BEIS Public Attitudes Tracker: Energy Infrastructure and Energy Sources
Autumn 2021, UK

16 December 2021 **Official Statistics**

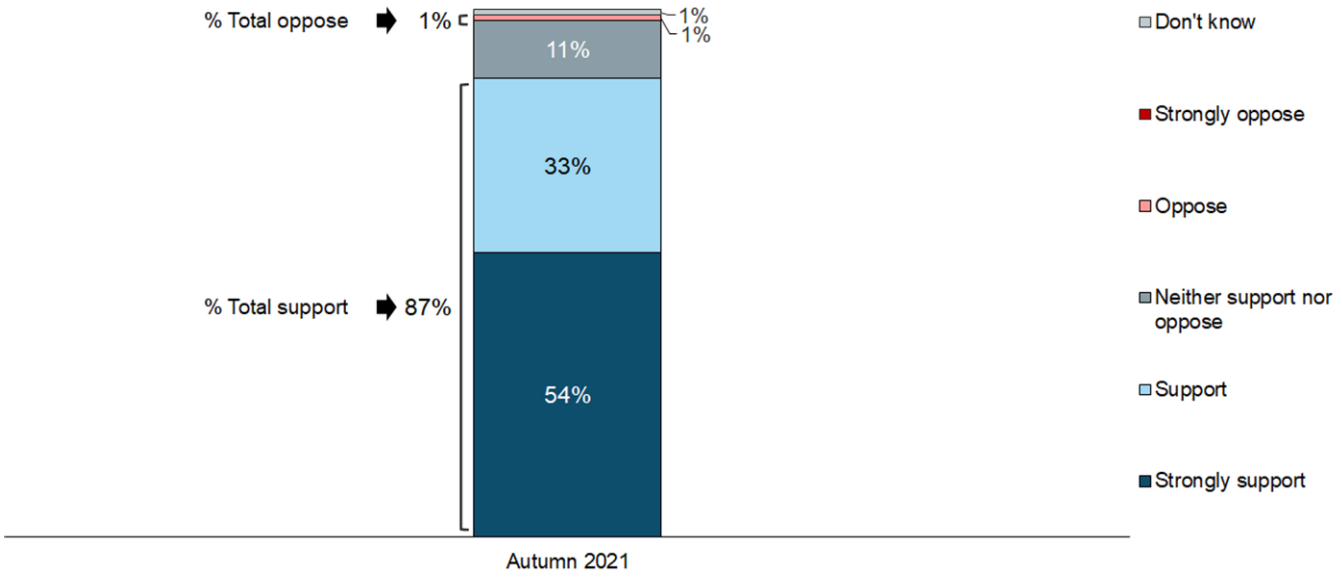
This report covers the questions asked in the BEIS Public Attitude Tracker on awareness and support for different energy infrastructure and renewable energy sources in Autumn 2021. This includes the results from quarterly and biannual questions on renewable energy and fusion energy. In addition, it also includes annual questions on shale gas and small module reactors, which were asked in Autumn 2021.

What you need to know about these statistics: This is the first BEIS Public Attitudes Tracker (PAT) wave using the new Address Based Online Survey (ABOS) methodology, 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, Autumn 2021.

Support for renewables

In Autumn 2021, support for using renewable energy such as wind power, solar energy and biomass to provide electricity, fuel and heat was high at 87%, including 54% of people saying they strongly supported this (Figure 2.1). Just 1% of people said they opposed renewable energy.

Figure 2.1: Whether support use of renewable energy (based on all people), Autumn 2021



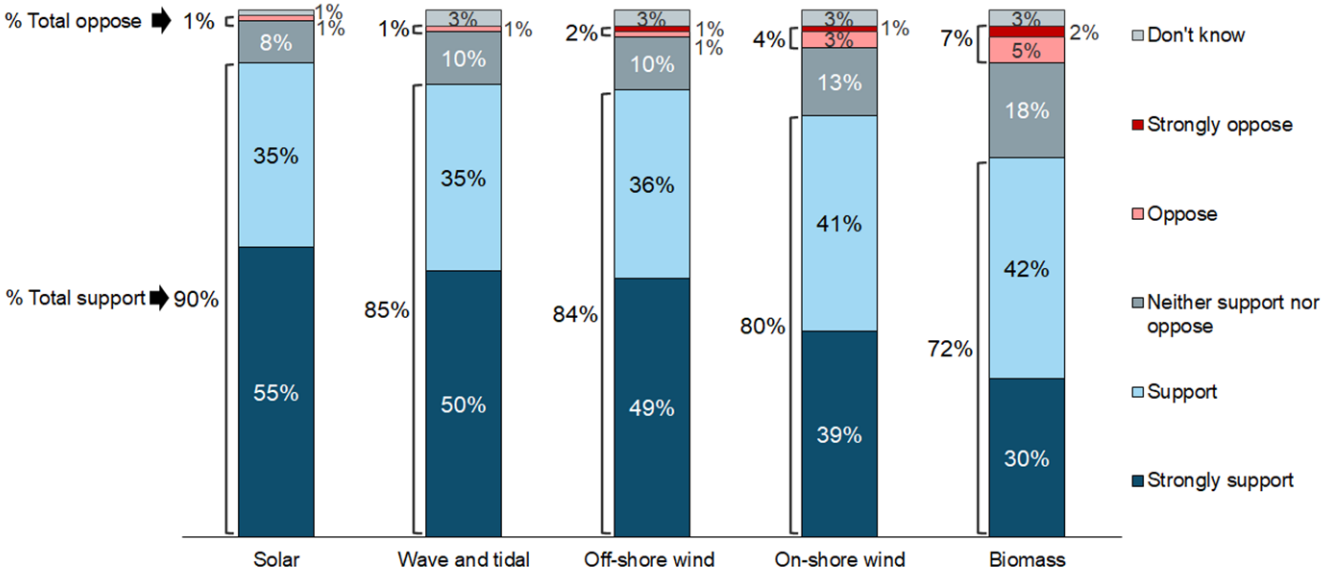
RENEWSUPPORT. The next question is about renewable energy. This includes a number of different forms of energy, such as wind power, solar energy and biomass. Do you support or oppose the use of renewable energy for providing our electricity, fuel and heat?
Base: All wave respondents – Autumn 2021 (5,556) (Asked Quarterly)

Men were more likely to strongly support renewables (58%, compared with 50% of women). The level of strong support declined by age, from 62% of those aged 16 to 24, declining through the age bands to 50% of those aged 55 or over.

Support for renewable energy was higher for people educated to degree level (93%, compared with 86% of those with other qualifications and 78% of people with no qualifications).

While overall support for renewables was very high, support for different types of renewable energy developments was more variable. At least eight in ten were supportive of solar energy (90%), wave and tidal energy (85%), off-shore wind (84%), and on shore wind (80%), while support for biomass was slightly lower (72%). However, where support was lower, this was mainly driven by larger proportions saying they had no opinion. Opposition remained low across all renewable energy technologies (between 1% and 7%).

Figure 2.2: Whether support use of specific renewable energy developments (based on all people), Autumn 2021



RENEW2SUPPORTA-RENEW2SUPPORTE. Generally speaking, do you support or oppose the use of the following renewable energy developments …
*Biomass fuller wording: this refers to any plant or animal-based material (for example food waste, branches, sawdust) or purposely grown crops which can be burned to produce heat and electricity
Base: All wave respondents – Autumn 2021: Solar (5,498), wave and tidal (5,482), off-shore wind (5,490), on-shore wind (5,509), Biomass (5,470) (Asked Biannually)

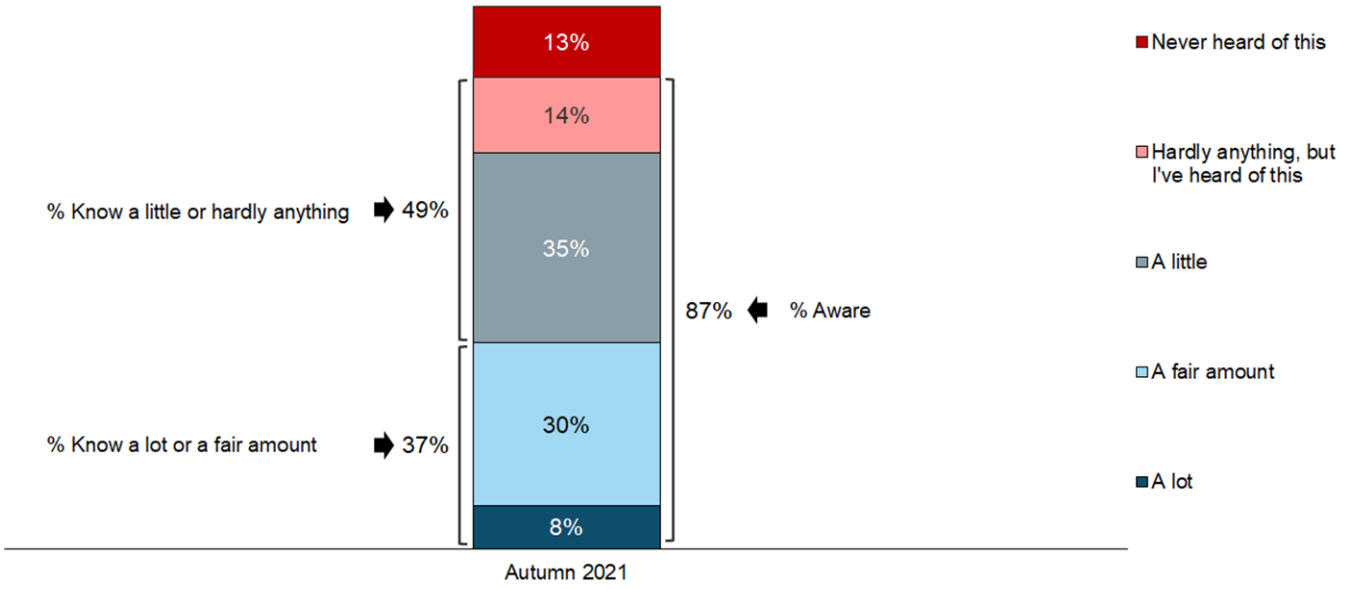
Men were more likely than women to strongly support all types of renewable energy: solar (59% compared with 51%); wave and tidal (57% compared with 43%); off-shore wind (55% compared with 42%); on-shore wind (44% compared with 34%); and biomass (32%, compared with 29%). Similarly, those educated to degree level were more likely than those without a degree to say they strongly supported each of these five types of renewable energy.

Awareness and support for shale gas

In Autumn 2021, 87% of people had at least some previous knowledge of hydraulic fracturing for shale gas otherwise known as 'fracking', where this was described to respondents as follows: *'Shale gas is natural gas found in shale, a type of rock which does not allow the gas to escape. Hydraulic fracturing or "fracking" is a process of pumping water at high pressure into shale to create narrow fractures which allow the gas to be released and captured. The gas can then be used for electricity and heating'*.

Over a third (37%) said they knew a lot (8%) or a fair amount (30%) about it, while nearly half (49%) said they knew a little (35%) or hardly anything about it (14%) (Figure 2.3).

Figure 2.3: Knowledge about fracking (based on all people), Autumn 2021



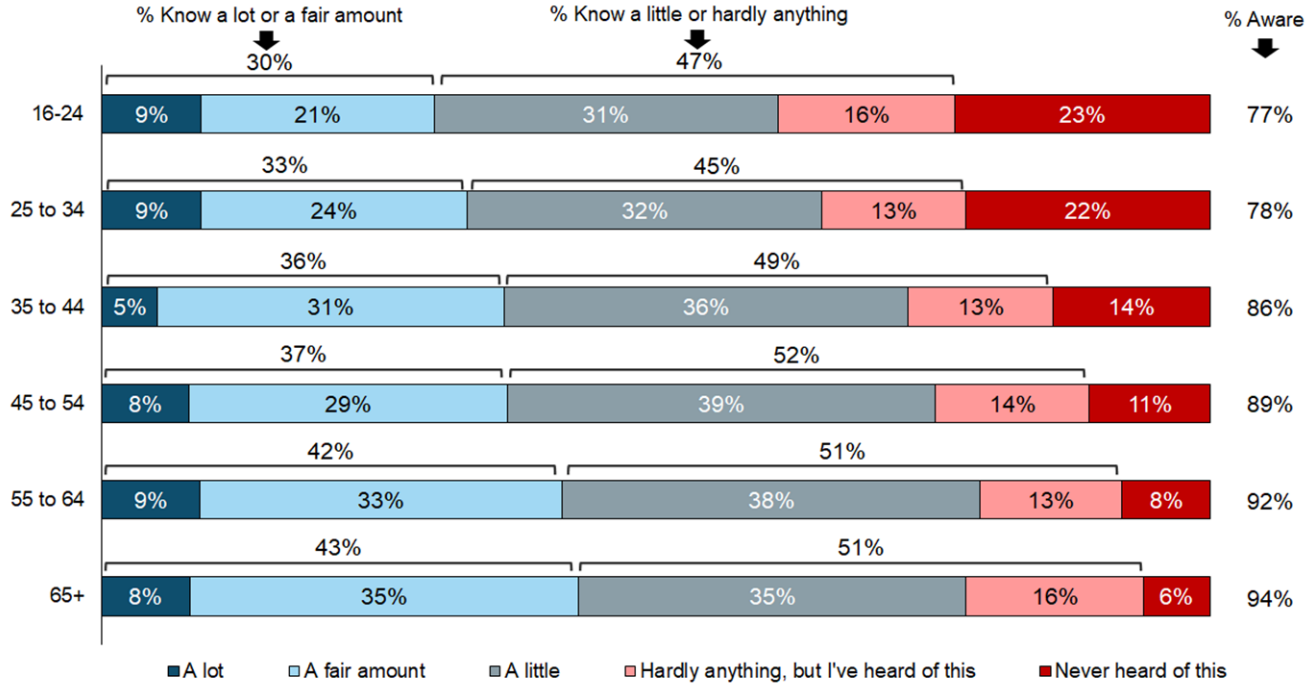
FRACKKNOW. Shale gas is natural gas found in shale, a type of rock which does not allow the gas to escape. Hydraulic fracturing or "fracking" is a process of pumping water at high pressure into shale to create narrow fractures which allow the gas to be released and captured. The gas can then be used for electricity and heating. Before today, how much, if anything, did you know about hydraulic fracturing for shale gas, otherwise known as 'fracking'?
Base: All wave respondents – Autumn 2021 (5,559)

Men were more likely to say they were aware of fracking (92% compared with 82% of women) with a more marked difference in the proportion of men saying they knew at least a fair amount (48% compared with 27% of women).

Awareness of fracking was also higher among older people (see Figure 2.4): 93% of those aged 55 or over compared with 77% of those aged 16 to 34. There was a similar age pattern in terms of the proportion who knew at least a fair amount about fracking: 43% of those aged 65 and over, declining through the age groups to 30% of 16 to 24s.

People educated to degree level were more likely to be aware of fracking (91% compared with 78% of people with no qualifications), and to know at least a fair amount about it (49% compared with 25%).

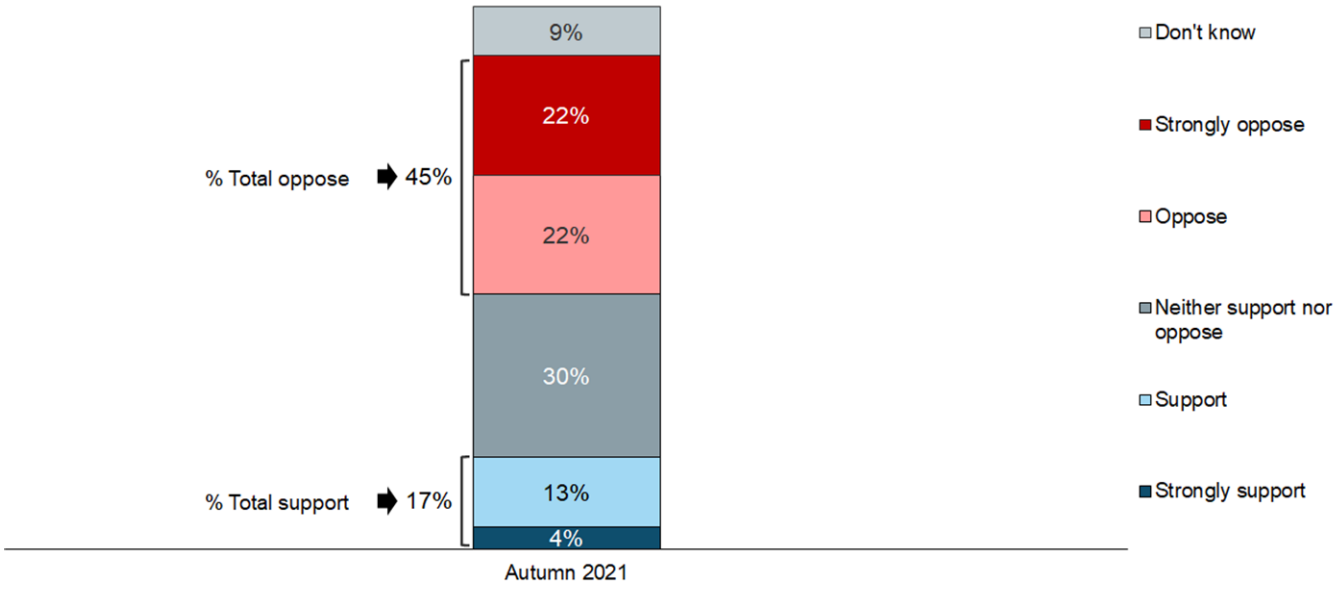
Figure 2.4: Knowledge about fracking (based on all people), by age, Autumn 2021



FRACKKNOW. Shale gas is natural gas found in shale, a type of rock which does not allow the gas to escape. Hydraulic fracturing or “fracking” is a process of pumping water at high pressure into shale to create narrow fractures which allow the gas to be released and captured. The gas can then be used for electricity and heating. Before today, how much, if anything, did you know about hydraulic fracturing for shale gas, otherwise known as 'fracking'?
Base: All wave respondents – Autumn 2021: 16 to 24 (332), 25 to 34 (686), 35 to 44 (655), 45 to 54 (774), 55 to 64 (905), 65 or over (2,170)

In Autumn 2021, opposition to fracking clearly outweighed support (Figure 2.5). In total 17% said they supported shale gas extraction, including just 4% of people expressing strong support. On the other hand, 45% said they opposed it, including 22% of people who strongly opposed it. However, levels of indecision were high, with three in ten people (30%) saying they neither supported nor opposed fracking.

Figure 2.5: Whether support fracking (based on all people), Autumn 2021



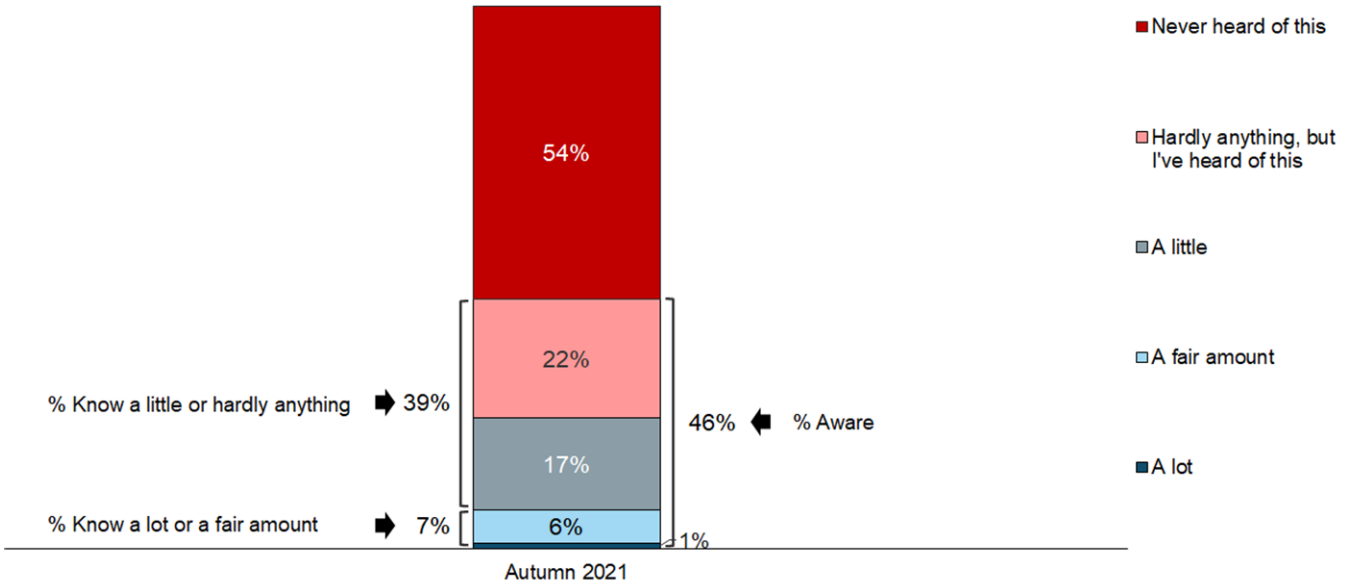
FRACKSUPPORT. From what you know, or have heard, about extracting shale gas to generate the UK's heat and electricity, do you support or oppose its use?
Base: All wave respondents – Autumn 2021 (5,556)

Those educated to degree level were more likely to oppose fracking (56% compared with 43% of those with other qualifications and 31% of people with no qualifications).

Awareness of small modular reactors

In Autumn 2021, 46% of people said they had heard of small modular reactors before the interview, described as *'…new types of nuclear reactors, similar to existing nuclear power stations, but on a smaller scale. They can be used for electricity generation, to provide industry with heat and power, or to provide energy to UK communities not connected to the national gas grid'.* However, only 7% said they knew at least a fair amount about them and 39% said they knew only a little or hardly anything (Figure 2.6). Over half (54%) had never heard of them.

Figure 2.6: Knowledge about small modular reactors (based on all people), Autumn 2021



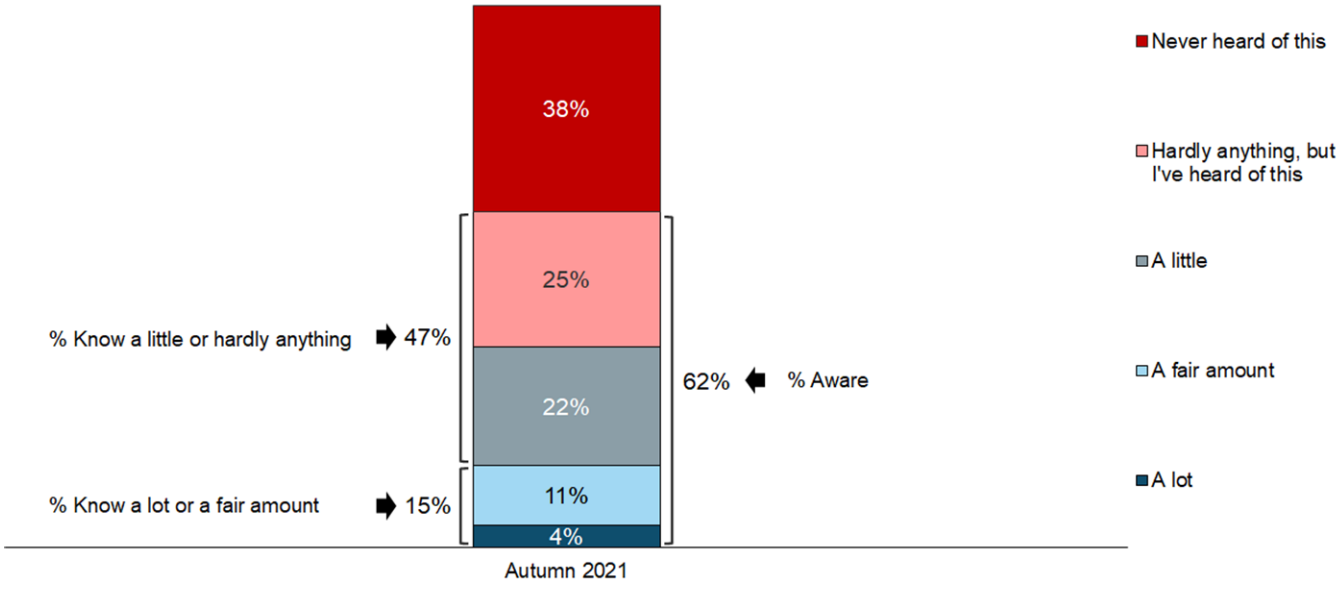
SMRKNOW. The next question is about Small Modular Reactors. These are new types of nuclear reactors, similar to existing nuclear power stations, but on a smaller scale. They can be used for electricity generation, to provide industry with heat and power, or to provide energy to UK communities not connected to the national gas grid. Before today, how much, if anything, did you know about Small Modular Reactors?
Base: All wave respondents – Autumn 2021 (5,548)

Men were considerably more likely to be aware of small modular reactors (57% compared with 35% of women). Awareness was also higher for those educated to degree level (54% compared with 34% of people with no qualifications).

Awareness and support for fusion energy

In the survey, respondents were provided with the following explanation '*Fusion energy is an experimental technology that works by fusing together atoms in order to release energy. The UK is exploring whether this technology could be used to generate zero carbon electricity'.* In Autumn 2021, 62% of people had at least some knowledge of fusion energy before the survey (see Figure 2.7). This comprised 15% knowing a lot or a fair amount, 22% knowing a little, and 25% saying they had heard of it, but knew hardly anything about it.

Figure 2.7: Knowledge about fusion energy (based on all people), Autumn 2021



FUSIONKNOW. Fusion energy is an experimental technology that works by fusing together atoms in order to release energy. The UK is exploring whether this technology could be used to generate zero carbon electricity. Before today, how much, if anything, did you know about fusion energy?
Base: All wave respondents – Autumn 2021 (5,558)

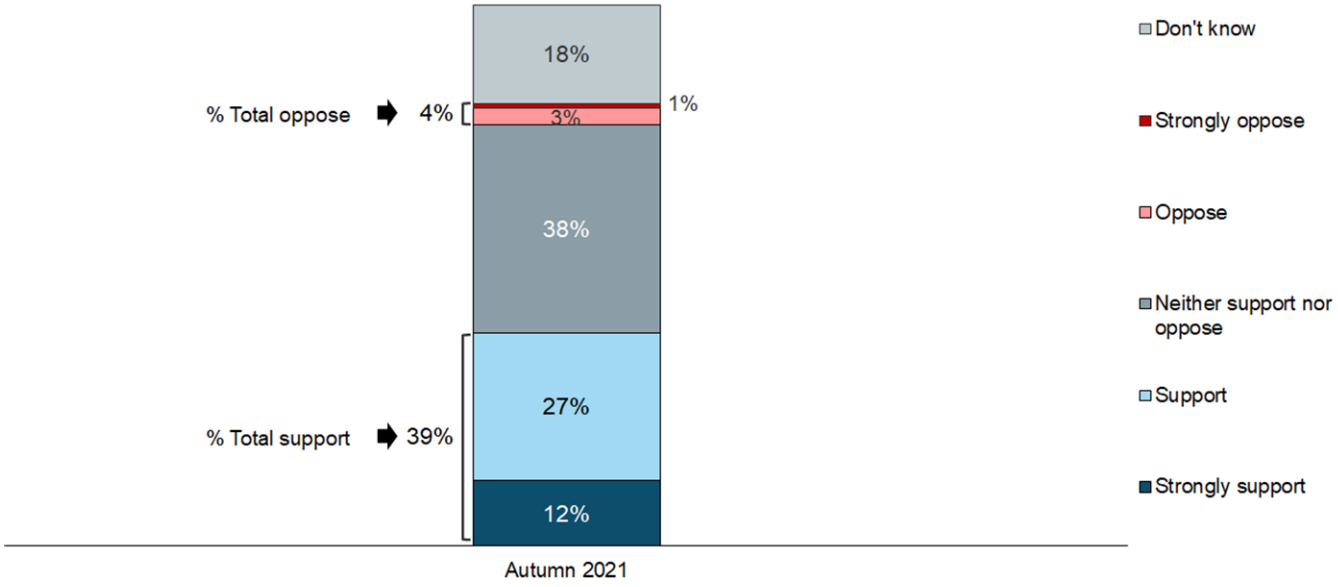
Men were much more likely to be aware of fusion energy (77% compared with 49% of women) and to say they knew at least a fair amount about it (25% compared with 6% of women).

People aged 16 to 24 were most likely to be aware of fusion (70% compared with 57% of people aged 65 or over). Those aged 16 to 24 were also more likely to say they knew at least a fair amount about it (24% compared with 10% of those aged 65 or over).

As for other energy technologies, awareness of fusion energy was also higher for those educated to degree level (75% compared with 43% of people with no qualifications) and there was a similar pattern in reported levels of knowledge (23% of degree-educated people saying they knew at least a fair amount, compared with 7% of people with no qualifications).

When asked whether they supported or opposed developing fusion energy technology in the UK, over half (56%) neither supported nor opposed it (38%) or did not know whether they supported it (18%) (Figure 2.8). This uncertainty is likely to reflect the low overall awareness and knowledge of fusion energy. However, where an opinion was provided, there was more support than opposition. In total, 39% said they supported the development of fusion energy, while only 4% opposed it.

Figure 2.8: Whether support fusion energy (based on all people), Autumn 2021



FUSIONSUPPORT. From what you know, or have heard about fusion energy, do you support or oppose the UK developing this technology?
Base: All wave respondents – Autumn 2021 (5,555)

Men (55%, compared with 25% of women) and degree educated people (49%, compared with 31% of those with no qualifications) were more likely to support fusion energy.