

Rural Vulnerability Day

Learning Outcomes

Date: 24th June 2021

Subject: The Rural Challenges around Decarbonisation, Bus Services and Rural Lives

Chair: Margaret Clark CBE, Chair of Rural England CIC Stakeholders' Group

Host: Online Event via Zoom

Speakers

Speaker 1: Nigel Wilcock, Mickledore Consultants

Speaker 2: Andy Parker, Head of Strategy & Corporate Affairs, Calor Ltd

Speaker 3: Rt Hon Philip Dunne MP – Chair of the APPG Rural Services and
Chair of the Environmental Audit Committee

Speaker 4: Dr Karen Barrass, UK100, The Countryside Climate Network – CCN

Speaker 5: Daniel Carey-Dawes, Head of Rural Economy and Communities, CPRE

Speaker 6: Professor Mark Shucksmith, University of Newcastle

Learning Outcomes

4 Examples of Good Practice/Reports

- [Work of NALC parish councils on Climate Change¹](#)
- [Borderlands Inclusive Growth Deal²](#)
- [UK100 report - Rural Attitudes to Climate Change³](#)
- [UK100 report - Landscape of Leadership⁴](#)

First Session: Key Learning Points

Launch of Rural England CIC report on Net Zero

“Opportunities and challenges for rural communities from zero net carbon legislation”

- **Report focused on** review of recent documentation in this area, wide range of discussions with stakeholders re rural communities and the issues they face and opportunities for the economy in the future.
- **Critical differences between rural and urban areas** which need to be thought about separately when thinking about zero carbon eg infrastructure, private sector response, distributed population and older built stock in terms of housing, building and commercial properties.

¹ <https://www.nalc.gov.uk/our-work/climate-change>

² <https://www.borderlandsgrowth.com/>

³ <https://www.uk100.org/publications/rural-attitudes-climate-change>

⁴ <https://www.uk100.org/publications/landscape-leadership>

- **Report looked more closely at** power generation, transport and heating for buildings. Rural Land use not covered in this particular report.
- **Rural areas are not all the same** – the key question is not can we do it or is there a technological solution, but which solutions do we choose and choosing the correct commercial model that will support rural economies into the future.
- **Better insulated buildings should be the starting point to help with heat and zero carbon.** Looking at biofuels for those on oil, electrified heat source, off gas grid areas could move to heat pumps etc but this will not work for every building.
- **Transport similar** so looking at agile village development rather than open countryside developments. Biofuels will have some impact on emissions. There will be a transition to electric vehicles, but that won't suit all eg agricultural vehicles and buses.
- **Increase in need for local power generation.** Opportunity to create more decentralised grids, where a community is able to generate some power to reinforce its system and keep it within the local area. An opportunity for biomass to provide the backup to some of our power infrastructure which means we don't need to use fossil fuels for some of this in the future.
- **Lack of clear political leadership.** Many local government agencies want to move forward with this but held back by weak legislation. Also the subsidy schemes keep changing so difficult to get and maintain momentum.
- **An urgency for action** which could stimulate the rural economy. Different solutions required, alternatives to the heating "norm", improving supply chains for repair and maintenance work, what solutions work well together etc.
- **Need to train the consumer and the industry.** Rural areas have advantage in this and there's a clear path to the zero carbon economy. Some areas thinking about "first mover" advantage and setting up supply chains, creating employment, securing some of this wealth in rural economies.
- **How do we get there?** Can't immediately turn into a zero carbon community. Some of the beginnings are around fundamentals and enforcement, ie planning decisions, reducing the need for car use. Some requirements to work more online rather than using the car, switch to biofuel equivalents very quickly, and that built stock always meets the highest standards of insulation with low carbon fittings.
- **The Shift to:** electric cars, solar PV, biofuels etc will all make a difference, can be introduced quickly and make a difference straightaway.
- **A whole systems approach will create the big change.** Thinking about a smart system approach holistically and when we use appliances etc in our properties (commercial or residential).
- **Community whole system approach** where villages put in batteries and a portion of the battery usage creates power for the community when there's spare capacity. Then we look at how we manage the power and this may be a local grid, may be biomass support, small scale onshore wind etc and then how we share it.
- **Different technologies** will also become part of the solution for rural areas. That doesn't mean waiting for the next technology to appear, it means using alternatives and implementing them now eg hydrogen.

- **Conclusions - solutions are achievable – it won't be easy.** Looking at a commercial approach and need more stimulus for a consistent funding approach and linked to enforcement as well.
- **Stimulate economic activity through solutions** ie heat, shared systems, better insulation, entire systems, can actually lower fuel poverty.
- **Some of the solutions can sustain rural communities** ie lower energy costs, allow a future where the community is zero carbon
- **Need a plan otherwise only deliver on isolated projects or small scale bolt-ons.**

Perspective from Calor Ltd

- **Calor Ltd is at the forefront of addressing some of the issues** highlighted in the Net Zero report. Important to have this independent research to show breadth of challenges. Transitioning from existing fuel type into a bio-fuel type and at speed.
- **Not a silver bullet either and a number of options available.** Need to look at housing stock, building stock and where best to use available solutions and the context that rural communities are facing.
- **Rural first approach** being proposed by Government to decarbonise home heat means that 2m rural homes in first tranche.
- **Heat and Building Strategy from BEIS due out before summer recess of Parliament.** A key start to understand current policy direction. Also off grid homes to phase out fossil fuel boilers by 2026 – a significant step for households and property owners to undertake.
- **A technical survey showed that 91% of homes are suitable for electrification.** Although valid - no cost, economic impact or disruption assessment made. Calor has commissioned a report on impact particularly on heating oil households (with Ecuity).
- **BEIS looking at role of Green Gas for On Gas grid buildings.** Calor believes there is a role to extend this to Off Gas Grid building as well for those homes not suitable for electrification. Need to be aware of the right solution for the right property.
- **What do rural homeowners think?** – very little awareness of government policy and the impact on their homes and potential future sale of property. Little awareness of current EPC standing of homes and concern it will be more expensive to upgrade so significant uncertainty for homeowners.
- **Challenge for typical, hard to treat, oil-fired homes off grid** for electrification. Example used in presentation - average cost estimate of approx. £31K. This is well above the average cited for the UK at £9K by the Committee for Climate Change (for on and off grid). There will be variances off grid due to housing stock etc plus propensity for stock to be detached - need to look at other solutions as well for the 10% that are not as suitable for electrification.
- **According to [Ecuity study](https://www.ecuity.com/wp-content/uploads/2020/12/Ecuity_Off-Grid-Heat-Decarbonisation-Pathways-compressed-1.pdf)⁵ - 47% of rural homes off-grid actually ready for electrification** with 44% classed as “hard-to-treat” and requiring more cost-effective

⁵ https://www.ecuity.com/wp-content/uploads/2020/12/Ecuity_Off-Grid-Heat-Decarbonisation-Pathways-compressed-1.pdf

options such as hybrids eg heat pumps with back up bio-fuel boiler; heat pumps and pure boilers running bio-energy eg bio LPG. More options needed as significant number of houses will not be able to move to the heat pump and electrification of heat plans that are currently in place.

- **Economics of what households can afford** even if these are the most cost-effective options. A significant number of homes cannot afford the upfront costs and is a significant barrier for people taking them onboard. YouGov poll shows majority of people in the “able to pay market” prepared to spend £2K or less on new heating systems. Will be some form of funding model from the Government.
- **BioLPG – What is it?** It's a drop-in fuel replacement for LPG and a co-production of the bio-fuel markets. It's an option to consider for the harder to treat properties or the more remote properties that cannot benefit from some of the community projects.
- **What is Calor advocating?** No single answer and households will need to look at a range of diverse and decarbonised options and embrace them. Would prefer that householders have a choice as currently looks like a mandate for off-grid properties to go through electrification first. Rural communities bearing the costs of heat pumps in the first instance amid assumption that costs will come down over time, but that doesn't happen for the “first movers”. Need to make sure no-one is left behind and the range of solutions is there.
- **An equal status between rural and non-rural communities.**

Rt Hon Philip Dunne MP

- **Environmental Audit Committee (EAC) published a report in March 2021** looking at [energy efficiency in existing homes⁶](#). Conclusion that there will be a significant shift and challenging time ahead for all those involved in housing as it comes under pressure to allow the Government to achieve its net zero ambition to decarbonise homes.
- **Report had recommended** that the Green Homes Grant scheme should be overhauled and extended to run for the life of the current Parliament and preferably for 10 years. Unfortunately, it was scrapped due to difficulties running the scheme and has had a knock-on effect and delayed the publication of the Heat and Building Strategy.
- **Heat and Building Strategy.** Until it is published we can't be sure what is in it. The EAC has made it clear to Government that it does not think starting with rural properties is the right place. The Government is aware of the issues with the Green Homes Grant Scheme and as highlighted in Calor presentation, the cost of insulating these homes for them to derive any benefit from electrification ie a heat source air pump, is high.
- **Strong desire to use some existing technologies but also new technologies** eg hydrogen if it can replace natural gas in the gas grid. Strong debate in Government whether it is a cost effective approach and whether it is achievable.

⁶ <https://committees.parliament.uk/publications/5171/documents/52521/default/>

- **Government keen to move forward with the [Future Homes Standard](#).**⁷ Secretary of States for BEIS and MHCLG have convened a forum for their departments to talk to at all levels. May provide clarity about the new mechanism that will replace the Green Homes Grant and get the delayed Future Homes Standard published.
- **Focus on getting social housing up to standard** as providers are able to act at scale and pace in a way that individual home owners are not. This is why part of the funding for homeowners with the Green Homes Grant was diverted to local authorities and social housing providers when the scheme was cancelled in March.
- **Recommends that social housing providers develop plans that can be acted upon quickly.** Thinks this is the way the Government will allocate funding and encourage bids. Need a well thought through proposal and to provide an estimate of costs.
- **Technology facilitating decarbonisation is right but not quite there yet at scale.** Local Authorities and Housing Associations need to lead by example with integrated working. We are still making plans rather than implementing them.
- **Need to upskill workforce** to switch from gas installation to heat pump installation.

Panel Discussion

- **The Countryside Climate Network – CCN** was set up a year ago. Group of Local Authorities set ambitious net zero targets and established because of the lack of understanding of the rural context in delivering net zero.
- **Need market clarity to develop the courses required to upskill workforce** and appreciate the diversity of solutions required.
- **Question: Rationale for using rural areas first** for off-grid electrification: Andy said that this was seen as an identifiable cohort that can be moved on whilst the Government gives themselves time to make arrangements for the 25m homes on the grid and the options available to them. Rural areas seen as a segment, but actually is more difficult as independent properties are dispersed within communities, spread out across the country, not uniform etc. Calor concerned that homes that are not suitable for heat electrification chosen first. Feel it should be launched at those areas that are ready and can move at scale.
Karen thinks it doesn't matter who goes first but the co-benefits of tackling the off-grid users is higher (taking out fossil fuels (coal/oil) etc). Agrees though that the Government is thinking of rural as one discrete grouping. A positive thought is that the potential of area based retro-fit deployment is high; [Swaffham Prior](#)⁸ was able to access Government grants as a cohesive unit for funding at scale of solar panels and heat pumps.
- **Question: Better information, independently sourced drawn from the technical expertise of the industry is required for individuals to make informed**

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/956094/Government_response_to_Future_Homes_Standard_consultation.pdf

⁸<https://heatingswaffhamprior.co.uk/>

decisions: Nigel agrees there should be independent information available to validate these various systems and how they work together otherwise the industry could end up with a poor reputation. Also, we haven't linked anything in our discussion today with our industrial strategy (unlike the automotive industry). This could be a missed opportunity for a new industry to be developed here in the UK, rather than bringing in the technology from abroad.

Andy believes it is vital that we have this independent research/sources as it will give credibility to the decision making as there are a number of solutions out there. Should be a choice and not mandated.

- **Question: Issues around eligibility of grants, but challenges around measuring deprivation which doesn't work in a rural context:** Karen - Changing policy and rules eg EPC doesn't truly reflect the rural housing stock and what they can do to make them more efficient - need to reform EPC rather than change the funding. Shouldn't have competition for funding for projects on an individual basis as it should be wholesale and longer term and reflect the scale of the challenge.
- **Question: Whole system approach for communities and creating zero carbon villages – how is this to be achieved in practice?** Karen - need education on net zero topic and making communities aware of the challenge and linkage to the co-benefits eg job creation, health (moving away from fossil fuel power) and [role of LA in this](#).⁹ Need clear direction from the Government as there is a lot of work to do in community engagement.
Nigel – a good example of this is part of the Borderlands Initiative. In Northumberland there is a big study being done community by community to find out the appropriate solutions as there isn't a "one size fits all". Would need to be tied into the Heat and Building Strategy but is a good start.
- **Priorities – Andy:** a comprehensive Heat and Building Strategy to give certainty and clear policy direction and that will bring investment, job creation and robust supply chains.
Nigel: trialling 10-15 communities with different solutions so that we have some practical and real examples that people can see and understand.
Karen: Need workable government policy at different scales and contexts, local specific housing solutions for retrofits and utilising rural Local Authority partners (understand communities, what will work and link between Government funding and deploying at scale).

⁹ https://www.uk100.org/sites/default/files/publications/Rural%20Net%20Zero_May%202021.pdf

Second Session: Key Learning Points

“Every village, every hour – a comprehensive bus network for rural England’

- **Having essential, regular public transport links is fundamental to allow rural communities to thrive.** Job seekers and young people find it hard in particular to access jobs or continue to work in the areas they were brought up in due to these poor transport links. Older residents feel their horizons have shrunk due to a transport curfew.
- **Rural house prices rising twice as fast as that of urban** has meant more cars per family and greater car usage as people travel to individual work places. Government transport policy has promoted private car usage. Many of those already living in rural areas and on low incomes have no access to a car.
- **Need a comprehensive bus network for rural England.** Recent survey has shown that many areas in the South West and North East are either already or at risk of becoming “[Transport Deserts](#)”¹⁰. Low density population communities have suffered badly due to bus deregulation in the Transport Act. For some there is no alternative to private car usage contributing to congestion, air pollution, carbon emissions and adding to the climate emergency.
- **Some European countries already have this model** so CPRE calling for a similar model to be adopted in England. A vision for a fully integrated bus network that connects towns and villages with urban centres, with a minimum service standard for a bus for every village, every hour. Investment required of £2.7bn annually which is below the norm in other countries.
- **Scaled up modelling shows** that a £1 flat fare would need funding at £3bn per annum. CPRE model has been peer reviewed and confident that the figures are credible to deliver this comprehensive service.
- **Best practice: Zurich Canton, comparable to South Yorkshire** – hourly bus service for communities of over 300 people with more regular services for groups that have higher demand. Three different levels of service of frequency standards and runs seven days a week from 6am-midnight.
- **Government currently looking to invest £3bn into the bus network** but CPRE has shown that if this was a long term, annual increase then it would more than fund a bus service for every village, every hour. Funding could come from re-directing other transport spending eg road building, HS2 (£3.5bn), but is a question of priorities.
- **Smart investment** as it enables rural residents to connect with larger urban areas plus it allows urban residents to get into the countryside. It has social and environmental benefits and would give revenue expenditure a return of investment of up to £3.80 for every £1 spent.

¹⁰ <https://www.cpre.org.uk/resources/transport-deserts-report/>

- **Still be some isolated dwellings/settlements out of reach** from this level of service. To fill this void, use demand responsive transport (DRT) and have programmed this into the model. Additional cost would be £100M per annum. A combination of DRT and the Every Village, Every Hour model could lead to 100% coverage. Give residents confidence to give up the car and know that they would have same accessibility to reach work, key services etc.
- **Recommendations: Universal basic right to transport** and shouldn't be seen as an optional council service which can be cut back on to support other services.
- **Must be regulated by Local Transport Authorities – a guiding light to the design of the network.** Rather than leaving it to the private operator to decide what is convenient and profitable to run.
- **Proper integrated bus and train timetables** and proper ticketing for journeys.
- **Legally defined service standards** must be backed up with sufficient funds that are ring-fenced.
- **Need the government to match the ambition** we share to make the vision a reality.

Rural Lives: understanding financial wellbeing in rural England

- **Very little analysis of the economic crisis (2007/08) and policies** imposed afterwards (austerity) and how they had affected peoples lives in rural areas and financial well-being, financial hardship and vulnerabilities.
- **[FCA report 2018¹¹](https://www.fca.org.uk/publication/research/financial-lives-consumers-across-uk.pdf)** on the financial lives of consumers in the UK and levels of financial vulnerability. They analysed the survey according to urban/rural differences and surprisingly found the level of vulnerability was higher in rural than in urban areas. 54% of rural population identified as being financially vulnerable. Chimed with work looking at levels of poverty in rural/urban which found there was little difference between the two areas.
- **Report looked at how people get support** eg labour market, the state (welfare benefits), voluntary sector, friends and family. It analysed data, interviewed gatekeepers, individuals and through focus groups.
- **Key findings: move away from land based employment** to service sector employment (tourism and public sector), increasing job insecurity in the gig economy, low pay and unpredictable work (seasonal work), limited opportunities for career progression, higher levels of self employment driven by lack of opportunities, transport issues, lack of affordable childcare, higher cost of living, and a lot of fuel poverty in all three case study areas.
- **Access to welfare state support** (benefits and pensions) complex in rural areas as many people have multiple jobs, volatile incomes etc. The benefits system assumes a regular income and this causes issues with overpayment, clawback and resulting debt.
- **Welfare services are centralised** and no possibility of getting to them on public transport. Stigma, particularly for older people, asking for support/help, difficult to

¹¹ <https://www.fca.org.uk/publication/research/financial-lives-consumers-across-uk.pdf>

access the guidance needed or to be seen as needing support from the state or the third sector.

- **Digital exclusion** – increasingly benefits are an on-line system. Poorer broadband in rural areas and connectivity costs can act as a barrier to going on-line. For some though, if you have good broadband then it actually is easier to access benefits/help in a rural area.
- **Close link between delays in benefits, debt, foodbank use and mental health.** Evident in all case study areas.
- **Voluntary /community organisations** really important for people in financial hardship. But a sector that has been underfunded and has had to move towards competitive tendering to gain funding. Sector is under pressure and with Covid, many of their volunteers had to shield. It is hoped that the younger volunteers who were furloughed etc will still continue to provide some support.
- **Family, friends and neighbours are an important source of help.** Different access depends on social norms of locality and stigma.
- [Supplementary report re financial hardship during a pandemic¹²](#)
- **Challenges** – many rural residents are at risk of poverty as in urban areas but there is an opportunity to inform policy in a rural context through stakeholders in rural proofing, local experience, piloting in rural areas and refining.
- **Rural proofing of the welfare state needed by DWP** and ensure face-to-face provision where there is digital exclusion.
- **Need better quality work in rural areas** and remove barrier to self-employment.
- **Create a sense of hope** in a shared vision within communities.
- **Conceptual framework has helped** to understand sources of support, how they change, who may be excluded from accessing these and how they may be improved.

Reflections: Do you feel there is any change and that the Government is listening – what do we do to make sure they are?

Daniel – levelling up is all about north/south divide, but it's more complicated than that. Need greater co-ordination between all of us on rural services and coming together as one voice to tell government about the issues they are pushing, like levelling up, that these need to include rural areas.

Mark – one of the big challenges is to get the Government departments, beyond Defra, to be aware that there is a rural issue and to have motivation to address it rather than be defensive.

¹² https://www.rurallives.co.uk/uploads/1/2/7/3/127324359/rural_lives_-_covid-19_lockdowns_and_financial_hardship_in_rural_areas_final_05.05.21.pdf