The Rt Hon. Greg Hands MP
Minister of State for Energy, Clean Growth and Climate Change
Department for Business, Energy & Industrial Strategy
1 Victoria Street
London
SW1H 0ET

08 April 2022

Dear Minister

Decarbonisation of off gas grid heating

I am writing to you as chair of the Rural Coalition, an alliance of thirteen national organisations who subscribe to a vision for a living and working countryside in England.

The Rural Coalition has recently discussed the Government's proposals to accelerate the decarbonisation of premises that are not connected to the gas grid. This is an important issue for rural people, as they form the majority of those for whom mains gas is not an option and where, for many, heat pumps may not be the solution due to the difficulties (and the disproportionate expense) in heating and treating rural housing stock.

I attach a short position paper outlining the concerns held by the majority of our members. Our major concerns relate to the proposed compulsory timing of the transition for off gas grid premises to many years before on-gas grid areas and our belief that there is a need for considerable investment in the resilience of the rural energy distribution network to underpin this transition and other moves to net zero in rural areas.

The Coalition welcomes the additional help that is being provided to the social housing sector for its transition to net zero. With this in mind, one of our members, the National Housing Federation, has stepped back from endorsing the paper, whilst still in discussion with you about implementation of the schemes aimed at the social housing sector.

We are, of course, very aware that in recent weeks the transition to renewable energy has become an even more urgent issue for reasons other than just our national commitment to net-zero. Our discussions took place in the aftermath of Storm Arwen, but we are now writing at a time of record global fuel costs due to the conflict in eastern Europe and the consequent regime of sanctions on Russia. We also note that the Government has just released its long-term Energy Security Strategy and has committed to the creation of a new Future Systems Operator to oversee future planning of a national, integrated, energy system. All these developments will have a considerable impact on rural communities and businesses.

The Rural Coalition would welcome the opportunity to discuss our concerns and the more recent developments with you. Our aim is not only to ensure that rural areas benefit from a comprehensively planned future energy system but also to unlock their potential, and the communities and businesses they house, to make a significant contribution to this system being both resilient and secure for everyone in the country.

I am copying this letter and paper to Lord Benyon, the Minister for Rural Affairs at Defra, with whom the Coalition works closely.

Yours sincerely

Margaret Clark CBE
Chair, Rural Coalition

Members of the Rural Coalition: Action with Communities in Rural England, CPRE – The Countryside Charity, Country Land and Business Association, The Arthur Rank Centre, National Association of Local Councils, National Centre for Rural Health and Care, National Farmers Union, National Housing Federation, Plunkett Foundation, Royal Institution of Chartered Surveyors, Royal Town Planning Institute, Rural Services Network, Town and Country Planning Association.

President: Rt Revd Dr Alan Smith, Bishop of St Albans

Rural Coalition Position Paper

De-carbonising heating in off-gas-grid premises

As part of its plan to achieve net-zero Government intends to decarbonise all domestic and non-domestic heating. One important group of properties are those not connected to the gas-grid and whose owners therefore rely on a range of other fossil fuel and biomass energy systems.

The current proposal for these properties is **'enforced early adoption'** of alternative technologies, mainly heat-pumps. This will be a legally enforceable requirement whenever existing boiler installations require replacement, from 2026 onward for domestic properties.

The policy objective of accelerating transition away from fossil fuels is welcome. People living in rural areas are as committed to seeking a net-zero future as anyone else. Indeed, rural people without access to the gas-grid tend to have a much more acute sense of their energy usage, due to their practical need regularly to re-supply with heating oil, LPG or wood fuel.

The proposed timing and practical implementation of this policy is, however, flawed. The reasons for this are:

1. **Early adoption of any new technology comes at a price**. Forcing rural people to be early adopters whilst the costs are high, before insulation can be installed and prior to economies of scale developing in industrial supply chains is unjust and is, almost certainly, challengeable.
2. **Many rural homes are not only poorly insulated but are also structurally challenging to insulate** to the level required before heat pumps can be considered an acceptable alternative. More time, and money, is therefore needed both to enable these homes to be properly insulated and, in some cases, for new insulation technology to become affordable and to be rolled-out. A 'Fabric First' – with sufficient financial incentives is a more appropriate way forward.
3. **Many smaller rural homes will not be suitable for re-installation** (at considerable cost, even where it is possible) of radiators and pipework that can operate with lower temperature heat pumps.
4. **The electricity supply network in many rural areas has less capacity and is more fragile** as some power lines are <u>not</u> currently required to meet full standards of resilience to disruption from tree fall. Until the rural distribution network is comprehensively upgraded it will not be possible to rely on heat-pump or electrical heating. The requirement to install electrical vehicle charging points to a similar timetable, adds to this requirement.
5. **If a policy, even if it is laudable in principle, comes with practical and financial implications for individuals that appear unjust, it will be resisted**. The unintended consequences will be old, dirty, oil-fired, boilers being 'kept running' or adapted. This will lead to outcomes that are diametrically opposed to the overall policy objectives.
6. The policy fails to allow for c. **85% of boiler replacements to be distress purchases** often in the winter months. These are not the circumstances in which to commit to a lengthy and expensive change of heating system.

We are therefore calling on Government to:

1. **Drop the 2026 'enforced early adoption' requirement for off gas grid homes.** This cannot be imposed on privately owned properties until rural electricity supply networks are improved and both insulation systems and sustainable energy alternatives to heat pumps are available at cost levels for both installation and operation that are reasonable in comparison to national averages.
2. **Instruct Ofgem to carry out a full review of resilience requirements with the Distribution Network Operators**. This would enable issues of rural resilience and capacity to be addressed ahead of their next five-year business planning cycle, 2023-28, and ensure resources are available to upgrade the rural network. Currently several thousand premises are not connected at all.
3. **Put in place a grant scheme for off gas grid homes** that will enable these homes to transfer to sustainable energy alternatives, (including insulation and up-rated electricity supply to the premises) at a like-for-like cost with gas or oil boilers. Alternatively, a more broadly specified 'net-zero ready' fund could help meet transition costs on a more flexible basis including alternatives to heat pumps where appropriate.
4. **Put in place guidance and support for off gas grid residents** that will enable them to understand the 'road map' towards decarbonised heating for homes with their specific characteristics (eg heritage status, construction type, quality of electricity supply, options in addition to heat pumps etc.)
5. **Support the training and development of more people to be able to provide appropriate installation and maintenance services in all areas.** The majority of off-gas households are located in rural areas, often very remote. The availability of skilled tradesmen willing to travel has often been a cause for concern in such areas.

In addition, Government might like to consider further discussion and consultation over this policy with stakeholders:

1. If 'enforced early adopters' are required to stimulate the market in decarbonised domestic heating systems Government must consult more widely and **identify willing sectors/locations that can play this role where the electricity supply is robust and buildings are more suitable.**
2. In the light of Storm Arwen consult with rural stakeholder organisations to support and encourage remote rural communities to develop **local electricity generation and supply**. This would make their connection to the National Grid a back-up rather than a sole source of energy.

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8 April 2022

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Off gas transition RC_8_4_2022.docx

Appendix 1 – Compulsory early adoption

The principle of working with the natural boiler replacement cycle as the key trigger to deploy low carbon heat makes sense. The principle is correct; however, the challenge is about how this principle is applied to best serve the policy objective of achieving a 'just transition' away from fossil fuel heating and towards net-zero. The impact of future deadlines on individual household decisions should be carefully considered. Those households whose boilers will require replacement prior to 2026 will need to decide whether to replace like for like prior to 2026 or replace now with a lower carbon alternative. Given the time lag in enabling the market to bring prices down, it will be necessary to provide larger financial incentives to households during these early years to support early transition to low carbon alternatives.

If the main tool of policy is to grow the market for alternatives to fossil fuel heating, and thus bring down the price to consumers, serious consideration must be given to the costs that will fall to early adopters.

The approach proposed in relation to off gas grid premises is to differentiate the market based on existing fuel use. The justification for this appears to have more to do with the timescales and feasibility of introducing hydrogen into the existing gas grid than any real consideration for the transition of those who are off the gas grid entirely.

If a group of consumers are to be identified as compulsory early adopters of heat pumps at the point of boiler replacement it may be more logical to define areas of suburban low-density housing. In these locations costs of upgrading electricity supplies would be limited and initial cost efficiencies would help grow the capacity of the industry.

As stated in the consultation document, a consistent, long term policy framework will be essential to underpin the transformation of heating the country's housing stock. The need to begin the transition to low carbon alternatives is very clear and a policy which aims to achieve this quickly is supported – as long as it is fair and equitable across different communities.

Rural areas should not be treated as a test bed to trial systems for the rest of the UK. 2 million diverse homes are not "low or no regret" or "low hanging fruit" – the proposals must work for everyone.

It is critical that off-gas areas are not disadvantaged in terms of the costs associated with this transition simply because regulations begin earlier with these households compared to those currently supplied by gas.

The consultation document's stated aim is to achieve cost parity between heat pumps and gas boilers by 2030. Those off-gas households forced to install a heat pump prior to this date, therefore, will be penalised unless the proposed grant regime recognises this and offers additional support during the period prior to cost parity.

Appendix 2 – Electricity distribution network

Government needs to ensure that utility companies provide sufficient investment into upgrading the grid in rural locations to ensure sufficient capacity exists for the increased demand for electricity which will flow from the move towards heat pumps (and electric vehicles). Indeed, around 1000 properties in England remain off the electricity grid altogether. Such properties face particular issues when attempting to move away from fossil-fuel heating systems as they either require expensive connection to the grid or local electricity generation.

There is a strong case to seek connection of such properties to the national grid. If this is not possible, consideration should be given to a longer time frame for such properties to move away from fossil fuels or grant support to those who are being forced by Government to become reluctant early adopters of new technologies. This will be essential if Government is not to be faced with unintended consequences from the policy.

Appendix 3 – Heat pumps and rural properties

Heat pumps may provide opportunities for around 50% of rural households. The Government believes that 80% of off-grid homes are suitable for a heat pump, but analysis suggests that it is likely to be around 56%. Therefore, the hard to decarbonise, older housing stock with limited opportunity for further insulation will need other options, including switching to bio-fuels such as bioLPG. The proposed heat pump ready first approach is reliant on the government's very optimistic aspiration for heat pump costs falling dramatically, from an average of £12K per rural home, to parity with gas boilers by the end of this decade. By going first rural areas will not enjoy full benefit from any cost reductions in heat pumps. Where homes are suitable for heat pumps, it is logical to adopt a heat pump first approach.

However, homes which are difficult to insulate can be very expensive to heat using heat pumps due to the electricity demands required. Off-gas areas, in predominantly rural locations, are dominated by older, often stone built properties with no cavity walls and which are difficult to maintain at a reasonable temperature. There is a real danger that existing households living in fuel poverty in such locations will be forced to move due to the increased energy bills associated with heat pumps in older properties. Indeed, many more people may be pushed into fuel poverty due to these costs. Either support must be provided to such households (and/or their landlords) in order to help meet these increased costs, or alternative low carbon technologies must be considered which generate lower running costs.

The likely running costs of installed heat pumps must be a key consideration together with the practicality of installing sufficient insulation to individual properties. In addition, planning legislation can make it difficult in some locations to upgrade the insulation of properties to make them more suitable for heat pump technology. This is particularly the case in National Parks, AONBs and Conservation Areas and for listed buildings more generally. Consideration must be given to adapt policies to enable improved insulation to buildings to take place more readily in order to make the running costs of heat pump installations practicable.

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Consideration must be given to adapt policies to enable improved insulation to buildings to take place more readily in order to make the running costs of heat pump installations practicable.

Appendix 4 – Characteristics of the rural population

Population age profile

Rural areas having a much older population, (both 65+ and 85+) than the UK populations as whole, implying greater vulnerability to emergency interruptions in heating and also a higher proportion being on fixed incomes.

- For the age group 65+, the population is projected to increase between 2018 and 2040 by 46% in Predominantly Rural areas, 43% for England overall.
- For the age group 85+, the population is projected to increase between 2018 and 2040 by 93% in Predominantly Rural areas, 77% for England overall.
- In 2020, 24% of the population in Predominantly Rural areas were aged 65+. In comparison 19% of the English population were in this age group.
- In 2020, 3% of the population in Predominantly Rural areas were aged 85+. In comparison 2% of the English population were in this age group.

Rural earnings

For those in employment people working in rural areas have lower than national average work based earnings

- In 2021, the workplace based median gross annual earnings were £23,659 for Predominantly Rural areas of England, they were £26,204 for England overall.

Cost of living

The cost of living for those residing in rural areas is, on average, higher than for the population as a whole

- For the year-ending March 2020, the average weekly expenditure (excluding mortgage payments) as a percentage of average weekly disposable income stood at 72.2% for rural areas, 66.9% for England.

Fuel poverty

Although the proportion of the rural population that can be considered to be in fuel poverty is about the same as the national average, 12% in rural, 13% overall. However, the average annual cost of bringing a rural household out of fuel poverty is £413 whilst the national average is £219. These are costs at 2019 prices, both are likely to be significantly higher by the spring of 2022.