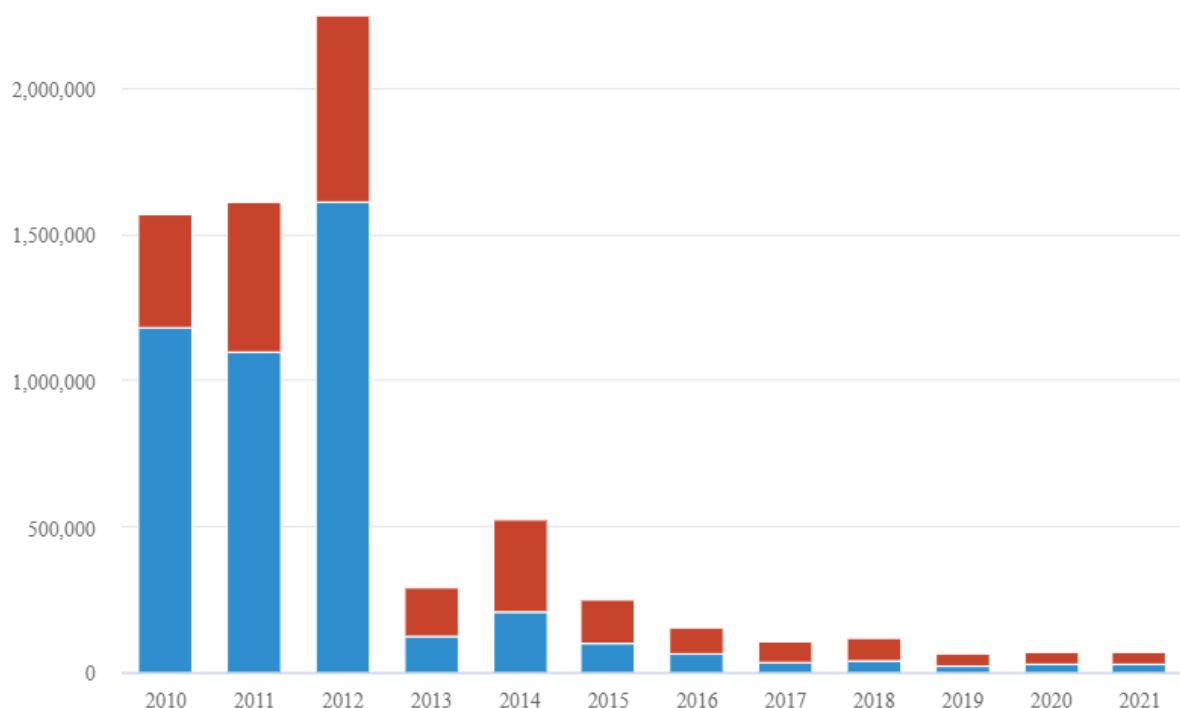


## Energy Efficient Homes: The Government's plans

In October 2021 the UK government published its Heat and Buildings Strategy. This sets out how it plans to virtually eliminate emissions arising from energy use in our homes. To achieve this the government is proposing a combination of three clean-heat technologies – heat pumps, hydrogen and heat networks. Of these only heat pumps have the potential to be fully operational immediately - the others are still subject to trials and further research.

In relation to hydrogen the government will look at requiring all new natural gas boilers to be hydrogen-ready that is, easily convertible to a low-carbon hydrogen supply. The use of heat networks is to be extended by empowering local authorities to identify and designate areas best suited for heat networks such as tower blocks and social housing blocks. By contrast the government says that *“heat pumps are a proven technology and are ready to deploy at scale”*.<sup>1</sup> Although they are currently more expensive than conventional gas boilers, the strategy aims to ensure that by 2030 they will be no more expensive to buy and run than existing boilers. In the meantime from April this year the government is introducing the Boiler Upgrade Scheme which will provide grants to owner-occupiers in England and Wales of £5,000-£6,000 to help them buy a heat pump.

The average cost of installing a heat pump is around £7,060. This compares with between £2000 and £3000 for a gas boiler and around £3,000 for an oil boiler. The running costs of heat pumps are also much higher - the average annual running cost of a low-carbon air source heat pump is currently £236 more than a gas boiler. This is mainly because they depend on electricity and the environmental and social obligation levy adds 25.5% to electricity bills compared with only 2.5% to gas bills. The government may however begin to switch the levy from electric to gas.<sup>2</sup>



Critics argue that the government's strategy is massively underfunded and does not take account of the need for insulation.<sup>3</sup> According to a group of business organisations and charities, better insulation would cut household energy bills by around £400 a year. The

group, which includes the Confederation of British Industry and the Energy Savings Trust, says this and previous governments are partly to blame for higher bills because they have failed to ensure Britain's homes are adequately insulated. 4 Insulation rates have plummeted since 2013 after successive government schemes have been scrapped and not replaced. The chart shows that the number of homes getting their lofts or cavity walls insulated each year fell dramatically from 2013 and has never recovered. 5 The number of lofts insulated (in blue) fell by 92% while the number of cavity walls insulated fell by 74%

In November of that year the Sun newspaper reported that the then prime minister David Cameron had said that the best way of solving rising energy prices was to "*get rid of all the green crap.*" 6 In coalition with the Liberal Democrats, Cameron's government went on to make a series of changes to the green agenda. They ended subsidies for onshore wind, killed off the green deal homes scheme which was designed to bring energy bills down by installing insulation and new boilers, and sold off the green investment bank which invested in green projects. They also scrapped the zero-carbon homes standard which applied to new houses, and which had been due to come into force in 2016. In the light of all this it is hardly surprising that a recent report from the Office for National Statistics (ONS) found that there has been no significant increase in turnover or employment in the green economy. 7

In September 2020 the Johnson government launched a new scheme called the Green Homes Grant scheme. Homeowners were encouraged to apply for vouchers worth up to £10,000 for those on low incomes. The scheme ran for only 6 months before being scrapped in March 2021. A committee of MPs said that the administration of the scheme had been "*nothing short of disastrous*". The National Audit Office concluded that the government had rushed its design, put in place an undeliverable timetable and failed to take on board the advice given by the industry. 8

One policy with the aim of supporting low-income households that still survives is the Energy Company Obligation (ECO) scheme first introduced in 2013. 9 The scheme is an obligation on larger energy suppliers to provide energy efficiency and heating measures for low-income consumers across the UK, paid for through the environmental and social obligation levy. The government has since committed to extending the ECO initially until 2026. Households are eligible if they receive certain benefits, live in the least efficient social housing or fall within a scheme sponsored by their local authority. The ECO scheme will primarily focus on installing energy efficiency measures, helping as many as possible to achieve an energy performance certificate (EPC) band C. Of the UK's 28 million households, there are approximately 17 million properties below EPC band C. 10

## Sources

1. Heat and Buildings Strategy, UK Government, October 2021, page 65  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1026507/heat-buildings-strategy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1026507/heat-buildings-strategy.pdf)
2. Affordable heat decarbonisation: Is it time for a green heating credit, Baxi Heating, October 2021 [https://mediacdn.baxiheating.co.uk/-/media/websites/heatingbaxi/files/affordable-low-carbon-heat\\_final.pdf?v=1&d=20211021T080150Z](https://mediacdn.baxiheating.co.uk/-/media/websites/heatingbaxi/files/affordable-low-carbon-heat_final.pdf?v=1&d=20211021T080150Z)
3. UK's net zero plan falls short in ambition and funding, say critics, Guardian 19 October 2021 <https://www.theguardian.com/environment/2021/oct/19/uk-government-reveals-net-zero-plan-create-jobs>
4. Energy Efficiency Infrastructure Group calls for a significant investment to decarbonise homes, <https://energysavingtrust.org.uk/energy-efficiency-infrastructure-group-calls-for-significant-investment-to-decarbonise-homes/>
5. Energy bills in the UK are nearly £2.5bn higher than they would have been if climate policies had not been scrapped over the past decade, Carbon Brief analysis shows. Carbon Brief, January 2022 [Analysis: Cutting the 'green crap' has added £2.5bn to UK energy bills - Carbon Brief](#)
6. Did David Cameron tell aides “to get rid of all the green crap”? November 2013 <https://www.theguardian.com/politics/2013/nov/21/did-david-cameron-tell-aides-to-get-rid-of-all-the-green-crap> The nine green policies killed off by the Tory government, July 2015 <https://www.theguardian.com/environment/2015/jul/24/the-9-green-policies-killed-off-by-tory-government>
7. Low-carbon and renewable energy economy, UK: 2020, February 2022 <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/finalestimates/2020> The Johnson government has recently announced (19 January) that all new buildings are to be constructed to be highly energy efficient and building work in existing buildings will have to meet new standards <https://www.gov.uk/government/news/rigorous-new-targets-for-green-building-revolution>
8. MPs slam disastrous Green Homes Grant Scheme, Housing Today, March 2021 <https://www.housingtoday.co.uk/news/mps-slam-disastrous-green-homes-grant-failure/5111043.article> Audit office blames UK government for botched £1.5bn green homes scheme, Business Telegraph, September 2021 <https://www.businesstelegraph.co.uk/audit-office-blames-uk-government-for-botched-1-5bn-green-homes-scheme/>
9. The ECO scheme applies to the whole of the UK. Scotland in addition has its own plans for increasing energy efficiency in homes, collectively known as Home Energy Efficiency Programmes for Scotland (HEEPS). [https://www.eas.org.uk/en/home-energy-efficiency-programmes-for-scotland-heeps\\_50558/](https://www.eas.org.uk/en/home-energy-efficiency-programmes-for-scotland-heeps_50558/) The Scottish government also published a Heat in Buildings strategy in Autumn 2021.
10. Heat and Buildings Strategy, UK Government, October 2021, pages 135 and 140-41 [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1026507/heat-buildings-strategy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1026507/heat-buildings-strategy.pdf)