

Nesta's mission is to significantly reduce the amount of pollution from homes in the UK

To tackle the climate emergency, the UK urgently needs to make progress on reducing carbon emissions - that is, the amount of carbon being released into the atmosphere by using harmful and wasteful energy sources, which leads to global warming.

The impact of the climate emergency is already being seen locally and globally as the planet heats up. In the UK we face increased flood risk, hotter and wetter weather, decreased biodiversity and poor air quality.

The UK is woefully behind on its climate targets, which are designed to repair and restore our planet. **We all have a role to play in reducing the pollution caused by the energy we use in our homes.**

To create a healthy planet for everyone and the generations to come, we need to both switch to greener sources of heating and change the ways we use energy in our homes. This means using less energy where possible and using what we do need more efficiently, such as making sure our homes are warm only when they need to be and using energy at different times in the day when there's less demand across the country.

What's the problem?

[A fifth of all the UK's carbon emissions](#) come from households – heating, hot water and the appliances we use on a daily basis.

We know that has to change, but it's currently far too difficult for people to make their homes greener. Many people don't know what they can do, and those who want to make their homes more energy efficient face too many barriers along the way. Not only can it cost a lot to make significant changes to the energy sources and equipment in our homes, it's also difficult to find relevant and reliable information about what's suitable for different types of homes, and there aren't enough engineers and tradespeople with the knowledge and skills to carry out the work required.

Take heating, for example. It is estimated that to meet our climate targets we need to be installing roughly [900,000 heat pumps a year by 2028](#). But uptake of green heating systems is low: in 2018, [just 26,000](#) heat pumps were installed in the UK. When existing heating systems break down, many people just replace like for like because it's not easy to find out what alternative, greener, options are available. Very often when they do look into more environmentally friendly heating alternatives, they find the cost and lack of reliable suppliers and installers prohibitive. These problems require governments across the UK, housing and energy industries to work together to make it easier and more affordable for homeowners, renters and landlords to make homes greener.

What needs to be done?

To help save our planet we need to significantly reduce the harmful pollution coming from our homes. We know that rapid change is possible when our environment is threatened, such as how the [Netherlands](#) moved away from natural gas and how [Finland](#) spread new, low-carbon technologies. In the UK we changed the way our homes were heated in the 1970s - [14 million customers switched their fuel supply](#) in around eight years from 'town gas', which was made by distilling coal and later oil, to 'natural gas' (mainly methane). Now that we have more information about the dangers of climate change, we must change again, and act quickly now to reduce the pollution coming from our homes.

This change won't happen fast enough without a concerted effort. We need new ideas and solutions. To achieve greener and cleaner home heating, we need new ways of thinking about regulations, new business models, new policies to support the transition, and we need communities on board to drive and demand change too. We all have a role to play in protecting the planet, and our leaders in local and central government have the opportunity to redesign our energy systems and support the transition to greener, cleaner homes now and for the future. They can implement the necessary policies that will reduce the pollution from our homes in the decades to come, working with communities and citizens to enact the changes they want in their local areas.

We all want to pass on a healthy planet to future generations. To do so we need to take meaningful action to tackle climate change. **The partnership between Nesta, National Gallery X and King's College London will draw on the power of the arts to engage, inspire, shift mindsets and motivate change to help achieve this.**

Further evidence

Over the last decade there has been little progress in reducing harmful emissions from our homes, and getting to net zero will require upgrading nearly all existing homes - approximately 29 million across the UK.

[85 per cent of all age groups say that climate change is important and needs to be addressed](#), but there is [limited awareness of the need to switch to greener heating systems](#). Even those who do know they will need to make their homes greener and are willing and able to do so face [significant barriers](#), such as effort and cost of installation, a lack of evidence and information about which energy efficiency measures are right for them, and difficulty finding the right tradespeople for the job.

Relevant Nesta content

- Sustainable Future [homepage](#)
- [How understanding the user journey for heat pump adoption will generate innovation](#)
- [Decarbonising homes: consumer attitudes towards energy efficiency](#)
- [How do we transition to green homes? Five stories of rapid change for a more sustainable world](#)
- [Reducing household emissions: How can we get consumers on board?](#)