



National Infrastructure Strategy Fairer Faster Greener Growth



At a glance



Rural Services Network's thoughts on a **National Infrastructure Strategy**:

- It is estimated that it will not be until circa 2028/29 that many rural areas will be able to access gigabit broadband capability.
- Issues about affordability of connection and the hard/software and skills training and support are also key elements of future provision in rural areas.
- Local delivery of actions – tailored to meet local circumstances and priorities. Local Industrial Strategies and the Levelling up Fund must all be based on 'place' with fair allocations of attention and resources given to rural areas.
- Towns serving rural areas must be included in the proposals to boost the UK's cities and towns. Towns serving rural areas must get equitable access to these proposals
- The Towns Fund eligibility criteria must include Towns – of all population sizes -serving rural areas. They are all employment and service hubs for the town and the surrounding rural hinterland.

THE NATIONAL INFRASTRUCTURE STRATEGY 2020 THROUGH A RURAL LENS

INTRODUCTION

Throughout the documents besides phrases like ‘urban and rural’ you are left wondering **how much of the funding/opportunities will really come into rural areas and benefit rural communities?** Will rural proofing **before** the setting of policy details and budget allocations actually take place?

At the RSN we will be closely monitoring these issues and making representations where necessary – this in line with our Revitalising Rural – Realising the Vision ambitions.

For now, we set out what we think, on first examination, are the key take outs from the National Infrastructure Strategy and some brief RSN comments. Generally, we will not repeat here issues etc we have already referred to in our review of the Spending Review 2020 but will do so where appropriate to the significance of the issues concerned. We only review specific proposals rather than the (often repeated throughout the document) generalised statements etc. We therefore do not include here either the Executive Summary or the Introduction.

The immediate ‘biggie’ is that **the statement “£5bn to support UK-wide gigabit broadband rollout” is potentially grossly misleading. See RSN comments in the table below.**

Key areas in the National Infrastructure Strategy (NIS) and Rural Services Network Comments

NIS Statement (using government's headings where possible)		RSN INITIAL COMMENTS
<p>LEVELLING UP THE WHOLE OF THE UK</p>	<ul style="list-style-type: none"> • £5 billion to support UK-wide gigabit broadband rollout • A Shared Rural Network extending 4G mobile coverage to 95% of the UK, and £250 million to ensure resilient and secure 5G networks; • £5 billion over this parliament to transform bus services and cycling infrastructure; • A new £4 billion cross-departmental Levelling Up Fund that will invest in local infrastructure in England (which will attract funding for Scotland, Wales and Northern Ireland in the usual way); and • £5.2 billion by 2027 to better protect communities from flooding and coastal erosion. 	<p>The statement £5bn to support UK-wide gigabit broadband rollout is grossly misleading.</p> <p>Based on the level of funding allocated in the SR it is estimated that it will not be until circa 2028/29 that rural areas will be able to access this level of service.</p> <p>Also, the Government have moved from promising 'full fibre in every home by 2025' to "government is working with the industry to target a minimum of 85% gigabit capable coverage by 2025". Inevitably rural areas will form the bulk of the missing 15%. The 85% includes commercially viable areas.</p> <p>The 'Outside In' approach must be applied. DCMS says that the allocation of just £1.2bn is to 'reflect the capacity of the industry'. The RSN is working with other rural interest groups to get the original £5bn budget allocation and timescale into the Spending Review 2021.</p> <p>A clear unambiguous statement from government and the industry is urgently needed.</p> <p>Issues about affordability of connection and the hardware/software and skills training and support are also key elements of future provision in rural areas.</p>

NIS Statement (using government's headings where possible)		RSN INITIAL COMMENTS
<p>LEVELLING UP THE WHOLE OF THE UK Continued.</p>	<p><u>Leaving no community or business behind</u></p> <p>The government is determined to level up the opportunities available everywhere, boosting jobs, wages and prospects for all communities. The economic opportunities available to many people depend on where they were born, grew up and still live – around 40% of the UK population live within the local area where they were born. These economic opportunities are therefore dictated in practice by the nature of their local economy. This is why the government is also taking action to deliver local roads, buses, cycling, better digital connectivity and flood defences across the country.</p> <p>Where policy is reserved - for example digital infrastructure - the UK government is focused on improving connectivity for the whole of the UK.</p> <p>Rural communities in particular rely on strong infrastructure networks to support their local economies, and these must be well-thought through and maintained. The government's long-term ambition is for people and businesses in rural areas to be able to easily access and unlock opportunity, as in other parts of the UK by improving connectivity.</p>	<p>The RSN has long argued that economic opportunities are dictated in practice by the nature of their local economy – we therefore support this statement.</p> <p>However, these fine sounding statements need to be converted to on the ground real life experience in reasonable timescales.</p> <p>Local delivery of actions – tailored to meet local circumstances and priorities is vital. Local Industrial Strategies and the Levelling up Fund must all be based on 'place' with fair allocations of attention and resources given to rural areas.</p>

NIS Statement (using government's headings where possible)		RSN INITIAL COMMENTS
<p>LEVELLING UP THE WHOLE OF THE UK Continued.</p>	<p><u>Digital Connectivity</u></p> <p>The UK is a nation that thrives on digital connectivity, with some of the highest rates of digital adoption in the world. The UK has the fifth largest number of broadband and mobile subscriptions in the OECD, and more people in the UK shop online than in any EU member state.¹⁶ The government wants to deliver high quality, reliable digital infrastructure that works across the UK, so that mobile calls do not drop, video calls don't freeze, and people working from home can do their jobs and run their businesses with ease.</p> <p>Fast, reliable digital connectivity can deliver economic, social and well-being benefits for the whole of the UK. Never has this been more important than as the country deals with the impact of COVID-19, when digital infrastructure has enabled home working, home learning, and kept families in touch with each other in extraordinary circumstances.</p> <p>Digital infrastructure is particularly important for the UK's rural communities in all four nations. Greater connectivity can help rural businesses innovate, grow, and create jobs. In doing so, it can help rural areas attract and retain young people and families, supporting thriving rural societies.</p>	<p>SEE EARLIER COMMENTS</p> <p>Key facts about broadband and mobile coverage in rural areas</p> <ul style="list-style-type: none"> • In rural areas residential coverage for superfast broadband (at least 30 Mbit/s) remains lower than urban, with 81% of homes having access to high-speed services (97% in urban) • 8% of premises (homes and businesses) are unable to get 10Mbit/s download & 1Mbit/s upload speed for rural areas (1% in urban) • Average download speed in rural areas is 46Mbit/s (64Mbit/s in urban) • England's relatively good 4G network coverage figures (81% of landmass covered by all operators, 3% no coverage from any operator) can hide rural and urban variation. 97% of urban areas have 4G outdoor access to all four operators in contrast to 78% of rural areas. 3% of rural areas have no access to 4G operators (0% in urban) • Indoor 4G signal coverage is significantly poorer in rural areas. In urban areas 4G services are available from all operators in 87% of premises while in rural areas 4G services are available from all operators in only 42% of premises. • 68% of rural homes and businesses have indoor voice coverage from all operators. (97% for urban homes and businesses) • In 2019 there were 27,000 premises in England that did not have decent fixed broadband or indoor 4G mobile coverage

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<p>LEVELLING UP THE WHOLE OF THE UK Continued.</p>	<p><u>Gigabit-capable broadband coverage in the UK</u></p> <p>Gigabit-capable broadband, such as full fibre, can provide speeds of over 1,000Mbps, over forty times faster than standard superfast broadband and fast enough to download an HD film in seconds. These speeds provide new opportunities across the UK for consumers and businesses alike, and enable 5G technology.</p> <p>The government's programme for gigabit-capable broadband has made dramatic progress. More than a third of UK premises now have access to gigabit-capable connections, up from 9% when the government took office in July 2019. By next year, more than half of all premises will have access. During the COVID-19 pandemic, operators have rightly focused on network resilience at a time of unprecedented need for good connectivity. The government has also announced restrictions on the use of Huawei equipment. The government is working with industry to target a minimum of 85% gigabit capable coverage by 2025, but will seek to accelerate roll-out further to get as close to 100% as possible</p> <p>The government will continue to implement an ambitious programme of work to remove barriers to broadband deployment and maximise coverage in the hardest to reach areas of the country.</p>	<p>But not until 2028/29 in rural areas it seems. The RSN finds this totally unreasonable and unacceptable. 'Outside In' appears to be 'Outside and Staying There' as far as rural areas are concerned.</p>

<p style="text-align: center;">NIS Statement (using government's headings where possible)</p>	<p style="text-align: center;">RSN INITIAL COMMENTS</p>
<p>LEVELLING UP THE WHOLE OF THE UK Continued.</p> <p><u>The strategy for UK-wide gigabit-capable broadband</u></p> <p>The government expects the private sector to deliver gigabit-capable broadband to around 80% of premises in the UK.</p> <p>The government will continue to support this through removing barriers to deployment, making it quicker and easier for operators to roll-out. However, around 20% of premises in the UK are expected to be uncommercial: the costs of connecting these premises outweigh the returns a company could make. These premises occur in varying concentrations throughout the UK.</p> <p>The government's £5 billion UK Gigabit Programme will subsidise roll-out to ensure no area will be left behind. It will particularly benefit rural areas which tend to have a higher proportion of uncommercial premises.</p> <p>Mobile connectivity is also crucial to allowing people to stay connected on the move. That is why the government is investing £500 million, matched by industry, to deliver high-quality 4G mobile coverage from at least one operator across 95% of the UK by 2025, through the Shared Rural Network. Through this ground-breaking partnership between government and industry, each operator has individually committed to reach 90% of the UK's landmass by 2026, and collectively the Shared Rural Network will provide additional coverage to 280,000 premises and 16,000 kilometres of roads by 2026. This will have major benefits in rural areas, and for Scotland, Wales and Northern Ireland nations in particular.</p> <p>The Shared Rural Network will not only improve coverage, but also increase consumer choice. Currently, only 67% of the UK has good quality coverage from all four operators, and that will improve to 84% by the end of the programme.¹⁹ This will mean far fewer people in rural areas will find themselves locked-in to the only mobile network with good coverage of their area.</p>	<p>SEE EARLIER COMMENTS</p> <p>This long- term vision will be undermined by the short - term decision on the funding of broadband rollout. Businesses in rural areas can have no confidence in Government 'promises' and will not make the necessary investment decisions until there is certainty in when their area will be served by gigabit-capable broadband.</p> <p>RSN agrees mobile connectivity is crucial</p> <p>Fibre infrastructure is important for mobile networks because the masts that transmit mobile signals must be connected to a core internet network.</p>

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<p>LEVELLING UP THE WHOLE OF THE UK Continued.</p>	<p><u>Flooding</u> Expanding economic opportunity means little for a place – and the people who live and work there – if the infrastructure supporting it is not resilient to potential hazards. Many rural communities and economies across the UK have experienced the devastating impacts of flooding, which can cause significant damage to homes and businesses lasting much longer than the floods themselves. The government is committed to harnessing the opportunities of rural landscapes to increase the resilience of rural communities to flooding. The government will do this by maximising good land management and implementing nature-based solutions through the next £5.2 billion flood and coastal defence programme starting in 2021, a doubling of the current programme.</p> <p><u>Boosting the UK's Cities and Towns</u></p> <p>Spending Review 2020 also confirms that, in addition to the Brownfield Housing Fund announced at March Budget 2020 for Mayoral Combined Authorities to unlock up to 26,000 high quality homes, the government will provide an additional £100 million in 21/22 to support housing delivery and regeneration, including unlocking brownfield sites, regenerating estates and releasing serviced plots on public sector land.</p> <p>These plans form part of the £7.1 billion National Home Building Fund which will help deliver up to 860,000 homes across the country, in large part through investment in infrastructure to unlock housing – including roads, community facilities and utilities. This will ensure that more homes mean better, not more stretched, local infrastructure and community facilities.</p>	<p>This is very welcome. Rural Communities should be given an approximate date for flood alleviation works affecting their area and be kept fully and regularly informed as to progress and any changes.</p> <p>Towns serving rural areas must be included in these proposals</p> <p>Towns serving rural areas must get equitable access to these proposals</p>

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<p>LEVELLING UP THE WHOLE OF THE UK Continued.</p>	<p><u>Regenerating towns and communities</u></p> <p>While some towns have prospered, either in their own right or through their links to growing cities, many struggling towns do not always have the fundamental building blocks for a strong local economy in place. Some towns face specific disadvantages that reduce growth and productivity. This can be a mix of economic deprivation, characterised by high concentrations of low-skilled workers, social deprivation, poor employment and low health outcomes. This can be exacerbated by poor transport and digital connectivity. Places that face these challenges need targeted support to help boost their local economies, support local leadership and maximise their potential.</p> <p>The government will, therefore, invest in infrastructure to support economic regeneration and create new employment opportunities in the towns across the UK which are most in need, to make them excellent places to live and work.</p> <p>Through the Towns Fund, the government is galvanising the local economies of over 100 struggling towns across England to support their long-term economic and social regeneration as well as their immediate recovery from the impacts of COVID-19. The first seven Town Deals were agreed in October 2020. Further successful towns will be announced over the coming months.</p>	<p>This description applies to many towns – of all population sizes -serving rural areas</p> <p>Digital connectivity is mentioned in the paragraph above. Our earlier comments on the Spending Review 2020 announcements therefore apply here too.</p> <p>The Towns Fund eligibility criteria must include Towns – of all population sizes - serving rural areas. They are all employment and service hubs for the town and the surrounding rural hinterland.</p>

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<p>DECARBONISING THE ECONOMY AND ADAPTING TO CLIMATE CHANGE</p> <p><u>Hydrogen</u> In order to realise the potential of hydrogen the government is establishing a £240 million Net Zero Hydrogen Fund. This will provide capital funding to support deployment of low-carbon hydrogen production in the UK, and will support both methane reformation with CCS ('blue' hydrogen), and electrolysis using renewable electricity ('green' hydrogen). Working alongside partners in industry, the government's aim is for the UK to develop 5GW of low carbon hydrogen production capacity by 2030, with a mixture of 'blue' and 'green' hydrogen.</p> <p>Next year, the government will set out its approach to growing the hydrogen economy, through a UK Hydrogen Strategy</p>	<p>The view expressed here is based on some expert advice.</p> <p>A mixed technology approach is required for rural homes and business to move to net zero, particularly for hard – to - treat homes. Biomass can have a role in transition and back-up capacity but if this slows the transition to zero emissions this will be counter - productive, and air quality impacts must be considered. Bio-fuels have a role in heating older properties. Hydrogen may become the solution – but delaying deployment of known technologies now will result in goals being missed.</p> <p>Different technologies such as hydrogen may offer alternatives in the future – but they remain distant and cannot yet deliver against the required pace of change. Relatively low energy density of hydrogen may limit its application in off gas grid areas.</p> <p>At present there is general UK support for exploring the role hydrogen could play, but large- scale deployment of hydrogen will need significant time, especially since there is limited national and international experience of its use as a heat source There is also limited application for homes not connected to the gas grid.</p> <p>In each of the three areas of power generation, heat and transport suitable solutions exist to hit the 2050 goal and their implementation is proven. It is clear that “Waiting for hydrogen is not the answer” if the required shift is to be made by 2050. The barriers to any potential ultra - long-term aim of hydrogen powered transport must first address challenges in terms of zero carbon hydrogen production at scale, vehicle technology and hydrogen handling and refueling.</p> <p>Eventually, existing infrastructure across rural areas can be converted to new fuels such as hydrogen and biofuels should the market continue along those paths but this is a longer - term scenario with many uncertainties remaining at present. Clean hydrogen could be economically produced via land-based wind farms to fuel the HGV and farm fleets.</p>

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<p>DECARBONISING THE ECONOMY AND ADAPTING TO CLIMATE CHANGE Continued.</p>	<p><u>Transport</u></p> <p>The EV charging ecosystem will be one of the UK's green industries of the future, and the government wants to maximise private sector investment in the delivery of charging infrastructure. However, recognising that it is a new market and that availability of charging infrastructure is a barrier for two thirds of drivers considering the switch to EVs, the government will kickstart the delivery of a core rapid charging network across motorway and key A road service stations. By 2023 the government expects to see a high-powered charging hub at every motorway service area, installed by the private sector.</p>	<p>The Government should specifically address the issues, and costs, of installing EV charging points across rural areas.</p> <p>Key facts about travel work distances in rural areas</p> <ul style="list-style-type: none"> • Transport costs as a percentage of total weekly household expenditure, year ending March 2018, was 18.6% in rural areas, 15.6% in urban • Distance travelled per person per year for commuting in 2018/19 was 1,466 miles for those from Rural Village, Hamlet and Isolated Dwelling and 1,160 miles for those from areas classed as Urban Conurbation • The average minimum travel time to reach the nearest centre of employment with 5,000+ jobs by public transport/walking was 56 minutes for rural areas, 27 minutes for urban (2017) • Percentage of service users within 45 minutes access by public transport or walking to centres of employment with 5000+ jobs was 46% for rural areas, 90% for urban • Number of centres of employment with 5000+ jobs within 45 minutes access by public transport or walking for rural areas was 1, for urban was 5 (2017)

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<p>DECARBONISING THE ECONOMY AND ADAPTING TO CLIMATE CHANGE Continued.</p>	<p><u>Buildings</u></p> <p>Support for households and small businesses to invest in heat pumps through a Clean Heat Grant scheme, backed by £100 million of funding.</p>	<p>It is surprising to see only heat pumps mentioned here.</p> <p>A real challenge exists in retrofitting the UK's existing housing stock, which is some of the worst in Europe in terms of heat loss and energy efficiency. The government has indicated that it will move first with decarbonising off-gas grid heating where a large number of old, hard-to-decarbonise buildings are situated.</p> <p><i>Alternatives</i></p> <p>A combination of three technology pathways can address the UK's heat challenge:</p> <ol style="list-style-type: none"> 1. Continuing with domestic / commercial boilers and decarbonising the fuel (using biogas, BioLPG, or hydrogen). 2. Centralising heat (using a heat network) 3. Electrifying heat – and using energy efficient heat pump technology <p>Heat pumps may provide the opportunities for up to 50 per cent of rural households. However, 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. Heat networks may play a role in rural towns and villages, potentially using bioLPG in off gas grid areas, but will be limited for remote rural properties.</p>

<p>CONCLUSIONS AND NEXT STEPS</p>	<p>The ambitions set out here will be further strengthened by the next Spending Review in 2021. This Strategy will also be enhanced by a series of related publications over the next 12 months, setting out further details on key areas of infrastructure policy, including:</p> <p><u>In the next three months:</u></p> <ul style="list-style-type: none"> • The <i>Union Connectivity Review</i> • The <i>Construction Playbook</i> • The <i>Integrated Rail Plan</i> • The Energy White Paper • <u>In the next six months:</u> • The Net Zero Review final report • The <i>National Infrastructure and Construction Pipeline</i> • <i>Transforming Infrastructure Performance 2021</i> • A transport decarbonisation plan • <u>In the next twelve months:</u> • The English Devolution and Local Recovery White Paper • An electric vehicle charging infrastructure strategy • A heat and buildings strategy • A hydrogen strategy 	<p>The RSN will need to review the details of many of these publications (especially those shaded in yellow) when they come out to see if there are any specific rural issues (good or bad) arising.</p>
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Further information about the Rural Services Network campaign Revitalising Rural: Realising the Vision can be found at: www.rsnonline.org.uk/revitalising-rural

This campaign sets out 16 policy areas where the RSN poses a number of Asks for Government to deliver to revitalise rural communities.