HOUSING PETER SOMERVILLE, ALEX STEPHENSON



Housing: Retrofitting

Housing is a key sector for reducing greenhouse gas emissions, for ensuring general health and well-being, and for improving quality of life. As part of reaching net zero carbon emissions, the UK's housing stock will need to undergo significant upgrading, a process known as 'retrofitting'. This will both reduce emissions and improve efficiencies, resulting in lower heating bills and eradicating fuel poverty.

Key policy

Upgrade all homes in the UK to a high-performance energy and low-carbon standard by 2030.

Retrofitting explained:

Currently, the built environment is <u>responsible for 17% of the total emissions in the UK</u>, most of which comes from people's homes. Emissions arise in large part due to heating; as people use their boilers to heat their homes' they burn gas, which in turn releases CO2 into the atmosphere. Compounding this is the fact that UK housing is some of the <u>worst insulated housing in Europe</u>. A Green New Deal would implement two key measures to reduce these emissions:

Improving home insulation through 'retrofitting' the property. This can include installing double glazing and improving wall and roof insulation to reduce the amount of heat lost from the building. This would improve the energy efficiency of the property, reducing heating bills and crucially provide the means to <u>eradicate fuel poverty</u> in the UK. Retrofitting poorly insulated homes would save households up to £500 a year and go some way to addressing a systemic cause of poverty in the country. Similarly, poorly insulated housing has <u>severe health implications</u>, with an estimated 1,500 people dying each year due to the cold and over half a million cases of asthma being linked to preventably damp environments.

Install heat pumps to replace the carbon emitting gas boilers. Currently, the government plans to ban the install of new gas boilers by the mid 2030s. However, with the average boiler <u>lasting 10 years</u> this target presents a substantial delay in achieving net zero, and would fall short of keeping global warming to well below 1.5 degrees. Instead, a Green New Deal would prioritise the rapid replacement of existing gas boilers with heat pumps, and implement a ban on gas boilers. Heat pumps work like refrigerators but in the opposite direction: they compress air in order to heat it rather than to cool it.

Electricity is only required for the moving and compressing of the air, as opposed to actually *heating* the air. As a result, they are <u>over three times as efficient</u> as their electric heater counterparts. Crucially, as they are powered by electricity, they can provide a zero carbon alternative to gas boilers. Operating alongside locally owned and operated solar panels, heat pumps offer a solution to the health, environmental and economic impacts of relying on gas boilers.

Investing in our homes will bring high skilled, unionised jobs to towns and regions across the UK that have been neglected by the Tories for a generation.

Benefits

- Better insulated houses would reduce damp, preventing up to 560,000 cases of asthma a year
- Save poor income houses up to £500 per year
- Eradicate the majority of fuel poverty, benefitting the more than one million elderly people who live in fuel poverty
- Create up to 400,000 well paid, unionised, green jobs across the country

Examples of successful applications:

<u>Citybuilding Glasgow</u>: air-source heat pumps provided for 350 homes, employing 2,200 workers (60% of them disabled), with a large training centre.

In the Netherlands, <u>Energiesprong</u> is a retrofitting initiative that coordinates suppliers (architects, engineering and construction workers) to reduce retrofitting costs. The project has seen net zero retrofits completed in between one and ten days whilst reducing the overall costs by 60%.

Campaigns:

- Manchester Labour for a Green New Deal retrofitting campaign:
 - Youtube: Manchester Lab4GND The Retrofit Get In Project
 - Tribune: How Laid Off Theatre Workers Are Tackling The Climate Crisis