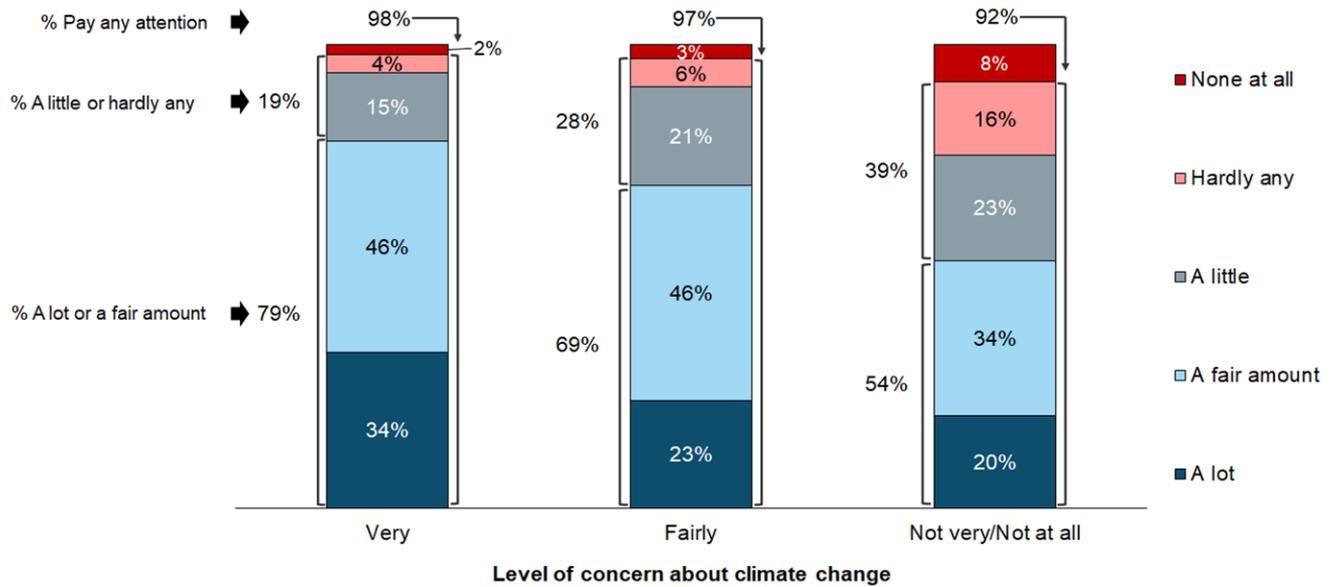


HEATUSE. How much attention do you pay to the amount of heat you use in your home?  
 Base: All wave respondents – Winter 2021 (3,701)

The extent to which people paid attention to their home increased with age. Older people (81% of those aged 65 and over) were the most likely to pay a lot or a fair amount of attention to the amount of heat they use at home, this figure declining through the age groups to 46% of those aged 16-24.

People who were concerned about climate change were much more likely than those who were not concerned to pay attention to the amount of heat used at home (Figure 4.2). Eight in ten (79%) of those who were very concerned paid either a lot of a fair amount of attention to heat use, compared with 69% of those who were fairly concerned, and 54% of those who were either not very or not at all concerned.

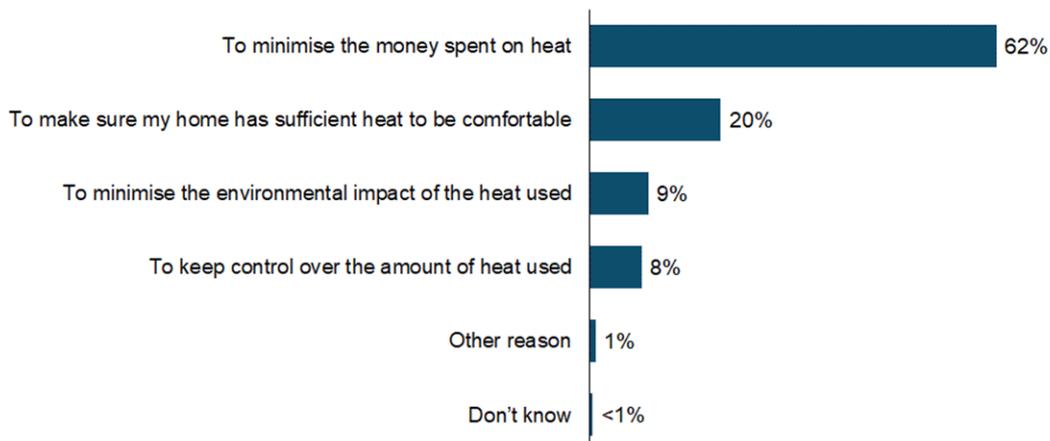
**Figure 4.2: How much attention pay to amount of heat used in home (based on all people) by level of concern about climate change, Winter 2021**



HEATUSE. How much attention do you pay to the amount of heat you use in your home?  
 Base: All wave respondents – Winter 2021: Very concerned about climate change (1,713), Fairly concerned about climate change (1,490), Not very/Not at all concerned about climate change (458)

Those who paid a lot or a fair amount of attention to the amount of heat used in their home were asked their reasons for doing this (Figure 4.3). In Winter 2021, 62% said they did so to minimise the amount of money they spent on heat, 20% said this was to make sure they had sufficient heat to be comfortable, 9% said they did so to minimise the environmental impact, and 8% said it was to keep control over the amount of heat used.

**Figure 4.3: Reasons for paying attention to the amount of heat used (based on those who pay at least a fair amount of attention), Winter 2021**

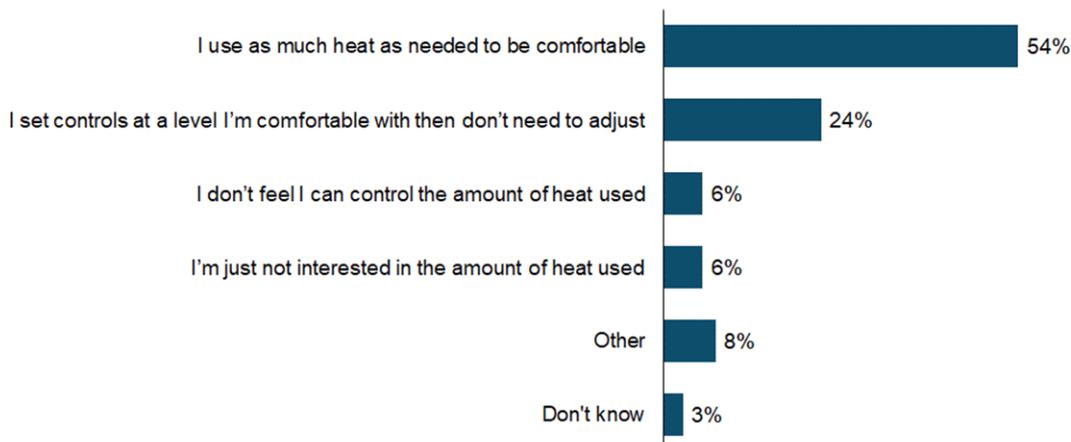


HEATATTWHY. You said that you pay [a lot / a fair amount] of attention to the amount of heat you use in your home. What is the main reason for this?

Base: All wave respondents who pay at least a fair amount of attention – Winter 2021 (2,769)

Those who said they paid a little, hardly any or no attention at all to the amount of heat used were also asked the reason for this (Figure 4.4). In Winter 2021, just over half (54%) said this was because they used as much heat as needed to be comfortable and 24% said they set their heating controls at a level they were comfortable with, and so didn't need to adjust them.

**Figure 4.4: Reasons for not paying attention to the amount of heat used (based on those who pay at most a little amount of attention), Winter 2021**



HEATNOATTWHY. You said that you pay [only a little/hardly any/no] attention to the amount of heat you use in your home. What is the main reason for this?

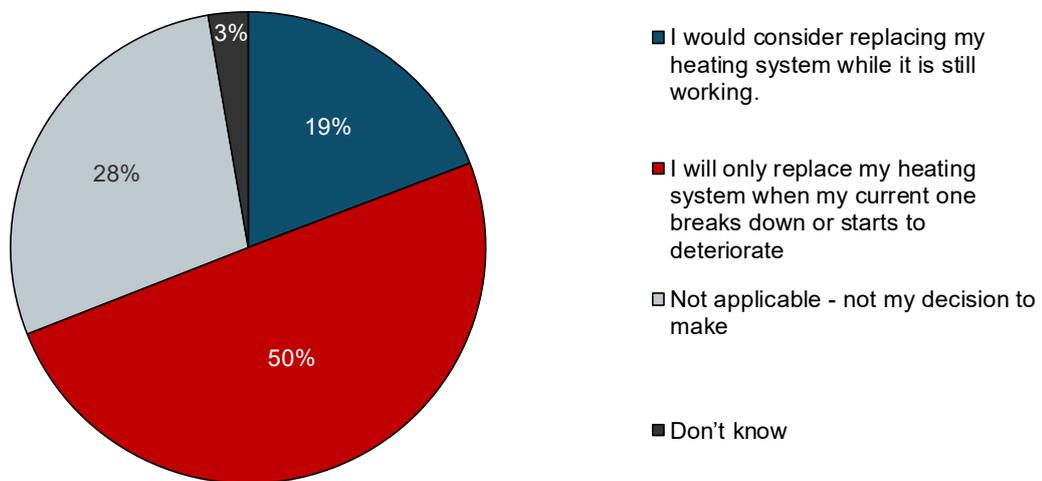
Base: All wave respondents who pay at most a little attention – Winter 2021 (925)

# Replacing heating systems

## Likelihood to replace heating system

In Winter 2021, half of people (50%) said they would only replace their heating system when their current one breaks down or starts to deteriorate, while 19% said they would consider replacing their heating system while it was working (Figure 5.1). A further 28% said this was not their decision to make.

**Figure 5.1: Whether would replace heating system while it was still working (based on all people), Winter 2021**



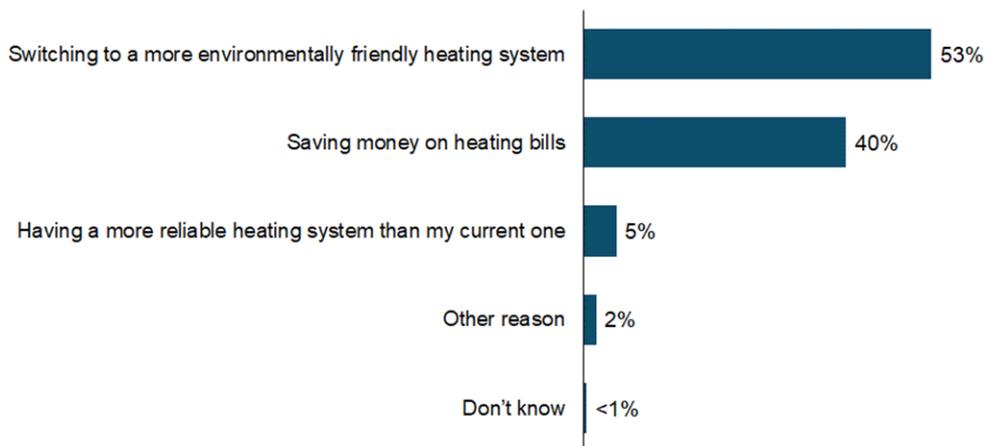
REPLACEHEAT. Now thinking about your heating system. Which one of these statements comes closest to your view?

Base: All wave respondents – Winter 2021 (3,702)

The propensity to consider replacing a heating system while it is still working was higher among people with higher levels of education (26% of degree-educated people compared with 14% of those with no qualifications), those who paid a lot or a fair amount of attention to heat use at home (22%, compared with 7% who paid hardly any or no attention to heat use), and people concerned about climate change (21% of those who were concerned compared with 8% who were not concerned).

In Winter 2021, those who said they would consider replacing a working heating system were asked to choose their most important consideration for doing this. Over half of this subgroup (53%) said this would be to switch to a more environmentally friendly heating system, while 40% said it would be mainly to save money on energy bills (Figure 5.2).

**Figure 5.2: Most important consideration in changing heating system (based on those who would replace their system while it was still working), Winter 2021**



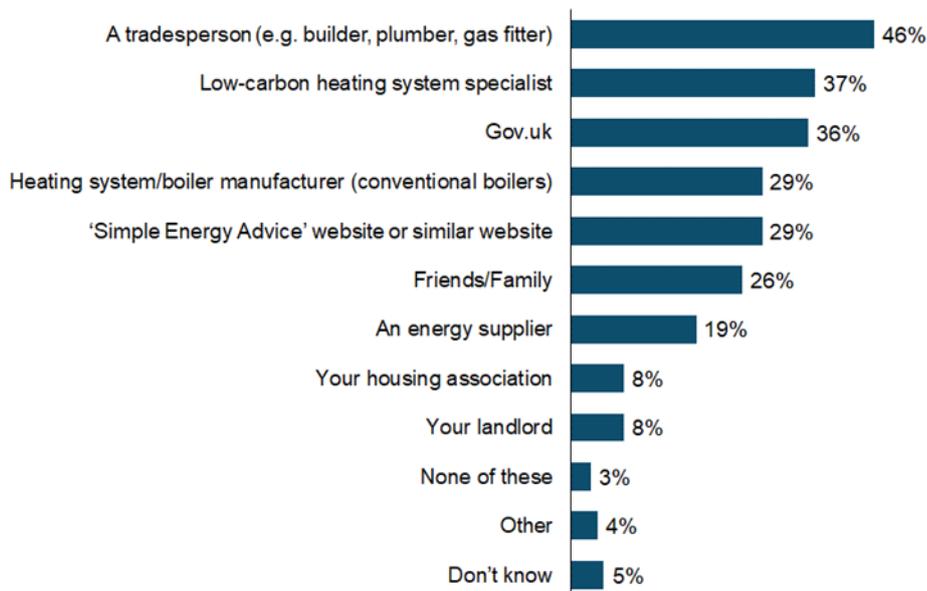
REPLACEIMP. Which one of these would be the most important consideration in changing your heating system?  
Base: All wave respondents who would replace their heating system while it is still working – Winter 2021 (775)

## Trust in heating system installation advice

People were asked who they would trust to provide advice about which heating system to install in their home.

In Winter 2021, trust was highest among tradespeople (46%), low carbon heating specialists (37%), official websites such as Gov.UK (36%), heating manufacturers (29%) and energy advice websites (29%) (Figure 5.3).

**Figure 5.3: Who would trust to provide advice on which heating system to install in home (based on all people), Winter 2021**



TRUSTHEAT. Which of the following would you trust to provide advice about which heating system to install in your home? Please select all that apply.

Base: All wave respondents – Winter 2021 (3,706)

## Insulation in the Home

In Winter 2021, the public were asked whether any of the following types of insulation had been installed in their home, and if not installed whether they had considered it:

- Loft insulation or top-up loft insulation
- Double glazing in at least one window
- Cavity wall insulation or solid wall insulation
- Under floor insulation

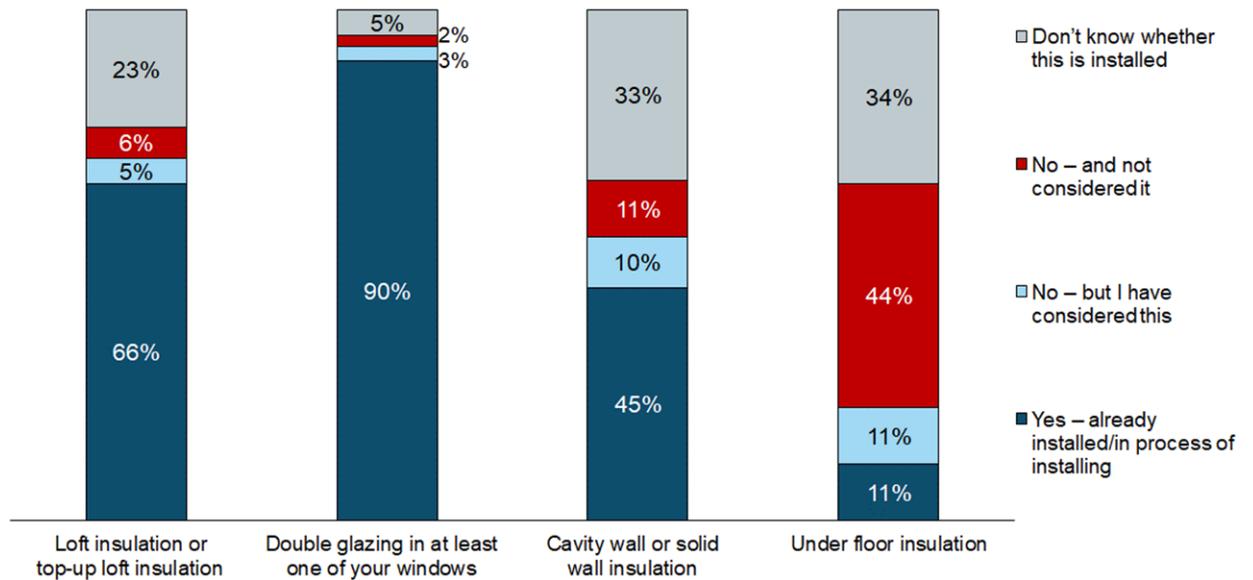
Figure 6.1 shows the results for this question based on all people. However, as people renting their homes are much less likely to be aware of, or to be responsible for making decisions about, insulation measures in their home, Figure 6.2 displays the results split out by tenure.

In Winter 2021, the most commonly installed measures were double glazing (90% of all people, 95% of people living in owner-occupier households) and loft insulation or top-up loft insulation (66% of all people, 82% of those living in owner-occupiers households). Smaller proportions had cavity or solid wall insulation installed (45% of all people, 56% of those living in owner-occupiers households), while 11% of all people (and 14% of those living in owner-occupier households) had under floor insulation installed.

However, around a third of all respondents did not know if their home had cavity or solid wall insulation (33%) or underfloor insulation (34%), while 23% did not know if their loft was insulated. The levels of 'don't know' were smaller for those living in owner occupier households although still a fifth of this group did not know if their home had cavity or solid wall insulation (19%) or underfloor insulation (21%).

Between 3% and 11% of people said they had considered installing these types of insulation. People were least likely to consider installing under floor insulation (44% had not considered this, increasing to 52% of owner occupiers).

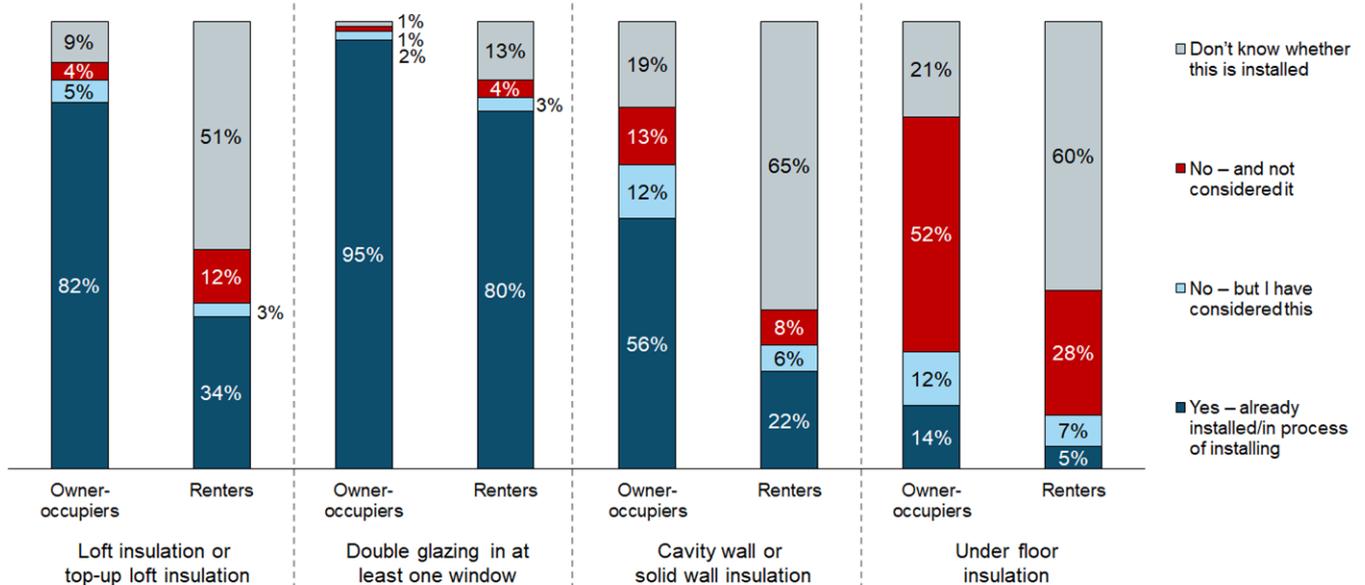
**Figure 6.1: Types of insulation already installed in home (based on all people), Winter 2021**



INSTALLA-E. Have any of these been installed in your home, even if not by you or your household?

Base: All wave respondents – Winter 2021: Loft insulation or top-up loft insulation (3,675), double glazing in at least one of your windows (3,691), cavity wall or solid wall insulation (3,627), under floor insulation (3,559)

**Figure 6.2: Types of insulation already installed in home (based on owner-occupiers and renters), Winter 2021**



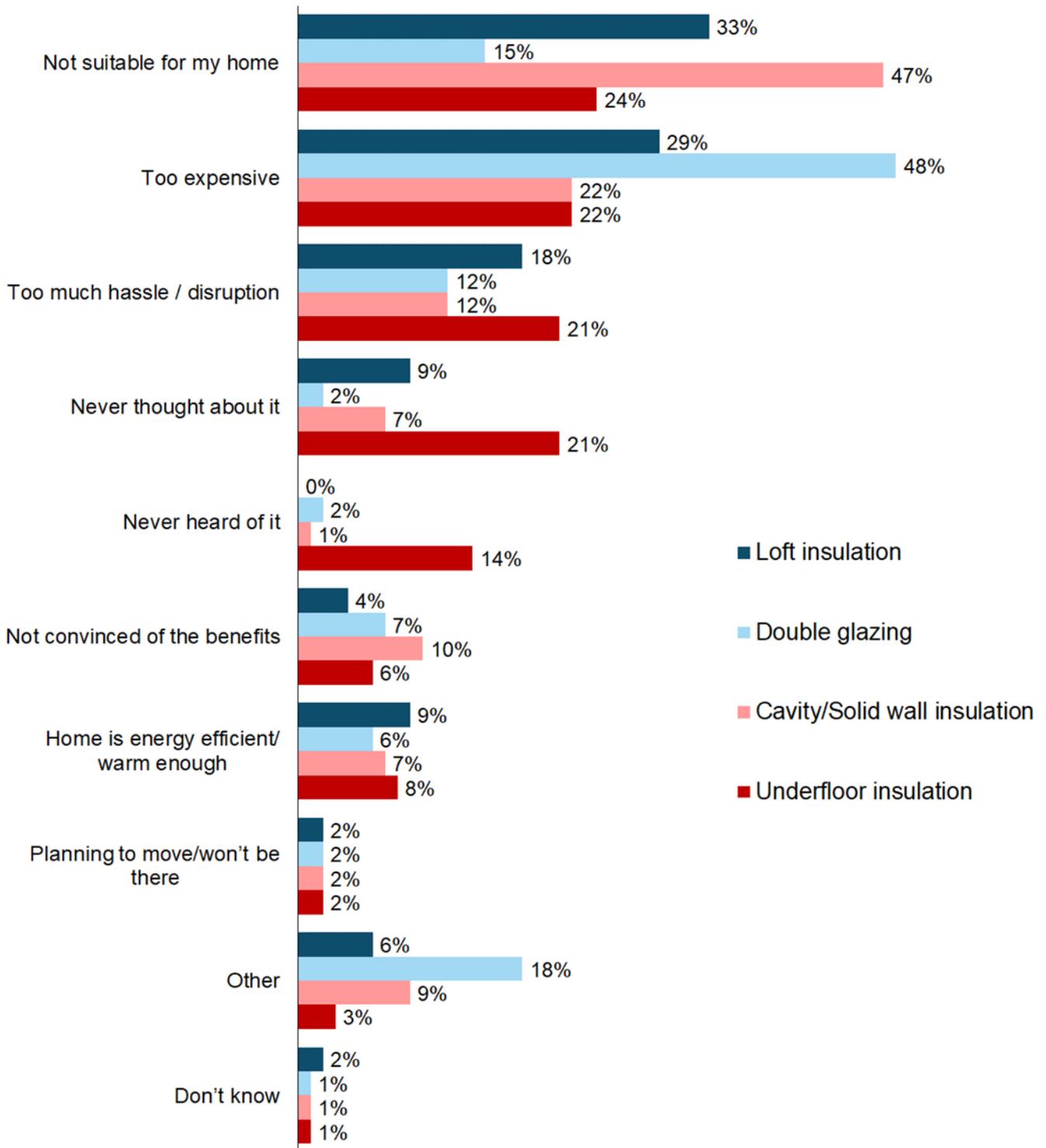
INSTALLA-E. Have any of these been installed in your home, even if not by you or your household?

Base: All wave owner-occupiers – Winter 2021: Loft insulation or top-up loft insulation (2,739), double glazing in at least one of your windows (2,754), cavity wall or solid wall insulation (2,704), under floor insulation (2,648) and All wave renters – Winter 2021: Loft insulation or top-up loft insulation (759), double glazing in at least one of your windows (761), cavity wall or solid wall insulation (750), under floor insulation (741)

For each insulation measure, people who knew whether their home already had this but who had not installed it were asked their reasons for this. These findings have been based on those living in owner occupier households only as a large proportion of renters say that this is not their responsibility.

In Winter 2021, for each type of insulation, among those living in owner-occupier households, the most common barriers to installing these included cost, feeling it was unsuitable for their home, or that it entailed too much hassle or disruption (Figure 6.3). Cost was the main barrier for double glazing (48% of those living in owner-occupier households who didn't have this gave this as a reason for not installing). The main barrier among those in owner-occupier households for installation of cavity or solid wall insulation was perceived unsuitability for their home (47%) and, while not as prevalent, this was also the main barrier to installation of loft insulation and under floor (respectively 33% and 24% of those living in owner-occupier households who didn't have this gave this as a reason for not installing).

**Figure 6.3: Why have not yet installed specific types of insulation (based on owner occupiers who have not installed each), Winter 2021**



WHYNOINSTA-E. Are there any particular reasons why you haven't installed [...] so far?

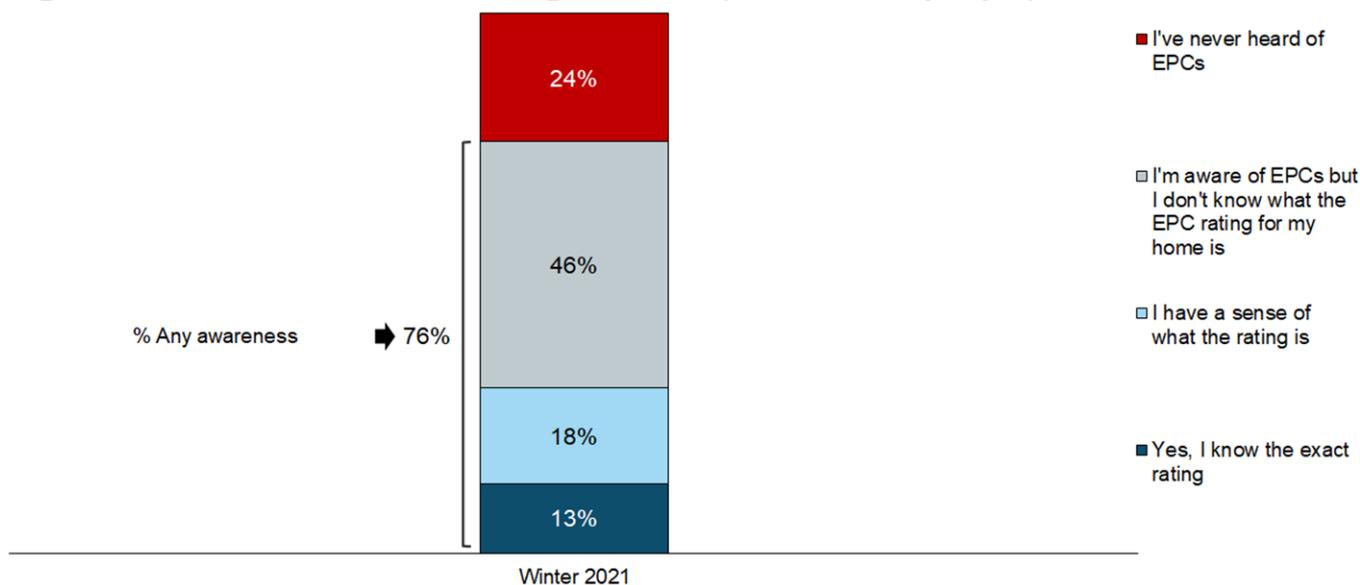
Base: All owner occupiers who have not installed loft insulation / double glazing / wall insulation / floor insulation – Winter 2021: Loft insulation (231), Double glazing (99), Cavity or solid wall insulation (701), underfloor insulation (1,729)

# Energy Performance Certificates (EPCs)

In Winter 2021, people were asked questions to assess awareness of Energy Performance Certificates (EPCs) and their ratings. They were also asked questions to assess their recollection of the recommendations in their home's EPC, and how useful those recommendations were.

Three quarters (76%) of the public were aware of EPCs in Winter 2021. Just over one in ten (13%) knew the exact EPC rating of their home, and a further 18% had a sense of the rating for their home. Just under half (46%) said they were aware of EPCs but didn't know the rating for their home. Overall, a quarter (24%) of the public had not heard of EPCs (Figure 7.1).

**Figure 7.1: Awareness of EPC rating for home (based on all people), Winter 2021**

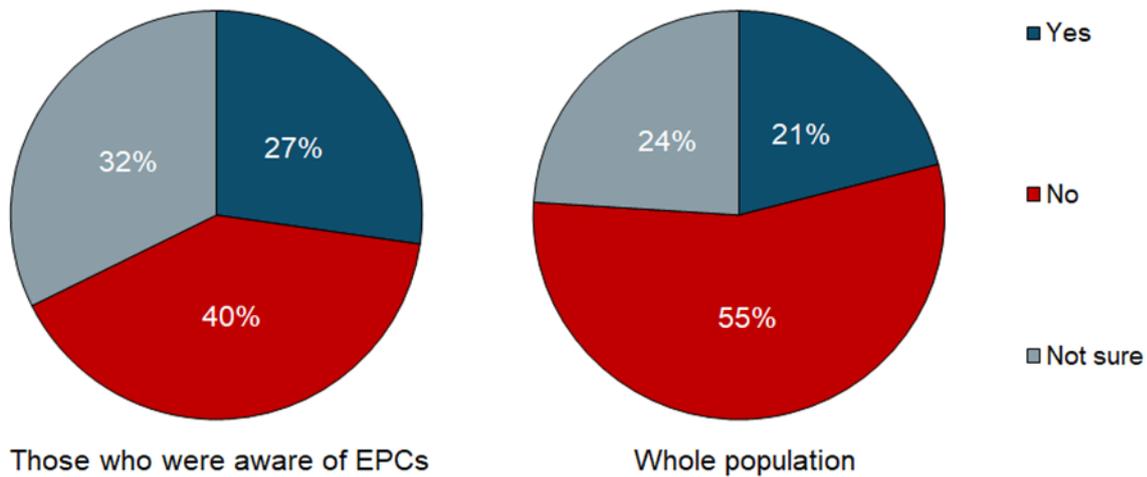


EPCKNOW. Do you know what the Energy Performance Certificate (EPC) rating for your home is?  
 Base: All wave respondents – Winter 2021 (3,700)

Based on tenure of their household, owner-occupiers (including those who part-own and part-rent) were more likely than renters to be aware of EPCs (82%, compared to 71%). Owner-occupiers were also more likely to know the exact EPC rating of their home (15%, compared with 11% of renters). Those who said they pay at least some attention to the heat used in their home were also more likely to be aware of EPCs (77%, compared with 49% who paid no attention to the heat used in their homes).

Those who were aware of EPCs were asked whether they recalled seeing the section in their home's EPC which recommends how they could improve energy efficiency. Over a quarter (27%) of those who were aware of EPCs said they did recall seeing the recommendations section in their EPC. Four in ten (40%) had not seen this section, and 32% said they weren't sure or couldn't remember whether they had seen it. Based all people, this equates to 21% who had seen the guidance section in their home's EPC, 55% who had not, and 24% who were not sure or couldn't remember (Figure 7.2).

**Figure 7.2: Awareness of recommendations section on EPC (based on those who were aware of EPCs and based on all people), Winter 2021**



EPCSEEN. Have you ever seen a section on your Energy Performance Certificate which recommended how you could improve the energy efficiency of your home?

Base: All wave respondents (3,684) and All wave respondents aware of EPCs (2,963) – Winter 2021

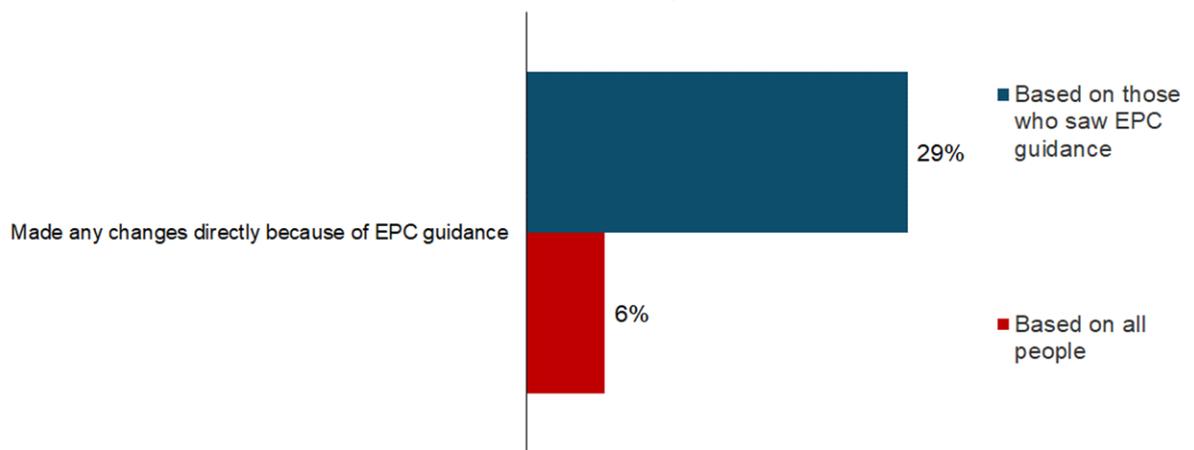
As with overall awareness of EPCs, and again based on tenure of their household, owner-occupiers who were aware of EPCs were more likely to recall having seen a section in the EPC on how to make their home more energy efficient. Amongst all those aware of EPCs, almost three in ten owner-occupiers (30%) said they had seen this, compared with two in ten renters (22%).

## EPC Recommendations

Those who recalled seeing the section of their EPC on energy efficiency were asked whether they had made large or small changes to their home based on these recommendations. Overall, 22% of those who had seen the recommendations said they had made large energy efficiency changes to their home in the last 12 months. Around four in ten (43%) said they had made small energy efficiency changes to their homes, and a similar proportion (39%) said they had made no changes.

Where changes had been made, a clarification question was asked to confirm whether people had made the changes directly or partly because of the guidance in their home's EPC, or if they would have made the changes anyway. Of those who said they had made changes to their home to make it more energy efficient, 29% said they made these changes directly because of the EPC recommendations. Based on all people, this equates to 6% of all people who made changes to their home as a direct result of seeing the energy efficiency recommendations in their home's EPC (Figure 7.3).

**Figure 7.3: Whether made changes to home based on recommendations on EPC (based on those who had seen the recommendations section), Winter 2021**



EPCIMPROVE. Now think about the recommendations you saw on your Energy Performance Certificate on how you could improve the energy efficiency of your home. Did you make any changes to your home based on these recommendations? Please select all that apply.

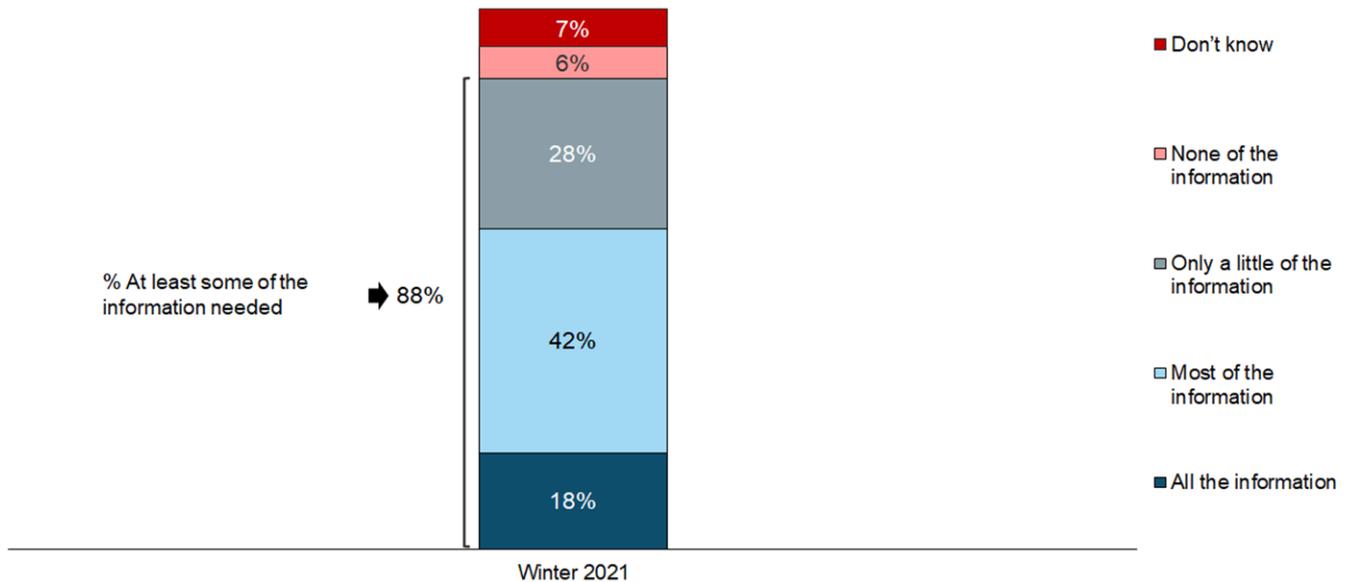
EPCDIRECT. And did you make these changes...?

Base: All wave respondents who saw EPC guidance – Winter 2021 (854) / All wave respondents – Winter 2021 (3,706)

Regardless of whether they were directly motivated by EPC guidance, all those who had seen the recommendations section of their EPC and subsequently made changes to their home were asked the extent to which their EPC gave them the information they needed to go ahead with these changes.

Just under two in ten (18%) in this subgroup said that the EPC gave them all the information they needed to make changes to their home to improve its energy efficiency (Figure 7.4). Roughly twice as many (42%) said the EPC gave them most of the information they needed, while 28% said it gave them only a little of the information they needed. Overall, 88% of those who made changes either directly or partly because of the guidance in their home's EPC said it gave them at least some of the information they needed to make changes to their home.

**Figure 7.4: Extent to which EPC recommendations provided information needed to go ahead with changes (based on those who had made improvements either directly or partly due to EPC recommendations), Winter 2021**



EPCINFORM. To what extent did the recommendations on the Energy Performance Certificate inform you about what was needed to go ahead with the changes you made? Did it give you...

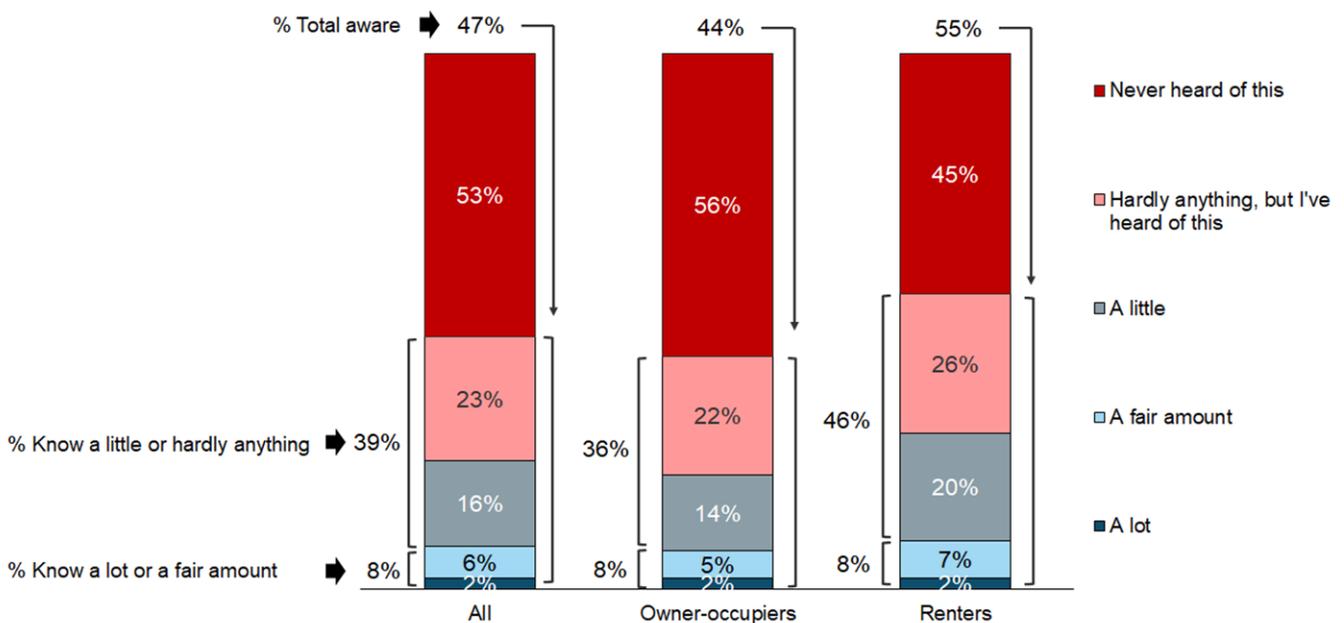
Base: All wave respondents who have made improvements based directly or partly on recommendations in their home's EPC – Winter 2021 (516)

# Awareness of rental property standards

In Spring 2022, people were asked how much they knew about the minimum energy standards for rental properties. Just under half (47%) had at least some awareness of this, with 2% saying they knew a lot, 6% a fair amount, 16% a little and 23% hardly anything. Just over half (53%) of people said they knew nothing at all about the minimum energy efficiency standards for rental properties (Figure 8.1).

Awareness was higher among people living in rented accommodation (55%) compared with people living in owner occupied accommodation (44%). Among renters, awareness was higher among those living in private rented accommodation (62%) compared with those living in social rented housing (44%).

**Figure 8.1: Awareness of energy efficiency standards in rental properties by tenure (based on all people), Spring 2022**



RENTALSTAND. The next question is on energy standards in rental properties. How much, if anything, do you know about the minimum energy efficiency standards for rental properties?

Base: All wave respondents – Spring 2022 – all base respondents (4,286), Owner-occupiers (3,214), Renters (966)

Awareness of minimum energy efficiency standards was higher among men (52% compared with 42% of women) and among people educated to degree level (56% compared with 45% of those with other qualifications and 31% of people with no qualifications). Awareness was lower for people aged 65 and over (38% compared with 49% of those aged under 65).

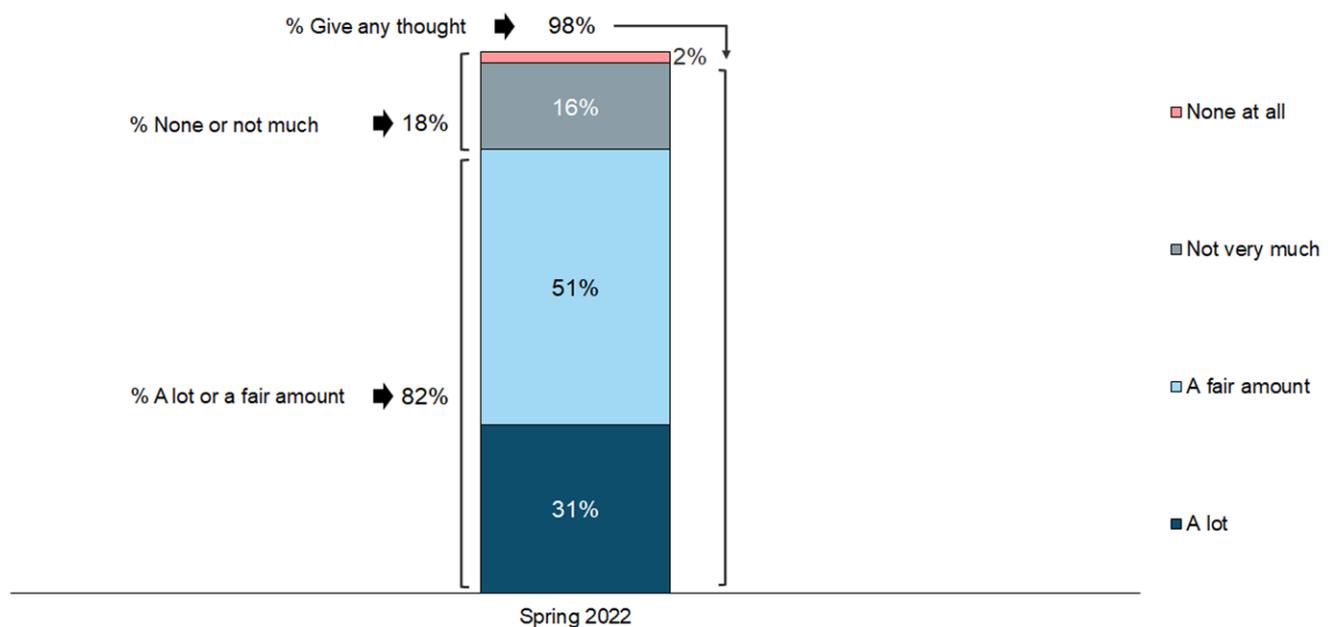
Awareness was also higher than the UK average in London (54%) and the South West (55%) but lower than average lower in the North East (36%).

# Saving energy in the home and smart meters

## Saving energy in the home

In Spring 2022 almost all people (98%) said they had given some thought to saving energy in the home (Figure 9.1). Most (82%) had given it either a lot of thought (31%) or a fair amount (51%) with just 16% saying they had not given it very much thought.

**Figure 9.1: Amount of thought given to saving energy in the home (based on all people), Spring 2022**



ENERGSAVE. How much thought, if any, would you say you give to saving energy in your home?  
 Base: All wave respondents – Spring 2022 (4,367)

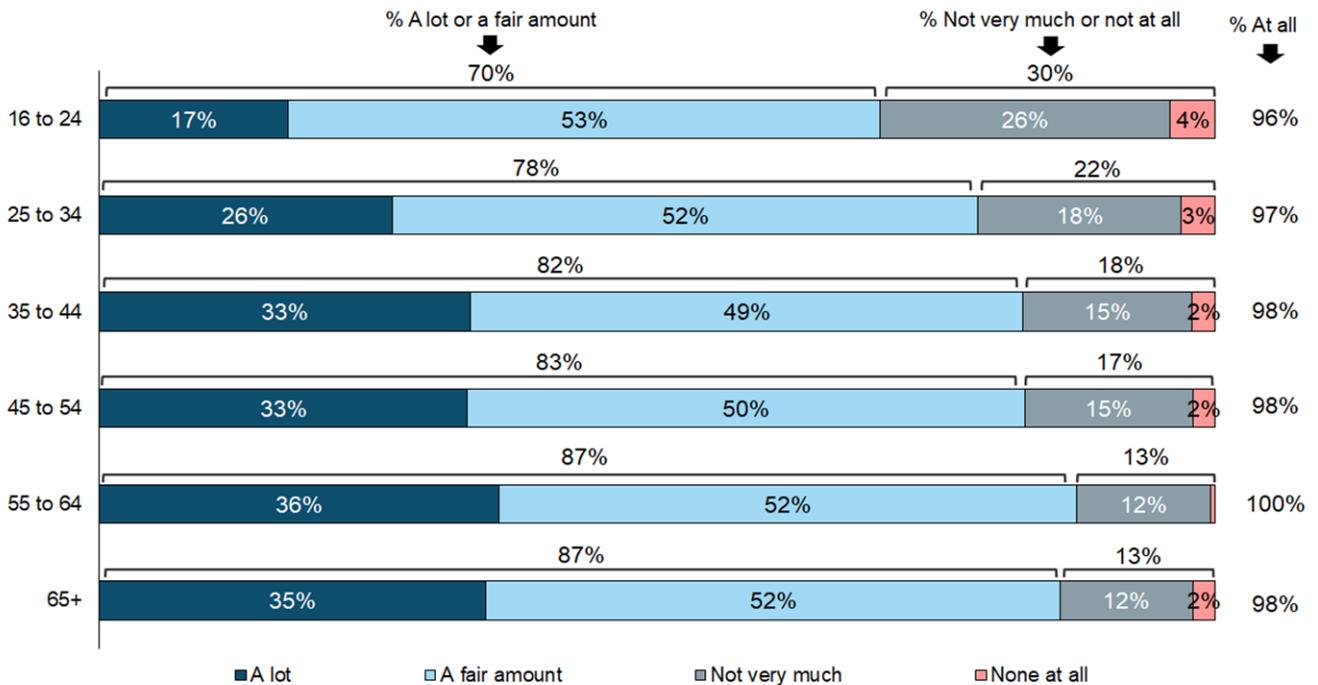
People aged 35 and over were more likely to say they had given a lot of thought to saving energy in the home (34% compared with 26% of those aged 25-34 and 17% of people aged 16 to 24). (Figure 9.2).

There was a link between how much thought was given to energy saving and feeling worried about paying energy bills over the past three months (see [Figure 10.1](#) for findings about how worried people are about their energy bills). People who were very worried about their energy bills were more than twice as likely as those who were not worried (50% compared with 21%) to give a lot of thought to saving energy in the home.

Those who were very concerned about climate change were also more likely to give a lot of thought to saving energy at home (40% compared with 26% of those fairly concerned and 22% of those who were not very or not all concerned about climate change).

People who described themselves as the main decision-maker in the household about matters such as paying bills<sup>4</sup> were more likely to give a lot of thought to energy saving (37% compared with 31% who share this responsibility and 21% who say this role lies with someone else in the household).

**Figure 9.2: Amount of thought given to saving energy in the home by age (based on all people), Spring 2022**



ENERGSAVE. How much thought, if any, would you say you give to saving energy in your home?  
 Base: All wave respondents – Spring 2022: 16-24 (254), 25-34 (560), 35-44 (569), 45-54 (683), 55-64 (833), 65+ (1,406)

<sup>4</sup> This was defined by a new question added in Spring 2022 asking whether the respondent was the person who is mainly responsible for decisions about their household such as paying household bills or choosing a provider for energy or broadband. Main decision-maker includes people in households with 2+ people who said they had this role, and people who were the only adult aged 16+ in the household.

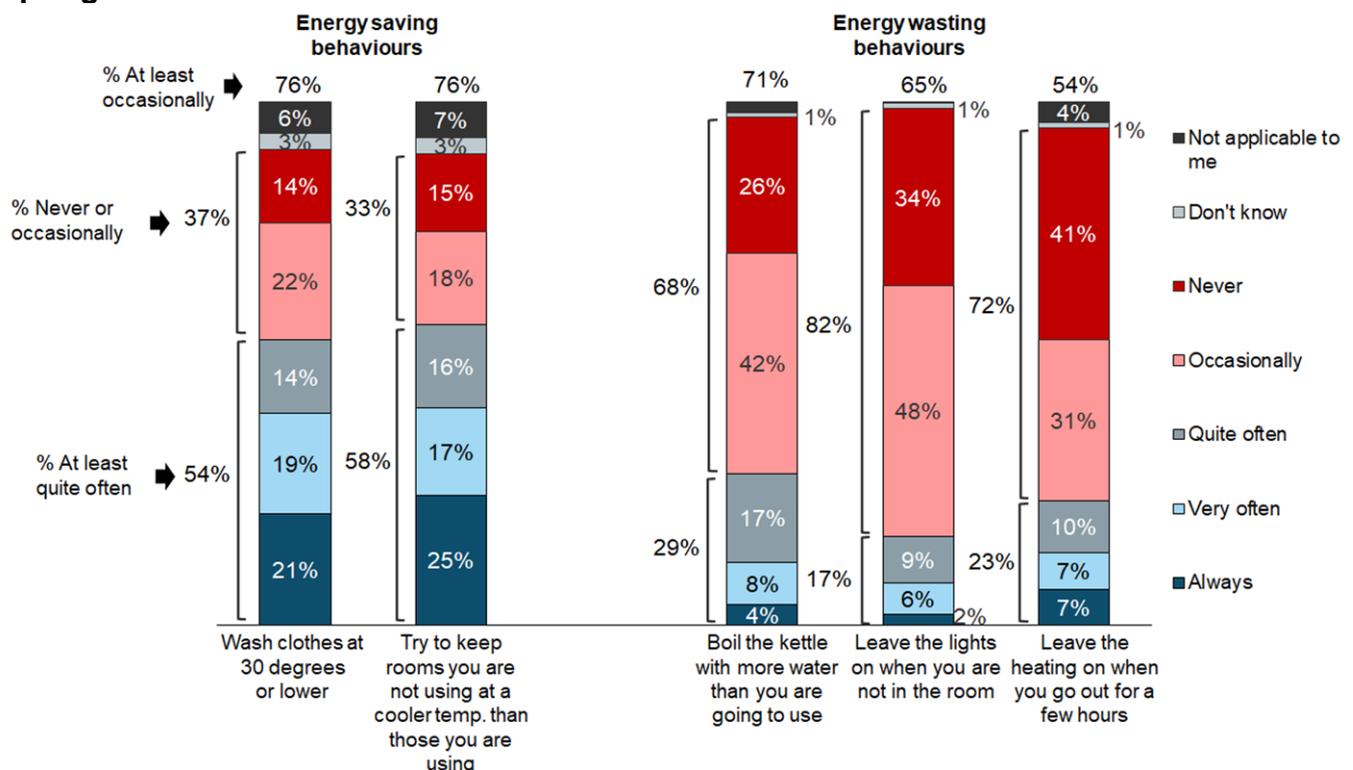
Self-reported frequency of the following energy saving or wasting behaviours was assessed in Spring 2022 (Figure 9.3):

- Washing clothes at 30 degrees or lower (*energy saving*)
- Trying to keep rooms not in use at a cooler temperature than those you are using (*energy saving*)
- Boiling the kettle with more water than you are going to use (*energy wasting*)
- Leaving the lights on when not in the room (*energy wasting*)
- Leaving the heating on when you go out (*energy wasting*)

Focussing first on energy saving behaviours, in Spring 2022, 76% of people said that they wash clothes at 30 degrees or lower at least occasionally, while 54% did this at least quite often. The same proportion (76%) said that they try to keep unused rooms at a cooler temperature than those being used at least occasionally, while 58% say they do this at least quite often.

Focussing on energy wasting behaviours, in Spring 2022, at least half of people did the following behaviours at least occasionally: boil the kettle with more water than they intended to use (71%); leave the lights on when not in the room (65%); and leave the heating on when going out for a few hours (54%). The most frequent energy wasting behaviour was boiling a kettle with more water than needed, with 29% saying they did this at least quite often.

**Figure 9.3: Frequency of energy saving and wasting behaviours (based on all people), Spring 2022**



ENSAVFREQ. How often, if at all, do you personally do any of the following?

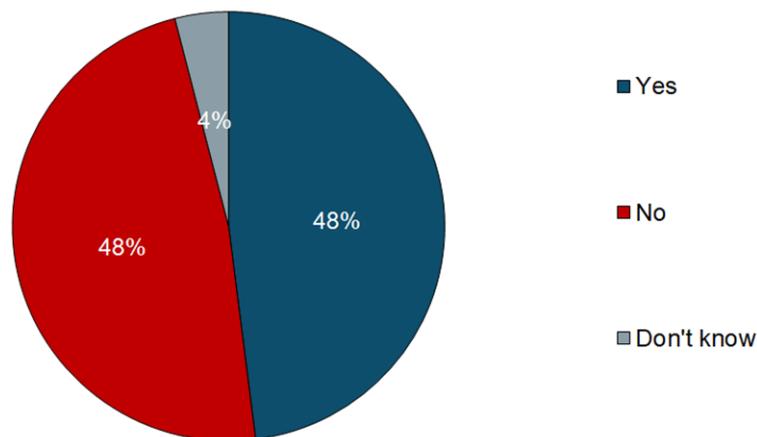
Base: All wave respondents– Spring 2022: Leave the lights on when you are not in the room (4,362); Boil the kettle with more water than you are going to use (4,359); Wash clothes at 30 degrees or lower (4,349); Try to keep rooms that you are not using at a cooler temperature than those you are using (4,360); Leave the heating on when you go out for a few hours (4,357)

## Smart meters

The findings related to smart meters have been weighted to represent all households (rather than all individuals).

Overall, nearly half (48%) of households said that they had a smart meter, and 48% did not (Figure 9.4).

**Figure 9.4: Whether has a smart meter in the home (based on all households), Spring 2022**



SMARTMET. The next question is about smart meters. Smart meters automatically send meter readings to your energy supplier and usually come with a home energy monitor that provides information about your energy usage. Smart meters also allow prepayment customers to top up their credit online and over the phone. Does your household have a smart meter?

Base: All wave respondents –Spring 2022 (4,362)

Note: At this question, results are weighted to households (not individuals)

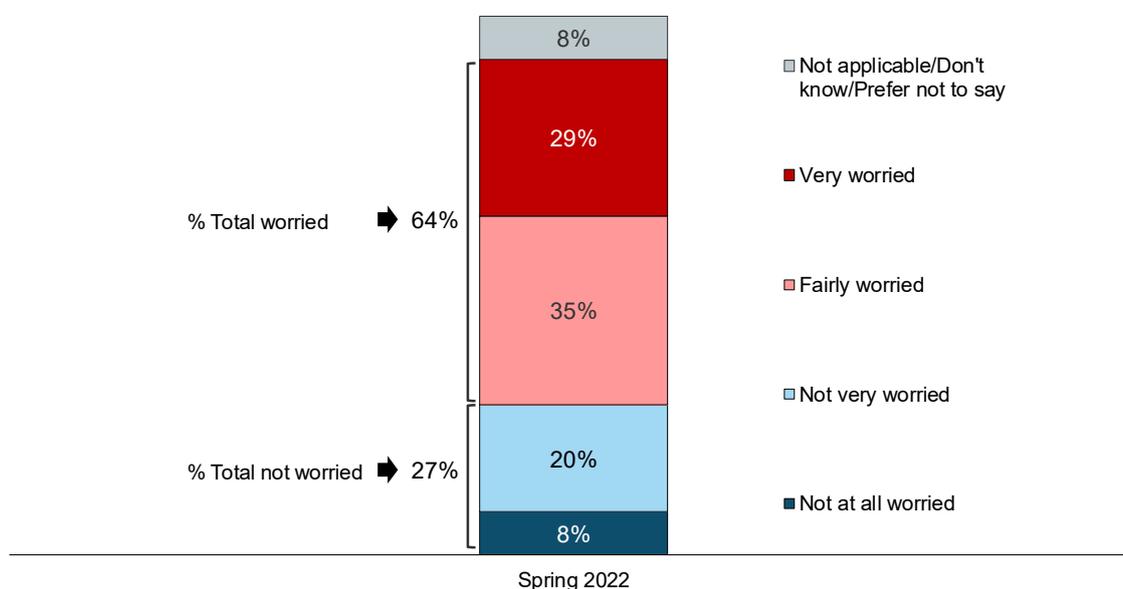
There was no difference between owner-occupied and rented households (respectively 48% and 50% had a smart meter), although social housing renters were more likely than private renters to have one (58% compared 44%).

## Concern about paying energy bills

The Spring 2022 survey was conducted shortly before a widespread increase in energy prices, which was caused by a rise in wholesale natural gas prices and this was further affected by the war in Ukraine which began in February 2022. From 1 April 2022, the energy price cap was raised, causing considerable increases in the price of gas and electricity. There was widespread media coverage of this expected price rise throughout survey fieldwork, which ran from 24 February to 24 March.

Against this backdrop, it is not surprising that a high proportion of people were worried about payment of energy bills. In Spring 2022, 64% of people reported being either very worried (29%) or fairly worried (35%) about paying for their electricity bills over the previous three months, while 27% said they were not very or not at all worried (Figure 10.1).

**Figure 10.1: Level of worry about paying for energy bills (based on all people), Spring 2022**



PAYBILLEN. Over the last three months, how worried, if at all, have you been about paying for energy bills (gas/electricity)?

Base: All wave respondents –Spring 2022 (4,369)

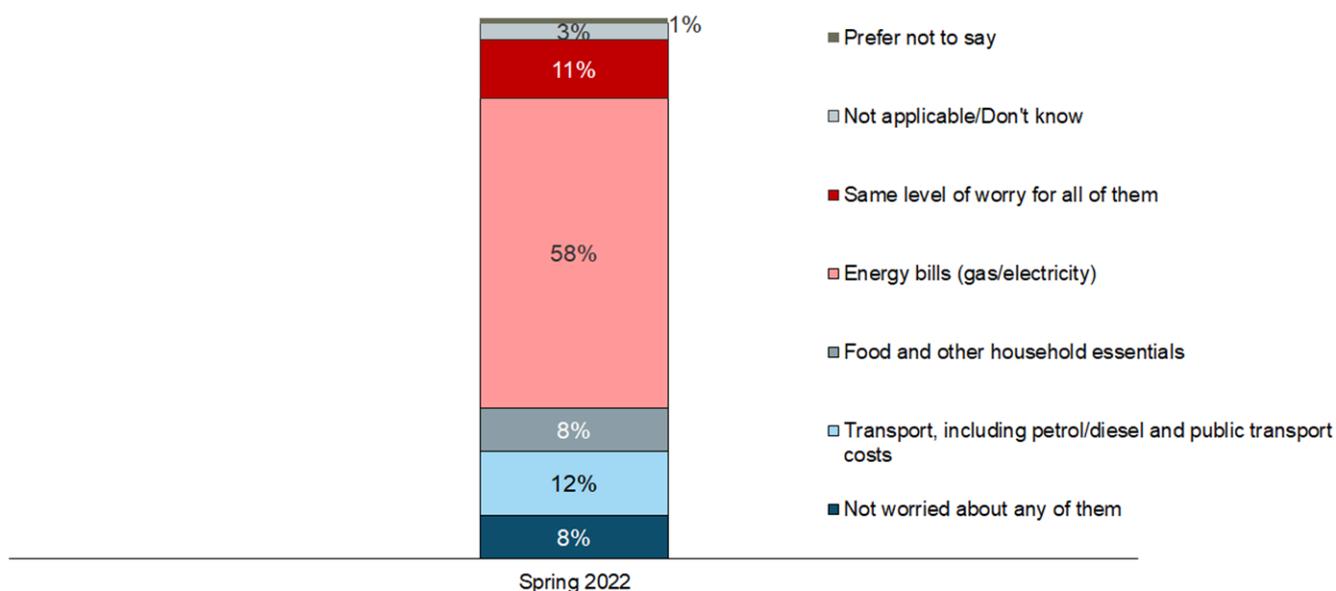
Women were more likely to be very or fairly worried about energy bills (69% compared with 60% of men) as were people aged 25-54 (74% compared with 60% of those aged 55 and over, and much lower at 42% of those aged 16-24).

People who were renting were more likely to be worried about energy bills than people living in owner-occupied homes (71% compared with 63%), while owner-occupiers with a mortgage were more likely to be worried than owner-occupiers without a mortgage (70% compared with 57%) which is likely to reflect higher levels of disposable income among those who own their home outright.

To provide further context about the level of worry about energy bills, respondents were asked which out of three different types of bill or outgoings they were most worried about: energy bills; transport (petrol/diesel and public transport costs); and food and other household essentials.

In Spring 2022, concern about paying energy bills far outweighed concern about other types of bills, which again is likely to reflect prevailing circumstances regarding increased energy prices (Figure 10.2). Over half (58%) were most concerned about energy bills compared with 12% who were most concerned about transport and 8% who were most concerned about food and other household essentials. Around one in ten (11%) were equally worried about all of them and 8% said they were not worried about any bills.

**Figure 10.2: Worry about energy bills compared with other household bills (based on all people), Spring 2022**



**MOSTWORRY.** Which ONE of the following bills or expenses are you most worried about?  
 Base: All wave respondents – Spring 2022 (4,315)

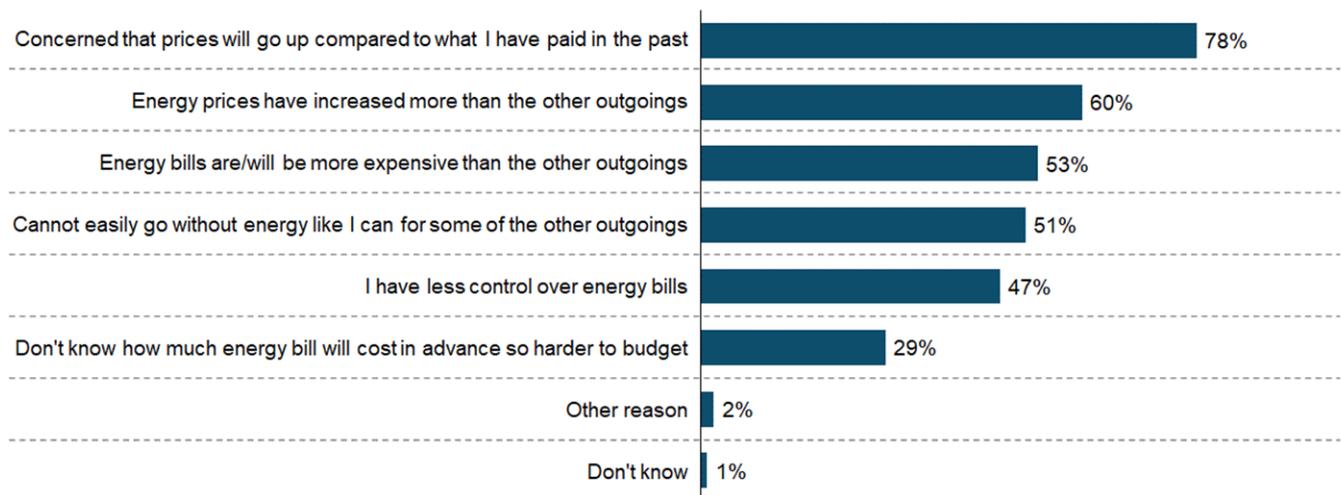
The propensity to be most worried about energy bills compared with transport or food expenditure was higher for women (61% compared with 55% of men) and lower for people aged 16-24 (32% compared with 62% of those aged 25 and over); however, those aged 16-24 were also more likely to say that this doesn't apply to them (16% compared with 2% in all other age groups) which partly explains this difference.

People who were either the main or joint decision-maker in the household about matters such as paying bills were more likely to be mostly worried about energy bills (62% compared with 44% who said this role lay with someone else in the household). The latter group was instead more likely to be concerned about transport costs (16% compared 11% of decision-makers).

People who were more concerned about energy bills than other bills were asked their reasons for this (respondents were presented with a list of possible reasons) (Figure 10.3). Amongst this subgroup, the main concern related to expectations of prices increasing more compared with past energy prices (78%), that energy prices have increased more than other outgoings (60%) and that energy bills are or will be more expensive than other outgoings (53%).

Other reasons cited by this subgroup included being less easily able to go without energy compared to other outgoings (51%); having less control over energy bills (47%); or a lack of certainty over future prices affecting the ability to budget (29%).

**Figure 10.3: Reasons for being more worried about energy bills than other household bills (based on all people who said they were most worried about energy bills), Spring 2022**



WHYWORRYEN. You said you were more worried about paying for energy bills compared with food and other household essentials, or transport. Why are you more worried about energy bills? Please select all that apply  
 Base: All respondents who are more worried about paying for energy bills compared with other bills – Spring 2022 (2,541)

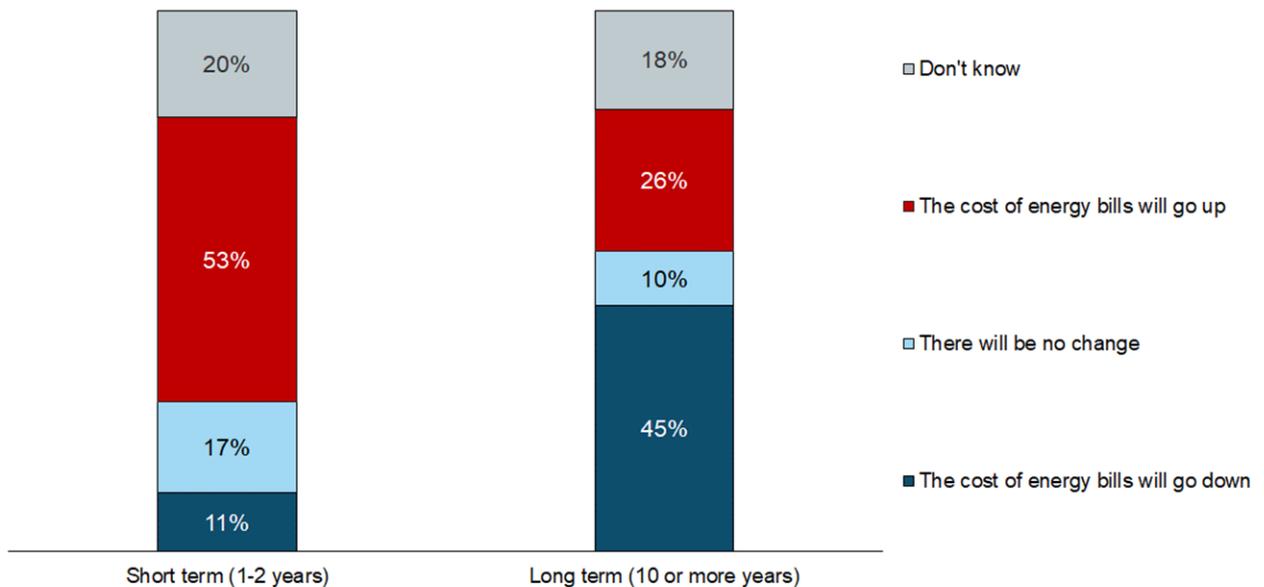
# Perceived impact of renewables on energy bills

In Spring 2022, people were asked about their expectations of the short term (1-2 years) and longer term (10 years or more) impact of renewable energy sources on energy bills.

In the short-term, far more people anticipated price rises (53%) than price decreases (11%) as a result of the shift towards renewable energy sources. However, people saw much more potential for prices to decrease over the longer-term, with more people anticipating price decreases (45%) than rises (26%) in 10 or more years' time. It is worth noting that the findings relating to short-term price increases are likely to be conflated with more general concern about energy price rises, given the prevailing external context of significantly increased energy prices.

In Spring 2022, around a fifth said they did not know what to expect regarding the impact of the shift towards renewable energy on prices both in the short term (20%) and longer term (18%).

**Figure 11.1: Perceived impact of move to renewable energy source on energy bills (based on all people), Spring 2022**



IMPACTBILL. What impact do you think that the UK's move to renewable energy sources might have on people's energy bills in the UK...?

Base: All wave respondents – Spring 2022: ...In the short term (1-2 years) (4,336); ...In the long term (10 or more years) (4,301)

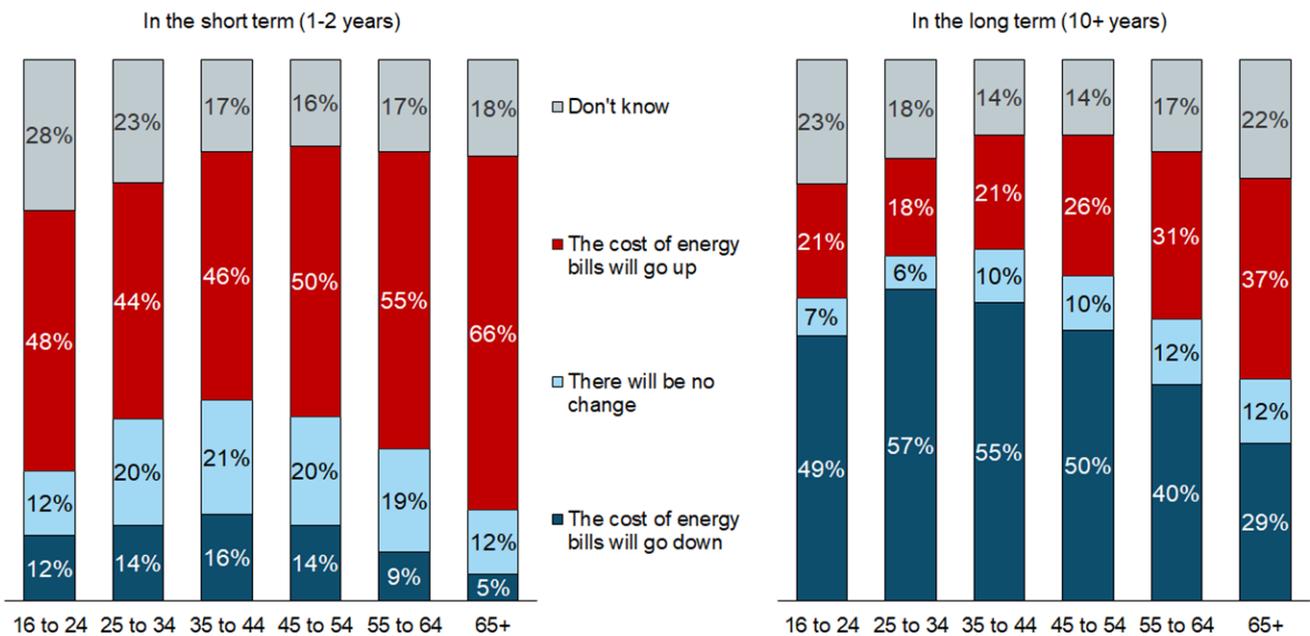
Men were more likely to believe that the cost of energy would go up both in the short term (59% compared with 47% of women) and longer term (30% compared with 23% of women). However, this difference was largely explained by an increased proportion of women who did not know; there was no difference by gender in terms of the proportion who expected prices to decrease.

People aged 65 and over were more likely to believe costs would go up in both the short term (66% compared with 55% of 55-64s and 47% of under 55s) and in the long term (37%

compared with 31% of 55-64s and 21% of under-55s). People aged 25-44 were most likely to think prices would fall in the longer term (56% compared with 29% of those aged 65+ and 40% of 55-64s) (Figure 11.2).

People educated to degree level were also more likely to expect prices to fall in the longer term as a result of more use of renewable energy (56% compared with 45% of those with another qualification, and 31% of people with no qualifications). Conversely, people with no qualifications were more likely to think that prices will rise in the longer-term because of this (34% compared with 24% with a degree-level qualification).

**Figure 11.2: Perceived impact of move to renewable energy source on energy bills by age group (based on all people), Spring 2022**



IMPACTBILL. What impact do you think that the UK's move to renewable energy sources might have on people's energy bills in the UK...?

Base: All wave respondents – Spring 2022: ...In the short term: 16 to 24 (254), 25 to 34 (561), 35 to 44 (569), 45 to 54 (683), 55 to 64 (830), 65 or over (1,378) ...In the long term 16 to 24 (254), 25 to 34 (561), 35 to 44 (569), 45 to 54 (682), 55 to 64 (831), 65 or over (1,344)

Expectations of energy price changes were also related to attitudes towards renewable energy. People who opposed the use of renewable energy were more likely to expect increased costs in the long term (49% compared with 23% of those who supported it). Conversely, those who supported the use of renewable energy were more likely to expect a decrease in the short term (12% compared with 5% of those who oppose it) and this difference was even more apparent when thinking about the longer term (51% compared with 15% of those who opposed renewable energy).

# Energy suppliers

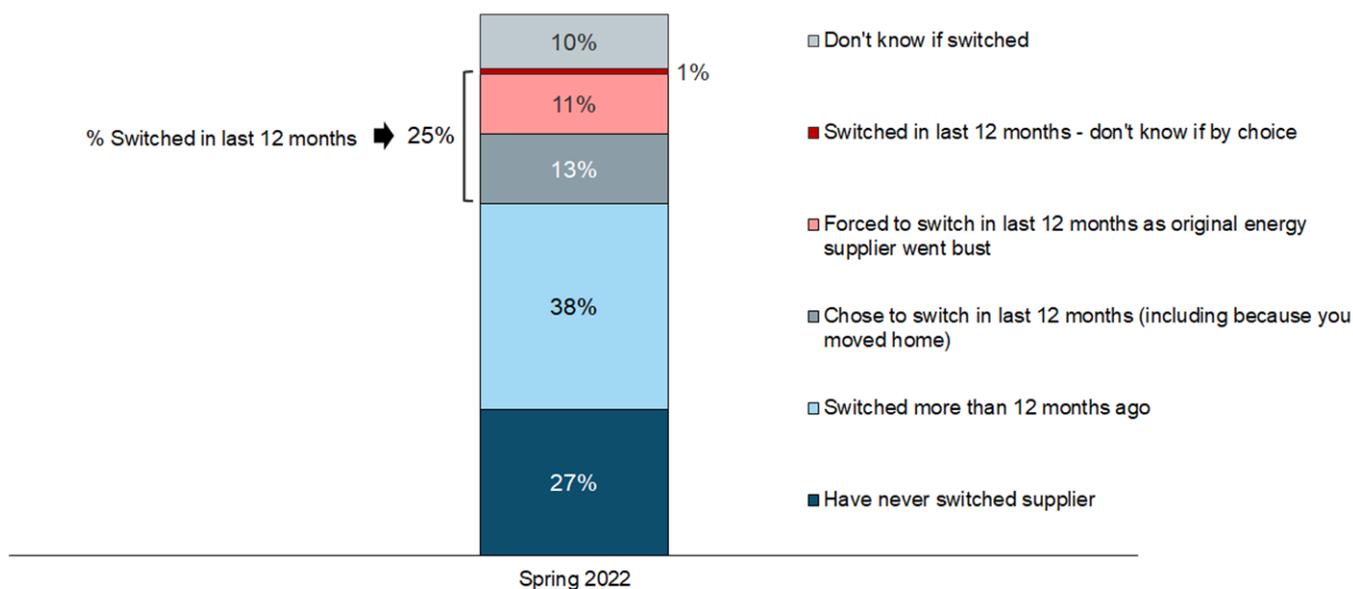
## Switching energy suppliers

Consumers were asked about switching energy suppliers in the last 12 months; the results have been weighted to represent all households.

The energy switching market changed significantly in the period leading up to Spring 2022 fieldwork, with a number of suppliers ceasing trading during Autumn and Winter 2021, and limited competitive options given the sharp increase in global energy prices, which led to an increase in the energy price cap set by Ofgem. However, some consumers will have switched in the period before these changes.

Against this backdrop, in Spring 2022, one in four households (25%) reported having switched supplier in the last 12 months, split fairly evenly into 13% who chose to switch and 11% forced to switch as their supplier ceased trading (Figure 12.1). A further 38% said they had switched supplier more than 12 months ago, while over a quarter (27%) said they had never switched supplier.

**Figure 12.1: When last switched energy supplier and whether this was related to their supplier ceasing trading (based on all households), Spring 2022**



ENERGSWITCH. Thinking about your gas and electricity supplier, when, if at all, did your household last switch supplier? Please include switches which you were forced to make if your energy supplier closed down.

ENERGBUST. And when your household **last** switched supplier, was this by choice or were you forced to switch as your supplier closed down?

Base: All wave respondents –Spring 2022 (4,365)

Note: At this question, results are weighted to households (not individuals)

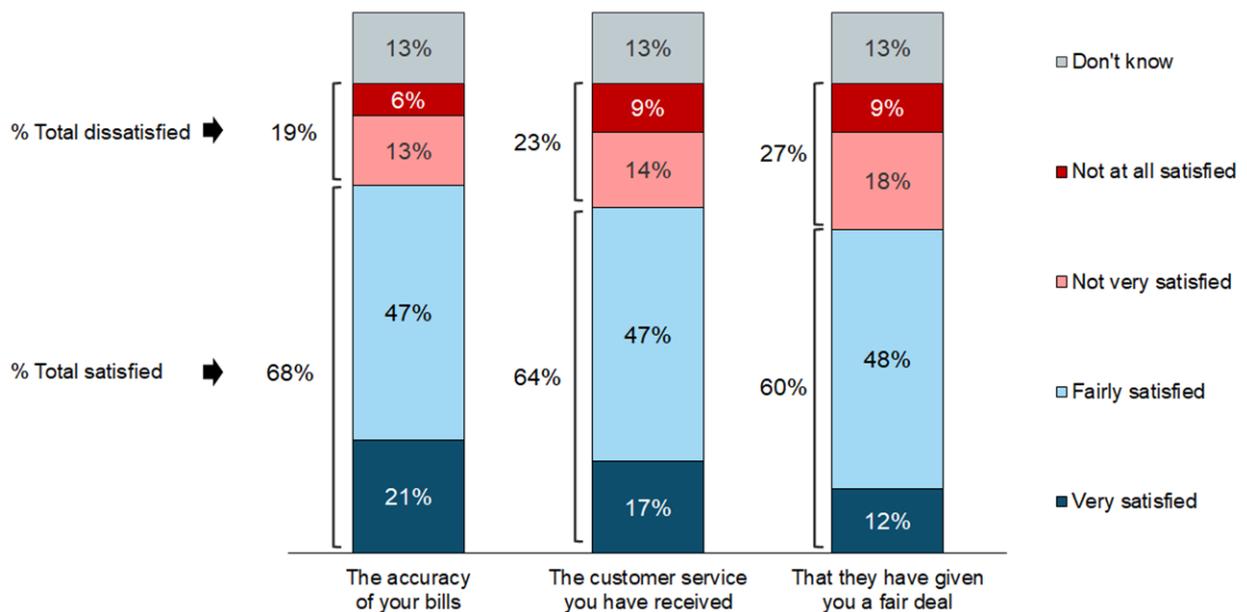
Owner-occupied households were less likely to have never switched energy supplier (23% compared to 35% of households in rented accommodation) and they were more likely to have been forced to switch due to their energy supplier going bust (14% compared to 5% of households in rented accommodation).

## Satisfaction with energy suppliers

In Spring 2022, people were asked to rate their satisfaction with energy suppliers on three different aspects of service. For each aspect of service, results are based on all respondents excluding those who said this question did not apply to them (for example because they are not responsible for managing energy bills in their household). People were far more likely to be satisfied than dissatisfied with each aspect of service, although a substantial minority were dissatisfied with each (Figure 12.2).

Satisfaction levels were highest for billing accuracy, with 68% either very (21%) or fairly (47%) satisfied, but with 19% dissatisfied. Satisfaction levels were a little lower for customer service with 64% satisfied (17% very, 47% fairly) and 23% dissatisfied. People were least likely to be satisfied that they were given a fair deal (60%) with 12% very satisfied and 48% fairly satisfied, and with over a quarter dissatisfied (27%). It should be noted that fieldwork was completed during February/March 2022, just before the widespread increase in energy tariffs from 1 April 2022.

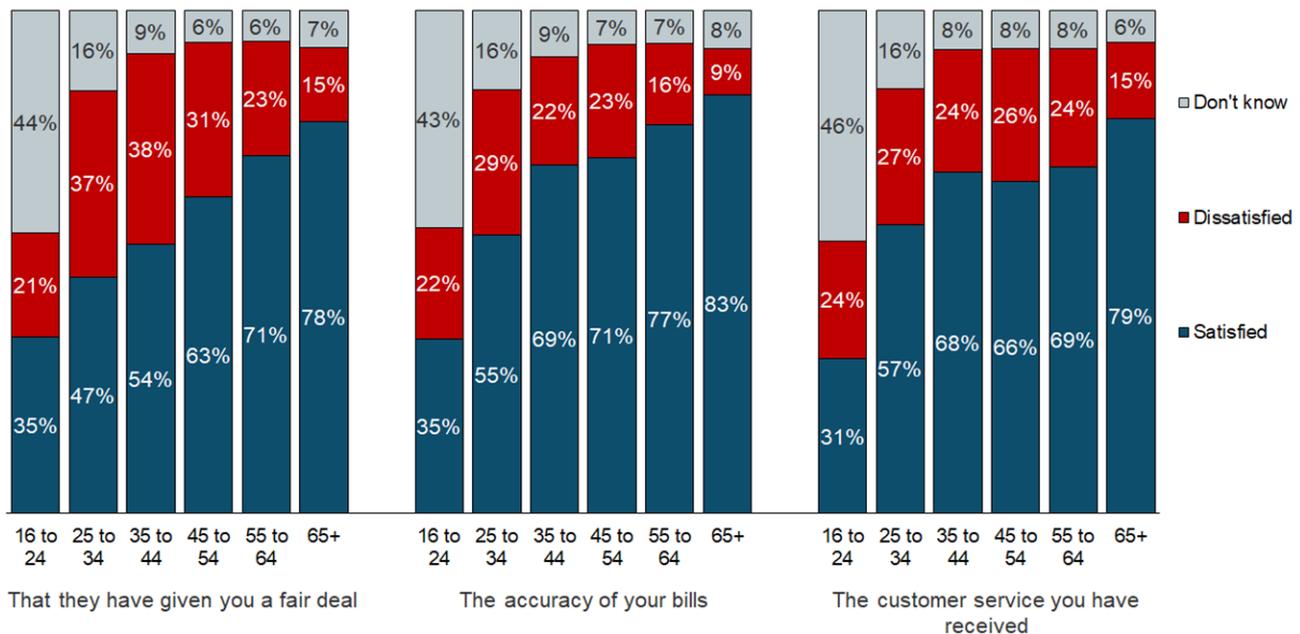
**Figure 12.2: Satisfaction with different aspects of energy supplier service (based on all people excluding those who said this was not applicable), Spring 2022**



SATISENERG. How satisfied or dissatisfied have you been with the following aspects of energy supplier(s)? If you have different suppliers for gas and electricity, please think about your overall opinion.  
 Base: All wave respondents excluding those who say 'not applicable' – Spring 2022: That they have given you a fair deal (4,195) The accuracy of your bills (4,155) The customer service you have received (3,853)

There were clear differences in levels of dissatisfaction by age. People aged 25 to 54 were most likely to be dissatisfied with each aspect of service (Fair deal: 35%; Accuracy of bills: 24%; Customer service: 26%) and people aged 65 or over were least likely to be dissatisfied (Fair deal: 15%; Accuracy of bills: 9%; Customer service: 15%). Younger people were more likely to not have an opinion about each aspect of service.

**Figure 12.3: Satisfaction with different aspects of energy supplier service by age (based on all people excluding those who said this was not applicable), Spring 2022**



SATISENERG. How satisfied or dissatisfied have you been with the following aspects of energy supplier(s)? If you have different suppliers for gas and electricity, please think about your overall opinion. Showing % very or fairly satisfied.

Base: All wave respondents excluding those who said this was not applicable – Spring 2022: That they have given you a fair deal - 16 to 24 (254), 25 to 34 (561), 35 to 44 (569), 45 to 54 (683), 55 to 64 (831), 65 or over (1,375) The accuracy of your bills - 16 to 24 (254), 25 to 34 (560), 35 to 44 (569), 45 to 54 (683), 55 to 64 (830), 65 or over (1,343) The customer service you have received - 16 to 24 (254), 25 to 34 (560), 35 to 44 (569), 45 to 54 (683), 55 to 64 (833), 65 or over (1,341)



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