

Consultancy



Department of Energy and Climate Change

University experts

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In the last 30 years, better design of buildings, heating systems and household appliances has led to an increase in energy efficiency of around 2%. But these hard-won energy gains are swallowed up by a more marked increase in appliance use and a liking for warmer houses.

Greater affluence and disposable income has led to larger numbers of appliances being discarded relatively soon into their lifespan which further ramps up carbon emissions.

Whilst data on the efficiency of domestic systems and usage trends exists, the DECC sought a deeper understanding in order to assess the level of change required to meet carbon reduction targets.

A cross disciplinary team led by Loughborough University embracing sustainable design, consumer behavior and building simulation, renewables and flexible demand was commissioned to undertake this work. Their report, following a sixth-month study, is being used to inform policy, to create a new household model to predict future energy use and to identify gaps in data where more research is needed.

The report is an important step in identifying how and why we generate carbon emissions. Its impact is therefore crucial to the Government's strategy to reduce carbon emissions by 80% by 2050.