

# Decarbonising for Better Health: Levelling Up via the Energy Transition

## Event Summary

On Wednesday 23 March, the All-Party Parliamentary Carbon Monoxide Group (APPCOG), Carbon Connect and Policy Connect Health held a roundtable discussion co-chaired by Clive Betts MP and Lord Ian Duncan of Springbank.

The aim of the roundtable was to explore how the objectives of zero carbon homes, improving indoor air quality, and levelling up health inequalities can come together to deliver greater public benefit.

### Findings

1. Moving away from carbon-based fuels in the home can bring environmental, security and public health benefits, in terms of both indoor and outdoor air quality, support for cost of living, jobs and the local economy, and other levelling up benefits.
2. However, schemes need to take account of ability to pay, levels of deprivation, and other risks of entrenching inequality further and instead be designed to create better outcomes and ensure a just transition.
3. The best way to do this is to speed up energy efficiency and retrofit programmes at local level and give local authorities the powers and the resources to target support better.
4. Delivering decarbonisation in homes across the UK will require a trained and experienced workforce. Engagement with training providers, employers and professional bodies would be valuable to build sector confidence and inform long-term planning and preparation for the future workforce.
5. Perception of upfront cost is denting customer demand. Lessons must be learned from other technology implementation: clear, stable, long-term policy creates confidence for households and for supply chains that lowers costs, drives innovation and creates economies of scale.

### Speakers

- **Clive Betts MP for Sheffield South East** and Chair of The Levelling Up, Housing and Communities Select Committee
- **Baroness Finlay of Llandaff**, Crossbench Peer Deputy Chairman of Committees (Lords) and Co-Chair of the All-Party Parliamentary Carbon Monoxide group (APPCOG)
- **Lord Duncan of Springbank**, Conservative Party, Deputy Chairman of Committees (Lords)
- **Dr Danielle Butler**, Senior Research and Policy Officer at National Energy Action (NEA)
- **Sophia Haywood**, Director of Public Affairs at Liquid Gas UK

- **Dan Meredith**, Senior Manager - External Affairs, E.ON
- **Beatrice Barleon**, Head of Policy and Public Affairs at EngineeringUK

## Discussion Summary

**Clive Betts MP** opened the discussion. The Select Committee recently published a report on local government and the path to net zero<sup>1</sup>.

Public understanding of the way homes are heated is low. There is greater awareness of the role that electric vehicles can play in decarbonisation.

Mr Betts noted Russia's war on Ukraine and the range of challenges facing the UK's energy market at present. Decarbonisation can benefit the UK in terms of public health, indoor air quality, climate change and energy security.

## Fuel poverty embeds health inequality

**Baroness Finlay of Llandaff** commented that decarbonising our homes can benefit indoor air quality and reduce the risk of carbon monoxide poisoning. Carbon monoxide has been known for some time as a deadly gas.

However, recent research has shown the damage that sub-lethal (or 'low level') carbon monoxide exposure can cause to our health, at every age and income level. Those in fuel poverty are at increased risk of exposure to carbon monoxide – although it is an issue which can affect anyone.

Ventilation in homes is important to maintain air quality and prevent carbon monoxide building up. This must be considered when designing and installing energy efficiency measures, for example, measures that aim to block draughts and seal up homes. As future constructions are planned, breathable building materials can play a vital role in maintaining air quality while retaining energy efficiency.

**Lord Duncan of Springbank** said that poverty and health are inextricably linked. The cost of living will increase in the short term and the effects of this will be felt disproportionately among those already suffering from fuel or energy poverty. How can we improve the quality of life of those most affected while also embracing a costly net zero transition?

**Dr Danielle Butler** argued that addressing fuel poverty and reaching net zero are necessarily linked, as there is no route to net zero that does not travel through each home. This must be achieved in a fair and affordable way through investing in energy efficiency measures, while considering indoor air quality, including levels of carbon monoxide.

In the heating of homes, priority should be given to energy efficiency, with a focus not just on carbon benefits but also the health benefits. Warmer homes provide comfort to people's lives, reducing illnesses caused by cold and damp environments.

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<sup>1</sup> Fifth Report - Local government and the path to net zero, October 2021:

<https://committees.parliament.uk/work/1081/local-government-and-the-path-to-net-zero/publications/>

This ensures people can be productive at work, stay fit and save money. As the energy transition progresses, moving away from fossil fuels as a heating source will reduce the risk of carbon monoxide exposure.

**Sophia Haywood** said that the debate around decarbonising homes must also address rural areas where homes are often off-grid. A mixed technology approach for off-grid properties would give people greater choice for their homes to meet net zero within their budget.

There is also a clear need for the government to engage meaningfully with rural households in decarbonising their homes and ensure a just transition. Sophia warned this policy area is falling through the gaps. For example, off-grid homes were not adequately supported by the Boiler Upgrade Scheme.

Sophia commented that hybrid technology can play a key role in the path to net zero and in off-grid areas where a mix of heat pumps with LPG (Liquid Petroleum Gas) and bioLPG can decarbonise homes. She noted the Climate Change Committee modelled off-grid hybrids using bioLPG in their Net Zero Technical Report. The transition to net zero will involve huge costs and it is still unclear where these will fall. Taking a mixed technology approach to decarbonisation can be more achievable and save money. Supply chain capability and access to skills are key factors to consider.

**Dan Meredith** argued that improved energy efficiency measures are the most effective way to reduce dependency on natural gas. Industry knows how to make energy efficiency schemes that work and deliver at scale.

Improved energy efficiency is also healthy and better for people. People living in warmer homes will live there for longer. Colder homes mean people sometimes block off certain rooms which reduces air flow, leading to increases in damp and risk of health-related issues.

E.ON have launched a project with the UK Research Council looking at healthy homes and energy efficiency, taking a 'whole house' approach. There is a link between having a home that is not energy efficient, a lower income and being less likely to have a job. Investment in improving energy efficiency in these homes represents a huge levelling up opportunity, which can be facilitated by the Energy Company Obligation (ECO)<sup>2</sup>.

## Supporting high-risk and low-income groups in a 'just transition' away from carbon

**Lord Duncan of Springbank** said that the greatest challenge any government will face will be in ensuring a just transition in managing resources and energy. The Spring Statement announcement to cut fuel duty for petrol and diesel by 5p per litre until next year is a helpful intervention in addressing the challenges for those facing fuel poverty, but this does not meet the bigger challenge of keeping homes warm and healthy.

If people are faced with high up-front costs to replace their boilers with low carbon heating, they are unlikely to do so unless their boiler is broken and must be replaced. He said that many people may put off decisions to decarbonise their homes.

**Dr Danielle Butler** said that there needs to be meaningful engagement between householders and local advice services to ensure a just transition. There are economic and social benefits to improving homes through retrofitting.

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<sup>2</sup> Ofgem information on the ECO: [Energy Company Obligation \(ECO\) | Ofgem](#)

If we had better insulated homes, we would all be better protected from volatile energy markets. This is especially important in the short term as fuel poverty will rise by almost 50% in the next six months, a rise from 4.5 million households to 6.5 million households. Retrofitting reduces energy loss and minimises energy costs to the household.

**Dan Meredith** argued that initial investment in heating technologies will make costs go down progressively over time for consumers. He referenced the renewable energy 'revolution' 20 years ago where similar conversations took place about the inefficiency and expensive costs of wind farms and solar energy which are now supported by most parliamentarians and are the cheapest forms of energy today.

Since 2005, the average use of gas in homes has dropped by about a third, and electricity has dropped by about a quarter. As energy costs are now rising, the impact across the population, not just on those at risk of fuel poverty, will be severe.

There has been too much 'boom and bust' in renewable heating grant schemes. Business confidence has been undermined by a lack of long-term commitment from government. Lessons must be learnt from past policy failures to improve energy efficiency in homes. The government cannot let short-term issues get in the way of long-term solutions.

There is a need to make sure public funding via schemes and grants is accessible to those most in need to achieve a just transition.

### Local delivery: skills, supply, accessibility, assessment and planning

**Clive Betts MP** commented that local authorities have a key role to play in decarbonising homes, but they are hindered by the uncertainty of long-term funding arrangements.

**Dan Meredith** said that there should be building and renovation passports for domestic properties, providing detailed information on what is needed to decarbonise homes and how to achieve it.

On energy efficiency measures, more public money must be committed. Local councils must also work with energy companies in identifying those people most in need of decarbonising their homes and delivering the appropriate measures required. There is also a levelling-up opportunity in decarbonising homes by providing skilled jobs.

**Lord Duncan** noted the long-term funding of local authorities has not been resolved and there is a feeling that central government can be suspicious of local government. He argues if we are expecting local government to do more in the effort to decarbonise homes, there needs to be a different funding settlement.

**Dr Danielle Butler** stated that the role of local advice and support is important as this involves face-to-face interaction between homeowners and those who have knowledge of schemes to decarbonise people's homes.

**Beatrice Barleon** said it is vital to think about equipping the next generation of engineers with the skills necessary to support the decarbonisation of homes. There need to be clear pathways to these jobs, but the stop-start nature in installing heating technology makes it difficult to define and predict what skills are needed.

**Phil Cleaver** highlighted the need for regular service and maintenance of heating technologies in homes, which could improve energy efficiency and target inefficient appliances. Those visiting homes, such as engineers and chimney sweeps, can also play a vital role in advising the consumer.

### Public engagement and energy information

**Clive Betts MP** highlighted that public understanding of the role of domestic heating in producing carbon emissions is low. To counter this, more information, advice and engagement could be provided to consumers about their domestic heating. He also noted that many people do not know about heat pumps or hydrogen boilers as options to decarbonise their homes.

**Dr Danielle Butler** stated that communicating via word of mouth is a powerful tool in creating awareness for changes in domestic heating and provides concrete evidence of what is effective. There also needs to be more local and direct engagement in communities between households and local authorities, frontline services and installers. Danielle credited Citizens Advice Bureau for providing free energy advice and support which has a positive local impact.

Key changes in people's lives such as a switch in jobs, health diagnoses or moving house are good opportunities for people to upgrade their home heating.

**Dan Meredith** advised that smart meters are important for energy information as it is hard for people to change what they cannot measure. He also recommended there should be quality assurance measures for the heating sector, to build confidence in supply chains and for consumers.

**Lord Duncan** noted there are a number of low carbon heating technologies today but no clear market leader. It is unclear whether heat pumps or hydrogen boilers provide the best large-scale possibility to decarbonise homes. For many consumers, this uncertainty means they may delay their decision to decarbonise their homes until a clear choice is outlined or comes to the fore.

**Dan Meredith** argued we are at a tipping point for low carbon technologies to heat homes with heat pumps being the obvious option to replace natural gas boilers.

**Sophia Haywood** expressed that the divisive debate over which low carbon heating technology is the best does not consider what is best for the consumer in allowing choice over these technologies.

There needs to be a holistic approach to decarbonising homes looking at the role of heat pumps, hydrogen boilers, LPG, biomass and energy efficiency measures.

**The co-chairs and organisers thanked the panellists and attendees for their contribution to the debate in this critical area.**