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Decarbonisation of off gas grid homes and buildings in Cornwall

May I write with respect to the decarbonisation of off gas grid homes in Cornwall that are currently heated by fossil fuels such as oil and LPG. Cornwall has a much higher proportion of off gas homes than other parts of the UK and when combined with our rich heritage, older housing stock and diverse methods and materials used to build Cornish homes this creates a significant but not unachievable challenge for Cornwall in our ambitions to decarbonise our housing stock.

14% of homes in Cornwall are heated using oil alone equating to over 35,000 homes plus additional community buildings, schools and churches. These properties are mainly rural and built before 1919 adding additional technical, economical and supply chain challenges to enable a quick transition to clean electric. A significant number of these properties will require fabric and electrical upgrades and we know many of our older homes are more likely to require repair or improvement before these upgrades and be completed.

It will take time to plan and build the infrastructure and capacity required to transition these homes, from the reform of our grid capacity and connection processes, electricity market reform to building the much-needed support and advice for our residents to open up routes to allow all homes to access clean electricity.

Therefore, here in Cornwall we are looking at how alternative fuels could help to accelerate carbon reductions from our homes as the infrastructure is put in place. In 2020 a Cornish company, set up 130 years ago, Mitchell & Webber commenced the first trials of a renewable liquid fuel called Hydrotreated Vegetable Oil (HVO), to help replace fossil heating oil. This was **a first for the UK and indeed Europe** and following the pioneering trials a demonstration village/ pilot at Kehelland, a rural hamlet just outside Camborne in Cornwall was created in 2021.

Kehelland, being off the mains gas grid, is a village that mostly uses kerosene heating oil as the primary heating source. The pilot which was also supported by UKIFDA and OFTEC (two industry trade bodies) has been extremely successful. In December 2024, I visited Kehelland along with Council

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officials from the Energy & Housing Decarbonisation Team where we met with many residents on the trial along with the directors of Mitchell & Webber. At Kehelland around 20 homes were previously converted, in addition to businesses, a church and a school. They all were converted by a simple change to the oil burner nozzle, no changes to the fabric of the buildings or disruptive building work, and no planning permission or building regulation requirements. HVO is delivered and stored in the same way as kerosene.

The success and passion of the residents in advocating for the use of HVO was one of the main reasons that many rural MPs supported the amendments to the Energy Act in 2023 to open up access to affordable renewable fuels and I must agree after seeing for myself and listening to the industry this solution can be implemented quickly and is desired, the residents of the Kehelland pilot are eager to continue to use HVO and feel this should be rolled out not only across Cornwall but the whole of the UK.

I am aware of the previous concerns raised by the Energy Department over the supply of HVO and price, however it is very sensible to properly review a solution that requires no subsidy and would be cost neutral for the Government as set out in the renewable liquid fuel obligation. The industry has also compelling evidence on availability of feedstocks, supply of HVO and have a solution to start with a blend of HVO with kerosene to ensure the renewable fuel is affordable. Research shows there is more than enough fuel to extend to the domestic heating which is small in comparison to transport sector.

It has also come to my attention that the Irish Government are working towards introducing a renewable obligation for heating as they have for transport fuels and would like to say we also wish to have this opportunity. Details of which can found on the Irish Governments website here [gov.ie - Renewable Heat Obligation](https://gov.ie/Renewable-Heat-Obligation).

I would therefore urge the government to fully explore the use of alternative renewable fuels for home heating, including support the proposed energy bill updates and the use of HVO as a drop in transitional fuel in off gas homes and buildings by:

- Starting the renewable fuel consultation now, so that an obligation scheme similar to the one in place for the transport sector, can be implemented to kick start the roll out of HVO and other renewable fuels across rural communities.
- Address fuel duty tax disparities by aligning the duty charge of HVO with kerosene as it seems illogical to penalise a renewable fuel verses a fossil fuel.
- Consider the conversion of existing domestic oil boilers to run off HVO an eligible measure under schemes such as the Warm Homes: Social Housing Fund, Home Upgrade Grant and Energy Company Obligation.

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- Fully explore the use of other renewable fuels which could accelerate carbon reductions across our rural and hard to treat communities including the capture and use of fugitive biomethane from slurry management, and biomethane production from the anaerobic digestion of food, agriculture and green waste.

In 2019 Cornwall Council declared a Climate Emergency and the county continues to work tirelessly to drive down carbon emissions across all sectors. We are already leading the way with more than 15% of Cornish households already having a certified renewable energy installation, including solar panels, heat pumps or battery storage exceeding national deployment rates and we are keen to explore the role alternative renewable fuels could play in this.

Kehelland has hosted visits from many MPs, previous ministers and the DESNZ select committee, and may I now suggest and offer for the Energy Department to come to Kehelland and see exactly what has happened and gain invaluable knowledge from the residents which are typical of many thousands of homes in Cornwall and 1.7 million homes more widely across the UK.

I would be very pleased to set up a visit and the residents would be very happy to share their experience and enable your department to have all the facts of the pilot. I am also the owner of a 200+ year old rural cottage that currently relies upon oil heating and keen to understand my options for decarbonising my heating system.

Yours sincerely

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Cornwall Council