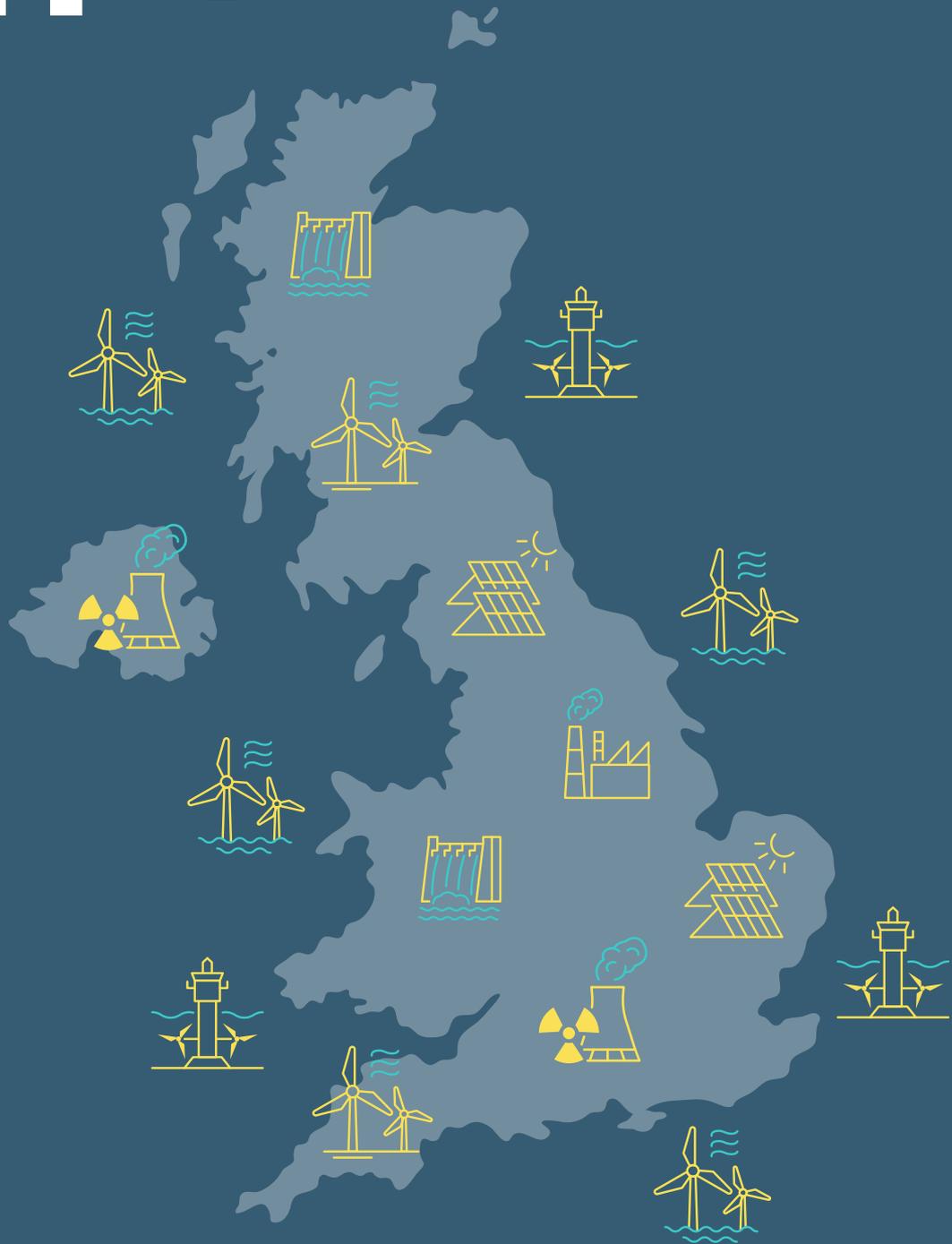


# COPPER



## Public attitudes to low carbon energy generation

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A study by Copper Consultancy  
June 2021

## Introduction

**Low carbon energy generation is critical to achieving net zero and we need to take the public and customers with us.**

The drive towards net zero is going to play a central role in government policy and the public's lives for the decades to come.

At the centre of this is how we chose to heat and power our homes. This will have an impact on the public as we make decisions about how we live our lives.

Copper has measured public attitudes to infrastructure for over 5 years to understand sentiment around key areas of our industry. Now, we have studied public attitudes to low carbon energy generation to measure more about where the public needs support in understanding our energy future.

## Foreword

This year is proving to be a pivotal for the energy industry and for cementing Britain's global role in the pledge to achieve net zero. As the world seeks to recover from the devastating impacts of the pandemic, many nations, including the UK, are placing low carbon energy at the heart of their economic recovery plans. The G7 nations will be greeted by Boris Johnson on the Cornish coast for their annual summit with this year's focus being on tackling the climate emergency. In November, the rest of the world will descend on Glasgow for the UN Climate Change Conference (COP26), where nations will be expected to bring forward more ambitious targets for meeting net zero.

In the UK, we saw a flurry of announcements at the back end of 2020, which included the long-awaited Energy White Paper, the prime minister's Ten Point Plan for a green industrial revolution, the National Infrastructure Strategy and the Climate Change Committee's sixth carbon budget. The common thread of these strategies and plans focused on the need for actions. The findings in this report suggests that the message is landing with the public on established low carbon sources. But there is still a way to go to raise awareness and understanding of lesser known low carbon technologies that will also have a vital role to play in the future energy mix.

The UK is already a world-leader in offshore wind and is leading the way in the development of small modular reactors, carbon capture and storage and new hydrogen-based technologies. Despite a lack of awareness in these, the public want to see more done to invest in homegrown technologies and promote them on the global stage.

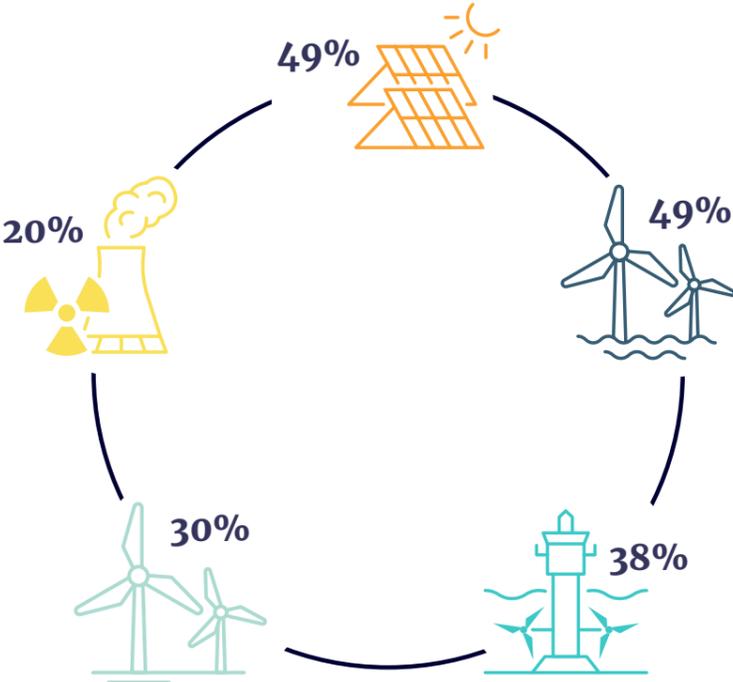
The big question remains who pays for net zero. The findings tell us the public accepts there is not yet a fair way to do this. For the public to fully grasp the extent of the challenge and buy-in to the action required to meet net zero, there will need to be a clearer and more tangible link between the ambitious government targets and what it means for people in their day-to-day lives.



**Sam Cranston**  
Director, Energy  
Copper Consultancy

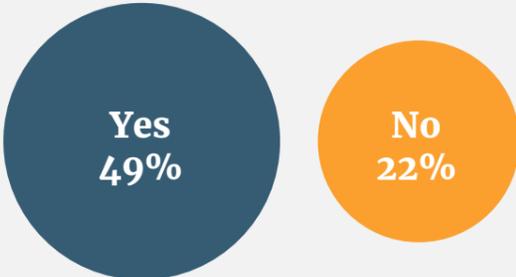
# Key findings

Support for renewables is strong, especially solar (49 per cent), offshore wind (49 per cent) tidal (38 per cent) and onshore wind (30 per cent). Nuclear power stands at 20 per cent.



## Attitudes to nuclear a low carbon energy source

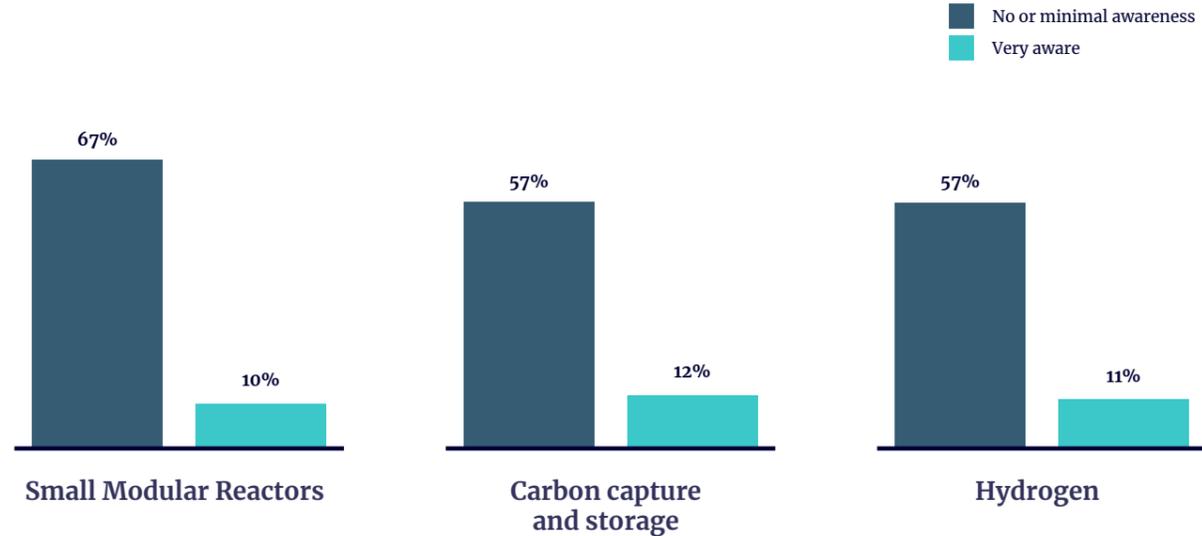
Nuclear is recognised and supported as a low carbon energy source and considered to be part of the UK's future. It does not enjoy the same support as other low carbon sources promoted by government policy.



## Government direction should prioritise jobs, British technologies and exports in the transition to net zero

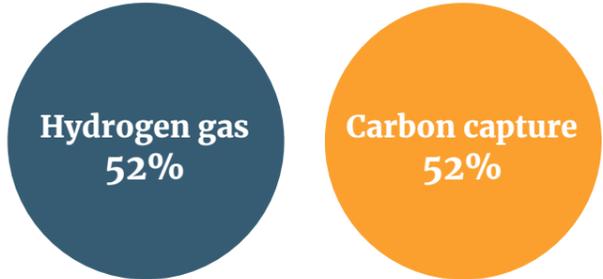
- High quality jobs is the most important key benefit from the low carbon energy transition according to the public.
- Government intervention would be welcomed by the public to support British low carbon technologies which have export potential.

There is currently minimal awareness of new technologies which could deliver high quality jobs and transition the UK to a net zero future.



## Lack of awareness is leading to apathy in new technologies – this can store up risk for the future as a lack of understanding can lead to opposition

Percentage of people with no opinion on emerging technologies



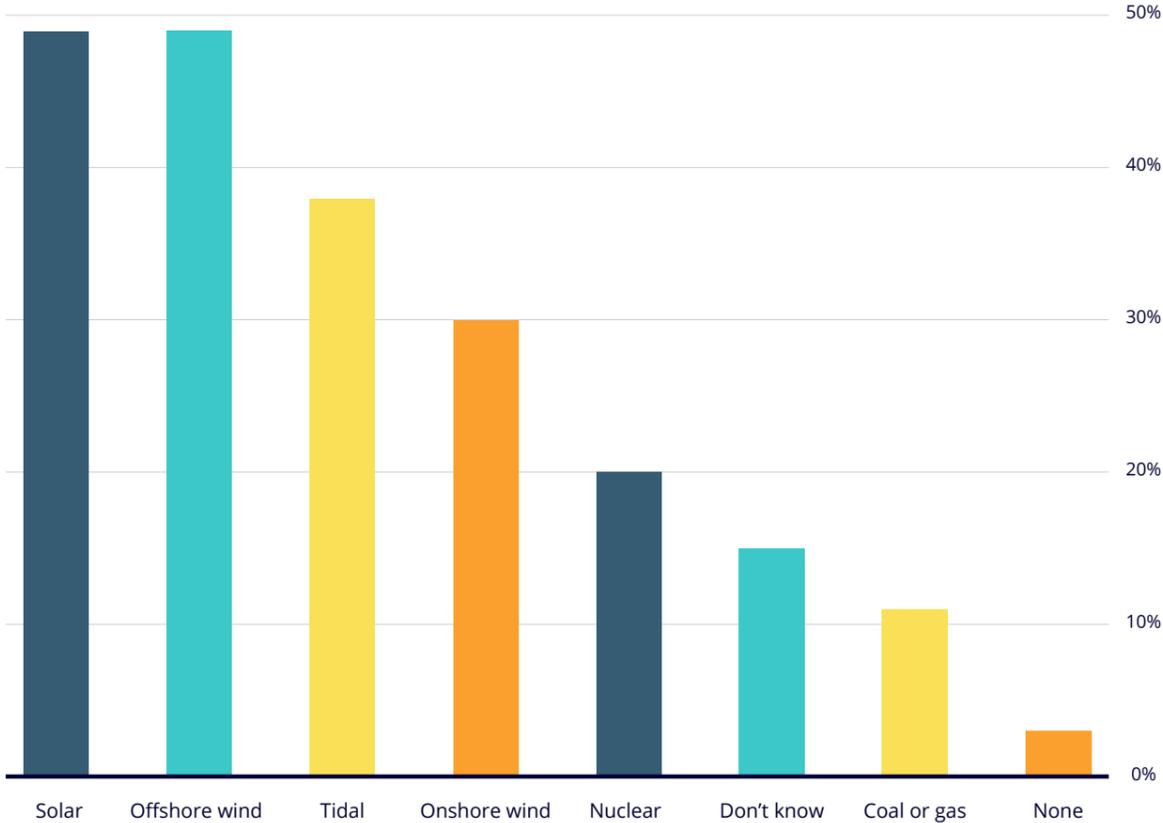
# Low carbon energy generation enjoys public support; jobs and exports are key drivers for people on the journey to net zero

## Low carbon technologies are becoming established in the public's mind

The principle of low carbon energy sources has landed and the public is supportive of renewables.

Nuclear power generation solutions have not resonated as well as renewables. The process for consenting and building new nuclear is complex and the perception of this timeframe could have a negative impact on a population that wants small, local, cost effective, efficient and homegrown ideas.

Which of the following if any, do you think the government should prioritise to deliver future net zero energy generation?



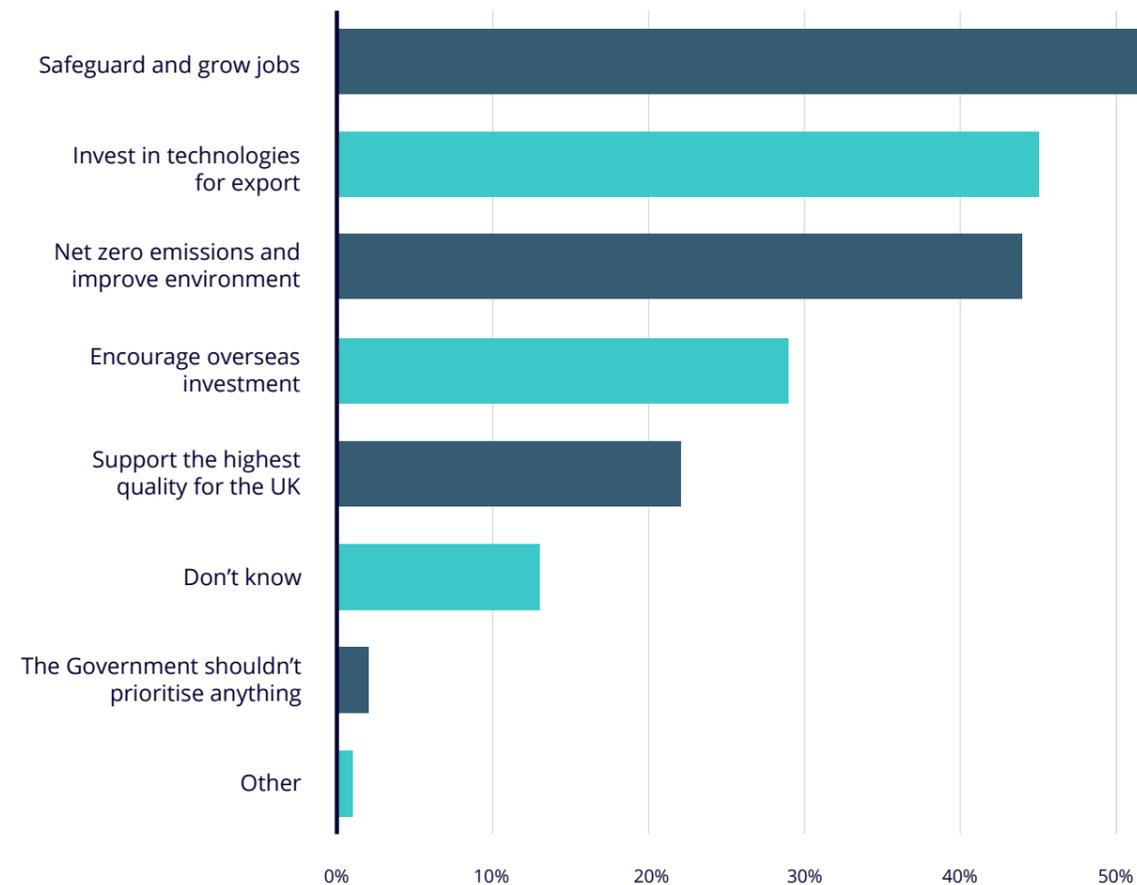
## High quality jobs are expected on the path to net zero

In the process of delivering net zero, people want to see economic opportunities arise from the transition. Achieving a better environment alone is not enough.

The public sees the energy revolution as an opportunity to create jobs and develop new British technologies which can be exported.

The public's expectations have been raised as have their ambitions for what can be achieved.

**The UK needs to build new infrastructure including power stations and roads. What should the government prioritise?**



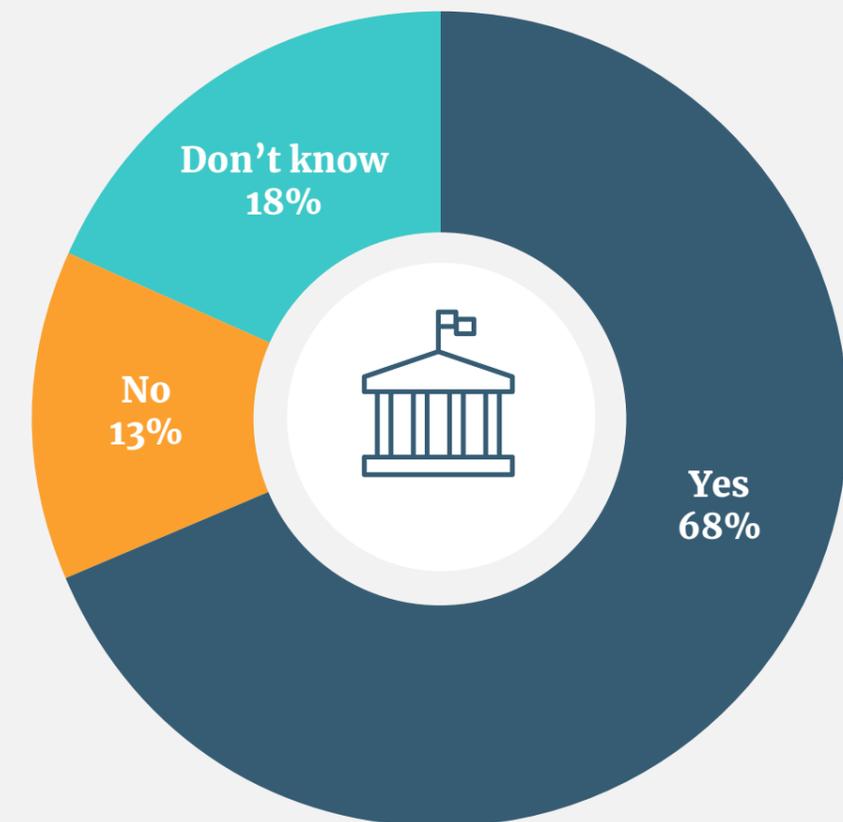
## Government intervention to safeguard jobs would be popular

The public wants meaningful, high value jobs that matter; people want to see long term prospects and employment in manufacturing.

The transition to net zero jobs in the UK is seen as an opportunity. In particular, people want jobs which support high content concepts – new and emerging ideas which include homegrown intellectual property and design.

But this alone is not enough. Creating jobs in the UK is only the start. Exporting British technology is important to the public, especially where manufacturing takes place in the UK.

**Should the UK government intervene to protect and promote manufacturing job?**

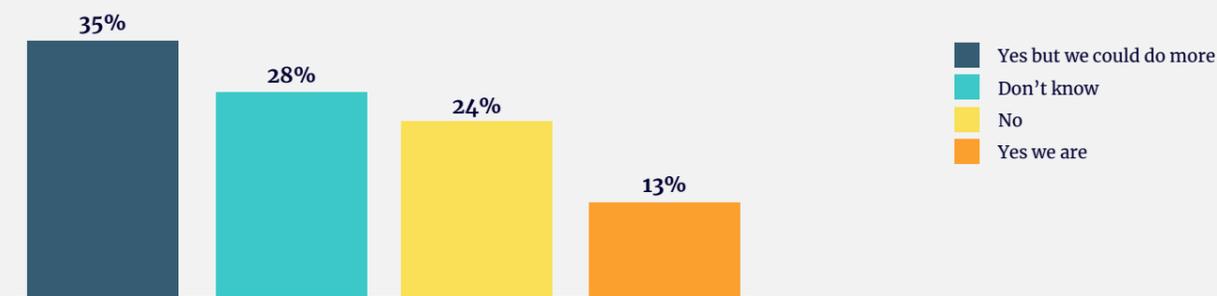


## The public sees net zero as an opportunity for the UK on the global stage

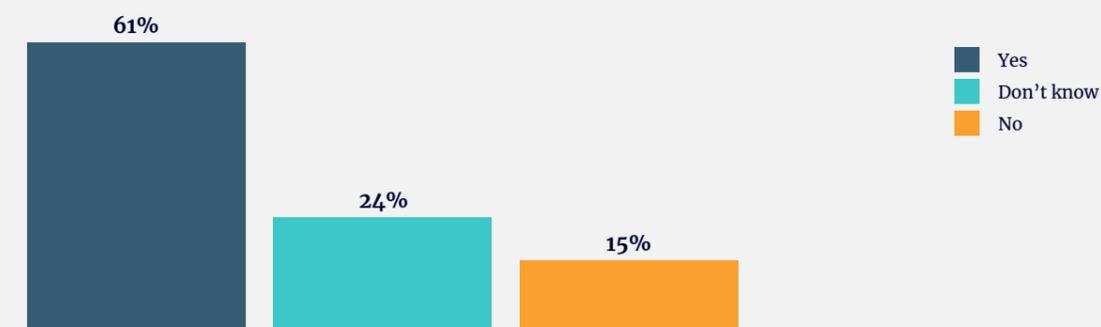
The public wants the UK to do more on the international stage; messages around our successes in renewables and COP26 coming to Scotland are having an impact.

But people don't know if the UK is making a difference. Over 51 per cent of people either don't know if we are reaching our potential or think we are not doing so. Only 13 per cent think we are punching above our weight.

The UK faces a challenge in striving towards net zero emissions. Do you think the UK government is maximising its potential in supporting new technologies?



Do you think the UK should be a world leader in developing new net zero technologies?

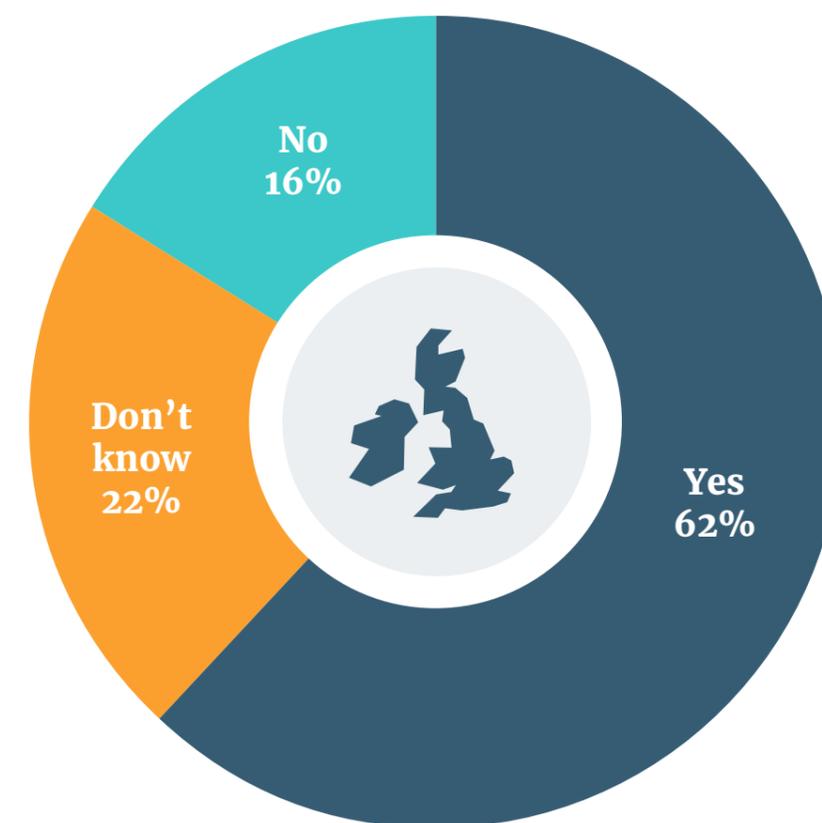


## The public is keen to see more home grown technologies in the charge towards net zero

The public is supportive of the UK being an innovative incubator for new technologies which can be exported.

Energy generation is seen as a sector which has the potential to deliver homegrown jobs and to create an international market for the UK.

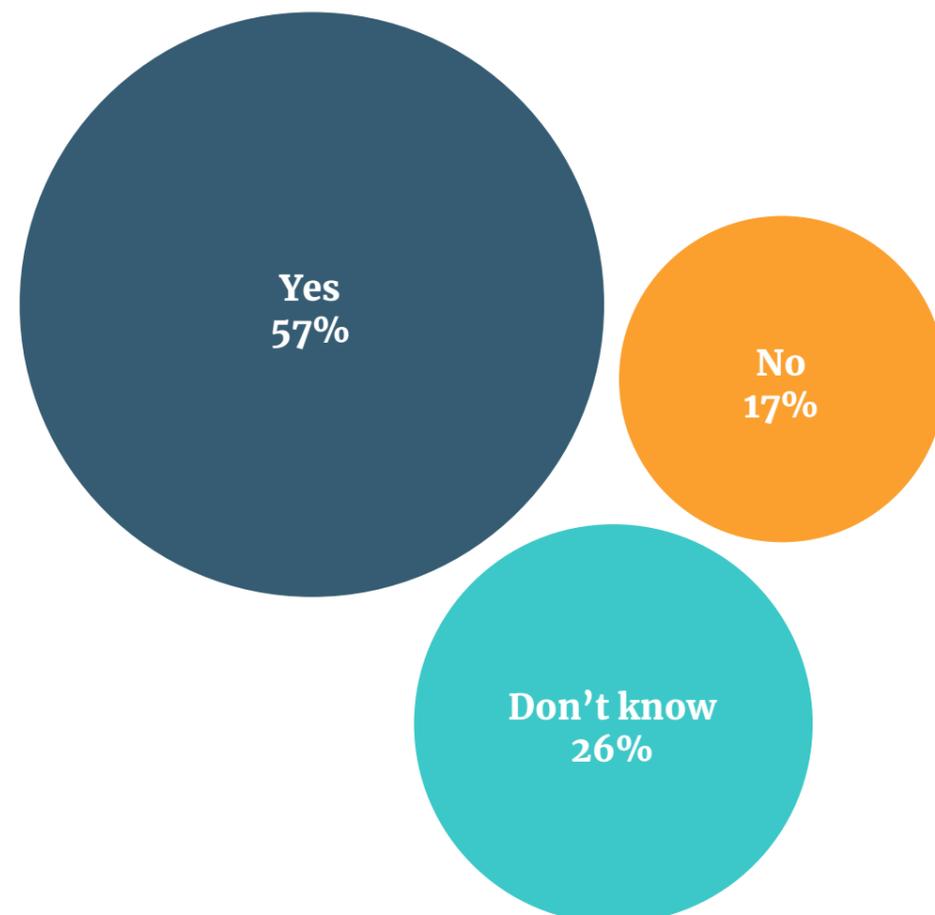
Do you think it is important that if we should build more power stations, they should be using technology developed and manufactured in the UK?



## The public would back government intervention to support home grown technologies

The public supports government intervention to enable the UK to export homegrown technologies (57 per cent) with a minority opposed (17 per cent).

Should the UK government offer financial support to British energy technologies to help them achieve future exports and demonstrate the country's expertise globally?



## What does the public think of specific low carbon technologies?

In this section, we test public perceptions to new, low carbon technologies including:

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New small modular nuclear power stations

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Carbon capture and storage

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Hydrogen gas

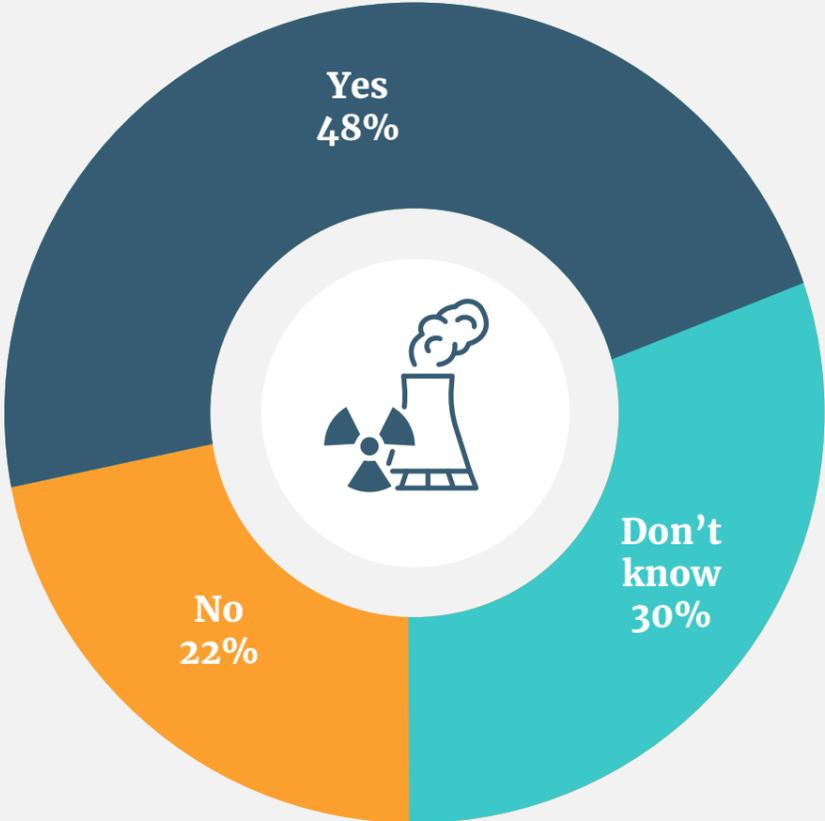
# New nuclear and Small Modular Reactors

## Nuclear power is recognised as a low carbon energy opportunity

The public regards nuclear power as an opportunity to achieve net zero, although it is not as popular as some renewable sources.

Despite that, only 22 per cent is opposed to the idea of new nuclear.

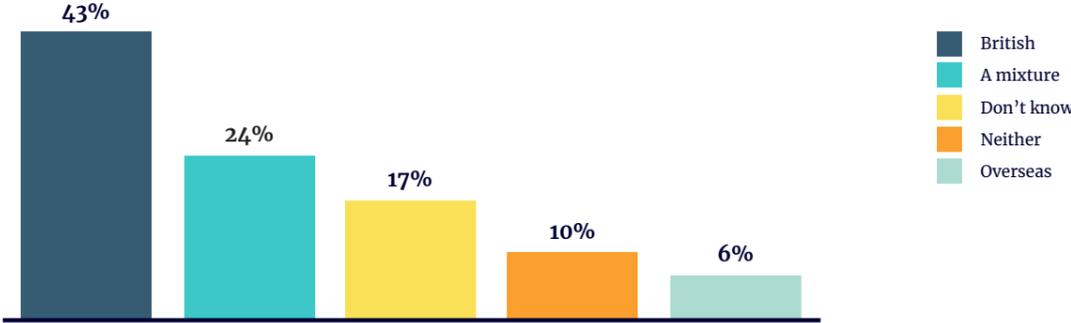
The UK needs to build new power stations to provide low carbon energy as we drive towards net zero by 2050. Do you think nuclear power has a role to play?



## The public views new nuclear as an opportunity to invest in the UK

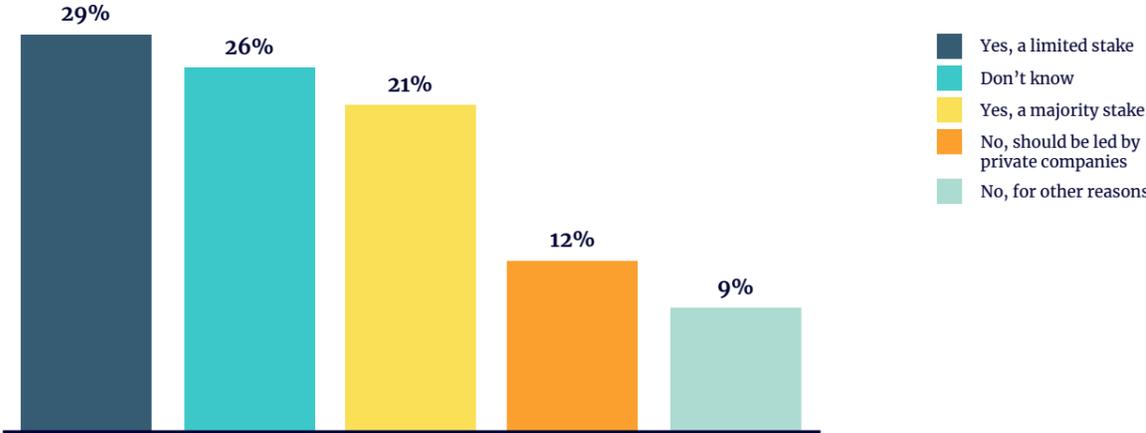
When considering the type of technology used, 43 per cent supports homegrown content. Six per cent stated a preference for overseas technology and 24 per cent favours a mixture.

If we are going to build more nuclear power stations in the UK, would you have more confidence in nuclear if it was based on British or overseas technology?



The public's support goes further. People are open to the idea (53 per cent) of government taking an interventionist step to support new homegrown nuclear with 21 per cent opposed to the principle.

Do you think the UK government should take a financial stake in new British designed nuclear power stations to help them be built more quickly.

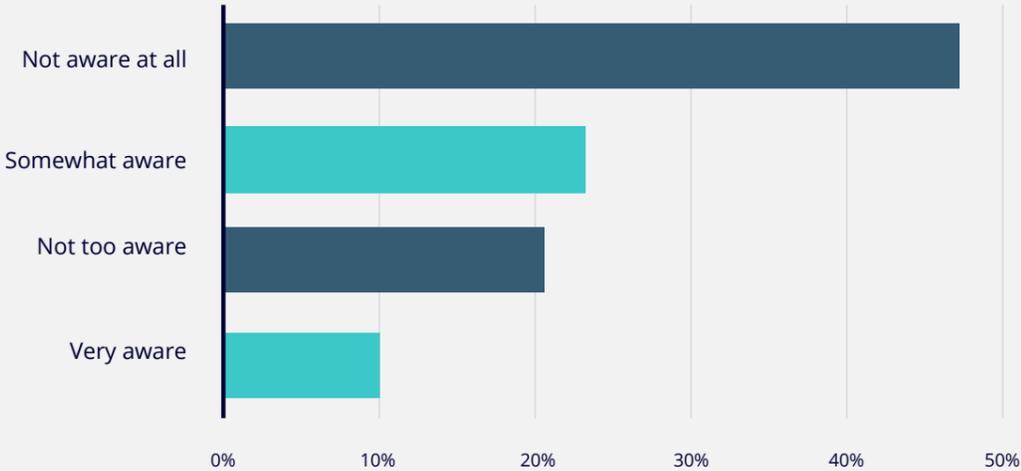


### Small Modular Reactors contain the ingredients to be popular

Government has included Small Modular Reactors in its Ten Point Plan for a Green Industrial Revolution.

Small Modular Reactors present an tangible opportunity to create high quality jobs, export homegrown content and push us towards net zero. This mean there is an opportunity to build more public support for this technology – 67 per cent is unaware or not too aware of what SMRs are.

**There is an emerging technology which involves building nuclear reactors in factories and shipping them to site. They are called Small Modular Reactors. How aware of Small Modular Reactors are you?**



## Carbon capture and storage

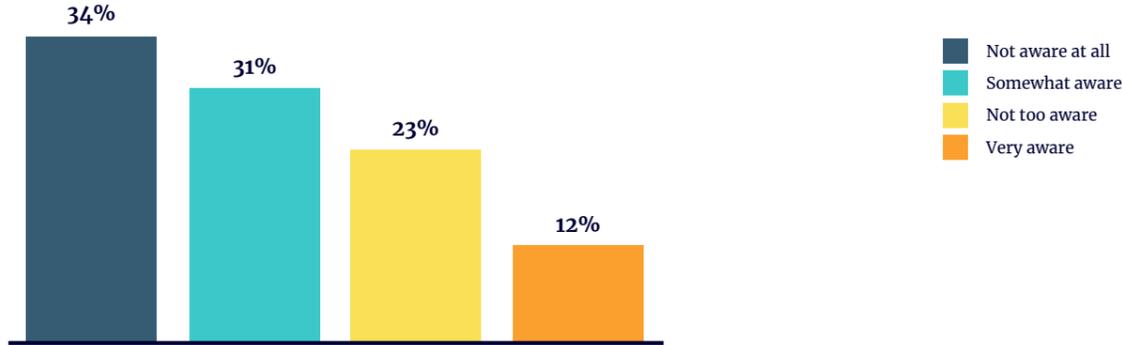
### Carbon capture potential is yet to be understood by the public

Carbon Capture presents an opportunity to export British technology and help achieve net zero.

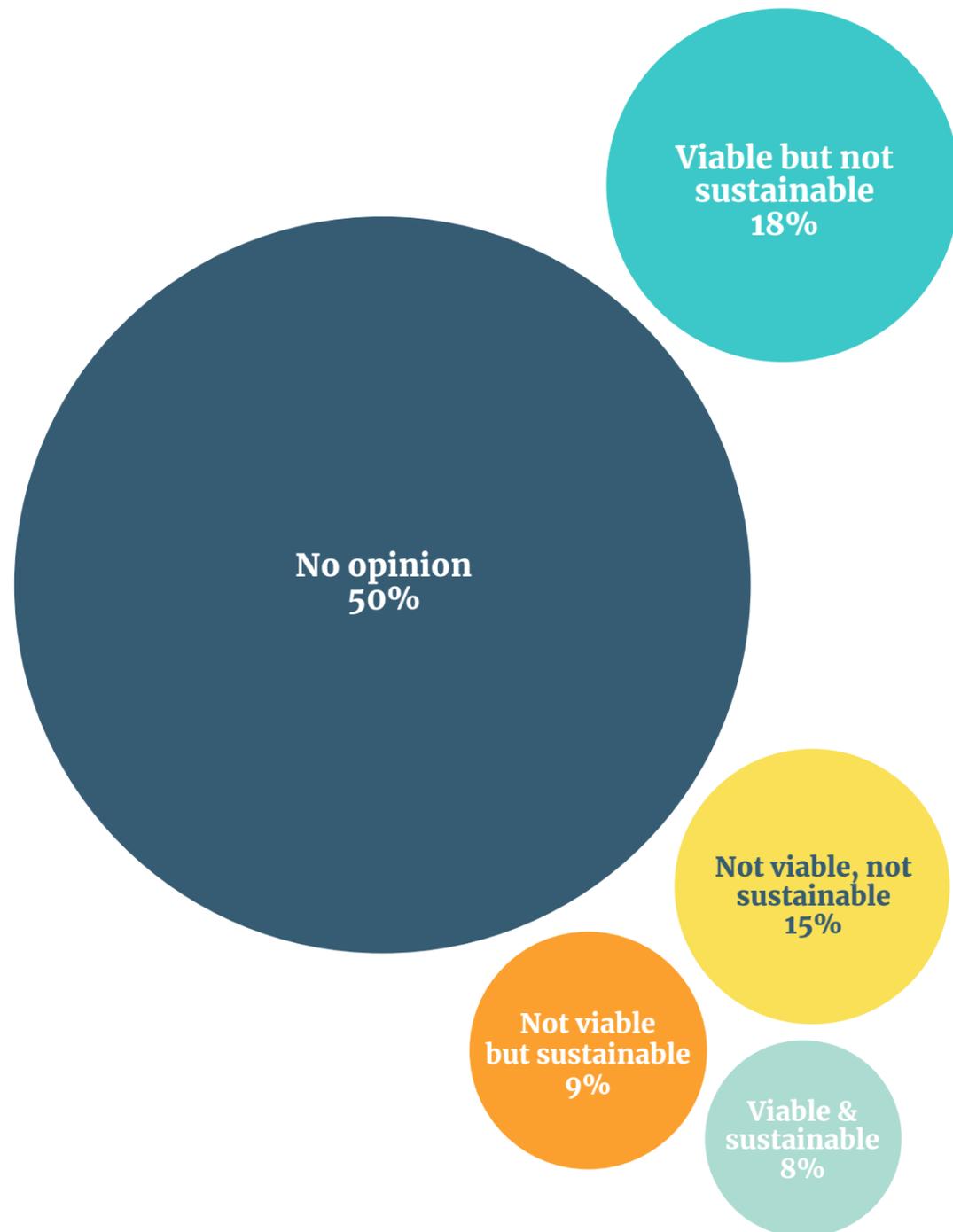
Despite its potential, 57 per cent of people are unaware or not too aware of what this is and only eight per cent see this viable and sustainable.

It is interesting that 50 per cent don't have a view on the technology. Perhaps this is the most telling response as this demonstrates the opportunity to build support in carbon and capture and storage.

**There is an emerging technology which involves capturing carbon produced by industry and then storing these emissions under the sea so they do not enter the earth's atmosphere. How aware are you of carbon capture and storage technology?**



Do you believe that storing carbon under the sea is a viable and sustainable option?



## Hydrogen gas

### Apathy about hydrogen, combined with minimal scepticism means gaining public support is achievable

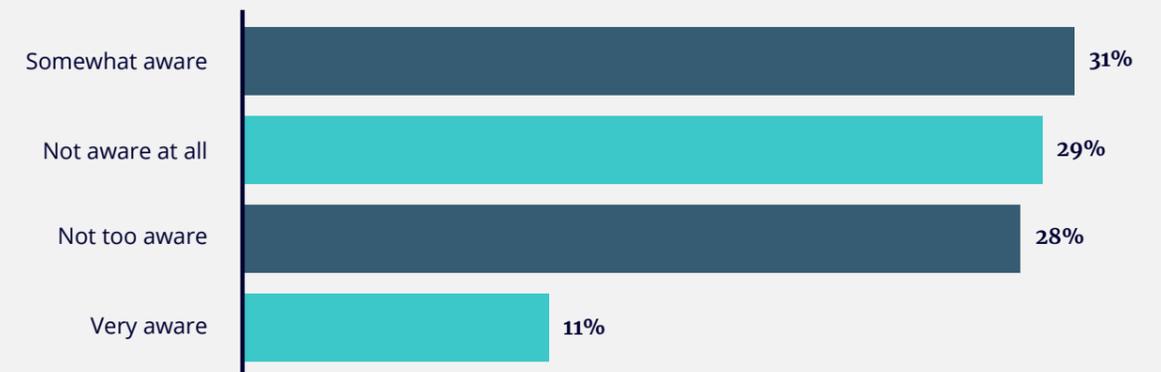
Prime Minister Boris Johnson said in 2020 that the UK will place a “big bet” on hydrogen gas as way of reducing emissions and heating homes.

At present there is little or no awareness of hydrogen amongst 58 per cent of the public.

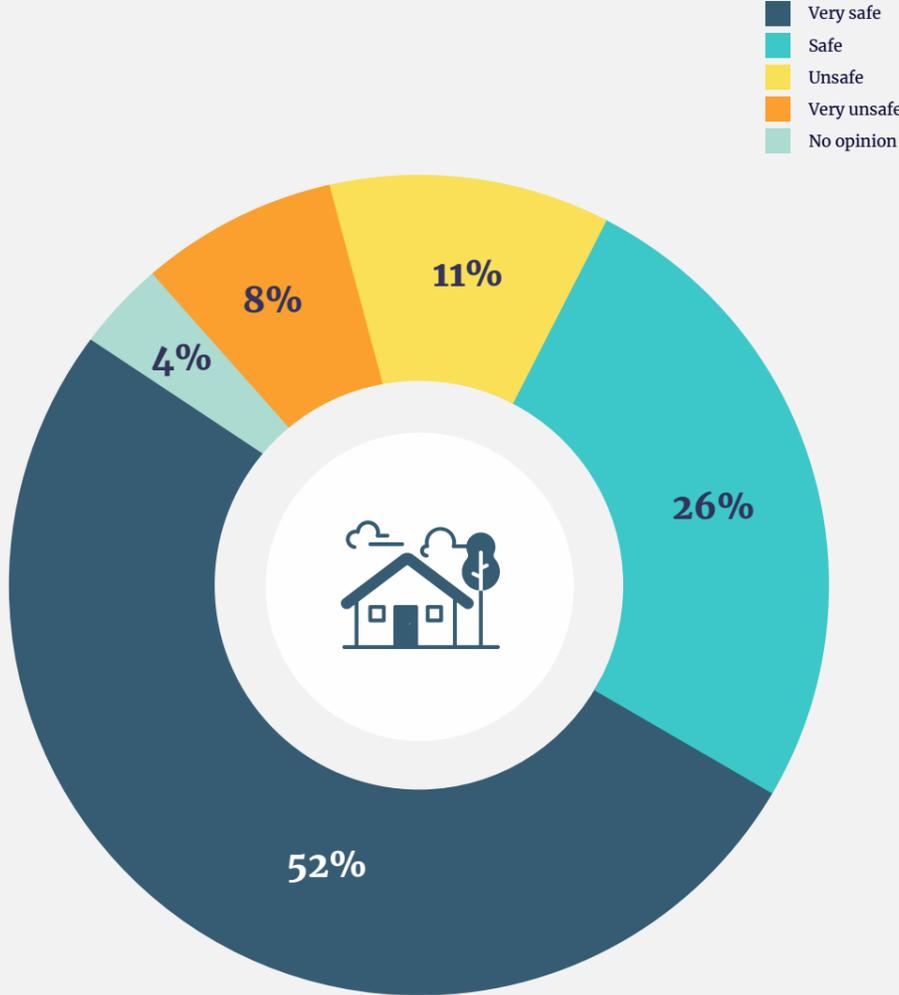
As a result of this lack of understanding, apathy towards hydrogen stands at 51 per cent.

However, despite this, only 15 per cent thinks it is unsafe.

### Hydrogen has been touted as a future key player in the UK’s energy mix. How aware are you of the role Hydrogen can play in the UK’s energy mix?



Hydrogen gas may increasingly be used to fuel homes, or to power transport such as buses. How safe or unsafe do you think this technology currently is?

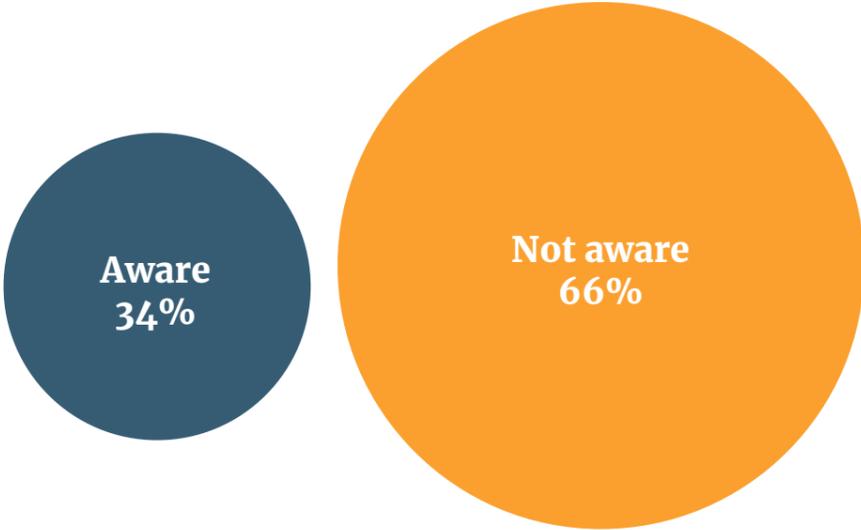


**The opportunity for low carbon technologies to create jobs in the UK is not widely understood**

The public's expectations have been raised for a low carbon future along with a the promise of high quality green jobs.

At present only 34 per cent is aware that industries like carbon capture and storage or hydrogen will create jobs.

Developing low carbon technologies would preserve jobs by enabling energy intensive industries to continue to operate and thrive whilst decarbonising. Are you aware of how these technologies can preserve these jobs?

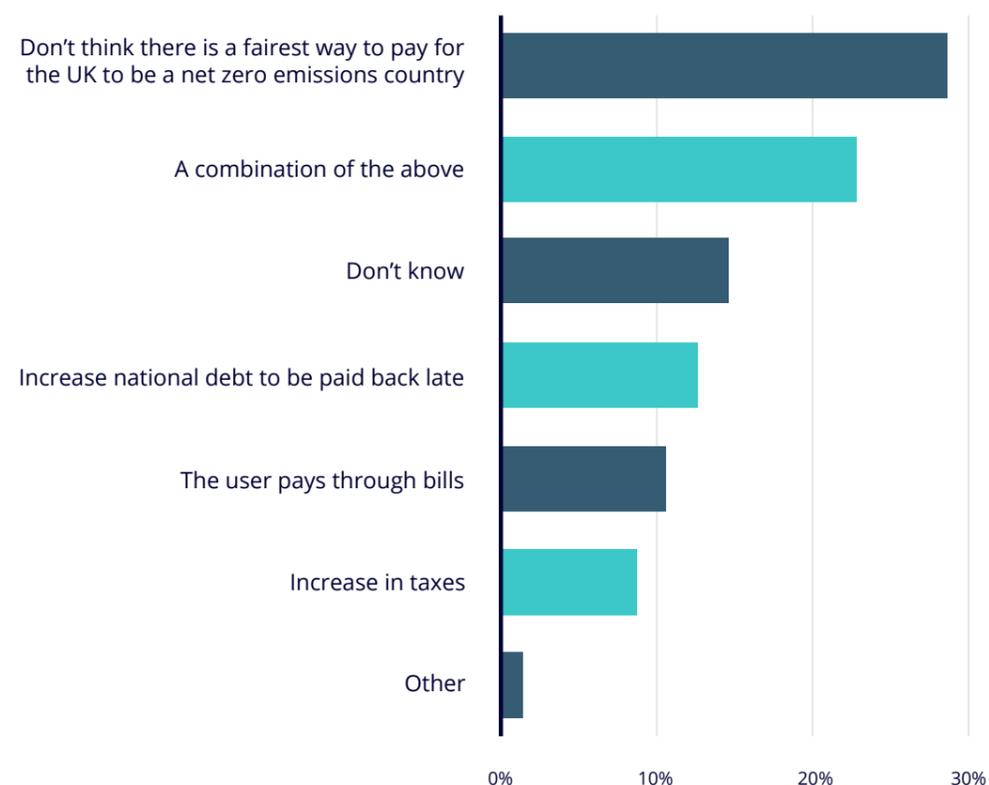


## There is no consensus on how we should pay for net zero

The public is not aligned on how we should pay for net zero - 23 per cent think it should be a blend of methods and 29 per cent feel there is no fair approach.

No one route to pay for net zero is the most popular – the least popular being taxation and then user pays. The closer to people's pockets, the more unpopular the choice.

## What do you think is the fairest way to pay for the UK to be a net zero emissions country?



## Conclusions

Public attitudes to net zero and the technologies that present opportunities in reducing emissions are complex. There is support for achieving net zero, but context is key. People want to understand the benefits, risk and ultimately how the journey to net zero impacts them and society. Public ambition stretches beyond achieving net zero as a goal in itself; jobs, exports and global leadership are expected too.



**There is support for net zero technologies where they can create jobs**



**Technologies which provide the UK with export opportunities are perceived as positive**



**Understanding of these new technologies is limited – without this awareness, it is challenging to generate the support that wind power, solar and tidal enjoys**



**Who pays for net zero remains a thorny issue especially as it becomes more personal to peoples lives**

## Join the debate and have your say

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