Rural Net Zero

The role of Rural Local Authorities in reaching Net Zero

Researched and produced by Quantum Strategy & Technology Ltd for UK100's Countryside Climate Network, May 2021

Executive Summary

Rural Local Authorities are critical to delivering UK Net Zero.

For the UK to deliver Net Zero, rural areas need to provide a greater contribution than urban areas, specifically in:
- Land for onshore renewable energy
- Land for carbon sequestration – providing capacity for carbon offset for the most difficult to decarbonise sectors such as aviation and heavy industry
- Reducing emissions from agriculture.

Yet rural areas face greater challenges in delivering Net Zero:
- Rural transport: limited options for active travel and public transport, with social justice implications of relying on rural citizens switching to electric vehicles (EVs) for their mobility
- Digital connectivity: rural areas suffer from poor connectivity limiting the potential for increased business and agricultural efficiency, digital service provision and digitised transport
- Grid capacity: investment is focused on areas of high demand not high potential supply, limiting the rural capacity to deliver new renewable generation and electrify heating and transport
- Housing retrofit: population sparsity reduces opportunities for at-scale retrofit and district heating; standard retrofit solutions do not fit with the widely-varying types of non-standard rural homes
- Industry: emissions from industry in rural areas are double that of urban areas and include the highest-emitting industries such as cement, minerals and mining
- Rural services: are typically reliant on travel over large distances.

These challenges combine with more general issues facing rural Local Authorities:
- Lower funding from National Government
- Higher costs of service delivery in sparsely populated areas
- An older population and lack of incentives for younger people to remain
- Voices are more disparate than city regions and not as well heard in Government.

Policy tends to focus on urban areas because of concentrations of population and economic activity and thus a perception of greater political impact.

Nonetheless, several rural Local Authorities are leading the way with their ambitious climate action plans. This report draws on their experience and showcases some of their initiatives and projects.

Rural and urban areas face different challenges in tackling climate change. The one-size-fits-all approach of national policy cannot effectively address the challenges of rural building efficiency, transport and connectivity and industry, or even the specifically rural issues of agriculture and land use. Flexibility to deliver specific local solutions is vital, and a recognition in policy that these solutions will be different in different rural areas is needed.

Key priorities for National Government action are:
- Government policy must be delivered in a way that is workable at different scales across the urban-rural spectrum to ensure that no area is disadvantaged. It should be rural proof and urban proof
- Economic appraisal of rural infrastructure projects should counter the inherent disadvantage of sparser populations
- Grid capacity improvements should prioritise potential distributed generation capacity areas, particularly in highly-constrained rural areas, alongside the improvements required to meet higher demands
- Solutions to rural transport and connectivity needs should be prioritised and funded
- Locally-specific solutions for housing retrofit need to be recognised in national support – which should be vastly increased in size and scale and delivered locally
- Ensure rural Local Authorities are involved as key partners in developing and supporting practical climate solutions in agriculture and land use, that contribute to a wider range of co-benefits including public health, access, housing, biodiversity and adaptation.

Rural Local Authorities are a key element of delivering Net Zero for the UK and their potential should be supported and enhanced by national policy.

Contents

1. Why look at [Net Zero](#) from a rural point of view?

UK100's Countryside Climate Network (CCN) is made up of ambitious local leaders from predominantly rural councils. The Network's 27 members are working to achieve Net Zero and improve the resilience of their communities. Collectively they represent more than 40% of England's land area. See Appendix A for a list of CCN members.

Rural Local Authorities face different challenges in delivering Net Zero than their urban counterparts. In some areas, such as housing retrofit and decarbonising industry, both rural and urban areas face significant challenges that are as yet unresolved by national policy. In transport and service delivery, as well as for some housing issues, the challenges of population sparsity and a lack of economies of scale, mean rural local areas will need to deliver different solutions to urban areas. In areas such as land use and renewable energy, rural areas will bear the brunt of the requirements to deliver the national contribution to climate change targets.

This report investigates the particular challenges that rural Local Authorities face, and proposes some priority areas for action, both for the authorities themselves, and for National Government.

The research has been informed by an analysis of the climate emergency strategies or action plans developed by members of the CCN and Britain's Leading Edge (BLE) authorities, as well as interviews with 17 rural Local Authorities and supporting organisations and feedback from CCN members.

1.1 [Rural Local Authorities](#)

The Government uses a Rural-Urban Local Authority Classification[1] to distinguish rural and urban areas. This categorises district and unitary authorities on a six-point scale from urban to rural. The rural classifications are

- **6 (Rural 80):** more than 80% of people live in rural areas.
- **5 (Rural 50):** 50% - 80% of people live in rural areas
- **4 (Significant Rural):** 26% - 50% of people live in rural areas

England: Rural-Urban Classification for Local Authority Districts (LADs), 2011
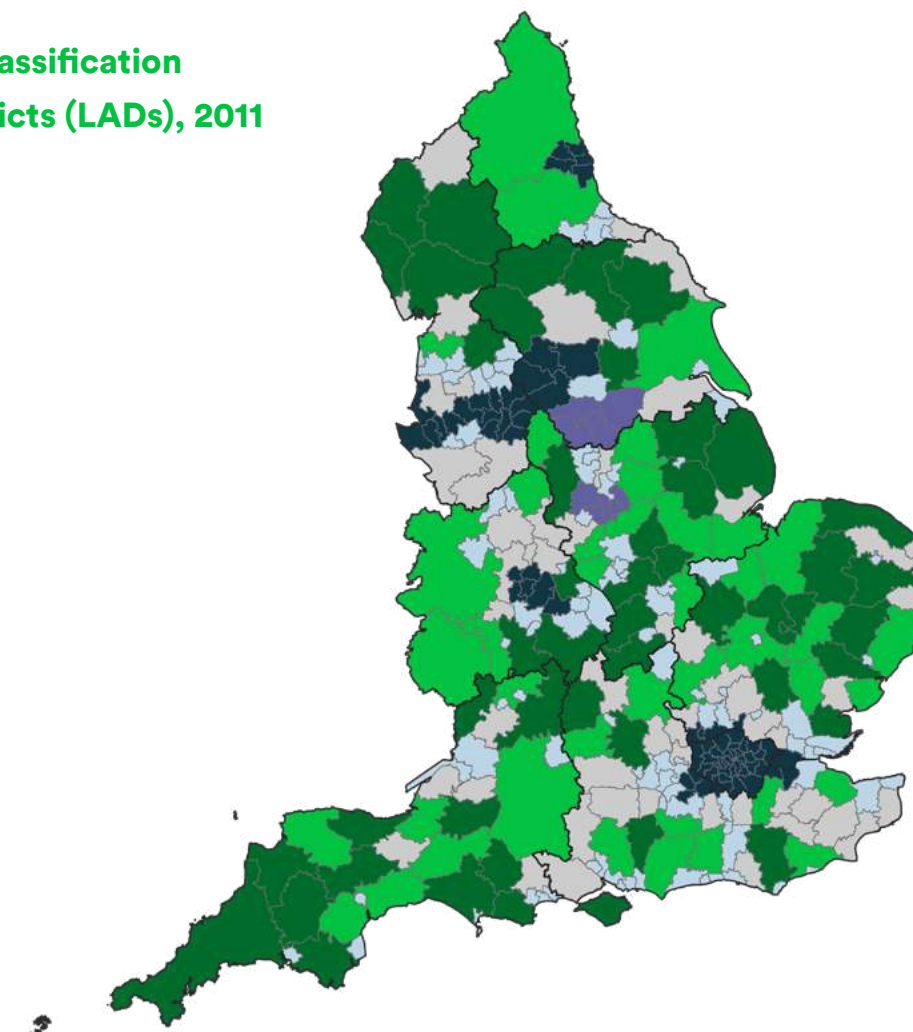
Rural-Urban Classification

■ Mainly rural	■ Urban with significant rural	■ Urban with minor conurbation
■ Largely rural	■ Urban with city and town	■ Urban with major conurbation

Map Source: Office for National Statistics licensed under the Open Government Licence v.3.0.

1 - https://www.gov.uk/government/statistics/local-authority-rural-urban-classification

A rural area is defined as having settlements of less than 10,000 people or Hub Towns, with populations between 10,000 and 30,000, which provide services and businesses for a wider rural hinterland.

For this report we are focussing on rural Local Authorities (mainly those in categories 5 and 6). We are also including county councils which are members of the CCN.

Rural Local Authorities, especially those 100+ authorities in category 4 and 5, must consider the needs of both the rural dwellers and the town or city dwellers within their areas. Although only 9.3 million people (17.6% of the population) live in areas defined as rural, the Local Authorities classed as the most rural cover a population of over 13 million.

1.2 Rural Carbon Emissions

Rural Local Authorities have a significantly higher climate impact per person than urban areas, in all categories: housing, transport and industry. In the latter two categories carbon dioxide (CO_2) emissions per person are more than double that of urban areas.

Per Capita CO_2 Emissions of the Most Rural and Urban Areas

Most Rural Areas - Class 5/6   Most Urban Areas - Class 1/2
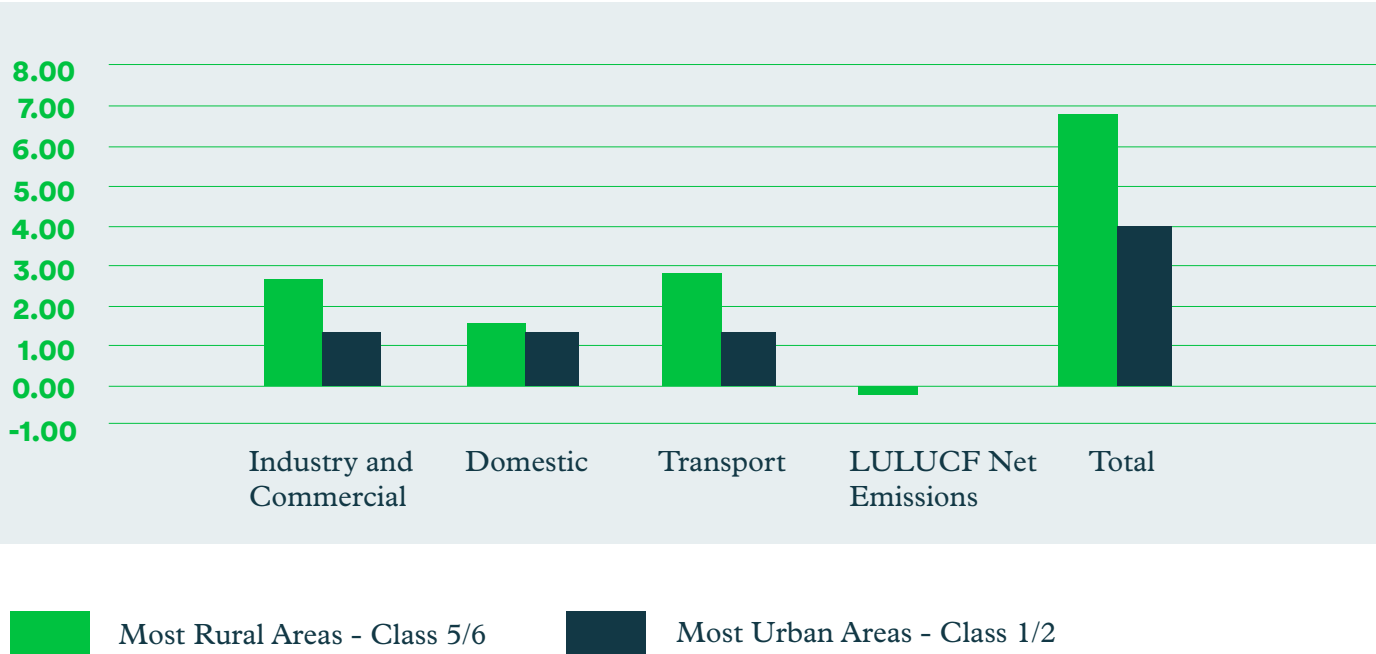
Source: UK Local and Regional CO_2 Emissions 2018. Data for each Local Authority was classified by Rural/Urban category 1-6 and the most rural areas (classes 5 and 6) compared with the most urban areas (classes 1 and 2). CO_2 data in the remainder of this report is based on this analysis.[2]

2 - https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2018

Urban areas have seen greater emissions reductions than rural areas as a result of national policy and Local Authority level initiatives. This is partly because urban areas benefit from:

- Greater opportunities for people to take up active travel due to shorter distances to reach services and employment
- Better public transport provision made possible by denser concentrations of people, which improves the business case for bus, rapid transit and train operators
- A higher proportion of more energy efficient homes, especially flats and terraces. And a greater proportion of the new homes that have been built to higher energy standards
- Fewer high-emitting industries e.g. cement, papermaking, minerals and mining, energy production.

1.3 Rural Funding

Local Authorities in rural areas receive lower government funding per person than urban Local Authorities. The Rural Services Network reports that;[3]

- "Urban areas in 21/22 will still receive some 61% (£107) per head in Settlement Funding Assessment grant more than their rural counterparts
- Rural residents will pay, on average, 19% (£96) per head more in Council Tax than their urban counterparts due to receiving less government grant
- Rural residents will fund 69% of their Local Government Spending Power through Council Tax compared with urban residents who fund theirs by 57%".

Alongside this, rural Local Authority services cost more to deliver per head, due to the sparsity of the population.

- Health and Social Care: as well as the physical difficulties faced by the public sector in providing and enabling access to services in sparse communities, people in rural areas are older and have greater mental and physical health issues related to isolation and loneliness than their urban counterparts
- Transport: rural residents travel 44% further per year than urban residents, yet the Local Authority spending on subsidised bus services per resident in rural areas in 2019/20 was only 19% of that in urban areas[4]
- Policing: travel distances in rural areas add significantly to the cost of policing, which compounds the problems caused by lower funding (the most rural police forces received 37% less per head of population than the most urban forces).

3 - https://www.rsnonline.org.uk/fairer-funding-campaign
4 - https://rsnonline.org.uk/images/revitalising-rural/rural-transport.pdf

To exacerbate these issues, where services are delivered through market mechanisms, rural areas also lose out; population sparsity again makes the most rural areas unviable for these services:

- Mobile and broadband coverage in rural homes
- Cornwall Council reported that it cannot find suppliers willing to install ECO measures in sparse areas.
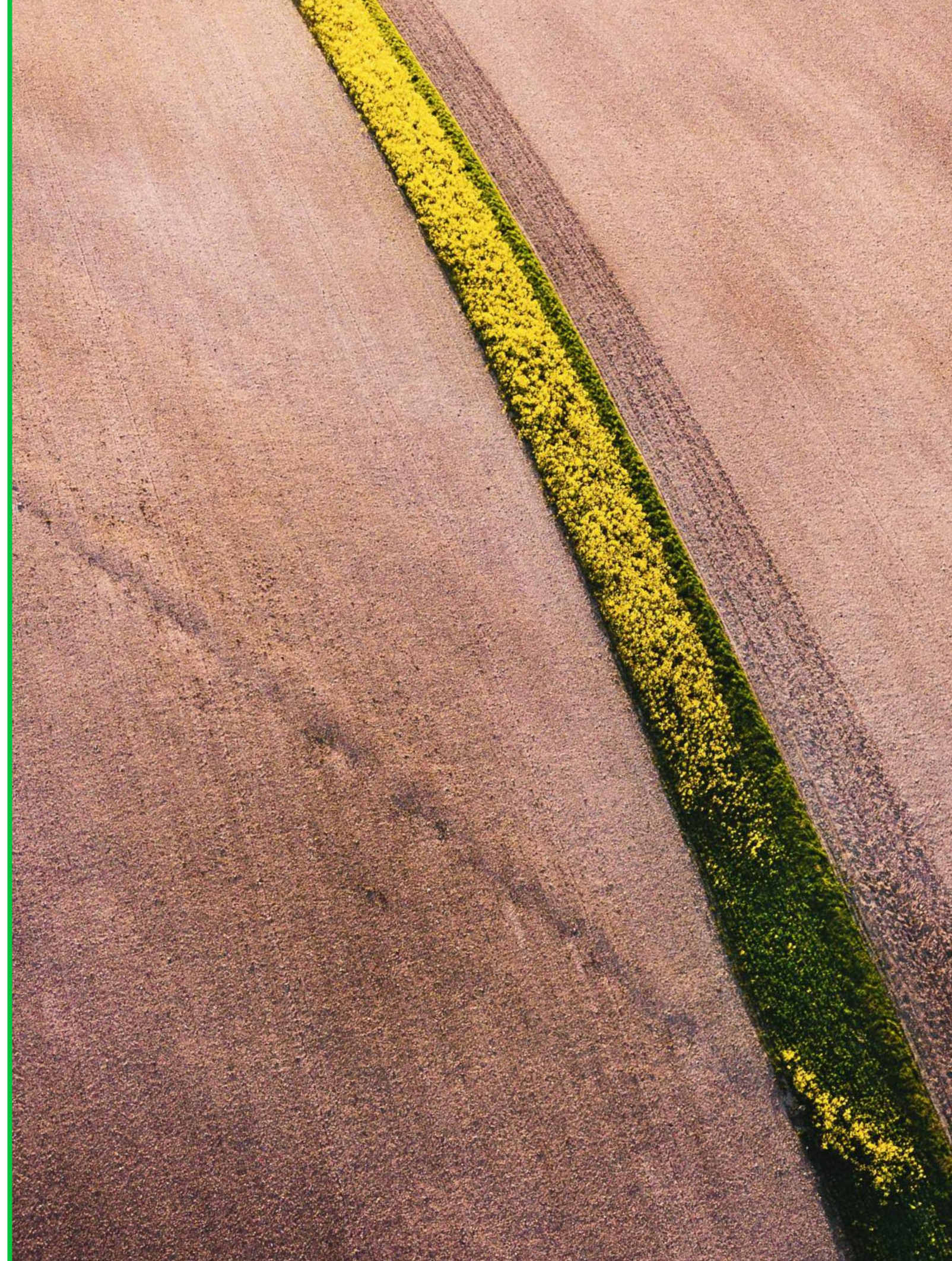
1.4 Rural Policy Focus

As well as facing lower funding for investment and delivery of services, rural areas have to deal with a lack of policy focus, which tends to be concentrated on cities and urban areas. For climate change issues, examples of this include:

- A two-year gap between publishing the Future of Mobility: Urban Strategy and starting to consult on its rural counterpart
- Failure to prioritise support for UK-wide gigabit broadband and 4G mobile coverage to the least well-served rural areas – 15% of areas will still not have coverage by 2025
- Rural district heating projects must compete directly on the same economic assessment terms as urban schemes for Heat Network Investment Project funding, where the greater housing density in urban areas automatically confers an economic advantage.

5 - http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/rural-economy-committee/rural-economy/written/95225.html
6 - The House of Lords Rural Economy Committee report 2019 "Time for a Strategy for the Rural Economy". https://lordslibrary.parliament.uk/research-briefings/lln-2019-0110/

2. What is the Net Zero vision for rural areas?

In many ways, Net Zero rural areas will not look very different from today: there will be more areas of land given over to woodland, nature and renewable energy. But people who live in rural areas will see a noticeable improvement in their lives. They will be less reliant on cars, have warmer homes that are cheaper to heat, and have access to jobs and services locally or easily on-line. Delivering Net Zero will level up rural areas and provide co-benefits in jobs, opportunities for enterprise, health, leisure and recreation, nature recovery and biodiversity, food and climate resilience.

The benefits of delivering Rural Net Zero for different sectors are shown below.

Transport and connectivity

- Reduced need to travel enabled by full coverage of high-speed broadband and mobile phone networks

- High quality, safe, dedicated active travel corridors, predominantly providing access to local towns or service centres e.g. schools, shops

- Demand responsive / digitised rural transport services and increased use of transport sharing services enabled by high quality apps (car clubs, deliveries), supported by full digital network coverage

- High levels of use of electric vehicles including e-bikes, supported by a network of accessible rural and town centre charging points

- Flexible mobile / digital provision of a range of local council, health and other services, reducing the need to travel.

Buildings

- Energy demand reduced through fabric improvements designed to meet the specific needs of local building characteristics

- A range of zero carbon heating suitable for different building types, especially older buildings; including small scale heat networks and local micro-grids

- New buildings net zero by design and construction: fitting in with, but not identical to, the local character buildings

- Maximised potential for locally-generated renewable energy to supply individual or groups of buildings.
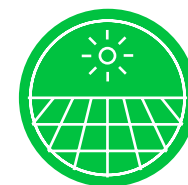
Industry and Jobs

- Efficient industrial enterprises transitioned to low carbon energy and circular economy

- Smaller scale enterprises serving national and international markets

- Increased number of local services and local businesses in rural areas, supported by better connectivity

- Opportunities for the self-employed and employees to work effectively from home

- Highly skilled farming roles within a highly efficient agriculture sector

- Local food production and distribution

- Sustainable tourism and leisure

- Jobs in nature conservation, woodland, peatland, wetland management.

Renewable Energy

- High contribution to the national onshore renewable electricity provision: wind, solar, hydro

- Local affordable renewable heat solutions suitable for rural buildings, bespoke to the area and making use of local resources

- Production of the majority of UK's bio-energy, both for local scale and large scale energy

- Supported by a robust electricity grid.

Land Use

- Land based carbon sequestration, providing offset capacity for more urban areas and sectors such as aviation and heavy industry: increased tree and hedgerow planting, peatland and wetland restoration, soil management

- Increased access to nature while respecting land uses for recovery and agriculture

- Use of land for renewable energy generation: bioenergy with CCS, wind, solar

- Land use delivering combined benefits of adaptation and mitigation

- Use of land for construction timber to replace high emissions materials such as concrete

- All underpinned by high quality data on the environmental impacts of different land uses to support land use planning.

Agriculture

- Increased farm productivity: reduced use of fertilisers and pesticides, precision farming of crops to reduce soil disturbance, use of cover crops, efficient buildings, equipment and transport

- Significantly reduced emissions of non-CO_2 greenhouse gases (GHG) through feed improvements and breeding to reduce ruminant methane, nitrogen-efficient technologies and good management of wastes and manures

- Income derived from a mix of food production and other land-based eco-services

- Gradual change in the balance between meat, dairy and crop production, to meet changes in the national diet.

3. What is the role of Rural Local Authorities delivering Net Zero?

Local Authorities are in a key position to influence action towards Net Zero in their areas. Although council operations only account for 0.5 – 5% of emissions from their areas, the Committee on Climate Change (CCC) estimated that their influence extends to around 30%.

Over 300 Local Authorities have declared climate emergencies and are either in the process of developing action plans or are delivering on them. Other Local Authorities are developing plans without using the terminology of climate emergency. Most of these encompass actions to influence emissions across their wider areas, and in partnership with other authorities and organisations, to influence wider areas or activity.
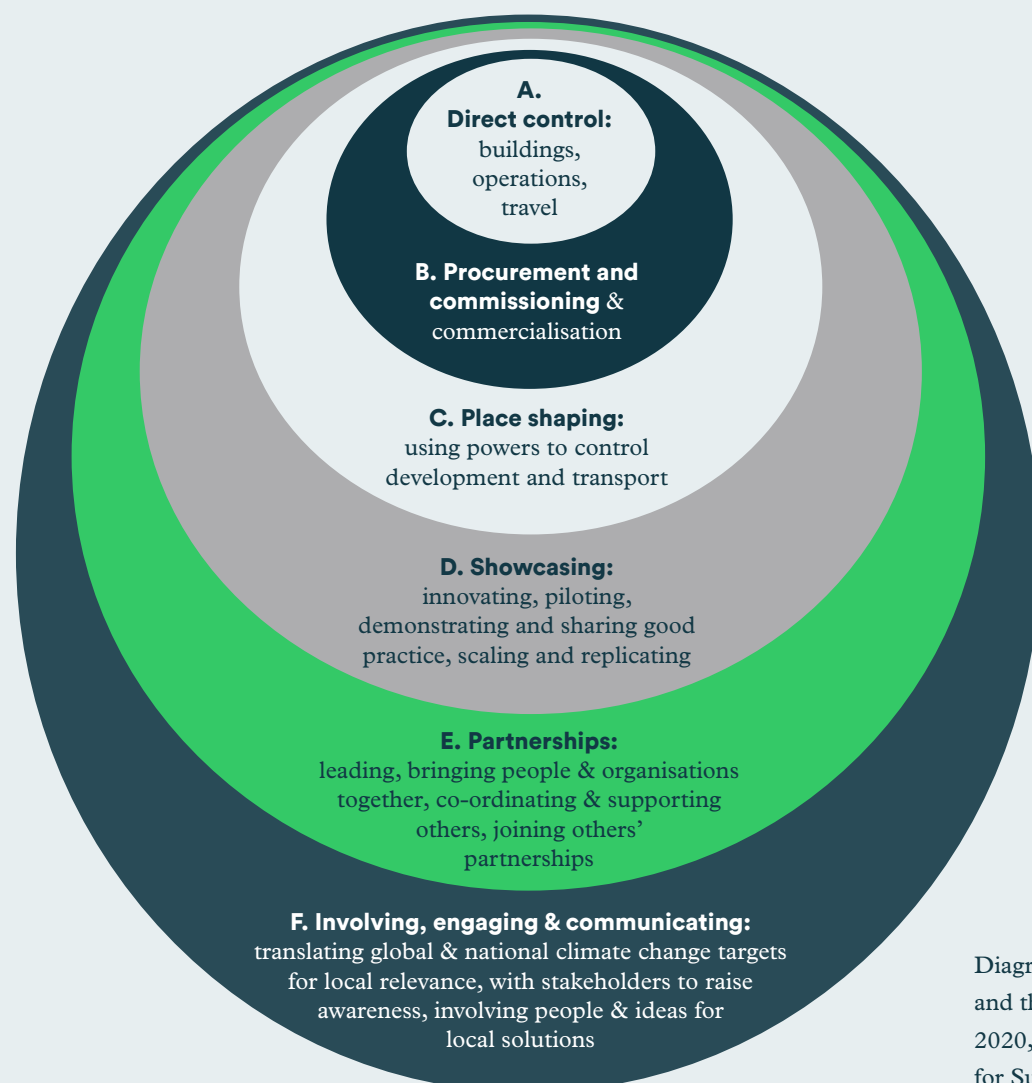
The sections below outline the opportunities and challenges faced by rural Local Authorities in helping to shape Net Zero action in their areas.

A critical role Local Authorities are taking is by providing leadership:

- Through partnerships with other agencies to share the burden of delivery and make best use of disparate skills and networks. Sometimes the Local Authority is the wrong messenger: so action needs to be channelled through partnerships with trusted organisations that are relevant to people in their different roles in society.
- Through demonstrating to citizens that the council is serious about climate change. Many authorities have developed their plans in consultation with local people through for example Citizens Juries and Climate Assemblies.

All of this takes time, commitment and resources. Whilst Local Authorities have a key role in the path to Net Zero, support is also needed from the Government to provide a solid foundation for local action.

3.1 Delivering Rural Transport and Connectivity

The most rural areas generate more than twice the CO_2 emissions per person than the most urban areas (215%). Most rural residents are reliant on cars for transport and often need to travel large distances to access basic services (shops, schools, health centres) and social activities. There are limited options for alternatives to car use. High costs per capita to provide bus or rail services and safe/dedicated cycling routes mean there are fewer of these in rural areas. Long distances and safety concerns mean that there are fewer opportunities for walking and cycling: rural roads are particularly unsafe for everyday cycling, being frequently narrow yet with high speed traffic. Despite these significant rural issues, the Government has only just started to consult on a Rural Transport Strategy, two years after publishing its Future of Mobility: Urban Strategy.[7]

In 2019-20, predominantly urban Local Authorities spent on average over five times as much per person subsidising public transport than predominantly rural Local Authorities.[8]

A.
Direct control:
buildings, operations, travel

B. **Procurement and commissioning** & commercialisation

C. **Place shaping:**
using powers to control development and transport

D. **Showcasing:**
innovating, piloting, demonstrating and sharing good practice, scaling and replicating

E. **Partnerships:**
leading, bringing people & organisations together, co-ordinating & supporting others, joining others' partnerships

F. **Involving, engaging & communicating:**
translating global & national climate change targets for local relevance, with stakeholders to raise awareness, involving people & ideas for local solutions

Diagram source: CCC Local Authorities and the Sixth Carbon Budget December 2020, based on a model from the Centre for Sustainable Energy

7 - Future of Transport Rural strategy: https://www.gov.uk/government/consultations/future-of-transport-rural-strategy-call-for-evidence/future-of-transport-rural-strategy-call-for-evidence
8 - Rural Services Network – Revitalising Rural Transport: https://rsnonline.org.uk/images/revitalising-rural/rural-transport.pdf

Rural populations are older than urban populations. This has a two-fold impact on Net Zero transport. Older populations are less able to rely on walking and cycling: not just because of reduced physical mobility, but also the need to transport shopping, families etc., over longer distances than in urban areas. Younger people are less likely to want to own a car than their predecessors, which further reduces the appeal for them to live in rural areas. However, new technologies such as e-bikes, car share schemes and autonomous vehicles may counteract some of these issues.

Internet and mobile connectivity is a national issue: but there is a need to prioritise rural areas to improve liveability and viability of rural business. 3% of rural areas are "Not Spots" with no coverage at all. Only 68% of rural homes and businesses have indoor voice coverage from all operators. Only 81% of homes have access to high-speed broadband (30 Mbit/s).[9]

Issues and Constraints

- Broadband and mobile phone coverage: the National Infrastructure Strategy only commits to "target a minimum of 85% gigabit capable coverage by 2025" with the less commercially viable rural areas in the remaining 15%
- Social justice: the national policy to switch to EVs will place an unfair cost burden on rural populations, given the high cost of these vehicles and lack of alternatives that are readily available in urban areas
- Cost of infrastructure provision: EV charging networks, bus services, active travel routes are all more expensive per capita in rural areas. "Like-for-like interventions in rural and urban areas, a social cost benefit analysis will typically favour the towns and cities – because of their economies of scale"[10]
- Zero carbon vehicle technology is underdeveloped for agricultural, rural and heavy goods vehicles
- Grid capacity constraints in rural areas restrict the provision of EV charging infrastructure
- Market failure: lack of economies of scale in provision of infrastructure in rural areas for both public and private provision lead to under-investment across the board in transport and connectivity
- Split responsibilities in county areas increase the difficulties in developing and delivering an area-wide integrated transport and connectivity plan for rural areas.

Key Considerations for Local Authorities

- Local authorities should have a co-ordinated Transport and Connectivity strategy for rural areas, especially where responsibility sits in different authorities, including on-demand and shared transport services; this should ensure that the Local Transport Plan does not omit rural emissions and harder-to tackle rural transport needs, and in some areas will require strong area-wide partnerships
- Developing smarter options for rural transport: including digitally-enabled demand-responsive, shared and community services. The Rural Mobility Fund[11] has shortlisted 17 projects to trial demand responsive transport in rural and sub-urban areas which may provide valuable data in this area
- Identifying areas in need of superfast fibre broadband and 4G and 5G connectivity improvements and challenging the Government and private sector providers to supply these, as well as supporting community and co-operative solutions
- Supporting private, community and public investment in EV charging infrastructure particularly for areas where the commercial market may not provide, and areas with no private or on-street parking where community hub EV charging will be required
- Prioritising investment in suitable active travel infrastructure including walking routes, segregated cycle and e-bike lanes
- Supporting and providing digitised services where appropriate and where connectivity services allow
- Supporting the development of combined distribution/delivery services
- Investing in zero or low carbon fleet vehicles and schemes to support public sector employees, especially carers to access EVs at affordable rates
- Supporting the provision or retention of local services, including mobile services.

9 - "The National Infrastructure Strategy through a Rural Lens" – Rural Services Network
10 - "Towards a greener Green Book process" Study commissioned by Rural Services Network in association with Britain's Leading Edge, CPRE and English Rural, February 2021
11 - https://www.gov.uk/government/publications/apply-for-the-rural-mobility-fund

Despite having no statutory responsibility for transport planning, **Cotswold District Council** has recruited a Sustainable Transport Lead Officer to develop a comprehensive sustainable transport strategy for the district. This is a key input to the Council's Net Zero aligned Local Plan update and will include reducing car use, encouraging EVs including pool cars. It will also look widely at active and cycling infrastructure and the barriers to public and active travel in general.

Durham County Council, South Lakeland District Council and Carlisle City Council are collaborating with Charge My Street social enterprise in the Innovate UK funded Scaling on Street Charging Project (SOSCI) to install 200 community EV charging points and trial EV car clubs in remote areas such as Weardale.

Gloucestershire County Council and **Cheshire East Council** have been awarded funding from the Rural Mobility Fund to develop demand responsive public transport, in areas where rural bus services are hard to sustain.

Lincolnshire County Council has successfully sustained its Call Connect buses which have been serving hamlets, villages and towns since 2001. During the COVID crisis it has extended its services to help staff and patients to access the vaccination hubs.

In anticipation of the e-bike revolution **Cambridgeshire, Durham and Central Bedfordshire Councils** are all exploring connecting cycle routes between villages and towns, to provide safe routes instead of narrow, dangerous roads.

> "We want to get 50% car journeys out of cars altogether. But in a rural area this is difficult. So we've appointed our own Sustainable Transport Officer who will delve into our 17 principle settlements to understand exactly why people will struggle to cut down on car use. It is vital that we have this piece of work done as part of our Local Plan update. **Cllr Rachel Coxcoon, Cotswold District Council**

Key Considerations for National Government

- Prioritising rural areas for mobile and internet connectivity to ensure 100% coverage by 2025 and providing support for this in areas where the market fails to deliver
- A comprehensive properly-funded rural mobility solution, accessible to all areas, not just pilot projects or short-term competitive funding streams
- Public transport funding for rural authorities that is at least as much per capita as urban authorities, in addition to subsidies that reflect the sparsity of the area, designed and delivered locally and channelled through local government teams to ensure flexibility to meet rural mobility needs
- A rural-focused programme to provide dedicated infrastructure to support cycling and walking in rural areas, especially connectivity to and between small towns and villages, schools and businesses
- Investment in grid capacity infrastructure to support the move to EVs.

3.2 Delivering Low Carbon Rural Homes and Buildings

Households in the most rural areas emit 19% more CO_2 per person than the most urban areas. This is due to a combination of larger homes, more hard-to-treat homes and more off-gas properties. Data for non-domestic buildings is not available, but these should not be ignored.

Around 500,000 fuel poor households live in rural areas: the high cost of heating homes is a significant factor in this definition, as well as lower average incomes.

Rural housing is often more diverse in design and characteristics than most urban housing. The "one-size-fits-all" nature of previous retrofit support programmes have not provided suitable solutions for many rural homes. Local retrofit designs, knowledge and skills are needed and these are different in different rural areas.

The economies of scale available in delivering mass retrofit programmes in urban areas cannot be achieved in sparsely populated rural areas, leading to a failure to deliver retrofit through market-led mechanisms. ECO3, the Home Heating Cost Reduction Obligation (HHCRO), has met the requirement to deliver 15% of the obligation to rural homes, but that has included installing gas central heating where it didn't exist. The Committee on Fuel Poverty has recommended a rural-only energy efficiency scheme to deal with these challenges. However, the Government's Sustainable Warmth Strategy (February 2021) does not include this, using off-gas grid and hard-to-treat homes as a proxy.

Delivering zero carbon new homes (and non-domestic buildings) is not a specific rural issue, but the Government's decade-long pause in delivering this continues to store up retrofit problems for the future.

The revised Future Homes Standard retains the right for Local Authorities to implement policies that require higher energy / carbon standards than the minimum set out in Building Regulations. However, such policies have been heavily discouraged, through the threat of finding a Local Plan unsound. Given the timescale to implement Local Planning Policy, this opportunity is not expected to have much impact on authorities that do not already have such policies in place.

Issues and Constraints

- Older and character buildings need bespoke local efficiency and heating solutions
- Lack of zero carbon building knowledge and skills for retrofit and new build in the wider construction sector as well within Local Authorities
- Lack of economies of scale for retrofit and building integrated renewables projects in sparser areas, where the solutions may also be more expensive than in urban areas
- Short-term Government support programmes
- Rural fuel poverty harder to target
- Accessing funding for hard-to-treat homes, especially with the ending of ERDF programmes
- Lack of national planning policy on zero carbon homes and threats to Local Authorities wanting to aim high
- Negative perceptions of zero carbon building design vs "character" buildings
- Grid capacity constraints in moving to all-electric heating
- High running costs of electricity-based renewable heating systems, especially in poorly insulated homes, compared with gas boilers.

Key Considerations for Local Authorities

- Local Area Energy Plans to identify the most suitable energy solutions for different areas or typologies, ideally using the ESC / CSE Local Area Energy Planning Methodology which includes governance and social acceptability of delivery, as well as technical options
- Maximising access to retrofit and zero carbon heating funding; Green Homes Grant Local Authority Delivery and ECO3 Flexible Heat, HNDU and HNIP, innovation funding
- Using available tools e.g. Minimum Energy Efficiency Standards and supporting community initiatives on home energy efficiency
- Increasing internal skills to promote technically suitable solutions for existing and new buildings, and challenge viability claims of developers
- Introducing higher energy performance standards into the Local Plan when possible
- Developing locally-specific guidance on suitable retrofit and new build solutions

- Increasing the stock of zero carbon social housing through council ownership of new development, council in-house developers and community land trusts
- Using Local Development Orders and Area Action Plans to require higher carbon standards in new private developments
- Prioritising the development of a local skills base within the building trade, in partnership with the Local Enterprise Partnership (LEP), neighbouring authorities, business organisations, community organisations, colleges and universities and local specialists.

> " Developers are saying, 'if you want to build to lower standards, don't pick on South Gloucestershire as they have their arguments sorted'. We have a 0.5 FTE energy officer who does battle with them. **Barry Wyatt, South Gloucestershire Council**

> " I'd like to see a modern, digital reinterpretation of traditional villages and rural living. And a return to stronger communities. **Councillor Steven Dixon, Central Bedfordshire Council**

Cornwall Council has developed a draft design guide (pattern book) for housing suitable for its local areas. It has not gone as far as Passivhaus which is seen as too prescriptive. The Council is currently looking at how to accredit the design of new homes to this standard, and how to tackle retrofit in difficult properties such as concrete construction.

Cambridgeshire County Council is supporting the village of Swaffham Prior to move homes off oil fired heating to a district heating scheme powered by solar, air and ground source heat pumps. This has now received Heat Network Investment Project funding, despite having to compete with more attractive urban schemes.

South Gloucestershire's Local Plan 2020 is in development. It includes the carbon neutral 2030 target and addresses the decarbonisation of transport and buildings. In the interim, Supplementary Planning Guidance is being developed to deliver emissions cuts now – including EV charging, rural barn conversions, homes in multiple occupation, annexes and extensions. The Council employs an energy officer with a specific remit to scrutinise planning applications to ensure developers comply with planning policy.

South Gloucestershire and Somerset Councils are using the Green Homes Grant Local Authority Delivery scheme (LAD) Phase 2 to develop solutions for retrofitting hard to treat rural properties. South Gloucestershire is tackling a range of building types whilse Somerset is tackling off-gas grid stone-built homes.

Durham County Council has delivered street-by-street energy efficiency retrofit in Cragshead village. Over 200 red brick Victorian miners' terraces were fitted with external wall insulation with a brick-look render to retain their heritage appearance. Loft insulation, double-glazing and PV raised EPCs from G to C. The Council also has minewater assets available as a sustainable heat source near Bishop Auckland for existing homes, and at Stanley for new housing developments.

Durham, Cheshire East and Cambridgeshire Councils all have potential bespoke heat network schemes ready to investigate in a number of small towns and villages to tackle the heat decarbonisation challenge.

Councils with their own housing development companies are aiming for Net Zero or very efficient new build homes, often using Passivhaus or an equivalent standard without the certification process. **North Kesteven District Council** built the first straw-build council homes and is now looking to Passivhaus for both its council build programme and for its arms-length housing company, Lafford Homes.

Central Bedfordshire Council is establishing its own housing development company which will consider using modular build and supporting the development of a local supply chain.

Key Considerations for National Government

- Long-term policy and multi-year funding support for retrofit, of at least 10 years, delivered through local structures to address the specific different technical and social challenges of rural buildings in different rural areas
- Far stronger and faster overhaul of the Planning requirements and Building Regulations to require delivery of zero carbon homes
- Adequate financial incentives for private investment in retrofit, combined with standards, quality assurance and a system of redress, to provide a secure long-term market and incentivise investment in skills
- Major investment in fixing the wider construction sector skills gap (from design through to assessment) for both retrofit and new build, with flexible local provision of support to meet the specific needs of local buildings and character areas and supply chains.

3.3 Supporting Industry to Decarbonise

Industrial CO_2 emissions per capita in the most rural areas are twice those in urban areas (204%) and the total emissions from large industrial installations are over four times as much as in the most urban areas. The most highly polluting and energy intensive industries tend to be located in rural areas: construction products, extractive industries, paper, waste, chemicals and food.

Industry is not recognised as a rural issue in policy, which focuses on typically "rural" industries such as farming, food and tourism. Large industries are considered on a sectoral basis, with rural locations facing higher barriers to decarbonisation, with lower access to skills and fewer options for symbiotic opportunities such as shared heat supply networks or CCS.

Rural small businesses have the same needs for support to decarbonise as their urban counterparts, without the support mechanisms that are more established in urban areas. Rural SMEs are only considered in policy either as part of the supply chain for larger industries, or as "high street" businesses in for example market towns. National policy is blind to the wide range of rural businesses that do not fit into any of these categories, and most Local Authority Net Zero Action Plans similarly do not include them.

While Local Industrial Strategies are more likely to be built on local knowledge of the business base, there is a disconnect between these and Net Zero plans.

All businesses in rural areas are highly reliant on good connectivity and transport and tend to have greater transport needs for staff and customers. The constraints of digital connectivity are well recognised as a significant limitation for rural businesses. As in other emissions areas, lack of grid capacity hampers industry's efforts to transition to electricity for heat and transport.

Issues and Constraints

- Lack of Local Authority influence over large businesses, particularly those in national or international ownership with no ties to the local area
- Lack of support programmes for rural small businesses, with existing ERDF funded programmes about to disappear
- Industrial emissions mostly ignored in local Net Zero plans
- Net Zero mostly ignored in LEP strategies
- Significant potential impact on jobs if carbon targets or costs of zero carbon compliance cause businesses to relocate: especially where other opportunities are limited
- Few incentives for businesses to invest in carbon reduction: the low energy costs, no carbon price and little regulation mean there is rarely a good business case for significant change
- Even where there is a good business case for carbon reduction, few businesses are motivated to act as it is not critical to growth or survival.

Key Considerations for Local Authorities

- Local Industrial Strategies give Local Authorities the opportunity to target Net Zero industry, in partnership with the LEP and other business support organisations
- Climate Action Plans need to include actions aimed at supporting all sizes of business
- Identifying carbon reduction opportunities for businesses in the Local Area Energy Plan, including both major emitters and small business parks

- Creating or supporting local business support organisations in promoting readiness to transition to Net Zero, alongside climate adaptation
- Working in partnership with the LEP, business support organisations and local colleges and universities to identify the skills gaps in the move to Net Zero; and develop programmes to tackle these.

" **Our role is one of facilitator and working with our agricultural businesses to encourage our Agri-food growth industry. The skills agenda is vital for jobs, we don't want to be seen as just a low wage agricultural area, when the reality is technology is vital to both food production and reducing the carbon footprint of modern-day agriculture.** Cllr Richard Wright, North Kesteven District Council

" **We need to get businesses on side: they're vital for the local economy and part of the solution.**
Cllr Joe Porter, Staffordshire Moorlands District Council

Durham County Council has been providing a fully-funded (partly ERDF) Business Energy Efficiency Project to SMEs since 2016. It is helping businesses to prepare for Net Zero, and provides energy efficiency audits with, vitally, grant support to take action. During 2020 £67,000 grants were provided to nearly 100 businesses to reduce their energy use and emissions.

Cornwall Council's climate plan draws on the circular and Net Zero economy elements in the Cornwall and Isles of Scilly LEP's draft Industrial Strategy. The vision is founded on achieving carbon neutrality by 2030 and delivering inclusive growth, a clean and circular economy, a creative economy that drives innovation and environmental growth.

York and North Yorkshire LEP and North East Energy Hub. For councils across York and North Yorkshire the LEP is taking a leading role in engagement with businesses to deliver Net Zero. Working across the constituent councils, the Circular Yorkshire team supports the agri-food, manufacturing, construction, utilities and public sectors.

Staffordshire Moorlands District Council recognised the need to work with high-emitting industries if they are to reach their district-wide Net Zero target. They have a strong partnership with Lafarge Cement and hold annual meetings to discuss the company's climate change actions. Lafarge has replaced coal use with biofuels and waste and recycles all waste products locally. They also work in partnership with the Council and Wildlife Trust to sponsor nature-based projects. The Council is now building on existing relationships with other major employers to work in partnership on climate change.

Key Considerations for National Government

- Rural-focused Net Zero industry strategy that recognises the disproportionate impact of industry on emissions in rural areas, and the vulnerability of those areas to loss of jobs from high-emitting industries threatened by Net Zero
- Practical support for the "policy-invisible" rural small businesses that are not related to farming and agriculture
- Practical and realisable strategy to support small businesses to decarbonise.

3.4 Delivering Renewable Energy Capacity for the UK

Electricity demand is expected to double by 2050, to allow for the electrification of heat and transport. The onshore capacity needed to meet the CCC's 2050 scenario is 30GW wind and 80GW solar, plus 5GW biomass. The wind and solar capacity is expected to require 7,800km^2 of land, equivalent to 4.4% of current agricultural land.

In addition there will remain a need for non-electric heat and transport fuels, potentially through biomass or fossil fuel combustion with CCS.

The vast majority of the onshore renewable energy capacity will need to be delivered in rural areas. Therefore rural Local Authorities will need to deliver more than their urban counterparts, effectively needing to achieve more than Net Zero in their areas.

The electricity grid has been designed to deliver power from centralised generation to areas with demand. It therefore has greater capacity in areas with higher demand. To deliver the renewable capacity from rural areas requires a completely different design, with capacity available in areas with the greatest supply potential. Grid capacity is the single biggest constraint facing organisations wishing to invest in renewable energy in rural areas.

The options for renewable heat in rural properties are limited by the building design, especially in older and hard-to-insulate buildings. Local Authorities have a significant role in assessing and planning for the appropriate mix of supply technologies for their areas, based on their different building and settlement types. Rural heat networks are limited due to poor economies of scale, but may provide suitable solutions in some settlements.

Issues and Constraints

- Grid connection capacity is significantly restricting potential to connect both large- and small-scale supply
- Regulation: scale of changes required and speed of change not keeping up with technical and governance solutions and new business models
- Cost of investment in infrastructure and allocation of those costs
- Competing for funding with urban areas without recognition of the rural constraints in economic assessments
- Availability of land: and balancing the different land use demands
- Competing technical solutions delaying action
- Skills and internal capacity to build the increasingly complex business models, develop schemes and provide guidance
- Funding for the 'at-risk' feasibility and development stages of schemes.

Key Considerations for Local Authorities

- Developing a Local Area Energy Plan: setting the ambition, identifying suitable options, especially for heating and transport, thinking ahead of regulation and planning for investment
- Positive support through planning and showing leadership
- Own investment and enabling private or community investment
- Supporting generation and storage investment through the Local Industrial Strategy.

> **We save the Council money, we are ruthless about value for money, we have good backing from senior officers, and have got better at promoting ourselves. Between us the team has the skills to cover all aspects of project development, funding and delivery across a range of technologies.** Helen Grayshan, Durham County Council

West Berkshire Council issued the first Community Municipal Investment through a Bond offer raising over £1 million from 600 investors, a fifth from the local area, to finance solar, LED lighting, cycling routes and environmental investments.

In anticipation of changes in regulation **Central Bedfordshire Council and South Gloucestershire Council** are investigating installing renewable energy generation to sell to residents and businesses, including e-bus charging, to build a local energy market.

Cornwall Council has committed to invest into six covered slurry lagoons on Council Farms. They entered into a processing agreement with a local SME to purchase the biomethane, collecting it from the lagoons, processing it and selling it on for use in the Council's wider fleet of vehicles. This approach captures fugitive methane emissions from farms, provides additional revenue and renewable electricity for the farmers and provides a source of renewable vehicle fuel.

Cambridgeshire County Council has a 12MW solar farm and is developing other energy projects including microgrids at two park and ride sites with solar PV, battery storage, EV charging and demand balancing. In Comberton village, it is collaborating with the college on replacing their oil heating with ground source heat pumps as an example to the village residents of what is possible through working together – this could lead to working with the wider village to take 1000 homes off oil.

Key Considerations for National Government

- Investment in grid capacity to remove technical and financial constraints to increase renewable energy provision in rural areas
- Rural Local Authorities to be supported to develop robust Local Area Energy Plans including technical, governance and social support, to meet the specific needs of their settlements, buildings and industries
- A separate rural energy infrastructure fund that doesn't compete on economic criteria with urban schemes.

3.5 Supporting Zero Carbon Agriculture

Agriculture accounts for 10% of UK's GHG emissions: predominantly methane from livestock (62%), nitrous oxides from soils (26%) and CO_2 from fossil fuels. While other sectors have been able to claim emissions reductions due in part to decarbonising the electricity supply, agricultural emissions have remained roughly constant since 2008.

Low carbon farming methods can reduce emissions. These include changes to livestock breeding, health and diets, reducing nitrogen emissions through changing soil management practices, and improving ammonia, waste and manure management. Increasing both livestock and crop yields and moving arable crop production indoors will also contribute, as will responding to the trends towards a reduced meat diet.

The agricultural sector is a custodian of large areas of land that will need to be released for other mitigation and adaptation measures as well as carbon absorption (see Land Use section).

The sector is in a considerable period of uncertainty following Brexit and proposed changes to the farming subsidy system. The Environmental Land Management scheme (ELMS) is proposing to incentivise more sustainable farming practices, better soil health, increased biodiversity and nature recovery.

Issues and Constraints

- Lack of influence: many Local Authorities have few direct links with the sector and frequently insufficient knowledge to be able to engage in meaningful dialogue
- There are few clear-cut solutions and developing these will take time and require good data
- Lack of good quality, robust data about some of the impacts of the sector
- An emotional attachment to the countryside and farmers' inherent knowledge which inhibits engagement with the sector
- Uncertainty over the impacts of changing Government policy (e.g. ELMS)
- Balancing different land use needs.

Key Considerations for Local Authorities

- Where Local Authorities retain county farms, trialling more sustainable farming practices and using these as a basis for engagement with the farming sector
- Promoting local food initiatives and include in council procurement requirements
- Supporting farm energy efficiency initiatives: including farm buildings in retrofit programmes
- Investment in digital connectivity and rural transport infrastructure to support sustainable farming practices
- Promoting and positively planning for renewable energy generation on suitable land
- Supporting a sustainable agricultural sector through the Local Industrial Strategy
- Developing partnerships with influential organisations to gain a voice in the sector: National Farmers' Union (NFU), Country Land and Business Association (CLA), Agricultural Colleges, large landowners.

* Key Considerations for National Government – combined with Land Use on the following page

> **We are seeing arable farming putting livestock back into the rotation... using sheep on farm in the winter to control black grass without herbicides. The future will see modern twists of old rotations. And a mix of technology and revised practices from the past.**
> **Andrew Critchlow, County NFU Advisor, Derbyshire**

Shropshire Council is supporting a carbon footprinting tool for farms, which are increasingly asked for carbon reporting by retailers. Morrisons supermarket has recently announced that it is targeting for all its farm suppliers to be carbon Net Zero by 2030. The supermarket is partnering with Shropshire-based agricultural college, Harper Adams University and working with farmers to develop Net Zero models. The Council also sees its county farms as fundamental to their role in Net Zero and is promoting sustainable farming.

York and North Yorkshire LEP is behind Grow Yorkshire, which supports the food and farming businesses across four strategic themes, environment; innovation; skills and wellbeing. It brings together a wide range of partners including the local councils, NFU, CLA, Defra, Fera,[12] Yorkshire Agricultural Society, Yorkshire Food Farming and Rural Network, Deliciously Yorkshire and the University of York.

Lake District National Park Authority and other National Park Authorities have a strong relationship with farmers and landowners. The LDNP Farming Officer, a farmer herself, engages with farmers and brings their experience back into the Authority (LDNP). The LDNP has 60% of farms in its area under agro-environmental schemes and needs to reach 90% to tackle climate change effectively. Its work through the Lake District National Park Partnership, on the future of farming, forestry, nature and climate brings together a wide range of landowners and stakeholders to shape future support and deliver action in the National Park.

Lancaster City Council is enabling sustainable farming, providing modest match funding and in-kind support through land, nurseries and greenhouses for the Farm Start scheme, run by a local social enterprise and aimed at entry level growers.

Cambridgeshire, Cornwall, Shropshire and Cheshire East Councils are all promoting sustainable farming and see their county farms as fundamental to their role in getting to Net Zero.

12 - The Food and Environment Research Agency

3.6 Delivering Climate Mitigation and Adaptation through Land Use

In the terminology of Net Zero, there is an assumption that carbon sequestration and storage will be available to "offset" remaining emissions. Local Authorities, businesses and governments are all using offsets to hit their early Net Zero targets. In the absence of any practical carbon capture technologies, that offset must come from land-based solutions: mechanisms that actually absorb CO_2 from the atmosphere and fix it permanently in the earth. Many offset solutions will only be temporary; they cannot be relied upon as a long-term solution or an alternative to eliminating emissions.

Rural areas are the only places in the UK where there is any possibility of this happening. So, as long as the more urban areas continue to require an offset for their remaining emissions, then rural areas must provide not only for their own offset but also the full quotient of urban offsets.
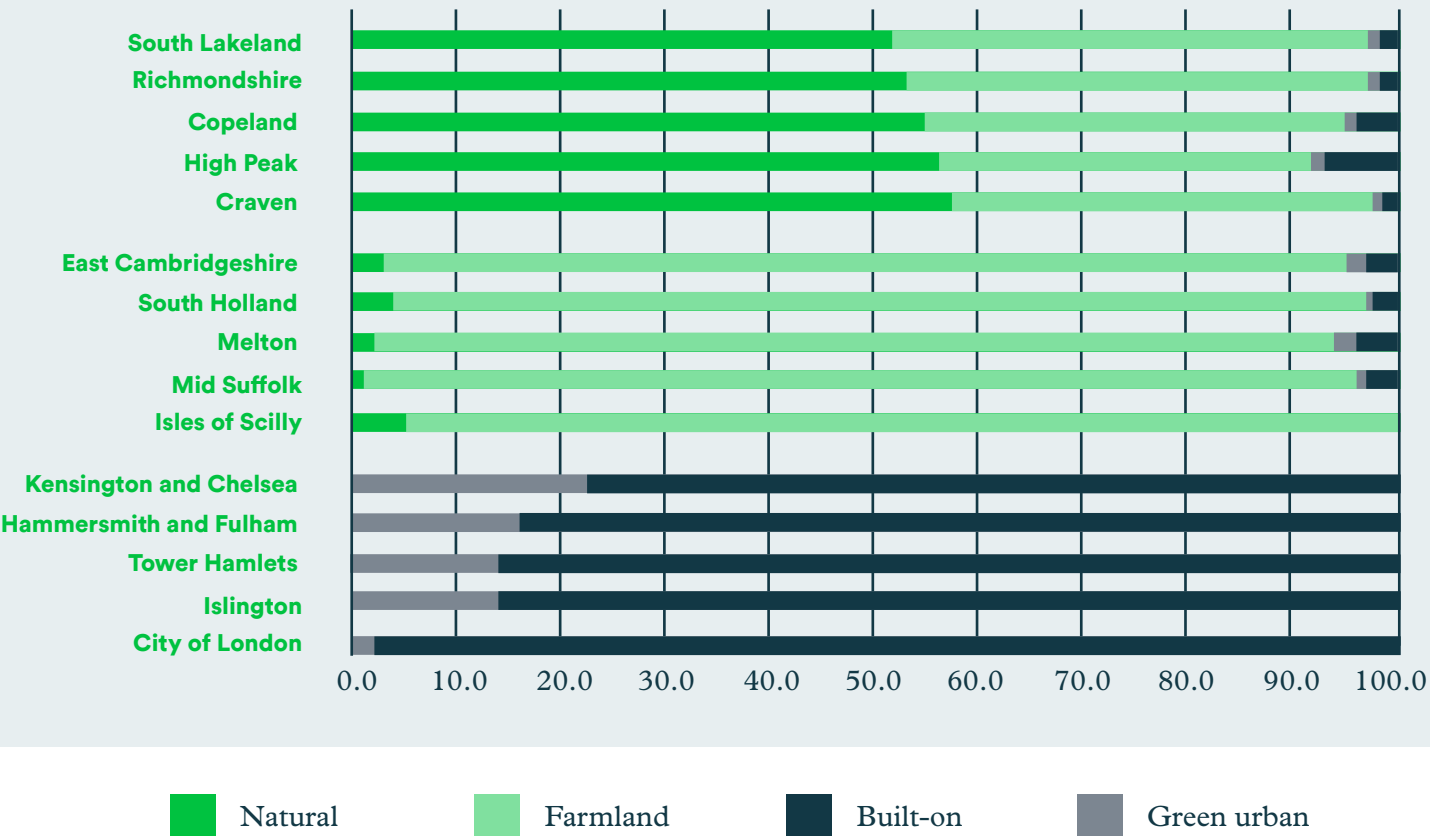
Land use, land use change and forestry is currently reported as a net carbon sink, abating 2% of the UK's emissions. However this does not include the majority of the UK's peatland, which, if included, would change this to a 2% source of emissions.[13] Carbon sinks need to deliver 19MtCO$_2$e sequestration to 2050 (against current 12MtCO$_2$e net emissions).

Options to improve carbon removals include: restoring degraded peat, planning appropriate woodland, sustainable management of soils, peat, existing woodland and wet grasslands, marine carbon sequestration planting. The CCC estimates that *"17-35% of land area could be freed up from improved farming practices, releasing land for conservation, carbon storage and renewable energy generation."*

Different Local Authority areas have considerably different landscape types, so the solutions must be locally-specific and locally-driven. In areas such as Craven, High Peak, Copeland and Richmondshire more than 50% of the land is "natural" i.e. unfarmed, whereas in East Cambridgeshire, South Holland and Mid-Suffolk for example, over 90% of land is farmed. Some of this farmed land is lowland peat so is an important emitter or sink of carbon.

13 - Committee on Climate Change Sector Summary report on Agriculture and Land Use, Land Use Change and Forestry 2020 https://www.theccc.org.uk/wp-content/uploads/2020/12/Sector-summary-Agriculture-land-use-land-use-change-forestry.pdf

Councils by highest proportion of land type

Legend: ■ Natural ■ Farmland ■ Built-on ■ Green urban

Source: LGA Report 2019 - The future of non-metropolitan England: The freedom to lead local places

According to LGA commissioned research Local Authorities hold approximately 170 statutory duties relating to land use, including directly through their local planning role and biodiversity duties, as well as driving economic development plans.

Issues and Constraints

- Lack of Local Authority influence in the sector
- In some areas, limited publicly owned or controlled land over which the authority has any degree of control
- Conflicting land use demands and lack of data on the impact of different uses
- Complex and rapidly-changing policy and funding environment for balanced land use
- Long timeframes to deliver impacts
- Lack of skills – this is unfamiliar territory for some Local Authorities.

Key Considerations for Local Authorities

- Increasing peat, wetland and grassland restoration, woodland planting and management, and urban trees on Council-owned land, and encouraging it on parish council and other public sector land
- Supporting community woodland and land restoration initiatives
- Prioritising biodiversity net gain in Planning Policy
- Green Infrastructure Strategies supported by forthcoming Local Nature Recovery Strategies to deliver carbon sequestration, biodiversity and climate adaptation alongside opportunities for greater access to nature
- Support to develop local balanced land use solutions underpinned by better data
- Developing wider partnerships to deliver changing land use and supporting data: NFU, CLA, Agricultural Colleges, large landowners.

Key Considerations for National Government - Land Use and Agriculture

- Local Authorities to be included as a key local stakeholder in the design and implementation of ELMS to ensure it delivers locally on Net Zero, land-use, adaptation, Local Nature Recovery Strategies and biodiversity strategies
- Properly fund the regulatory agencies to monitor, verify and enforce the outcomes of incentives, and ensure these are in line with Net Zero ambitions
- Develop and regularly review robust, readily available and locally-relevant evidence on the carbon impacts of different land management, based on local expertise, to support local plans to determine the most suitable land uses and carbon sequestration means.

> **People still need a livelihood. Land management is a great nexus for investment in climate change adaptation, carbon storage, jobs and skills and nature. Tim Duckmanton, LDNP**

Shropshire Council is setting up a scheme to enable unavoidable local emissions to be offset through local tree-planting, and currently trialling it with their Highways Contractor, alongside plans to reduce the service's emissions. The aim is to roll this out by mapping carbon sequestration opportunities for landowners.

East Riding of Yorkshire has a long-established landowner, farmer and stakeholder group including the NFU and the CLA, which enables open discussions about land use change, carbon reduction and sequestration.

Cheshire East Council is working with neighbouring Councils, Cheshire West and Chester and Warrington on a Natural Capital Investment Plan to ensure that carbon is included in nature-based solutions. This will identify acre by acre opportunities to target incentives and investment to deliver the best environmental solution for that land.

Cheshire East and Shropshire Councils are working with universities on land-use and soil carbon or nature-based solutions.

Gloucestershire County Council together with the Gloucestershire Local Nature Partnership supports The Gloucestershire Tree Strategy which is aiming to increase tree cover by 20%: an ambitious target in light of the felling scheme due to ash dieback. The Council is engaging Parish Councils, farmers and landowners in planting new trees and hedgerows and has put aside budget for this.

Cambridgeshire County Council is working on peatland restoration with a range of stakeholders, including farmers, the District Councils and the Wildlife Trust. This includes testing new water-based crops to continue to be able to farm whilst re-wetting and restoring peatland.

3.7 Delivering Local Authority Services

Local Authority activities account for 0.5 - 5% of the local area's emissions, and around 30% of emissions are influenced by Local Authority decisions, practices and partnerships. Local Authorities have a very significant contribution to make in addressing the climate crisis. However the swingeing cuts to local government funding over the last decade, combined with under-funding of their response to the COVID crisis, will prevent many of them from realising this contribution.

Many Local Authorities that have signed a Climate Emergency Declaration are aiming to achieve carbon neutrality within their own operations by 2030, although in some cases this will be met by offsetting. Whether or not these targets are achieved, Local Authorities setting out detailed climate action plans and showing strong leadership on the issue will catalyse action on climate change.

An analysis of climate action plans across a host of authorities shows that the range in quality and ambition among rural authorities is similar to that in urban authorities. Those that have continued to focus on climate change over the last ten years have stronger programmes and in-house skills to deliver. In many authorities, climate change skills and actions fell away in the face of austerity, and they are now starting from scratch. Rural areas face the funding gap challenge combined with structurally higher costs, making delivery on sustainability ambitions harder.

Carbon reduction potential directly within the Local Authority control includes: energy efficiency of own buildings, renewable energy and carbon sequestration on their own estate, reducing the need for operational travel and providing alternatives to private or Local Authority cars, investing in low emissions vehicles and implementing sustainable procurement. The key to achieving this is to instill high-level responsibility for climate change and review all policies and operational procedures through a Net Zero lens.

Local Authorities then have indirect but extremely important influence over the carbon impact of new developments, and transport choices, through their place-shaping and planning roles. Finally, Local Authorities have the ability to lead and influence others through both demonstrating solutions via their own activities and involving partners in developing and supporting area-wide actions. All this will require comprehensive funding and support from the Government.

Issues and Constraints

- Political support to prioritise climate action in the face of more "urgent" demands
- Internal capacity: resources and skills in-house to develop and deliver climate action plans
- External capacity: access to local expertise to help with development and delivery
- Funding: very limited funding available for areas needing significant resources, especially building retrofit and transport infrastructure, compounded by the additional costs associated with rural sparsity
- Lack of ambition: Some authorities are only focusing on areas directly within their control, avoiding wider area actions
- Size and type of authority: smaller rural District Authorities face greater difficulties in funding and capacity. Two-tier authority areas are reliant on partners at County and District Authorities giving climate change equal priority to develop an effective plan. Devolution offers a greater degree of control and funding, but the process to devolution, or Combined Authority can detract from climate action for many years.

Key Considerations for Local Authorities

- Embedding action on climate change into all policies, decisions, services and purchases
- Providing leadership in the community
- Developing strong partnerships to enable action in areas outside the Authority's direct control
- Trialling Net Zero local solutions on Council buildings, housing, farms and land
- Leveraging private and community investment and maximising available national funding
- Engaging and communicating with citizens at all levels, as householders, business owners and employees, consumers and travellers.

> **Targets for our Net Zero carbon future are too often presented as an unaffordable challenge. Working with UK100, I want to see a narrative dominated by the opportunities for innovation in new green industries, jobs, and skills development, building retrofit, new construction and electrification of transport. More joined up and complementary zero carbon policy making is needed at national and local levels and it must also be tailored to the specific needs of rural areas. This will enable my Local Authority along with the members of the UK100 Countryside Climate Network, to accelerate our programmes for renewable energy generation and distribution, building retrofit, low energy new builds, innovative public transport solutions and roll out of super-fast broadband.**
> **Cllr Steve Count, Leader, Cambridgeshire County Council**

> **We focus on local systems leadership, and want projects to be bankable so the Council, our communities and partners can make a return. Our role as a facilitator means we want our projects to be replicable, so the findings even with grant funding have to be accessible for others to learn from.**
> **Mark Holmes, Cornwall Council**

Key Considerations for National Government - Land Use and Agriculture

- Recognition of the greater contribution needed from rural Local Authority areas in underpinning national delivery of climate change targets, specifically in renewable energy generation and land use
- Framework of strong policy, funding and practical support to enable all Local Authorities to deliver on climate change
- Rural-specific support to address the particular challenges of achieving Net Zero in less densely populated areas; so that rural authorities are not competing for funding on the same economic criteria as urban areas
- Rural-proofing of all National Government policy: to ensure policy is workable at different scales and in different locations, and introducing flexible delivery mechanisms that recognise local conditions and needs.

Somerset County Council works with the District Councils Mendip, Sedgemoor, Somerset West and Taunton and South Somerset with a shared officer on Somerset's Climate Emergency Strategy. They took a multi-agency approach, bringing in experts from business, public sector and government agencies to develop their strategy and action plans.

Cornwall Council seeks to deliver a socially just transition to Net Zero and has developed a decision making tool based on the Doughnut Economics theory, which embeds carbon and social justice into early thinking and decision making. This is now being developed to become a digital tool that other Local Authorities can use. When the Council made its climate emergency declaration, each council member made a specific service-area commitment which has led to high ambitions, such as a commitment not to install new fossil fuels into Council-commissioned buildings or housing.

Durham County Council and Cambridgeshire County Council have built up strong energy teams leading schemes that attract investment and save money for their Councils; these teams have built up expertise that means they can deliver big projects and make the case for ambitious action. This in turn strengthens political support – success breeding success. **Durham** has included key performance indicators on climate in every staff members' performance management, while **Cambridgeshire** has developed a shadow carbon price approach to ensure decisions reflect carbon impacts.

Central Bedfordshire Council has developed an ambitious and comprehensive plan, driven by a vision for systemic change based on the reality of how people live and work there. The Sustainability Plan is focused on building capacity within the Council to lead and leverages their influence across all sectors: such as facilitating private and community investment in renewable energy infrastructure.

4. <u>Conclusions:</u> Key Priorities for Action

Rural Local Authorities need to be at the forefront of the national action to deliver Net Zero. Rural areas will need to provide:

- The majority of land required for onshore renewable energy generation
- Land restoration and land use change to increase the capacity for carbon sequestration, to set against remaining emissions from sectors such as aviation, agriculture and some industries.

This key role is not recognised in national policy: climate change and Net Zero policies and strategies focus predominantly on the major cities and urban areas.

Many rural Local Authorities are constrained in their capacity to act by:

- Significant under-funding relative to their urban counterparts
- Higher costs of delivering services to sparser populations
- Structural bias in access to infrastructure funding, where economic assessments favour investment in areas of dense populations
- Market failure in the delivery of private-sector led infrastructure, particularly in transport and connectivity, but also in building energy efficiency.

Nonetheless, several rural Local Authorities are leading the way with their ambitious climate action plans.

Rural and urban areas face different challenges in tackling climate change. The one-size-fits-all approach of national policy cannot effectively address the challenges of rural building efficiency, transport and connectivity and industry, or even the specifically rural issues of agriculture and land use. Flexibility to deliver specific local solutions is vital, and a recognition in policy that these solutions will be different in different rural areas is needed.

Key priorities for National Government action are:

- Government policy must be delivered in a way that is workable at different scales across the urban-rural spectrum to ensure that no area is disadvantaged. It should be rural proof and urban proof
- Economic appraisal of rural infrastructure projects should counter the inherent disadvantage of sparser populations
- Grid capacity improvements should prioritise potential distributed generation capacity areas, particularly in highly-constrained rural areas, alongside the improvements required to meet higher demands
- Solutions to rural transport and connectivity needs should be prioritised and funded
- Locally-specific solutions for housing retrofit need to be recognised in national support – which should be vastly increased in size and scale and delivered locally
- Rural local authorities should be involved as key partners in developing and supporting practical climate solutions in agriculture and land use, that contribute to a wider range of co-benefits including public health, access, housing, biodiversity and adaptation.

Rural local authorities are a key element of delivering Net Zero for the UK and their potential should be supported and enhanced by national policy.

Appendix A: Countryside Climate Network Members

Adur District Council

Cambridgeshire County Council

Canterbury City Council

Central Bedfordshire Council

Cheshire East Council

Cornwall Council

Cotswold District Council

County Durham Council

Derbyshire County Council

Essex County Council

Gloucestershire County Council

Hampshire County Council

Herefordshire Council

Hertfordshire County Council

Lancaster City Council

Leicestershire County Council

North Somerset Council

North Yorkshire County Council

Shropshire Council

Somerset County Council

South Gloucestershire District Council

South Lakeland District Council

Staffordshire Moorlands District Council

Suffolk County Council

Wiltshire Council

Worthing Borough Council

Wychavon District Council

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Mark Holmes, Carbon Neutral Cornwall Manager, Cornwall Council

Cllr Nigel Moor, Cabinet Member Environment and Planning, Gloucestershire County Council

Steve Mooring, Head of Sustainability, Central Bedfordshire Council

Cllr Bridget Petty, Executive Member for Climate Emergency and the Environment, North Somerset Council

Cllr Joe Porter, Cabinet Member for Climate Change and Biodiversity, Staffordshire Moorlands District Council

Katie Privett, Energy Programme Lead, York and North Yorkshire LEP

Cllr Josh Schumann, Chairman of Environment and Sustainability, Cambridgeshire County Council

Rachael Shefford, Countryside and Tourism Officer, Dorset Council

Liz Small, Heritage Services Manager, North Yorkshire County Council

Dr Lydia Smith, Head of NIAB Innovation Farm and Innovation Hub, NIAB

Nicola Stinson, Senior Manager for Strategic Development, Isles of Scilly Council

Andrew Tordoff, Rural Development Specialist, Rural Development Policy and Partnerships, East Riding of Yorkshire Council

Paul Walton, Head of Environment and Rural Economy, New Forest National Park Authority

Dan Wrench, Climate Change Task Force, Shropshire Council

Helen Wright, Rural Policy and Partnerships Manager, East Riding of Yorkshire Council

Cllr Richard Wright, Leader, North Kesteven District Council

Barry Wyatt, Climate Emergency Manager, South Gloucestershire Council