



RESEARCH PAPER

ECO2SOLAR

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LATEST RESEARCH EXPLORES HOW UK HOMEOWNERS' VIEWS AND ACTIONS AROUND CLIMATE CHANGE ARE SHIFTING

Recent research conducted by leading solar installation specialist Eco2Solar has uncovered changing attitudes and opinions around climate change amongst UK consumers.

In a February 2020 One Poll survey of 1,000 homeowners and renters across the UK, consumers revealed growing levels of concern climate change, but also expressed confusion around accessing guidance on what actions they should take to help prevent its global implications.

The research also explored where consumers feel the ultimate responsibility lies for tackling climate change, as well as pinpointing the day-to-day actions people are taking as individuals, and identifying the biggest barriers to adopting a more sustainable lifestyle.

“The climate change crisis is widely covered,” says Paul Hutchens, CEO of Eco2Solar and leading green energy advocate. “But we wanted to dig deeper into public attitudes to shed light on people’s beliefs, opinions and actions around climate change in 2020.

“This research reveals some interesting trends in current thinking and helps us to pinpoint areas that need a greater degree of awareness; we hope you find it thought-provoking and informative.”



ATTITUDES AND UNDERSTANDING AROUND CLIMATE CHANGE

- *75% of respondents feel they have a clear understanding of climate change*
- *48% don't feel there's enough information to help them understand what to do*
- *82% are 'extremely concerned' or 'quite concerned' about climate change*
- *13% are 'not too concerned' and 4% are 'not at all concerned'.*

The key message highlighted through this research was that most of us do feel we understand climate change, but aren't always sure where to find reliable information. While the vast majority of respondents (75%) feel they have a clear understanding of climate change and its implications, 48% didn't feel there was enough information to help them identify how they can play a role.

The widespread level of understanding is encouraging and tallies with trends throughout the rest of the world. A similar study in the [Harvard Business Review](#) found that: "The United States is now at an all-time record high in terms of people accepting that climate change is real and that it's caused by humans. Worry levels are at an all-time high, and public support for many policies are at or near highs." Until 2018, only 16% of Americans believed global warming is happening; today, it's 72%."

However, while most of us recognise that climate change is happening, the key now will be to deepen our understanding around how we as consumers, homeowners and business owners will be affected, and the actions we can take as individuals to help address its effects.

As the Natural Environment Research Council's [National Centre for Atmospheric Science](#) notes: "We need to know not only how temperatures are changing but also about other aspects of climate such as rainfall and storms. This information is needed so that governments, businesses and society can adapt."

Reliable information sources will be crucial in deepening this understanding. "There's a lot of information out there and that's part of the problem," says Paul. "There's some good information but also quite a lot of misinformation based on people's opinions or historical data."

"Really, it's a question of looking at trusted sources like scientific websites; [NASA's](#) website has lots of authoritative data you can look at, while specialist websites like [Edie.Net](#) and the [Solar Trade Association](#) have really useful information about climate change and what you can do about it. [WWF](#), [Friends of the Earth](#), [National Geographic](#) also carry many resources that are worth exploring."

Differing demographics and opinions

In terms of worry levels around climate change and its impact, the survey revealed that 36% of people were 'extremely concerned' and 46% were 'quite concerned', while a surprising 13% said they weren't too concerned and 4% said they 'weren't concerned at all'.

"I think we should be much more concerned," says Paul. "The Met Office are predicting more heatwaves, and more flooding caused by more rain and snow melt, as well as more extreme weather events. As the [planet heats up](#), extreme weather events have increased by 3 times since 1980, so we need to look at that as a predictor for where our future might be going."

In fact, [the MET Office](#) observes that nearly 4 in 10 of us (39%) live within 100 kilometres of a shoreline and are therefore at risk of flooding if sea levels continue to rise. It adds that 600 million of us live in a 'low-level coastal zone', and 200 million on a coastal flood plain, meaning many people will potentially have to leave their homes - though that number will vary depending on how we act now.

Notable differences in the level of concern over climate change were reflected in the age demographics of our survey. 52% of 18-24 year olds were 'extremely concerned', compared with 36% of 25-34 year olds, 38% of 35-44 year olds, 36% of 45-54 year olds and 30% of over 55s.

This data correlates with a similar survey by the [European Social Survey](#) into British social attitudes around climate change, which found that 18-34 year olds were 'very' or 'extremely' worried about climate change compared with just 19% of over 65s. 35% of graduates were also very worried, compared to 20% among those with GCSE level qualifications.

“I think it’s natural that different age groups feel differently about climate change,” says Paul. “In many ways, older people - the pre-baby-boomers who lived through wars and so on - were quite used to using paper bags instead of plastic, not travelling very far and doing things that were naturally sustainable.

“The middle generations from the 1960s, 70s and 80s - the age of consumerism, more plastic and more convenience - are where we’ve lost our way. However, our younger generation have grown up and been educated throughout the climate change crisis, so it’s really part of their consciousness and something they’re very concerned about.”



CONSUMER ACTIONS TO PREVENT THE EFFECTS OF CLIMATE CHANGE

- *75% of respondents recycle waste products like plastic*
- *68% save energy at home by turning lights off, turning heating down and insulating*
- *63% are reducing their food waste*
- *57% walk or cycle short distances wherever possible*
- *31% are reducing their meat consumption*
- *27% say they drive more efficiently, or use a fuel-efficient hybrid or electric car.*

The research revealed encouraging statistics around the everyday actions most of us now incorporate into our lifestyles, like recycling plastics, saving energy at home, reducing food waste, eating less meat and exploring ways to be more fuel-efficient. “This is so important because it isn’t just the percentages, but the trend in how people’s behaviours are changing,” says Paul. “We’re all starting to build sustainability into our lifestyles, which is key.”

As with public attitudes, age-related demographics influence which actions people are most likely to take. The 35-44 age group are most likely to walk or cycle short distances, while 43% of 18-24 year olds are reducing their meat consumption compared with just 24% of over 55s. However, 70% of over 55s are more diligent about saving energy at home, compared with 58% of 18-24 year olds, and are also more focussed on reducing food waste (71%), compared with 55% of 18-24 year olds.

“Preventing food waste is also crucial for a number of reasons. You might remember your mum telling you to finish your dinner because there were starving children in Africa, and that’s still very much the case. There’s a scarcity of food, but there’s also a carbon requirement in terms of recycling and repurposing waste, so we should eat what we buy or donate it to food banks - never throw it away.”

Around a third (31%) of respondents had reduced their meat consumption, which signals a growing culture-shift towards more sustainable food sources. The [WWF](#) notes that meat and dairy production is responsible for 14% of global climate-changing emissions - more than all forms of transport - while [PETA](#) claims that around 11 times as much fossil fuel is used to produce a calorie of animal protein compared with a calorie of grain protein, releasing considerably more carbon dioxide into the atmosphere.

Adopting a more sustainable lifestyle

Growing awareness about energy-intensive farming methods and methane gas from livestock could see UK consumers adopting a more plant-based diet in the coming years; a trend that’s already gathering momentum in British restaurants and supermarkets.

The use of fuel-efficient hybrid or electric cars is also seeing an exponential rise, with 27% of respondents claiming to drive fuel efficiently, or drive a fuel-efficient car. “There are now around 100,000 electric vehicles in the UK, but we’ll see millions over the next few years,” says Paul.

“Obviously the ban on petrol and diesel cars will accelerate this, and as car manufacturers create more environmentally-friendly vehicles, consumers are also looking at alternative methods of transport, whether it’s taking the bus or train, walking, cycling or using more sustainable vehicles in general.”

However, affordability presents a significant barrier to many; 39% of respondents said they didn’t think they could afford to purchase a hybrid or electric car. “Affordability is a key issue when it comes to anything sustainable,” says Paul. “If we’re going to make it mainstream, we need to make sure these technologies are accessible. Economies of scale and increased take-up will begin to drive down the price of electric vehicles.”



THE NEED FOR GREATER EDUCATION AROUND RENEWABLES

- *63% of respondents don't believe the UK government is doing enough to make solar energy more accessible to homeowners*
- *63% believe that adopting more renewables is the responsibility of the government*
- *44% believe it's the responsibility of housebuilders and developers*
- *28% believe it's the responsibility of local councils*
- *22% believe it's the responsibility of homeowners*
- *61% didn't know that fossil fuels will be banned in new homes by 2025.*

More than half of respondents believe that the ultimate responsibility for making renewable technologies more accessible lies chiefly with the UK government. Only 28% of those surveyed believed the UK government is doing enough to make renewables like solar PV more accessible to homeowners, while 44% and 19% respectively disagree or strongly disagree that enough is being done.

However, the UK as a whole is making strides in fighting climate change; it was the first country in the world to introduce [Net Zero targets](#), which have been put into legislation ready for 2050, and the government have initiated plans to [ban petrol and diesel cars](#) by 2035, which was recently brought forward from its initial target of 2040.

This year, it also introduced the [Future Homes Standard](#), which will move the UK towards its Net Zero target by banning the use of fossil fuel-powered appliances like gas boilers in new homes from 2025. 61% of respondents hadn't heard of this ban, highlighting a need for increased publicity of this initiative.

"The government is taking multiple measures towards adopting more renewables," says Paul. "The original Feed-In Tariff achieved its goal of introducing solar PV to the market, but we'll also see new building regulations this year as part of the Future Homes Standard that will make homes much more sustainable, with energy use in new builds reduced by up to 80% by 2025.

"They've also brought in a new [Smart Export Guarantee](#) to replace the previous feed-in tariff, which many people might not yet have heard of. Under this scheme, homeowners with solar panels installed will be able to sell surplus energy back to the marketplace, which will lead to increased competition between electricity suppliers to provide the most attractive rates to customers.

"Once this model is combined with battery storage so we can store energy to use later, smart plugs which only switch things on when you use them, and peer-to-peer energy where you can sell your surplus to neighbours across the road, we'll be making very significant strides in sustainable homes – and we, as an industry, need to make sure more people are aware that these technologies are coming."

Building homes for the future

Housebuilders and developers also have a role to play, with 44% of respondents believing they should be driving the use of renewables. The homes being built now will still be standing in 50 to 100 years, so developers do have a responsibility to build sustainable homes for the future.

"Most housebuilders know that over time, sustainability will become more of a buying decision," says Paul. "As well as looking at how nice the kitchen is, how many bedrooms it has or where it is, future buyers will look at how energy efficient the building is, and the impact it'll have on their energy bills."

Only 28% of respondents believed local councils are responsible for driving the use of renewables, but regional authorities could hold more responsibility than consumers think; county and city councils actually have a significant amount of influence over local planning permissions and requirements.

"Local authorities often have extensive estates, including offices and commercial buildings, so they can incorporate a range of sustainable technologies into those premises," says Paul. "But crucially, they also have the power to put local planning policies in place whereby any new buildings must get a certain amount of their energy from renewables - whether it's solar PV or other technologies."



INCREASING THE USE OF SOLAR ENERGY IN HOMES

- *16% of respondents have solar PV installed*
- *94% of those installed solar to play their part in caring for the environment*
- *63% of those installed solar to reduce their energy bills*
- *57% of homeowners want solar but think the cost will be too high*
- *14% of homeowners rated solar as a low priority, while 11% said there wasn't a big enough incentive and 10% think they'll look ugly.*

While 16% of respondents had solar PV installed on their homes, others have been slower to adopt this technology due to perceptions around the cost. “That 16% may sound low,” suggests Paul. “But it still represents well over a million homes, which is a big improvement on the tens of thousands of homes who had solar 10 years ago.

“It’s still early days for this industry; sustainability has only really become mainstream in the last five years or so, plus we’re currently in between business models as we move from the Feed-In Tariff to the Smart Export Guarantee. New business models are now being built around that which will make it much more attractive for people to install solar on their homes.”

Over half of the homeowners surveyed (57%) assumed solar panels would not be affordable, a perception likely driven by the varying data produced on the cost of an average solar PV array, coupled

with the fact that renewable technologies are evolving rapidly and therefore constantly shrinking in terms of affordability as take-up grows.

“The Feed-In Tariff has done its job of providing an incentive to stimulate adoption of solar in the early days, which was needed at that time to develop traction in the market. But as adoption has grown, the cost of solar panels fallen by around 90% compared to prices 10 years ago, while the new Smart Export Guarantee will add further incentives to adoption.”

Aesthetic considerations are still an influencing factor, with 1 in 10 homeowners concerned that solar panels could look unattractive on their house. “In the early days of solar, around 10 - 15 years ago, you’d expect to see huge blue panels jutting out of people’s rooves,” agrees Paul.

“They were often installed unattractively in a mixture of portrait and landscape format and looked pretty awful. In recent years, we’ve made huge strides from an aesthetic perspective; panels are now black so when they sit on dark tiles or slates, they look part of the roof and are much more attractive.”

Adding value through renewables

In fact, data suggests that energy-saving home improvements like adding solar panels could significantly increase the value of a property. A [2013 report by the government](#) found that, on average, solar PV boosts home values by 14%, rising to 38% in some parts of England.

Considering the cost of installing solar has dropped since then, and the fact that UK homeowners are more sustainability-focussed than ever, this figure is likely to have increased significantly in that time. “It makes sense,” says Paul, “That if a property has lower energy bills and is cheaper to run, people will be prepared to pay more for it.”

The [I Love My Solar](#) website agrees, noting that: “Those who own visible solar panels, in a way, take leadership in encouraging the community to take action toward alternative energy without actually verbalizing it. These days, solar panels are valued. People who are looking to buy a home will usually pay a premium to own a home that already has solar panels installed.”

A key factor influencing the take-up of solar could be that homeowners still don’t perceive solar panels as a value-adding home improvement, but rather as a low-priority item. In 2018, [Moneywise](#) reported that homeowners typically spend over £10,000 on renovation work, while [Homes & Property Magazine](#) reported in 2019 that the average spend on home improvements had risen to around £14,015.

Yet The [Renewable Energy Hub's](#) 2020 study on the cost of solar panels concludes that the cost of an average solar panel array for a semi-detached home now stands at just £3,800 including installation; a fraction of the average annual spend on home improvements.

“People should definitely look at solar as a home improvement,” agrees Paul. “Not only because it costs much less than people think, but because it’s one of the few home improvements that actually has a payback. Most other home improvements may increase the value of your home, while solar panels do the same but in addition to reducing energy bills for decades to come.”

Variations in statistics about the time it could take to recoup an investment in solar panels may also be muddying the waters; sites like [Money Saving Expert](#) estimate it would take between 26 and 62 years to break even, based on the now outdated price of over £6,000. But as new technologies emerge and our energy usage models change, payback time may be much shorter than people think.

“From our experience, it’s much closer to 10 or sometimes 15 years,” says Paul. “But it can be even shorter than that when you introduce things like battery storage and smart plugs. Plus, they’ll provide free energy for the next 30 years or so, and energy bills are only going to get more expensive. But we should also be looking beyond monetary terms; ultimately, it’s about reducing the carbon emissions of your home and taking responsibility for your own energy.”



BELIEVING SMALL ACTIONS CAN MAKE A DIFFERENCE

- *18% of respondents didn't believe their actions would make any difference*
- *22% felt it was their responsibility as consumers to use more renewables*
- *10% said they didn't have time to do their bit for the environment*
- *3% said they didn't do anything to benefit the environment.*

While three quarters of UK homeowners are taking individual steps to help address climate change, a surprising 18% of respondents didn't feel their small actions would make any difference, with a further 10% claiming they didn't have time and 3% reporting they weren't taking any actions at all.

The 2018 [British Social Attitudes](#) study into climate change opinions drew similar statistics, with respondents giving a 4.4 response out of 10 as to whether they felt their individual actions like reduced energy usage could reverse the effects of climate change. Interestingly, this figure rose to 5.8 if respondents thought large numbers of others were doing the same, but dropped to 4.3 when asked if they thought the chances that governments in enough countries will take action.

The study concludes that: "Policy action that different governments may take is, however, likely to be dependent on public perceptions in their countries; they may be less willing to take action if the electorate are not concerned or do not believe that climate change is happening."

As explored earlier, most respondents believed the government and housebuilders should be primarily responsible for the widespread adoption of renewables, with just 22% believing it should be the responsibility of consumers.

Paul believes that this issue lies around education, and in addressing the level of public confusion about what impact each of us are having on the environment as homeowners, renters, workers and business owners. "We all have to take responsibility," he says. "But to do that, we need to understand not just the problem, but the potential solutions."

Critical to this adoption will be the introduction of new business models that encourage people to easily get involved. These models could see the things like solar panels and batteries become available on a leased contract basis, similar to the way we currently lease things like smartphones and electricity.

"All actions make a difference and it's really important that we adopt this mindset and make sustainability a greater priority in our lives," says Paul. "We all need to look at how we use energy, how

we travel and how often, what we eat and how far it's come from, but there's lots of technology to help us prepare, from renewables to smartphone apps.

“Even if you can't afford to do much or haven't got a lot of time, just do what you can, whenever you can. Take the bus instead of driving, walk or cycle to work occasionally, switch your lights off more, turn your heating down, have vegan meal every week and look at the little things you can do to make a difference. That's the only way we'll start to use less resources from the planet and effect real change.”

For more information about solar energy and climate change, visit www.eco2solar.co.uk

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ABOUT THIS RESEARCH

- Survey conducted through One Poll between 29th January and 6th February 2020
- The survey sampled 1,000 people throughout the whole of the UK
- Respondents were split between homeowners (80%) and renters (20%)
- 52.30% of respondents were women and 47.70% were men.

ABOUT ECO2SOLAR

Eco2Solar are a leading solar panel installation specialist for new build housing, social housing and commercial scale buildings. Established in the Midlands in 2007, they work with some of the largest housebuilders in the country including Barratt Homes, Redrow and Taylor Wimpey.