

'If not now, then when?' Make warm homes by 2030 an engine for a green recovery

Our homes make up [22](#) percent of UK carbon emissions and almost a [third](#) of the average household's contribution to climate change.

Without changing our homes, we can't tackle climate change.

The UK has [transformed](#) the electricity sector over the past decade:

- Coal-fired generation has almost disappeared (from 34 percent in [2008](#) to just 2 percent in [2019](#)).
- The contribution from renewables has leapt from 6 percent in [2008](#) to 37 percent in [2019](#).
- Demand has [dropped](#) (by 16 percent between 2005 and 2018, partly due to effective product regulation for lighting and appliances) despite the population increasing by 10 percent.

However, this largely 'supply-side' approach can't be replicated for our homes. Net Zero here can't be 'done to' people – we need to be active participants.

'Fabric first': Almost all of us will need to change our fossil-fuel based heating systems (for more see our blog [here](#)). But, before we do this, two thirds of us will need to improve the fabric (insulation, glazing) of our home so that it retains heat better. If we roll out low carbon heating before addressing this, we will push up heating costs, add to the households unable to afford adequate heating (11 percent currently) and increase the overall cost and difficulty of the transition (Imperial University research [estimates](#) this could add £6.2 billion per year to the system costs ultimately borne by customers). [This](#) graphic from smart thermostat manufacturer, Tado, showing that UK homes lose heat at three times faster than those elsewhere in Europe, highlights this challenge.

Act now: We have a unique opportunity to deliver real change here – 16 million English homes need the [improvements](#) supported under the government's new [Green Homes Grant](#) (GHG). The grant is an excellent start but, as is appropriate for a fiscal stimulus, it is a time-limited. It will improve up to 650,000 homes – which is considerable, but the scale of problem is far larger.

Whilst this level of subsidy isn't feasible for 16 million homes, an approach where government funding is used to stimulate private investment (whilst supporting lower-income households and higher cost measures) would be. If designed to maintain the GHG rate of change, it would be feasible to upgrade all 16 million below Energy Performance Certificate (EPC) 'C' homes by 2030. This would cut home energy use by a quarter and in preparation for a full-scale roll out of low carbon heat from 2030.

An Engine for a Green Recovery: Almost uniquely for an infrastructure project of this size, (£80bn), this work is shovel-ready, labour-intensive and would deliver economic, social and environmental benefits to every part of the country. It was hard to miss the avalanche of reports during the lock-down nominating its inclusion as part of a green economic recovery ([here's](#) our contribution and we recommend these from the [EEIG](#) and the [LGA](#)).

It would require government input (the remaining £7.8bn from the 9.2bn set out for energy efficiency in the 2019 Conservative [manifesto](#) and then a further £10.1bn for 2024-2028). However, it would stimulate over three times that level of private investment (or more if the programme is used to encourage households to go beyond the minimum standard).

We need bold action: The GHG suggests that the government recognises the economic benefits of investing here and there are signs that more support will be forthcoming. This is very welcome, but, given the context (there is literally no better time to do this), **will this be bold enough?** Upgrading 16 million homes requires more than financial input. It needs a comprehensive framework of support to persuade and incentivise - *and the participation of 16 million households*.

A framework of support: What does this look like? You can read our 'Warm Homes by 2030' blog [here](#) but put simply, it needs to be straightforward and attractive to act (access to low-cost finance and grants to get the work done, and impartial advice and stronger consumer protection to remove the risk).

But, insulation is ... 'boring'?! We also need to be realistic – people have busy lives and, as with successive governments, insulation rarely makes it to the top of the 'to do' list. Regulation to require homes (from 2027, for example) to be adequately insulated when sold, rented or when undergoing significant renovation would address this inertia and, importantly, would ensure that peoples' investment in time, money and effort is reflected in the asset price, just as kitchen and bathroom upgrades are now (we know that reduced energy bills aren't a sufficient driver).

Minimum standards already apply for [private rented](#) homes (and the government has committed to increase these from EPC 'E' to 'C' by 2030). Extending these to the owner-occupied sector would drive improvements in 11 million further below 'C' homes. (We recognise that some homes are intrinsically difficult or expensive to retrofit and would support an exemptions process here).

Regulation is necessary here because, whilst the government plan to use the mortgage process to drive change ([consultation](#) expected in the autumn), a third of homes are owned-outright and so would not be improved by this route. Our proposal would mean that homes are improved at natural 'trigger points' of sale, rent and major renovation (where other building works tend to occur).

Bringing people with us: We are not proposing 'backstop' regulation here (requiring [all](#) owner-occupied homes to be improved by 2030), though we are strongly supportive of this approach for the private rented sector. Whilst this will

(inevitably) mean that a proportion of these homes will still have inadequate energy efficiency by 2030, a more flexible approach here is likely to boost public support for the change. A higher rate of change could be effected by setting the regulation date earlier (for example 2026 or 2027) and by strongly incentivising voluntary action. The regulatory end dates should be informed by the priority given to energy retrofit in the green recovery package and the resulting supply chain capacity.

Securing public buy-in: Whilst [surveys](#) show that there is public support for tackling climate change, there is less clear evidence that people understand the implications for their homes and lifestyles (or the benefits). For example, [this](#) research suggests that less than half of respondents understood their boilers contributed to climate change. A higher number thought tackling plastic waste would have a greater impact (waste accounts for 3 percent of an average household's emissions compared with 31 percent for their boiler).

The government won't act unless it is confident that the programme will be supported and well used by the public, so this gap in understanding is an issue.

The Energy Saving Trust has nearly three decades of experience supporting households to make changes to the way they travel and use their homes. Our experience has shown us that the more people understand here, the more likely they are to support government intervention and take action themselves (this was a key finding of the excellent [Climate Assembly](#) initiative).

There is an urgent need for a government-backed campaign to communicate a positive, inclusive vision for net zero. Beyond this though, we think that the local Climate Emergency movements are a powerful driver for change here.

Our ask for local government: For the government to act here, and for any such programme to deliver the transformative change, there needs to be both public support and then wide participation once the support is in place.

Local government is best placed to understand the current appetite for change in their communities and, through their Climate Emergency work to seek to build on this and drive uptake once support is in place. The more councils support this call (and the more of the population is represented), the stronger message we can send to government to act and not to waste this opportunity.

Timeframe: Clearly, a large part of Government's attention for the next 12 months will be focussed on economic recovery. This combined with the UK's hosting of the international climate conference [COP26](#) in November 2021 means we have a critical window to secure this change. The government is aware that emissions from heating our homes are going in the wrong direction¹ and this will need to be addressed in its

¹ The most recent government [projections](#) suggest that without substantial new policies CO2 emissions from heating our homes will rise from 66 million tonnes of CO2 in 2020 to 71 million in 2030.

plan ([Nationally Determined Contributions](#) [NDCs]) for cutting emissions submitted ahead of the conference.

The government has [said](#) the UK's submission will be ambitious but has not yet committed to a date. It is not due to receive [formal advice](#) on this until early December (from the [Committee on Climate Change](#)) but some [experts](#) believe it wants to act as early as possible – by the end of December - in order to demonstrate its leadership and drive up commitments from other nations.

This suggests a three month time window to convince the government of the need (and public backing) for bold action on homes as part of its plan.

About us: The [Energy Saving Trust](#) is an independent organisation dedicated to promoting energy efficiency, low carbon transport and sustainable energy use. We empower householders to make better choices, deliver transformative programmes for governments and support businesses with strategy, research and assurance – enabling everyone to play their part in building a sustainable future.