

New research highlights 'challenging nature' of vested interests in the energy transition

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Pioneering new research has highlighted some of the political difficulties with the UK's energy transition, in particular around vested fossil fuel interests.

The research, by Dr. Richard Lowes and Dr. Bridget Woodman from the University of Exeter's Energy Policy Group, found that those with existing interests around fossil fuel [heat](#) were overselling the idea of converting the UK's existing gas infrastructure to run on low [carbon](#) gases such as hydrogen.

This overselling comes at the expense of known, low- carbon heating options.

The research is published in the international peer reviewed journal Environmental Innovation and Societal Transitions and the project formed part of the UK Energy Research Centre.

In order to reach goals for net-zero emissions for heating, which makes up around a fifth of UK emissions, huge changes are required to the way that homes and buildings are heated.

The deployment of energy efficiency measures and a move from oil and fossil gas towards the use of heat pumps and heat networks which rely on low carbon electricity has been seen as vital.

The promotion of hydrogen was often in the form of political lobbying and through the production of industry funded reports and research and has been taking place at the same time that the idea of using hydrogen for heat has rapidly risen up the policy agenda.

The research highlights a concern that if the political lobbying by incumbents affects the policy process and slows down the deployment of known low carbon heat options, the UK's climate change goals are at risk of being missed.

Dr. Richard Lowes, lead author of the article, explained: "Getting to a sustainable heat system demands rapid and major interventions, it is a

huge challenge and there is simply no time for delay.

"During the course of the research we were surprised how rapidly the idea of hydrogen emerged and how strongly it was being promoted by various interests in the heating industry. Over the course of the project, we have also seen similar responses by industrial interests in responses to proposals in the United States.

"We are in no doubt that decarbonising the heat sector will be extremely difficult but it is possible using known technologies. The idea that the gas grid can simply be switched to run on hydrogen remains deeply uncertain from both a cost and technical perspective.

"Hence, we suggest in the paper that: 'Due to the uncertainties associated with hydrogen, in the short term, deployment of known low carbon heating technologies should be at a rate commensurate with the 2050 net-zero target with the expectation that low carbon gas including [hydrogen](#) may not prove viable at scale.'"

"Heating in Great Britain: An incumbent discourse coalition resists an electrifying future" is authored by Richard Lowes, and Bridget Woodman from the University of Exeter and Jamie Speirs from the Sustainable Gas Institute at Imperial College London.

More information: Richard Lowes et al. Heating in Great Britain: An incumbent discourse coalition resists an electrifying future, *Environmental Innovation and Societal Transitions* (2020). [DOI: 10.1016/j.eist.2020.07.007](https://doi.org/10.1016/j.eist.2020.07.007)

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