

Research reveals the benefits of investment in energy efficiency

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Several new research projects at The University of Manchester's Urban Institute have shown how improvements in the efficiency of household energy use can result in benefits for human health and well-being, economic productivity, environmental quality and urban development.

The recently-completed [COMBI](#) project ('Calculating and

Operationalising the Multiple Benefits of Energy Efficiency in Europe', funded by Horizon 2020) has shown that energy efficiency improvements in homes in the EU could avoid up to 27500 premature deaths from indoor cold between now and 2030. The economic value of these changes could be up to €2.5 billion due to premature mortality from indoor cold, and up to €2.9 billion due to asthma morbidity from indoor dampness.

The complementary [EVALUATE](#) project ('Energy Vulnerability and Urban Transitions in Europe', funded by the European Research Council) found that energy efficiency is a key factor in determining levels of thermal comfort. The project identified warm weather space cooling as a significant challenge across the Global North, in light of climate change pressures.

The project recommended the establishment of a minimum standard for housing across Europe, and the banning of disconnections for consumers—such measures are clear win-win solutions in the case of fuel poverty. Given the major social and geographical differences in the incidence of [fuel poverty](#) across Europe, the project argued that many policies are best delivered at the regional level.

The researchers are now embarking on several new projects in the area. One of these is STEP-IN ('Using Living Labs to roll out Sustainable Strategies for Energy Poor Individuals', also supported by Horizon 2020), where The University of Manchester will work with Greater Manchester Combined Authority to improve the circumstances of vulnerable households in several areas. These results will inform the design of information technology solutions to address pressing social challenges in the energy domain.

Another new initiative is [ENGAGER](#) ('European Energy Poverty: Agenda Co-Creation and Knowledge Innovation'), a research network

funded via the European Co-operation in Science and Technology (COST) scheme. This brings together over 100 experts from more than 30 countries to find innovative ways of connecting energy efficiency delivery with urban planning, among other things.

"Through this array of activities, we are showing that investing in the energy efficiency of residential dwellings can address the pressing challenge of climate change in many unexpected ways, beyond reducing energy demand and CO2 emissions," said Professor Stefan Bouzarovski from the Manchester Urban Institute. "We have also identified the policy channels through which [energy efficiency](#) measures can reach vulnerable households – many of these involve working with local authorities and transnational bodies at the same time."

Provided by University of Manchester

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