

Written evidence submitted by Paul Blacklock (DHH0005)

Summary

Since the passing of the 2008 Climate Change Act the UK Government has been grappling with the challenge of decarbonising domestic heat and during that time made the countryside its policy focus. This was because it was seen as “low hanging fruit” where the transition from fossil fuels could be made easily and cheaply.

However, since 2008 little progress has been made despite £billions of subsidy via grants and the renewable heat incentive. The reason for this failure has been an undue emphasis on a particular heat technology – electric heat pumps. A technology which cannot be applied to a high proportion of hard-to-treat rural properties, either because it isn't technically feasible or just too expensive. For an electric heat pump to work they need a very well insulated building and this is more challenging to achieve in rural areas as the housing stock tends to be older, with a higher proportion of solid-walled and is sited in more exposed locations.

Despite these issues it is anticipated that BEIS are going to set decarbonisation timescales for off-gas grid rural areas which are well in advance of urban dwellers. This is grossly unfair as rural property owners are starting from a lower base i.e. most government support for fabric improvement (via previous government schemes such as ECO) has gone to urban areas as delivery costs for any improvement measures were much cheaper. This means a much greater proportional investment is required for off-gas grid rural properties in terms of fabric improvement and this will take time, plus a very large amount of money. The countryside needs a range of technology options to recognise the diversity of the housing stock and to encourage the development of innovative solutions.

Climate change needs to be addressed and everyone has to do their bit. After all “we are all in this together”, but if the countryside and rural property owners are singled out for an accelerated programme this will be unjust and could result in a great deal of opposition. Rural dwellers have no idea this is coming and will struggle to understand why they are being given a tougher mountain to climb than their urban counterparts.

The transition to zero carbon should be a just transition where we are all working to the same timescales and be provided with equivalent support to achieve zero carbon.

A bit about me

I am a pensioner living in an extremely rural part of the West Midlands. I worked for almost 40 years in the rural energy sector and some members of the committee will remember me as I met them as the Head of Strategy & Corporate Affairs for Calor Gas Limited.

I am making this submission in my capacity as an “informed” member of the public who lives in a 140 year old solid-walled house which is heated via a combination of LPG, heating oil, wood burners and electricity. I am surrounded by neighbours in my village who also live in older properties and are using a similar combination of energy sources. The fact that, at some stage, the Government will outlaw their current heating systems is not on their radar. As such it will come as a big shock when it does happen – especially if rural property owners are asked to follow a more accelerated transition than people living in urban areas.

Rural off-gas grid domestic heating

There are approximately 4.6 million domestic properties which are situated off the gas grid. Of these about 2.6 million are located in urban areas. The remaining 2 million are in rural areas and have no practical access to mains gas. The current split of heating used is around:

Heating oil	=	55%
Electricity	=	20%
Solid fuel	=	13%
LPG	=	12%

The majority of people with electricity as their primary source of heating are using storage heaters.

There is a higher proportion of retired people living in rural areas as compared to in towns and cities.

The housing stock in rural areas tends to be older than in urban areas with a higher proportion of hard-to-treat solid-walled properties. These are harder and more expensive to insulate with payback periods often measured in decades. It is fair to say that as people age they tend to favour much shorter payback periods.

There are a number of low/zero carbon heat technologies which are being considered by policy makers that cannot be practically applied in the countryside:

- **Hydrogen** – there are currently no mass market piped gas networks in rural areas. Hydrogen has a low energy density, so even if the storage issues could be resolved deliveries by truck would have to be made too often to make it practical, environmentally acceptable or safe from an energy security perspective i.e. too much risk of running out.
- **District heating** – there is a lack of potential “waste” heat sources in rural areas due to the lack of industry. More importantly the housing density is way too low to make the technology economically viable for large village scale district heating networks.
- **Biomass** – this is certainly a potential part of the mix, but at scale it would raise significant air quality concerns – even in rural areas. Back in 2009 the Government estimated that a mass deployment of biomass could result in 1.75 million life years being lost each year¹.

Net Zero Timescales

Significant action needs to be taken to address climate change and this will involve significant changes and costs – for householders and tax-payers. However, the Government seems to be committed to adopting more aggressive phase out timescales for rural areas as compared to urban ones.

This is despite the fact that rural property owners have far fewer options than urban dwellers. In addition, they are being offered a much slimmer range of choices with an undue focus on heat pumps. There is a lot of public money being proposed for developing hydrogen, combined with Carbon Capture and Storage. Whereas no support is being offered to develop “green gas or liquid” solutions which could be deployed to provide cost effective solutions compatible with rural housing/heating systems.

This does not seem to be a fair or equitable approach – especially as rural property owners have struggled to access support under previous government energy efficiency schemes. We are starting from a much lower base. This means we arguably need more time to transition rather than less.

There needs to be a transition to net zero, but it needs to be a just and fair transition which does not penalise people just because they live in the countryside.

1. <https://publications.parliament.uk/pa/cm200809/cmhansrd/cm091110/text/91110w0010.htm>

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