

**Better Homes for All:
Why it's a no brainer to upgrade 99% of homes to at
least EPC C by 2035**



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Summary

In contrast to the feeble proposals in the Government's 2021 Net Zero Strategy, the Committee on Climate Change recommends that all homes should be upgraded to an Energy Performance Certificate (EPC) C or above by 2035. We strongly support this, because our estimates show that this would reduce energy used for home heating by 35% by 2035, and by 70% by 2050. In addition to reducing heating costs, it would also be a good investment for home owners, increasing the value of homes by around £25,000

Energy Performance Certificates

Heating buildings accounts for 21%¹ of the UK's carbon emissions, and everyone, from Insulate Britain² to the Government agrees that improving the energy efficiency of our homes is important: it cuts carbon emissions and bills while improving health and comfort.

The Government's recent Net Zero Strategy³ and Heat and Buildings Strategy⁴, as well as the Cambridgeshire and Peterborough Independent Commission on Climate's (CPICC) recent final report⁵, all highlighted the benefits. However the difference in the level of ambition is really stark. Deeply hidden in the Net Zero Strategy is the surprising aim that the demand for heat in buildings should reduce by just 15-20% in the next 30 years.

This is nuts, because this is about half the difference between an Energy Performance Certificate⁶ (EPC) D and an EPC⁷ C. The energy performance of the UK housing stock improved by this much in the 5 years between 2010-2015! The rate of improvement then slowed dramatically following the policy changes after the 2015 election, the failure of the Green Deal and the long wait for its replacement. It took until 2019 before the rate of improvement resumed.

Figure 12: Percentage of homes rated EPC A-G in England, 2004-2019

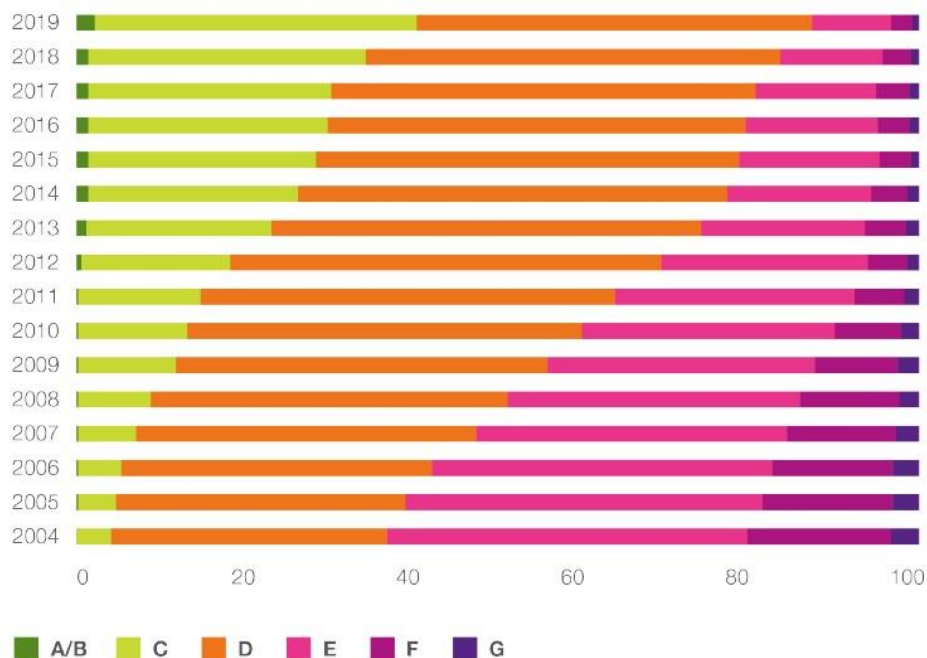
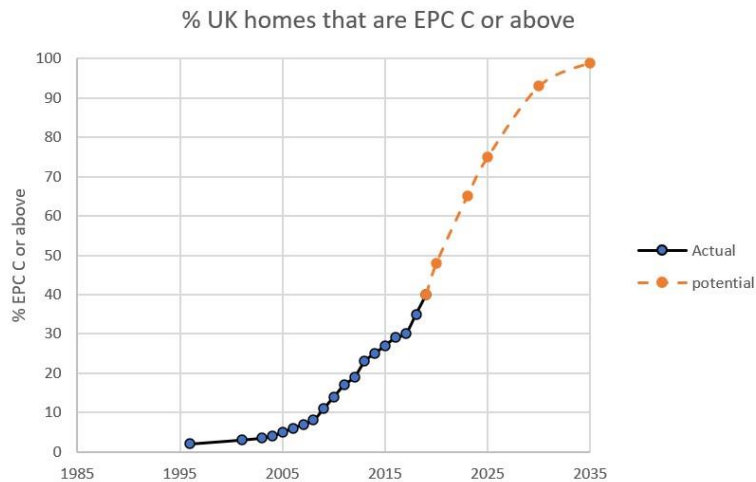


Figure 12 shows the proportion of the building stock in England by EPC ratings. This clearly demonstrates the progress that has been made since 2004, but the significant action that needs to be taken to bring as many homes as practicable to EPC band C.³⁴⁹

Figure 12 from Heat and Building Strategy, October 2021

A dramatic reduction in carbon emissions and energy bills

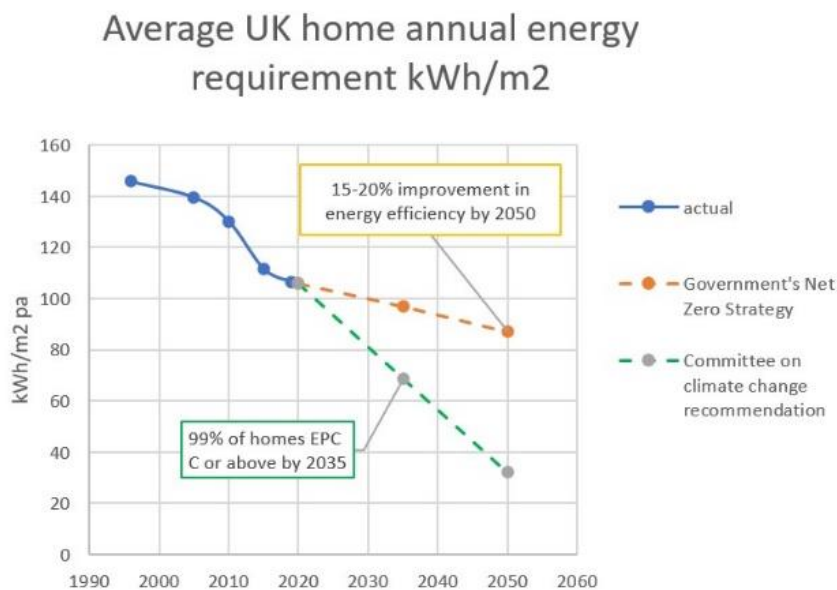
In contrast to the Government’s feeble proposal, both the national Committee on Climate Change and our local Cambridgeshire and Peterborough Independent Committee on Climate (CPICC) recommend that 99% of homes should be improved to EPC C or above by 2035. The graph below shows the potential trajectory.



CNC projection of potential route from today to 99% EPC C or above

They also propose that all new homes must be built to substantially better than EPC A from now on. This is also proposed in the Zero Carbon Homes policy of the draft Greater Cambridge Local Plan⁸ which is a very sensible.

We have estimated the impact that upgrading EPCs would have on the energy used for home heating. This was based on the typical energy use in kWh pa /m² for each EPC band, and the changing proportion of homes at each EPC level. This suggests that it could reduce the demand for home heating in the UK by 35% by 2035, and by 70% by 2050. This is shown in the graph below, comparing the Committee on Climate Change’s recommendation with the pathetic target in the Government’s Net Zero Strategy.



A good investment

Improving energy efficiency would dramatically reduce householders' bills. For example, at the expected price cap for winter 22/23, a 35% saving in the energy needed for heating would be equivalent to saving over £1000 a year, while making the home more comfortable.

The upgrades should also be a good longer term financial investment. Evidence from a Cambridge University study⁹ commissioned by BEIS indicated that properties with an EPC C rating were worth around 5% more than the equivalent homes with an EPC D rating.

This is a £25,000 uplift for the average Cambridge house worth £500,000.



Encouragingly, for those wondering if they can afford it, improving from EPC D (the most common level of EPC in the Combined Authority) to EPC C is not too disruptive to do. Typically, it involves having good double glazed windows, a good level of loft insulation, draught proofing, and filling any cavity walls with insulation. The English Housing Survey¹⁰ estimates that it costs between £1,000 and £5,000, depending on the condition and age of the house.

They thought that upgrading the whole UK housing stock would average about £8,100 per house.

This implies that investing in upgrading a home to at least EPC C is likely to be a very good deal indeed.

Reducing risk

Upgrading to EPC C also helps de-risk the future: not only does it help insulate you from future energy price rises and makes your home more comfortable in future heatwaves, once a home has been insulated to EPC C, it will be much cheaper and easier to install a low carbon heating system such as a heat pump.

Conclusion:

A policy of upgrading 99% of homes to EPC C by 2035 is a no-brainer. It would cut carbon emissions, reduce bills, increase house values, reduce the risk from future price rises, improve comfort, create jobs and help make homes heat pump ready.

It is disgraceful that the Government hasn't already followed the Committee on Climate Change's recommendations and introduced effective measures to help create better homes for all.

References

¹ <https://www.gov.uk/government/news/plan-to-drive-down-the-cost-of-clean-heat>

² <https://insulatebritain.com/>

³ <https://www.gov.uk/government/publications/net-zero-strategy>

⁴ <https://www.gov.uk/government/publications/heat-and-buildings-strategy>

⁵ [https://f.hubspotusercontent40.net/hubfs/6985942/FINAL%20CLIMATE%20REPORT%20LOW%20\(002\).pdf](https://f.hubspotusercontent40.net/hubfs/6985942/FINAL%20CLIMATE%20REPORT%20LOW%20(002).pdf)

⁶ The Energy Performance Certificate (EPC) system gives a reasonable estimate of the energy efficiency of a building. EPC A buildings are the most efficient, using 32 kWhr/m²/per year, and EPC G are the worst, using over 200 kWhr/m²/per year

⁷ https://www.energyrating.org.uk/energy_performance_certificate1.html

⁸ <https://consultations.greatercambridgeplanning.org/greater-cambridge-local-plan-first-proposals/explore-theme/climate-change/policy-ccnz-net-zero>

⁹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/910853/beis-cambridge-house-price-report.pdf

¹⁰ <https://www.gov.uk/government/statistics/english-housing-survey-2019-to-2020-headline-report>