



Towards a Carbon Neutral Somerset

- Recommendations

Actions to address the Climate and Ecological Emergency in Somerset

1. Introduction

Somerset Climate Action Network (Somerset CAN) is dedicated to enabling the changes needed to drive down emissions whilst adapting to existing climate change.

Somerset Councils Climate Strategy will be a key document in making this happen by 2030. Somerset is on the front line of the climate emergency and the level of ambition in this strategy will be fundamental in whether we can eliminate our carbon emissions and adapt to the locked in climate change effects.

Whatever the outcome of the Councils Strategy, Somerset CAN will continue to press for real change whilst helping to empower local people to do as much as they can in their communities.

2. Somerset – Coronavirus and Climate

Somerset CAN felt we couldn't publish this report without some specific mention of the situation we all find ourselves with Covid-19.

Whilst much has and will be written about the linkages between the current Covid-19 pandemic and the climate and ecological emergency, there are many immediate factors that are worth mentioning in relation to Somerset.

Whilst us humans are on 'lockdown', the planet and nature has some short time to recover. Air quality improves, wildlife has more space and peace to roam, we are all buying less stuff that we probably never needed, many of us are growing more of our own food and shopping more locally.

The biggest societal impact of Covid-19 though, once the worst of the virus is past is the likely world recession as well as a finance crisis at national and domestic levels. Many people will lose their jobs and there will be widespread hardship. In the coming months and years, addressing the climate and ecological emergency will be even more important and the way we rebuild after Covid-19 will be fundamental.

Post Covid-19 it will be more vital than ever to ensure that Somerset;

- Builds zero carbon houses and retrofits existing housing stock that are far cheaper to power and more sustainable to power and heat
- Encourages community owned renewable energy schemes bringing low carbon and cheaper electricity to more people
- Grows more of its own food and in a way that restores nature and supplies healthier lower food-mile produce to Somerset people

- Switches road 'investment' schemes to building cycleways, EV charging infrastructure and public and community transport which people on lower incomes can more easily access
- Creates a Nature Recovery Network, helping nature to recover in the long-term which helps in so many ways such as our mental health, increased pollinators to help our farmers and improved soils which is essential for future harvests
- Supports climate adaptation projects so the county is future proofed with the climate breakdown in mind e.g. flooding, drought and heat.
- Divests all Council assets away from polluting fossil fuel companies and into landscape restoration, green infrastructure, low carbon, renewable and sustainable business.

This terrible virus does not mean that the climate and ecological emergency has gone away. How we rebuild and invest once we are through this will have a fundamental impact on whether we meet our zero-carbon goals and thus create a fairer, cleaner, healthier and positive future in this stunning county of ours.

But don't just take our word for it; here is the thought of just one world climate leader.

Christiana Figueres

"Moments of crisis, such as the one we are living, are deeply painful in ways that cannot be underestimated. The social and emotional impacts of Covid-19 will be felt even after we return to normal global health conditions. We will emerge, albeit more slowly, from the unprecedented economic paralysis. The question is how we emerge: whether we return to the ways of the past or whether we derive valuable lessons, to emerge wiser and better equipped to continue to deal with our longstanding emergency of climate change."

The coronavirus tragedy has shown that we are only as safe as the most vulnerable among us and that cross-border threats require global, systemic solutions, as well as individual behaviour changes. Over the past few weeks, governments and businesses have acted swiftly to mandate drastic, but necessary measures to stem the coronavirus, keeping people indoors, grounding air travel, cancelling events and closing borders. Citizens, equally, are uniting to shift their behaviour en masse, by working and teaching their children from home, washing their hands more frequently, protecting the elderly, and helping neighbours shop for food.

The same decisive spirit is needed in the climate crisis. We need both significant government policies and important personal behaviour changes. Governments will need to intentionally design economic recovery packages that support the most vulnerable and promote innovation and clean technologies as the moving force of the economy, while removing subsidies from polluting industries. Businesses will need to decarbonise their operations and investors their portfolios. Individuals will need to change their diets, consumption patterns and travel behaviour. We have learned that every person's individual effort actually does count.

The Covid-19 pandemic has unleashed humanity's instinct to transform itself in the face of a universal threat and it can help us do the same to create a liveable planet for future generations."

(Figueres is the former executive secretary of the United Nations Framework Convention on Climate Change. She is also co-host of the podcast Outrage and Optimism and co-author of The Future We Choose.)

3. Background

This report builds on Somerset CAN's 'The Somerset 2030 Carbon Neutral Target – Local Authority Actions' 2019 analysis of the 24 leading measures that local authorities should take to address the climate emergency (Somerset CAN August 2019). It broadens the scope of that report to include recommendations for all sectors of Somerset society, including businesses, communities and the public as well as asks of Government. This report draws on the emerging evidence base for the effectiveness of actions, including Somerset CAN's own analysis (Carbon emissions saving potential of actions to address the Somerset climate change emergency, Somerset CAN, April 2020). It also

takes into account analysis in the Somerset Climate Change Framework (Somerset Councils, December 2019) and the results of the public consultation undertaken by Somerset CAN on behalf of the Somerset Councils in January and February 2020 (Report on the Public Consultation on Somerset Climate and Ecological Emergency' (Somerset CAN, March 2020).

References to Somerset Councils in this report refer to Somerset County Council and the four District Councils – Mendip, Sedgemoor, South Somerset and Somerset West and Taunton.

The report focuses on carbon neutrality and does not comprehensively cover the parallel ecological emergency. It does not cover the many co-benefits, such as health and employment, that arise from actions to address the climate crisis.

The recommended actions are grouped by the workstream themes that have been followed by the Somerset Councils for the forthcoming Somerset Climate Change Strategy.

Resilience to climate change

The report focuses on carbon reduction. In doing so it also expects actions to be resilient to climate change. The report recommends resilience in line with Government guidance and for resilience to address vulnerabilities up to the following level of climate hazard by 2080:

1. 85% increase in peak river flow
2. 60% increase in surface water flooding
3. 1.13m (ideally planning for 2m) sea level rise
4. An increase in consecutive days of 30°C from every other year to 4 times per year

Any decision which is expensive or difficult to change within 10 years would need to consider climate impacts which are different from those at the time of planning. Most actions required in the plans below fall into this category.

The plans may be phased to manage adaptation up to these levels, and implementing phases in line with the pace of climate change.

Plans should be in place for the expected used life of the initiative. It should be considered that assets and developments are often used significantly longer than their official "design life". Where expected used life goes beyond the end of the century e.g. new development areas, or future proofing of current developments, appropriate resilience levels beyond those provided above the end of the century will need to be identified.

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4.Recommendations

Built Environment

The built environment is a huge opportunity to enable a low carbon society.

The construction, operation and maintenance of the built environment accounts for 45% of total UK carbon emissions (27% from domestic buildings and 18% from non-domestic buildings). Around 10% of carbon dioxide emissions are directly associated with construction. This includes the CO₂ generated through the entire building process.

A very large proportion of existing homes in Somerset are built of traditional stone, which are hard to heat, especially as many are off the gas grid and are very difficult to insulate. An estimated 24,391 households in Somerset are in fuel poverty according to latest figures (for 2016), representing 10.2% of all households. These households struggle with the costs of heating old, poorly insulated and draughty buildings heated by oil or electrical heating. We need to be retrofitting our existing homes to meet carbon neutrality by 2030. An average of 2,500 homes a day require retrofitting to the highest energy efficiency standards to meet this target. Reskilling the work force will be needed to achieve this and building regulations and planning policies need to reflect this urgently.

1. Require the highest standards - zero carbon or passivhaus - for new build, using powers granted to local authorities under the Planning and Energy Act 2008.	Councils, Housing Associations, Developers
2. Enforce building standards - enforce planning/building conditions to ensure all new builds are meeting the targets they were granted permission for.	Councils, Housing Associations, Developers
3. Enforce energy efficiency standards in the private rented sector – use licensing to identify rented homes and ensure full cost recovery of proper regulation and enforcement of housing standards.	Councils, Landlords
4. Ensure that the legal requirement to raise energy efficiency standards to EPC Level B or higher in Council-owned housing and social housing through retrofit programmes is delivered (already in Clean Growth Strategy to reach EPC C by 2030)	Councils, Housing Associations
5. Help energy companies target fuel poor or vulnerable households with energy efficiency measures through ECO scheme obligations.	Councils, Energy Companies, Housing Associations
6. Promote and commission the community sector to provide trusted and funded local support to promote, co-ordinate and help improve energy inefficient homes.	Councils, Community Sector
7. Reduce energy use in Council-owned buildings using an Energy Performance Contracting approach to deliver guaranteed energy efficiency improvements.	Councils
8. Introduce a low-impact building policy to encourage and support natural/ eco-friendly building techniques and build systems.	Councils, Housing Associations, Developers

9. Follow the recommendations of the London Energy Transformation Initiative, including policies on operational energy, embodied carbon, the future of heat, demand response and energy disclosure.	Councils
10. Re-empower and validate the use of Energy Performance Certificates in conjunction with financial incentives, for example through Council tax revision.	Councils
11. Make sure your home is well insulated. Hot water should be considered - using aerated shower heads and flow restricters as well as water efficient appliances means less hot water will be used and therefore less energy required to heat it. Electricity should also be considered: switch from gas to electric ovens and hobs, low energy lighting, efficient appliances.	Public

Asks of Central Government – Built Environment
Accelerate effective programmes to increase energy efficiency of existing homes, including owner-occupied.
Incentivise the installation of heat pumps combined with energy efficiency measures.
Provide financial incentives, for example through stamp duty reduction, for homeowners increasing EPC rating of their homes.
Re-introduce zero-carbon homes legislation
Require current developments to be resilient to high case climate emergency scenarios at a level of at least 1 in 100 at the end of the century, not at the time of development planning approval as of now.
Where possible develop the resilience of existing communities to retain resilience under high case climate change scenarios.
Consider current conditions and whether changes might be needed to enable new development (or in extreme scenarios relocation of existing development) to areas which are not vulnerable to long term climate change (at least to 2200).

Renewable Energy

Somerset has a huge capacity for the generation of renewable energy:

- On-shore and off-shore wind
- Solar (ground and roof mounted)
- Tidal
- Ground, air and water source heat
- Biogas
- Small-scale hydro

Whilst some use of the solar resource has been made in Somerset with a number of ground mounted schemes there is space for further deployment and in particular community owned/authority schemes which will not only ensure the project profits stay local but will contribute to the overall carbon neutrality goals. There is plenty of opportunity for additional solar on roofs on both local authority estates, business and private buildings – if the authority leads the way others will follow.

The wind resource in the county is not utilised; most wind farms have not received planning consent and most of the very few turbines in existence are small in scale and individual sites rather than wind farms in other parts of the UK. If Somerset is to become carbon neutral then electricity generation from wind needs to be rapidly increased at scale.

There are a number of community energy organisations in Somerset who have a wealth of experience in developing and operating renewable energy projects and in bringing community participation to renewable energy. The Somerset community energy organisations are well placed to deliver more renewable energy and to facilitate local supply to the authority by way of power purchase agreements and local energy markets and to bring funding and investment where needed for renewable energy.

12. Introduce new planning rules to require new buildings, including homes and commercial/industrial buildings, to install renewable energy, such as solar thermal, PV and heat pumps to provide a minimum of 50% energy requirements.	Councils, Housing Associations, Business, Developers
13. Identify locations suitable for district heating projects and develop them, working with the private sector	Councils, Housing Associations, Developers
14. Enable community-owned co-operatives to install renewable energy such as solar PV, on council-owned estate, such as schools.	Councils
15. Enable a Somerset-wide community energy non-profit organisation to develop community-owned renewable energy projects at scale across the county.	Councils, Housing Associations, Developers, Communities
16. Identify suitable locations for renewable energy development, including solar farms and onshore wind, in Local Plans.	Councils, Developers
17. Support large-scale renewable projects, such as tidal lagoons, linking with the Local Enterprise Partnership and SW Energy Hub.	Councils, Business, Communities
18. Install solar PV on all suitable home roofs.	Developers, Homeowners and Landlords
19. Install solar PV on all suitable commercial, institutional and industrial buildings	Business and Industry
20. Make the required alterations to the grid network to allow up to 100% electricity to be generated from renewable sources	National Grid, Western Power Distribution
21. In the waste contract require the production of biogas from non-recyclable biodegradable waste as a contribution to decarbonising the gas grid.	Somerset Waste Partnership, Commercial Waste Operators
22. Develop shared or community heat networks using locally grown biomass.	Councils, Developers
23. Produce your own renewable electricity where possible.	Public
24. Switch to a 100% renewable energy supplier immediately, with a goal for this to be from local community-owned sources by 2030.	Councils, Public, Business and Industry

Asks of Central Government – Energy Use
Facilitate the switch of heating fuel-source from fossil fuels to renewables in hard-to-treat homes and the private rented sector.
Positive Planning Policy for on shore wind development
Tax relief for community energy, local authority and commercial renewable energy schemes
Business rates reliefs for renewable energy installations

Transport

Somerset's greatest carbon emissions come from transport - in 2017 almost half, 46.7%, of the annual CO₂ emissions came from personal and commercial transportation. The M5 motorway contributed 12.41% of Somerset's total carbon emissions. Transport use in Somerset has the potential for the greatest carbon emission savings as well as reducing other detrimental noxious gases and particulates.

Electrifying private, commercial and community transport rapidly will make the biggest CO₂ savings. Enabling access to community transport such as rail and buses will reduce pressure and maintenance of roads in the county. Designing and planning the charging infrastructure in the domestic and public realm with Vehicle to Grid (V2G) capability¹, linked with renewable energy generation will increase the CO₂ reduction benefits and help to increase and balance the grid's renewable energy generation during peak demands.

Maximising access to walking and cycling to reduce use of private vehicles will have added benefits for the health and well-being of the Somerset community and reduce emissions and transport demand even further.

25. Install EV charge-points in at least 100 council car-parks and other accessible locations in each district of Somerset. Plan for V2G suitable locations where EV's will be parked during the whole day or overnight.	Councils, Housing Associations, Developers
26. Install EV charge-points for on-street parking in communities lacking off-street parking and away from car parks with EV charging. Include planning policy for all new homes to install EV charging	Councils, Developers
27. Remove barriers and lead joint funding bids to plan and develop effective cycling and walking infrastructure in all Somerset towns and key rural locations.	Councils, Developers
28. Establish demand-responsive EV-based public transport combined with local community transport services in rural parts of Somerset.	Councils
29. Support the development of EV car clubs	Councils
30. Develop infrastructure to support low carbon mobility services through approval of driverless electric vehicles when the technologies and regulatory environment allows	Councils and Highways England
31. Ensure rapid transition of own fleet to electric vehicles	Councils, business and industry
32. Require the use of electric, biomethane gas powered or hydrogen buses (but only if the hydrogen has been made using electrolysis powered by renewable energy).	Councils, Private bus operators
33. Require all taxis to be EVs through licensing.	Councils

¹ V2G is the capability for Electric Vehicles to put energy back onto the grid where an energy surplus exists

34. Invest in quality public transport and support innovative developments.	Councils, Private bus and train operators
35. Create local co-working hubs to provide workspace outside the home but close thus reducing the need to commute.	Employers
36. Provide EV charge-points at the workplace and incentives to staff to minimise travel and travel sustainably.	Councils. Employers
37. Car share if possible.	Public
38. Drive an electric or ultra low emissions car if possible.	Public
39. Drive less.	Public
40. Fly less.	Public
41. Use public transport wherever it is feasible to do so.	Public
42. Walk or cycle for commuting to work or other short journeys if possible.	Public

Asks of Central Government – Transport
Bring forward the prohibition of sale of new internal combustion engine cars to 2027 with an associated buy back scheme and support for lower-income people
Strengthen policies to incentivise purchase of low or zero emission vehicles
Require provision of adequate rapid or super-rapid EV charge-points at all motorway services, major supermarkets and railway stations.
Support retrofitting existing vehicles to electric
Provide finance for radically improved bus services and demand-responsive innovative EV based-schemes in urban and rural areas.
Regulate driverless vehicles in a way that promotes car sharing rather than private ownership.
Switch all infrastructure investment for new or improved roads to cycle infrastructure.

Food and Farming

The reliance on fossil fuels at every point of our global food system means that it contributes 30% of GHG emissions (when emissions from the whole food chain are calculated, i.e. agriculture, transport, processing and retail). Considering the great importance of agriculture to Somerset’s economy and to the livelihood of many residents, underpinning the resilience of the sector to the predicted changes in our climate will be an important aspect of the Climate Emergency Strategy.

To this end, growing crops more in harmony with nature and localising the food system will have beneficial impacts on Somerset’s countryside, local economic prosperity, community cohesion and public health.

43. Support conversion of a proportion of agricultural land to agro-forestry, such as silvo-pastoral systems.	Councils. Land managers, Property developers
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44. Develop procurement policies that support procurement decisions in favour of low carbon production and local food producers and the use of recycled materials and products.	Councils, Business and Industry
45. Support increasing demand for sustainably grown, locally produced food and drink through schemes such as ‘Somerset Larder’ (local food supply initiative based around Hinkley Point C construction site)	Councils, Farmers, Business and Communities
46. Support advice to farm businesses to diversify business or link to local supply chains, including working with Community Support Agriculture and innovative farm techniques such as Aquaponics.	Councils and land management advisory groups
47. Support natural capital audits at area and farm scales to inform land management decisions in favour of reducing carbon emissions, increasing sequestration and enhancing biodiversity.	Councils, Protected Area Organisations, Land Managers.
48. Require independent Life Cycle Analyses of climate change and environmental impacts for all major agricultural project proposals	Land Managers
49. Support the conversion of a proportion of arable land to the production of perennial energy crops	Land Managers
50. Promote new community owned food production	Councils, communities
51. Adopt an ‘Approved Farm’ standard for local farms demonstrating best practice for mitigating and adapting to climate change	Councils, Land Managers
52. Eat a more plant-based diet; if eating beef, buy west-country grass-fed meat.	Public
53. Grow some of your own food if possible.	Public
54. Reduce food miles by buying locally produced food where possible.	Public

Asks of Central Government – Food and Farming
Give priority to climate change aspects and biodiversity as public goods in the design of Environmental Land Management Schemes (the post Brexit replacement for the Common Agricultural Policy).
Regulate import of biofuels to protect overseas biodiversity and to allow sustainable UK energy crops to be grown.
Require food producers to label foods with clear information on carbon footprint of production.
Require schemes to be resilient to high case climate changed flood and heat scenarios as identified by the UKCP18 climate projections.

Waste

In Somerset, household and non-household waste contributes to a significant proportion of the region’s carbon emissions – the majority (>90%) derive from methane produced by the decomposition of biodegradable waste.

Major progress in waste management more generally will only be achieved if waste is treated as a misplaced resource. The logic of this is to move towards a circular economy and so to enable a substantial increase in recycling of both commercial and public sector waste streams.

Somerset is ranked in the top 10% for household waste recycling nationally. However, there is huge potential to save more carbon and increase recycling by improved infrastructure and behavioural change communications linked to the waste hierarchy:



55. Adopt circular economy waste policies aiming for zero waste – for example in local plans, minerals plans and waste management plans and contracts.	Councils
56. Explore opportunities for industrial ecosystems which enable businesses to use each other's 'waste'.	Councils, Business and Industry
57. Refuse, reduce, re-use, recycle.	Public
58. Avoid buying products that use single-use plastics where possible.	Public

Asks of Central Government – Waste
Legislate for recycling targets to achieve zero waste by 2030

Industry and Business

Industry supply chains can create between 60-80% of greenhouse gas emissions associated with both the production and consumption of goods and services. Working with businesses to better understand and reduce these broader supply chain emissions where possible is a policy priority for the councils and their contractual partners. Similarly, at an individual or household level, consumer habits have carbon implications beyond those captured in national emissions data (e.g. buying food or manufactured products from abroad).

There are many opportunities for Somerset to diversify to industries that are more carbon neutral and create a green economy. From retrofitting buildings to growing local produce as well as low impact building materials, increasing renewable energy installations and developing a share economy there are many opportunities to introduce a "doughnut economy" for the county (www.kateraworth.com/).

59. Support diversification into new green economy businesses and industries	Councils, Business and Industry
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60. Prioritise procurement of low impact local goods and services.	Councils
61. Avoid the use of single-use plastics in packaging.	Business and industry
62. Switch investments, including pension funds, away from fossil-fuel supply companies into local renewable energy funds.	Councils. Public, Business and Industry
63. Ensure all local organisations are aiming to achieve the two quality standards ISO14001 (Environmental Management), ISO14067 (Carbon Footprint) and ISO14090 (Adaptation to Climate Change)	Councils, Business and Industry

Asks of Central Government – Industry and Business

Require businesses to be resilient to high case climate changed flood and heat scenarios as identified by the UKCP18 climate projections and in line with ISO14090.

Natural Environment

Nature is declining in Somerset for various reasons including climate change. We are also not protecting our habitats and our natural capital (our natural assets which include clean air, water, soil and nature) as we should. For example to still allow peat digging in this climate emergency which causes locked in carbon to be released is akin to an open cast coal mine on the Somerset moors.

Nature is often part of the solution to climate mitigation and adaptation. Steart Marshes is a fabulous local example of a wetland landscape; a natural buffer, now rich in wildlife and providing protection for homes, saltmarsh farming and a carbon store, locking tonnes of CO₂ in the precious muddy habitat.

64. Ban new peat extraction licences and help peat businesses retrain in a low carbon industry or to specialise in non-peat compost.	Councils
65. Double Somerset’s tree cover by a combination of small-scale community plantings in and around towns and villages, with larger-scale woodland establishment by planting and by allowing natural regeneration, especially around the upland fringes.	Councils, Town and Parish Councils, Land Managers
66. Plant trees following the ‘right tree, right place’ mantra.	Public, communities
67. Support and strengthen decision making powers for the new Somerset Local Nature Partnership	Councils
68. Commission a complete Nature Recovery Network map, strategy and user guide for Somerset.	Councils
69. Encourage ‘quick wins’ e.g. create a hedgerow ‘motorway’ for nature, adjust mowing regimes to benefit pollinators on verges and in schools.	Councils, Town and Parish Councils, Land Managers
70. Establish a county-wide climate and nature ambassador programme to empower people and spread best practice.	Councils, communities
71. Establish a mandatory 20% environmental net gain policy for all new developments	Councils

72. Divest from fossil-fuel companies in Council pension funds and invest in Somerset landscape projects and Green Infrastructure.	Councils
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Asks of Central Government – Natural Environment	
Make the use of peat illegal in the UK.	
Improve National Planning Policy Frameworks to give more stringent requirements on all developers to include nature recovery and net-zero carbon as part of every development.	
Devolve authority to local councils so they have the right to refuse developments which do not plan for more than a 10% Biodiversity Net Gain	

Water

The water sector has opportunities to contribute to a low carbon society and needs to manage its vulnerabilities to climate change. It has its own targets to achieve net zero emissions by 2030. Somerset’s water companies Wessex Water and Bristol Water also offer advice for others to reduce their emissions through more efficient management of water. This section proposes drawing on the support of water companies to reduce emissions in the wider community whilst holding it to account for achieving its own objectives.

The water sector has guidance for the design of water use and storage in new and retrofitted developments which can contribute to low carbon societies. Levels of water use also have a carbon footprint, as well as affecting society’s resilience to climate change.

The water sector needs to sustain and improve its efforts to manage evaporation losses and increased demand during expected hotter drier summers. It also needs to continue to plan for and manage its vulnerabilities to increase surface, fluvial and coastal flood risk.

73. Draw on the advice of water supply companies for the most efficient water use design in new developments.	Councils, Developers
74. Support the promotion of efficient water use	Councils, Developers, Communities, Water Companies
75. Develop natural water management approaches which reduce leaching of pollutants into water courses and so reduce emissions from managing those pollutants	Land Managers, Water Companies, Conservation Groups

Asks of Central Government – Water	
Empower Somerset Rivers Authority to be a precepting authority, able to raise its own funds through Council Tax	

General Recommendations

76. Use the strongest evidence base available to decide actions but don't delay action until perfect evidence is available.	Councils
77. Use the SCATTER tool available to local authorities, including Scope 3 emissions, to guide and monitor emissions reductions.	Councils, Business, Community Groups
78. Use the following report to guide the setting of an emissions reduction pathway: Tyndall Centre for Climate Change Research (Feb 2020) Setting Climate Commitments for Local Authorities, Quantifying the implications of the United Nations Paris Agreement	Councils, Business, Community Groups
79. Use the following report, in particular to guide the connections between climate change actions: Zero Carbon Britain, Centre for Alternative Technology (2019)	Councils, Business, Community Groups
80. Implement all Committee for Climate Change recommendations without delay	Central Government

5. Community engagement and Conclusion

The list of recommendations above is daunting but achievable.

If the Covid-19 situation has shown us anything it is that there is no limit to the lengths society can go to when faced with an emergency. Our climate situation is just such an emergency.

The consultation exercise for the Councils Climate Framework was encouraging in the number of respondents and the ambition they are calling for. It also highlighted, which is to be expected in our busy lives, that people are hungry for information and need help in deciding the priorities for action.

To this end, community engagement will be fundamental in;

- Bringing people up to speed with the challenge we face
- Giving people, business and communities the tools they need to make the smart changes
- Passing on the most up to date information and new findings on both the current climate situation, what is coming in the future and the smartest ways to tackle it at every level
- Showing everyone what funding is available and providing case studies of local examples of action
- Celebrating success

Councils will continue to be key in this process in ways beyond simply producing a strategy and taking action themselves, influencing others and making the big asks of Government, important though these all are.

They can lead by example by taking the big decisions such as divestment of their pension funds away from any fossil fuel companies and reinvesting in local climate causes such as community energy schemes.

They can be champions for sensible policies such as an outright ban on future peat extraction, a key first step in preserving our Natural Capital.

They can show courage by refusing to support new road schemes where cycle routes, EV and public transport options exist.

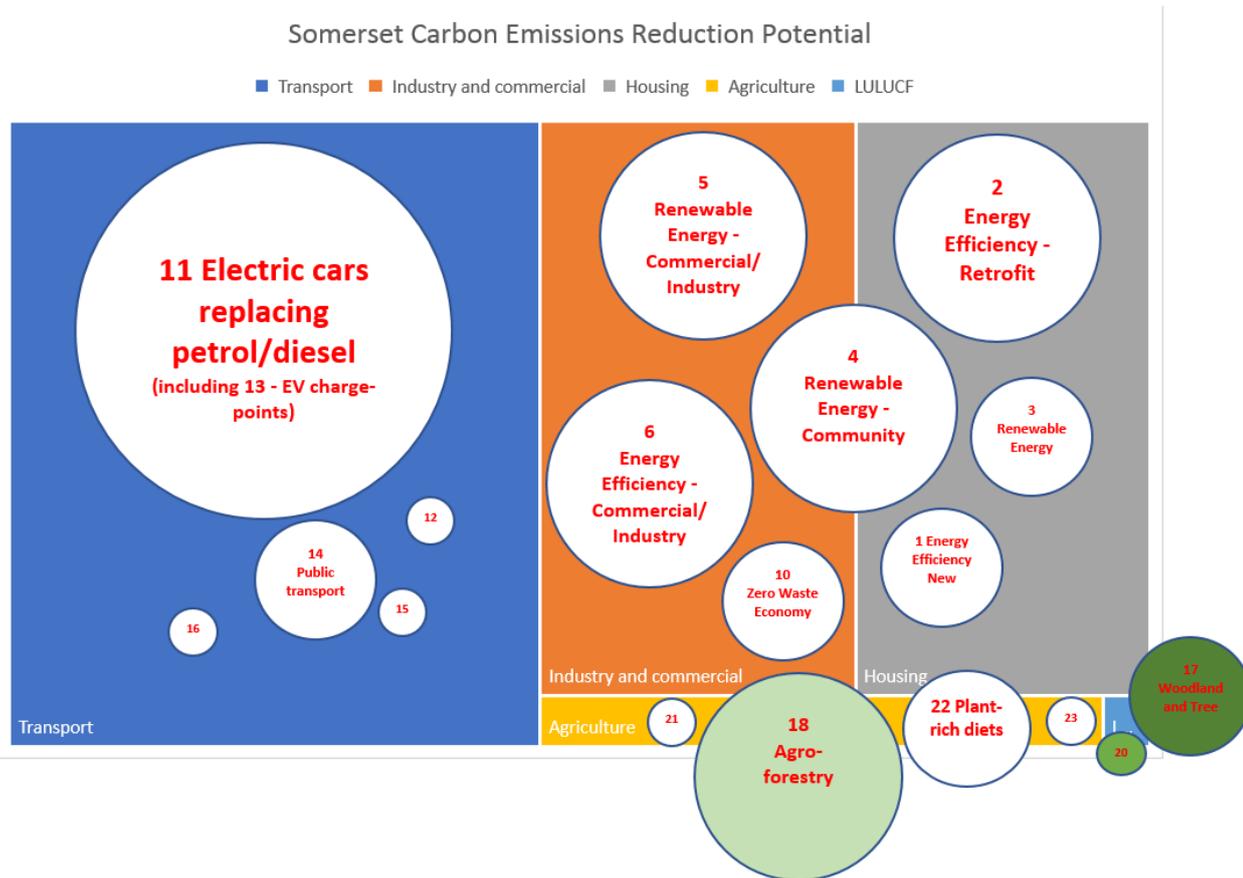
Annexes

- Annex 1 – summary of Somerset CAN evidence paper (April 2020)
- Annex 2 – summary of the Somerset CAN 24 measures of climate change actions required (August '19)

Annex 1 Carbon Emissions Reduction Potential of Key Measures

In August 2019 Somerset CAN recommended 24 key measures to Somerset Councils in response to the declared climate and ecological emergency (Table 1). In parallel to this report Somerset CAN provides an analysis of the carbon emissions reduction potential of the 24 measures by 2020 (Towards a Carbon Neutral Somerset - Carbon emissions saving potential of actions to address the Somerset climate change emergency).

Figure 1 gives a visual representation of the potential contribution of each measure grouped into four levels of emission reduction. The background coloured rectangles are in proportion to the Somerset emissions arising from each sector – transport, business/industry, homes and agriculture. The white circles are sized in proportion to the emissions reduction potential of each measure, with numbers corresponding to the numbering of measures in the Somerset CAN report. Measure 17 Woodland and Tree Planting is shown in green as it represents carbon sequestration rather than emissions reduction. Measure 18 Agro-forestry represents a combination of carbon sequestration and emissions reduction.





Towards a Carbon Neutral Somerset - Recommendations

14 April 2020 – www.somersetcan.org.uk

Annex 2 - Climate Action Measures and Local Authorities.

#	Emissions sector	Measure	Can Local Authorities Influence?	Local authority department/ area of influence										
				Planning	Highways/ car parks	Licensing	Waste	Education	Health/ social care	Procurement/ Supply Chain	Removing barriers	Funding	Behaviour promotion	
1	Homes	Energy efficiency - new homes	Yes	✓										
2		Energy efficiency - retrofit homes	Yes	✓							✓	✓	✓	
3		Renewable energy - homes	Yes	✓										
4	Community	Renewable energy - community	Yes	✓				✓	✓		✓	✓		
5	Industry/ Commercial	Renewable energy - commercial/ industrial	Yes	✓										
6		Energy efficiency - non-residential buildings & infrastructure	Yes	✓	✓			✓	✓		✓	✓	✓	
7		Oppose fracking and other harmful extraction including peat	Yes	✓			✓							
8		Reduce consumption of energy-intensive products	Yes				✓		✓	✓	✓		✓	
9		Increase production of low-energy sustainable products	Yes							✓				
10		Zero waste economy - refuse, reduce, re-use, recycle	Yes	✓				✓	✓	✓	✓		✓	✓
11	Transport	Electric cars replacing petrol/diesel	Yes	✓	✓						✓		✓	
12		Electric/ hydrogen fuelled trains, buses, taxis and community transport	Yes	✓			✓		✓	✓	✓	✓		
13		Electric Vehicle infrastructure	Yes	✓	✓				✓	✓		✓	✓	
14		Improved public transport to reduce car travel demand	Yes		✓									
15		Walking and cycling infrastructure to reduce car travel demand	Yes	✓	✓				✓			✓	✓	✓
16		Shared transport e.g. EV car clubs	Yes		✓								✓	✓
17	Greenhouse Gas Removals	Woodland and tree planting	Yes	✓							✓	✓		
18		Agro-forestry	Yes	✓							✓	✓		
19		Soil carbon sequestration	No											
20		Wetland and coastal habitats restoration	Yes	✓							✓			
21		Perennial crop biofuels production	No											
22		Transition to plant-rich diets	Yes						✓	✓	✓			✓
23		Local food growing and distribution	Yes						✓	✓	✓	✓		✓
24		Building with biomass	Yes	✓							✓			

Table 1 Extent of Influence, Other Sectors, Target Contributions and Co-benefits of Measures

#	Emissions sector	Measure	Extent of LA influence	Other sector most influential	Potential contribution to target	Co-benefits			
						Health	Employment	Nature	Addressing Inequality
1	Homes	Energy efficiency - new homes	High	Business	Medium				✓
2		Energy efficiency - retrofit homes	Low	Central government	High	✓	✓		✓
3		Renewable energy - homes	High	Business	Medium		✓		✓
4	Community	Renewable energy - community	Medium	Individuals/ Community	Medium		✓		
5	Industry/ Commercial	Renewable energy - commercial/ industrial	Medium	Business	High		✓		
6		Energy efficiency - non-residential buildings & infrastructure	Low	Business	High		✓		
7		Oppose fracking and other high carbon extraction industries	High	Central government	Medium			✓	
8		Reduce consumption of energy-intensive products	Low	Individuals/ Community	Medium				
9		Increase production of low-energy sustainable products	Low	Individuals/ Community	Medium		✓		
10		Zero waste economy - refuse, reduce, re-use, recycle	High	Individuals/ Community	High		✓	✓	
11	Transport	Electric cars replacing petrol/diesel	Medium	Central government	High	✓		✓	
12		Electric/ hydrogen fuelled trains, buses, taxis and community transport	Medium	Business	Low	✓		✓	
13		Electric Vehicle infrastructure	Medium	Central government	High		✓		
14		Improved public transport to reduce car travel demand	High	Central government	Medium	✓		✓	✓
15		Walking and cycling infrastructure to reduce car travel demand	High	Individuals/ Community	Medium	✓		✓	✓
16		Shared transport e.g. EV car clubs	Low	Individuals/ Community	Low	✓			✓
17	Greenhouse Gas Removals	Woodland and tree planting	Medium	Central government	High	✓		✓	
18		Agro-forestry	Low	Business	Medium	✓	✓	✓	
19		Soil carbon sequestration	Nil	Business	High				
20		Wetland and coastal habitats restoration	Low	Central government	Medium	✓		✓	
21		Perennial crop biofuels production	Nil	Business	Medium				
22		Transition to plant-rich diets	Medium	Individuals/ Community	Medium	✓	✓		
23		Local food growing and distribution	Medium	Individuals/ Community	Low	✓	✓		
24		Building with biomass	Medium	Business	Low				