

RURAL LENS REVIEW



Mission Zero

Independent Review of Net Zero

Published February 2023



At a glance



Rural Services Network's thoughts on **Mission Zero Independent Review, Net Zero by Rt Hon Chris Skidmore MP**

- The rural context must be fully reflected in all of the policy considerations set out in the recommendations. Decisions, including in respect of implementation, must be fully rural proofed.
- The Land Use Framework must be fully integrated into the spatial planning system and NPPF. It must not focus just on land management issues related to environmental protection, farming, food production and biodiversity. It should take full account of the requirements that communities have for housing, economic activity, recreation, and community activities.
- It is not just about “Funds”. We have huge concerns about the plethora of different funding streams which are required to be ‘bid for’ – especially given the capacity of rural local authorities. Mainstream government funding support for local government has for decades, and remains, grossly unfair.
- It is paramount that trailblazer projects also cover rural and coastal areas, indeed they should cover different types of rural areas.
- In most rural areas public transport simply is not available to enable travel to work, education/training or to meet other transport needs. In fact, in very many rural areas across England there is little or no public transport. As a result, car ownership remains essential in rural areas (despite car ownership costs) – indeed many rural households will need to have 2 or 3 cars as household members will need to travel in different directions to work etc.
- The Government’s long awaited Bus Strategy for Rural Areas should be published as soon as possible. Rural public transport authorities need much more financial support from the Government to enable improvements in bus services. Very little financial support came the way of rural councils from the recent Bus Service Improvement Plan Funding.

- We feel the report, unfortunately, misses the mark when understanding the practicalities and the challenges of decarbonising rural and off-gas grid heat. In both residential and non-residential buildings.
- The recommendations do not consider the fact that fabric modifications, most certainly needed for older and less energy efficient housing, will increase the cost of installation for heat pumps, making them prohibitively expensive for rural home and business owners.
- We have long argued that the Government should adopt a ‘fabric-first’ strategy with increased funding available in rural areas (and elsewhere) to support measures such as home insulation and other energy efficiency measures.
- In pursuing a one-size-fits-all approach, we are disappointed that the Net Zero Review overlooks the role of alternative renewable fuels.

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BACKGROUND

- 1.1 The [Independent Review of Net Zero “Mission Zero”](#) by Rt Hon Chris Skidmore MP has been published.
- 1.2 As is the case with important documents such as this which relate to one or more of the [RSN’s campaign priorities](#), the RSN reviews the detail ‘through a rural lens’ – this is the RSN’s Review of the Mission Zero Review through a Rural Lens. To view the full Rural Lens series covering a wide range of topics and Government announcements affecting rural areas, click [here](#).
- 1.3 The Independent Review of Net Zero was commissioned in September 2022, to consider how the UK could better meet its net zero commitments, taking account of recent global changes. It was commissioned also to ask how the UK might deliver its own net zero targets in a manner that was both more affordable, more efficient, and in a pro-business and pro-enterprise way. Indeed, net zero, decarbonisation and clean energy growth will only happen if it delivers the economic benefits that can demonstrate to the whole of society the true value of the energy transition.
- 1.4 The Review took a whole of society approach to its evidence gathering as “it is for the whole of society that net zero needs to work”.
- 1.5 As part of the Review there was a broad call for evidence, giving the general public, businesses, and other organisations a chance to share their views on the whole economy transition, maximising net zero growth opportunities, the challenges to address in their view and the future of net zero.
- 1.6 The report is 350 pages long and with 138,000 words and 125 recommendations. Rural is mentioned just 8 times and not at all in the recommendations.
- 1.7 The Review is split into two parts:
 - Part 1 explains the opportunity and benefits to individuals and the economy. It places domestic action in an international context and emphasises that the UK must go further and faster to realise the economic benefits of net zero.
 - Part 2 sets out how to achieve this opportunity, across six pillars. It makes recommendations to catalyse action in individual sectors of the economy, and to enhance the role of local authorities, communities, and individuals to deliver net zero.

The recommendations in the Review “show how action can be taken in the short, medium, and long term to turbocharge delivery, set clear roadmaps that provide the certainty needed for investment and R&D, and deliver net zero in a pro-growth, pro-business, low-cost way.”

The recommendations fall into six pillars:

1. **Securing net zero:** A framework for a sustainable industrial strategy to deliver growth and jobs during the transition.
2. **Powering net zero:** The gear shift we need in delivery to achieve our targets and recommends specific actions to unblock the pipeline, including a re-think of our energy infrastructure. It proposes a solar revolution and onshore wind revolution.
3. **Net zero and the economy:** Going further to capture the economic opportunities across sectors, for businesses of all sizes.
4. **Net zero and the community:** How we unlock local action by reforming the relationship between local and central government, making sure the planning system supports net zero and turbo-charging community energy action.
5. **Net zero and the individual:** The role of individuals in the transition, how they can be supported to make green choices, and how government can ensure that net zero works for everyone.
6. **The future of net zero:** Seizing the global opportunities from new technology and R&D innovation now and out to 2050. It also looks at the UK’s carbon pricing regime and how the UK can maintain its international leadership on climate.

1.8 As can be seen just by looking at the Content pages, the report is wide ranging and comprehensive across the whole Net Zero agenda. We do not intend to comment on all aspects of the report which are relevant to both rural and urban areas/communities. We concentrate on Part 2 of the Report under the six pillars and consider what we see as the rural issues/opportunities. In many cases our concerns as set out in this Rural Lens Review are about omissions from the report to reflect the rural context.

RURAL ISSUES

In this Section of the Rural Lens Review we record relevant sections from the six pillars of the Report and make, where appropriate, RSN comments.

PILLAR 1: Securing net zero: A framework for a sustainable industrial strategy to deliver growth and jobs during the transition.

The report makes the following recommendations:

1. Conduct and publish, before Autumn 2023, a review of how we should change regulation for emerging net zero technologies to enable their rapid and safe introduction, to support the net zero transition and boost growth
2. Review how policy incentivises investment in decarbonisation, including via the tax system and capital allowances.
3. At the next Spending Review, review options for providing longer-term certainty to a small number of major priorities for net zero – where we know that long-term policy commitment will be essential for success and provide long-term opportunities to save money.
4. Through their update to the Green Finance Strategy, BEIS and HMT should set out a clear, robust and ambitious approach to disclosure, standard setting, and scaling up green finance – including how it will meet existing commitments to implement Sustainable Disclosure Requirements across the economy, how it will provide a clear, long-term plan for attracting capital to meet net zero ambitions, and how to maintain the UK's position as the leading green finance hub internationally and metrics for success.
5. Publish an overarching financing strategy covering how existing and future government spending, policies, and regulation will scale up private finance to deliver the UK's net zero enabled growth and energy security ambitions. This should include setting out the role of UKIB, BBB, BII, and IPA and UKEF in the transition.

RSN COMMENT ON SECURING NET ZERO RECOMMENDATIONS

The rural context must be fully reflected in all of the policy considerations set out in the recommendations. Decisions, including in respect of implementation, must be fully rural proofed.

Natural Ecosystems and Biodiversity

Extract from the Report - Pages 50&51

The interactions between different policies related to net zero are often highly complicated. A 'systems' approach has been widely recommended to the Review as a tool for managing these interactions. In 2020, the Prime Minister's Council for Science and Technology wrote to the Government stating:

"We believe that a rigorous systems approach will reveal the effects that policy decisions in all areas of government will have on delivery of net zero, enabling recommended that the Government strengthens the central oversight of net zero – which currently rests with BEIS decision-makers to understand how different policies interact and influence the transition to the whole economy towards net zero. It will also enable government to understand the interaction between mitigation, adaptation and resilience, including the need to protect biodiversity and wider sustainability initiatives." – Council for Science and Technology

RSN COMMENT ON ECOSYSTEMS AND BIODIVERSITY

We support the above extracts from the report.

PILLAR 2: Powering net zero: The gear shift we need in delivery to achieve our targets and recommends specific actions to unblock the pipeline, including a re-think of our energy infrastructure. It proposes a solar revolution and onshore wind revolution.

Extract from the Report - Pages 64, 83 & 89/901

The report recommends:

- Government to update Ofgem's remit to incorporate the Government's net zero target as set out in the 2008 Climate Change Act.
- Government and Ofgem to work with network companies to facilitate anticipatory investments in grid infrastructure
- Develop by 2025 a long-term cross-sectoral infrastructure strategy by 2025, to adapt and build respectively the distribution of

liquid and gaseous fuels, electricity, and CO2 networks over the next decade.

- Deliver government's Review of Electricity Market Arrangements (REMA) as a priority to scale up electricity sector investment, unlock the benefits of renewables, reward flexibility and maintain security of supply
- Commit to outlining a clear approach to gas vs. electricity 'rebalancing' by the end of 2023/24 (depending on the fossil fuel prices), and should make significant progress affecting relative prices by the end of 2024.

Not all our energy needs can be met with electricity and so we will continue to need liquid, gaseous and solid fuels.

Government has therefore set ambitious targets for greener fuels, including hydrogen, low carbon fuels produced from biomass and other waste resources for use in different sectors such as transport, heating, power and wider industrial applications

Small and medium-sized enterprises (SMEs) involved in the renewable sector may also require specific support and guidance. Some stakeholders highlighted that the Government could do more to support SMEs.

Separately, solar farms in the countryside should not be planned piecemeal but in a co-ordinated fashion as part of a Land Use Strategy that the Review encourages in its section on land and agriculture.

RSN COMMENT ON PILLAR 2

As we say in our comments on Pillar 4, in pursuing a one-size-fits-all approach to off gas grid heating we are disappointed that the Net Zero Review, in that regard, overlooks the role of alternative renewable fuels. This Pillar 2 acknowledges that not all our energy needs can be met with electricity

The recommendation for support to small and medium sized enterprise is fully supported. SMEs are an essential component of rural economies

It is important that rural communities and economies benefit from Net Zero policies and are not simply viewed as being places where there is land to meet urban needs.

PILLAR 3: Net zero and the economy: Going further to capture the economic opportunities across sectors, for businesses of all sizes.

Embed nature and habitat restoration throughout transition plans, maximising co-benefits for climate and nature wherever possible, setting and delivering ambitious targets for nature-based solutions.

Extract from the Report - Page 174

More fundamentally, as described in *Part 1*, our economy is embedded within nature – not external to it. Climate change and other environmental pressures like soil degradation, water quality and biodiversity present the biggest medium-term risk to UK food production. Nature can help us manage the risks from climate change, for example planting trees in cities can reduce energy needed to keep people cool and reduce productivity losses from overheating in summer.

Extract from the Report page 178

Natural ecosystems and ecosystems services are now being recognised for the intrinsic and economic value they have:

“For too long, natural capital has been off the balance sheet and not valued in policy and the market, even though – as farmers know – the character and quality of soil, water and nature on a farm is essential to run a viable rural business. Recognising and paying for natural capital, even though it demands a change in how land is used, opens up opportunities for new business models and new sources of income for the land-based economy.” – Green Alliance

Government should look to maximise the contribution of nature-based solutions given the multiple benefits these can bring for climate, biodiversity, water, protection from adverse weather impacts and job creation.

RSN COMMENT ON EMBED NATURE AND HABITAT RESTORATION

We support the above extracts from Pillar 3 of the Report.

Land Use Framework

Extract from the Report – Page 174 & 175

The Government should publish a Land Use framework as soon as possible, and by mid-2023.

The Government lacks a clear plan for how we will manage these competing and inter-related demands on land, according to submissions to the Review. The *Net Zero Strategy* showed a range of possible 2050 energy systems which deliver the target, but no similar analysis is available on how the UK's land area would need to change to deliver the varied land-based goals described.

The complexity of land use and the trade-offs described above mean it is very difficult for even the most committed land managers to ensure they are making best use of their land.

Better data and analysis are needed to help the public and local decision-makers realise these outcomes and achieve the multiple goals set out in the *Net Zero Strategy*. The *Land Use Framework* should include analysis showing different options for how these multiple goals can be met within the land area of the UK, considering biodiversity and agricultural productivity needs, including water quality and flood protection.

Land use change at a strongly spatially disaggregated level is currently an important evidence gap. This should be modelled and the principles to manage trade-offs and maximise synergies of each scenario should be clearly stated (for example, maximise land used for production of wood-derived biomass and energy crops, such as miscanthus, near the likely location of future BECCS plants; prioritise food production on high-grade agricultural land, etc.). Requiring collaboration between BEIS, Defra and DLUHC, this is an example of the kind of system thinking which is necessary to deliver net zero.

Government also needs to ensure that this analysis considers the land use potential at different levels of global warming. A recent Intergovernmental Panel on Climate Change (IPCC) report showed that a warming of even just two degrees considerably alters the kind of crops that can be grown in different regions and changes the effectiveness of different types of land use solutions for biodiversity and flood protection (for example, wetlands no longer provide the same level of protection at two degrees of global warming). The analysis in the land use framework should directly address this with scenario modelling.

Alongside the framework, government also needs to consider the existing incentive structures and how aligned they are with bringing about outcomes which fulfil decarbonisation, agricultural production, and biodiversity goals, including those for land

managers considering growing biomass. Land use change analysis described above needs to be joined up with an in-depth review of the regulatory and policy structures which determine land-use decision-making at different scales. It is becoming increasingly clear that our capacity to deliver upon multiple objectives will depend on how national policies support local action, and on policy coherence across silos.

RSN COMMENT ON LAND USE FRAMEWORK

The RSN welcomes the Government's commitment to a land-use framework and the RSN is pleased to see the review's placing of it in its immediate priorities.

If the Land Use Framework is to make a major contribution to decarbonisation, which it must, it will need to:

- Be fully integrated into the spatial planning system and NPPF. It must not focus just on land management issues related to environmental protection, farming, food production and biodiversity. It should take full account of the requirements that communities have for housing, economic activity, recreation and community activities.
- Enable a national discussion about choices in land use and the basis of decisions over this.
- Be realistic about what is needed from our limited amount of high-quality agricultural land if cities of over six million people are to be reliably fed and provided with energy. It is easy to identify small scale 'pilot' land-use planning approaches that can have an effect in the catchment area of a modest market town. A national framework will need to work on a national scale and be capable of implementation at a local one.

Just as the spatial planning system should be the subject of transparency and consultation in the way it makes choices and decisions, so should the Land Use Framework.

PILLAR 4: Net zero and the community: How we unlock local action by reforming the relationship between local and central government, making sure the planning system supports net zero and turbocharging community energy and action.

Unlocking Local Action

Extract from the Report – Page 183 & 184

The national net zero target has provided a clear mission for the UK, catalysing action across the country and the economy. But at the same time, every region and every community in the UK is different, and each will need different support if they are to thrive through the transition to net zero. **For example, rural areas may face more of a skills challenge in their transition compared to cities, but they may also have more opportunity to grow a renewable energy industry.**

Extract from the Report – Page 186

The opportunity for better economic returns is largely because the costs and benefits of the transition to net zero will vary by place. For example, cities with poor air quality may see greater health benefits from investing in active transport solutions. **Rural areas may need a greater focus on retrofitting older, less dense housing where residents could see greater savings on their energy bills. A locally led approach is better placed to identify such challenges and opportunities.**

Government funding has already shown that net zero and growth can go hand-in-hand at a local level. For example, the Levelling Up Fund, Community Renewal Fund, Community Ownership Fund and Towns Fund all included net zero or clean growth principles. £20 million from the Levelling Up Fund will, for example, go towards the development of a new construction skills academy and sustainable housing project in Sunderland, providing green jobs and economic growth for local people.

RSN COMMENT ON UNLOCKING LOCAL ACTION

The RSN and other rural interest groups have long since expressed the same views regarding both skills challenges but also opportunities.

It is pleasing to see the report endorsing our view supporting a locally led approach.

We would say however, it is not just about “Funds”. We have huge concerns about the plethora of different funding streams which are required to be ‘bid for’ – especially given the capacity of rural local authorities.

Mainstream government funding support for local government has for decades, and remains, grossly unfair.

Based on the Local Government Finance Provisional Settlement for 2023/24 urban areas will get 59.4% more in Settlement Funding Assessment than rural and 38.3% more in Government Funded Spending Power (which excludes Council Tax). One consequence of this underfunding is that Rural Councils in 2022/23 were only able to budget to spend £67.00 per head on so-called discretionary services whilst urban areas budgeted to spend almost twice that (£131.31 per head).

The Towns Fund excluded (unless Ministers used discretion) any Town below 15,000 population – the vast majority of which are rural.

Local services: it should not be overlooked that one of the most effective ways to reduce carbon emissions in rural areas is to retain and, where possible, grow locally based services, such as food shops, post offices, schools, GP surgeries and transport networks. Equally, that providing good digital connectivity will reduce the need for rural residents to travel and enable home working. Policies for public transport, digital, land use planning, community action, education and health all have a part to play.

Deeper Devolution and Trailblazer Net Zero Deals

Extract from the Report – Page 199

Selected ‘Trailblazer’ places should cover urban, rural, and coastal areas, with strong monitoring and evaluation at every stage to create a strong evidence base that can help determine the best methods for effective local net zero delivery. This knowledge could be shared across all regions to improve net zero delivery, as well as providing a basis from which Government could determine whether and to what extent to continue with projects.

RSN COMMENT ON TRAILBLAZER PROJECTS

It is paramount that trailblazer projects also cover rural and coastal areas, indeed they should cover different types of rural area.

Making net zero work for communities

Extract from the Report – Page 209

Evidence submitted to the Review found that, while there are many barriers to community action, often the biggest factor determining the **success or failure of a community project is the presence of a ‘community champion.’**

Community projects need to navigate a complex set of systems and actors, from local planning decisions to engaging with the energy system. Having someone on a community project who understands the system and who has the motivation to get things off the ground is key, but this can result in a ‘postcode lottery’ when it comes to turning community ambition into positive action.

RSN COMMENT ON MAKING NET ZERO WORK FOR COMMUNITIES

This is likely to be particularly true in rural communities – often separated from other communities by significant distances and topography.

Government funding for bodies such as the ACRE Network to provide and/or support community champions and the Plunkett Foundation to support Community Businesses would be a very positive move.

PILLAR 5: Net zero and the individual: The role of individuals in the transition, how they can be supported to make green choices, and how government can ensure that net zero works for everyone.

Ensure Net Zero works for everyone

Extract from the Report – Page 216

People have an essential role in delivering net zero. The choices individuals make about what they buy, and use will shape the transition. As we move towards 2050, we will see people adopting more sustainable modes of transport, public transport, and sharing services, and petrol- and diesel-run cars will be replaced by electric vehicles. Consumers will be able to choose more sustainable and longer-lasting products and dispose of them in more sustainable ways. Our homes will be more energy efficient and heated by low carbon technologies like heat pumps, with solar panels providing more of a household’s energy. Smart meters will help us to manage our energy use. **Almost half of the actions in the Government’s Net Zero Strategy require public action.**

RSN COMMENT ON ENSURE NET ZERO WORKS FOR EVERYONE

The sentiment is laudable i.e., **net zero that works for all** and yet so many of the solutions posed like: electric vehicle charging, public transport, and household insulation are not feasible at present in rural areas due to creaking infrastructure, lack of service availability, and core funding. See italicised comments on the table appearing on page 216 of the report below:

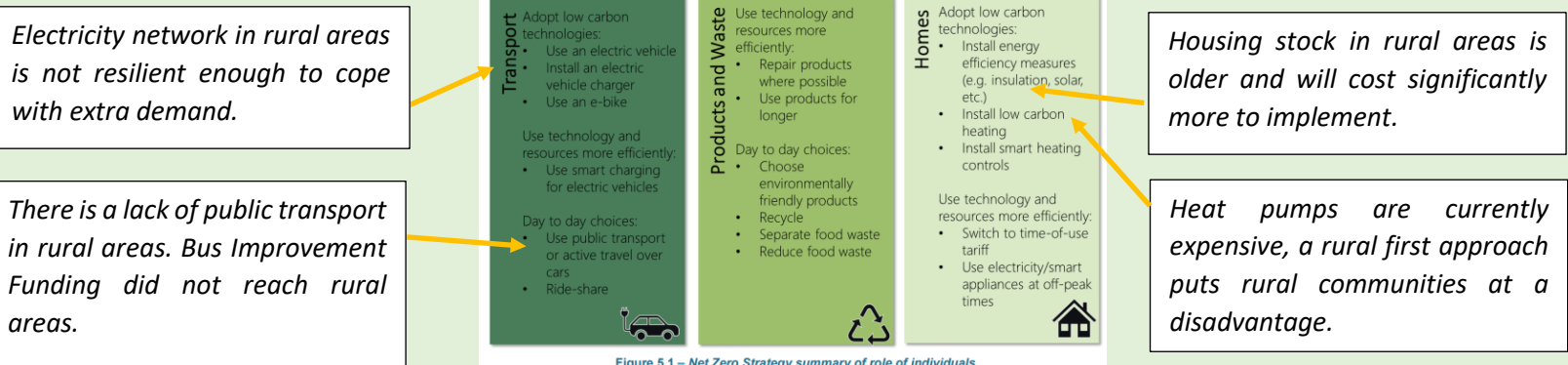


Figure 5.1 – Net Zero Strategy summary of role of Individuals

Accessibility – improving access to skills, services, and infrastructure

Extract from the Report – Page 224

Accessing green services or technologies can be harder for certain regions or groups, and action is needed to ensure that no one is left behind. For example, the Review heard that **there is a gulf between public transport services in rural areas and those in cities, making it harder for those in rural areas to switch from using cars.** Renters can find it harder to access energy efficiency measures, as they are largely dependent on landlords or councils to make decisions about retrofitting, and this can result in tenants paying higher energy bills than owner-occupied households. Although many people are concerned about climate change and want to take action, many are time-poor and face other more immediate priorities, so navigating the bureaucracy that can be associated with **accessing support can be challenging. 7% of people in England in 2020-21 did not have access to the internet at home, which can also make accessing support, services and products more difficult.**

Often these issues compound for lower income households, who are more likely to rent and less likely to have access to home computers. Making green choices easy for everyone is essential.

RSN COMMENT ON ACCESSIBILITY - IMPROVING ACCESS TO SKILLS SERVICES AND INFRASTRUCTURE

In addition to the points from the report highlighted above it is relevant to point out that:

- **Incomes earned in the rural economy are some 6% lower than in other areas.**
- **The cost-of-living is higher across rural areas.**
- **The fuel poverty gap is much higher in rural areas than elsewhere.**

Public Transport

Extract from the Report – Page 230

The Review has heard repeatedly that the expense of public transport is a deterrent to people. Public transport costs have risen faster than car travel since 2010. This particularly affects those on lower incomes, who are also less likely to own a car and so are more dependent on public transport. When coupled with fuel poverty, this creates a “double energy vulnerability.” By limiting people’s ability to travel to jobs outside their immediate area, transport poverty can exacerbate the problem. For those who can afford to own and run a car, the costs of public transport mean that there is little incentive to choose it even for journeys that could easily be done by train or bus. The coronavirus pandemic also had an unprecedented impact on how we travel, with public transport having recovered slower than car journeys. Many countries are now bringing down the costs of public transport to incentivise usage.

Extract from the Report – Page 233

The Review heard that there is a gulf between public transport services offered in some regions compared to others. As well as costs increasing, the volume of services on offer has been reduced in many areas, again affecting lower income households most.

Long-term finance is also required for initiatives to decarbonise the existing transport fleet. In response to the review, businesses highlighted the value of initiatives like the Zero Emission Bus Regional Areas (ZEBRA) schemes, which has helped businesses and local authorities to roll-out zero emission vehicles. However, there remains uncertainty about what future support will be available.

RSN COMMENT ON PUBLIC TRANSPORT

In most rural areas public transport simply is not available to enable travel to work, education/training or to meet other transport needs. In fact, in very many rural areas across England there is little or no public transport.

As a result, car ownership remains essential in rural areas (despite car ownership costs) – indeed many rural households will need to have 2 or 3 cars as household members will need to travel in different directions to work etc.

The Government's long awaited Bus Strategy for Rural Areas should be published as soon as possible.

Rural public transport authorities need much more financial support from the Government to enable improvements in bus services. Very little financial support came the way of rural councils from the recent Bus Service Improvement Plan Funding.

The Rural Services Network has previously called upon the Government to ensure that the decarbonisation agenda and air quality management take account of both the economics and the practical constraints of rural bus operation. Rural buses' particular requirements require technological advancements to make zero emissions operation an affordable and sustainable goal for such operation, with cheaper, lighter and higher capacity batteries giving better operating range, but if we are to act now we need to identify "quick wins" which are likely to need to address the top-up charging issue and will require relatively higher levels of funding support, based on the simple economics of rural bus operation. Less passengers provide less revenue requiring greater grant, but where bids are assessed in a competitive manner the value for money indicators for urban investment are likely to win every time.

An RSN Briefing Note to MPs on the decarbonisation of buses ahead of a Backbench debate in March 2023 is being prepared.

Net zero homes, energy efficiency and low carbon heating

Extract from the Report – Page 238

Decarbonising homes through energy efficiency measures and low carbon heating will deliver many benefits to individuals. In particular, it will:

Bring down energy bills

Make homes warmer in winter and cooler in summer

Add value to homes

Boost the economy

The Net Zero Strategy and the Heat and Buildings Strategy set out the government’s ambitions to significantly cut greenhouse gas emissions from the UK’s 30 million homes and workplaces in a simple, low-cost, and green way, while ensuring this remains affordable and fair for households across the country. The Interim Uplift, which came into force in June 2022, will result in a 30% reduction in greenhouse gas emissions from new homes.

Extract from the Report – Page 245

The Review has heard multiple calls for government to deliver its Heat and Buildings Strategy, but also to take a more holistic approach by packaging these measures into an ambitious National Retrofit Strategy.

Views from E.ON, Energy Efficiency Infrastructure Group (EEIG) and the Heat Pump Association are captured below:

“The supply chain remains blighted by short term certainty (1–3 year scheme lengths). Funding and scheme certainty of ten years in length are required to deliver the scale of energy efficiency measures and retrofitting required in the UK housing stock.”

..” the recent Heat and Buildings Strategy left unclarity regarding the government’s intended direction of travel for owner occupier households, which represent the majority of the building stock and the highest emissions.”

“The government presently has only an “ambition” to end new fossil fuel boiler sales by 2035. That is insufficiently certain for the major investments necessary if we are to switch from 1.8 million gas boiler installations per year to similar numbers of heat pumps.”

Mission: Energy efficiency for households. This will not only reduce energy demand and bolster our energy security, but also save consumers money on their bills. This should be driven by a set of specific actions to be taken over the next ten years.	
Issue	Action recommended
The distributional impact of current energy efficiency policies means that not every household is benefitting.	Government to choose from options that help increase heat pump efficiency: Mandating minimum efficiency for installations Heat pump coefficient of performance competition Accelerated training and installation standards
There are high upfront costs for energy efficiency measures and low carbon heating, and running costs are high especially in inefficient homes.	Government should extend the Boiler Upgrade Scheme to 2028 and consider whether grant levels should be increased in light of inflationary pressures, before being scaled down over time. This should happen alongside efforts to increase awareness of government support. Support for those unable to afford the upfront costs associated with improving energy efficiency and moving to low carbon heating systems should be continued and expanded, namely through the Home Upgrade Grant (HUG), Social Housing Decarbonisation Fund (SHDF) and other existing schemes for low-income households.
There is a significant skills supply gap for energy efficiency and low carbon heating.	Government should set the policy framework and supportive investment environment to encourage reskilling and greater training opportunities in the heatpump sector and work to encourage adoption of standards to increase firms able to take up existing schemes.
There is a lack of legislative certainty on what is the expected standard for homes.	Government should legislate for all homes sold by 2033 to also have an EPC rating of C or above in line with the aforementioned NZPC, with exclusions around certain properties (e.g., listed properties, on grounds of affordability). Government should also mandate landlords to include ‘average bill cost’ alongside the EPC (and possible future NZPC) rating, when letting a property out. This will help renters understand what costs to expect, while also helping to put a premium on energy efficient homes.
There is a lack of information and advice for consumers on how to upgrade their home.	Government should expand its energy efficiency advice service in 2023, ensuring that it helps consumers to access qualified traders and providers in local areas. Government should support establishing retrofit hubs by 2025 to bridge the gap between households and suppliers. These could enable installers to seek training and impartial advice and could connect households to suitable installers.

Extract from the Report – Page 249

The Review has heard that it can be hard for people to access the right skills and supply. Skills gaps mean it can be challenging to find a local engineer with the relevant skills, and limited supply chains mean it can be hard for people to access a heat pump or spare parts without delay. The immaturity of the supply chain means that some people have bad experiences, which can deter them and others from choosing low carbon heating. All this can not only make the process of switching to a heat pump more challenging for people, but can also increase their nervousness, due to concerns that should it break, you may not be able to get it fixed straight away. The solar mission in *Pillar 2 (of the Report)* includes a suggestion to provide a list of certified installers at a local level, which could be useful here too.

Even when technology is in place, some people are not clear on how best to use it. For example, unlike a gas boiler, a heat pump should be constantly switched on, but many people are not aware of this, meaning its usage is not always the most effective.

RSN COMMENT ON NET ZERO HOMES ENERGY EFFICIENCY AND LOW CARBON HEATING

In relation to the issues set out in “Beyond the Heat and Buildings Strategy” detailed above the Government must fully rural proof its proposals.

The RSN agrees that Government should extend the Boiler Upgrade Scheme to 2028 and increase grant levels in light of inflationary pressures, before being scaled down over time but also introduce higher grant rates for off gas grid properties where higher costs can be demonstrated.

It is essential that adequate support for those unable to afford the upfront costs associated with improving energy efficiency and moving to low carbon heating systems should be continued and expanded, namely through the Home Upgrade Grant (HUG), Social Housing Decarbonisation Fund (SHDF) and other existing schemes for low-income households.

When considering the right skills, it is essential that householders get advice on the most suitable options available to them and the full range of costs associated with each option having regard to their property. One-size does not fit all and heat pumps will not work effectively in every home.

Ending gas boiler sales and increasing minimum energy efficiency standards

Extract from the Report – Page 251 and 252

Government has an objective for as many homes as possible to reach EPC C by 2035, but this is not yet set out in legislation. Currently, almost half of low-income households in England live in homes that are EPC band D or worse, meaning they may use 27% more gas and 18% more electricity on average than EPC C rated homes. Minimum Energy Efficiency Standards require domestic private rented properties to be at least EPC E, and this is expected to increase to EPC C from 2028. As decisions about energy efficiency installations are usually made by landlords, tenants can require particular support.

People need clarity on what is expected of them, particularly where large investments are concerned. Making it clear to people that heat pumps are the future, by setting a legislative target, would prevent households from installing a gas boiler which locks them into higher greenhouse gas emissions and will result in them needing to spend more on replacing the boiler later. Gas free housing developments are also being chosen by major UK housebuilders. Barratt Homes opened an 82-house site in Somerset, where all homes have been fitted with an air source heat pump. This paves the way for future developments to follow suit in the UK and ensure that new homes are automatically built with a low carbon heating system. In Washington State in the USA, all new houses and apartments from July 2023 will require a heat pump to be fitted. This shows that these regulations can be rolled out on a larger scale at pace.

Our analysis finds that moving the date by which gas boilers are phased out to as early as possible increases the gains which households experience by 2050. It would therefore save people more money to move the gas boiler phase out date to as early as 2030 – but modelling and stakeholders warn that the UK supply chain for heat pumps could not ramp up quickly enough to deliver this. Years of policy delivery delay have caused UK households a portion of their net future benefit and this underlines the need to move faster than in current plans, and crucially, prevent any further delays.

Government should provide certainty by 2024 on the new and replacement gas boiler phaseout date – bringing the proposed date of 2035 forward and legislating for 2033.

Government should legislate for all homes sold by 2023 to also have an EPC rating of C or above.

RSN COMMENT ON ENDING GAS BOILER SALES & INCREASING MINIMUM ENERGY EFFICIENCY STANDARDS

To achieve all homes sold by 2023 to have an EPC rating of C or above will be a huge challenge in rural areas – especially given the age of the rural population and the low incomes earned in rural economies, combined with the age and current energy efficiency of much of the rural housing stock.

We feel the report, unfortunately, misses the mark when understanding the practicalities and the challenges of decarbonising rural and off-gas grid heat. In both residential and non-residential buildings

One of the central recommendations proposes that a ban on new and replacement gas boilers should be brought forward to 2033, with the installation of heat pumps prioritised. The recommendations do not consider the fact that fabric modifications, most certainly needed for older and less energy efficient housing, will increase the cost of installation for heat pumps, making them prohibitively expensive for rural home and business owners. Independent research by Liquid Gas UK indicates that in some cases the cost of retrofitting and installing a heat pump could be up to £32,000.

We have long argued that the Government should adopt a ‘fabric-first’ strategy with increased funding available in rural areas (and elsewhere) to support measures such as home insulation and other energy efficiency measures.

in pursuing a one-size-fits-all approach, we are disappointed that the Net Zero Review overlooks the role of alternative renewable fuels. They are readily available today, offering a cost-effective way for consumers to achieve up to 90% carbon emissions reductions using their existing appliances. Hard to decarbonise rural homes with limited opportunity for further insulation will need diverse and decarbonised options, including wood pellets, low carbon liquid fuels, hybrid heat pumps, and BioLPG, with strict safeguards to ensure all biomass meets rigorous sustainability standards.

The Government must ensure that a fair transition to net zero for all is adopted. 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 Government issued consultation documents seeking comments by 12th January 2022 on the subject of “Phasing out the installation of fossil fuel heating systems in (1) homes and (2) businesses and public buildings off the gas grid.

The Government has yet to issue a response to the consultation almost 12 months on. But the Rural Impact Forum was told in January 2023 that this would be published “very soon”.

A report by Rural England CIC in June 2020 titled [‘Opportunities and Challenges for Rural Consumers and Net Zero Legislation’](#) is also relevant to the issues covered by this report. That report detailed that there are a number of the different challenges and opportunities for rural areas that are likely to be pertinent and need to be included in the design of strategy and implementation proposals. They include:

- That while most rural households have access to mains gas, a good half of households in smaller settlements (villages and hamlets) lie off the mains gas grid, so must rely on other heating sources e.g., solid fuel fires, oil, electricity, LPG;
- That one in ten rural households was classified as being ‘fuel poor’ in 2017. Moreover, fuel poor households in rural areas would need twice as much additional income to escape that classification as fuel poor households in urban areas;
- That more of the housing stock found in rural areas is older in age, which makes it less energy efficient and which adds complexity of installing energy efficiency measures;
- That many rural areas face additional development constraints. Some 9% of the land area in England is a National Park, 15% an Area of Outstanding Natural Beauty and 13% is designated as Green Belt. This has implications for developing energy infrastructure.

The RSN is fully supportive of the aim to decarbonise the heating of buildings. However, the different impact of the proposals in terms of the different timescales involved for on gas grid and off gas homes and buildings seem grossly unfair to rural communities. All logic says that in terms of timescales a Strategy of “HEAT PUMP READY FIRST” rather than ‘rural first’ is the most appropriate and will achieve a bigger reduction in carbon emissions from buildings much earlier and make achieving the government’s ambition to install 600k heat pumps per year from 2028 more achievable.

The government's proposed 'Rural First' approach, with a replacement boiler ban proposed (in the Consultation the Government has yet to respond to) from 2026 in off grid homes and small non-domestic buildings and 2024 for larger off grid businesses, will mean higher replacement heating costs for rural homes and businesses compared to urban on grid homes.

In the rural context, an issue which is extremely important to the Heat and Buildings Strategy but also many other aspects of policies to achieve net zero is the fragility of the present electricity network. This is something which will need at least the next 5-year investment cycle of the NDOs to correct and will impact on the inability in rural areas to meet the Report's recommendations for replacement of fossil fuel boilers. Increased electricity demand for heating and electric vehicle charging etc., will put huge impacts on the electricity networks serving rural areas. The loss of electricity supply is a regular feature already in many rural areas and adverse weather conditions make that impact worse. We have already been told of a small rural affordable housing scheme with heat pumps being rendered financially inviable due to the costs of upgrading the local electricity network.

Government funding should be made available to both Village Halls (and similar community buildings) and Community Businesses to support their transition to non-fossil fuels.

Pillar 6: The future of net zero: Seizing the global opportunities from new technology and R&D innovation now and out to 2050. It also looks at the UK's carbon pricing regime and how the UK can maintain its international leadership on climate.

RSN COMMENT ON PILLAR 6

There are no particular points in Pillar 6 we wish to comment on from a rural perspective. That said we would repeat our over-arching comment on Pillar 1 – that the rural context must be fully reflected in all of the policy considerations and that decisions – including in respect of implementation – must be fully rural proofed.