

## TOWARDS A ZERO CARBON SOMERSET

### A Green Climate Emergency Strategy for Somerset

Towards a Climate Resilient Somerset is a climate emergency strategy jointly prepared by Somerset Councils. It is a welcome early step but fails to acknowledge the urgency of the climate crisis and lacks ambition and action. It is also too reliant on community and individual efforts. Greater leadership and action are required from Government and our councils too.

The climate emergency and need for urgent action are increasingly recognised and understood. As shown by public consultation for the Somerset joint strategy, there is “overwhelming support for taking action on climate change as soon as possible, provided it is effective, communicated and, where possible, done in collaboration with local communities”<sup>1</sup>.

Awareness is increasing of an ecological emergency too, due to wildlife declining and extinction rates increasing in the UK and throughout the world<sup>2</sup>. Human life is reliant on the natural world for nutritious food, clean water, fresh air, medicines and protection from extreme weather. We also rely on our planet and natural systems for energy and raw materials. But we are over-exploiting these resources, destroying habitat and putting nature under increasing threat.

The current structure of our economies and government policies continue to encourage activities and choices that harm our natural world and climate. Damaging practices and industries are still subsidised<sup>3</sup> and their environmental and social costs are not sufficiently taken into account.

Instead, green choices and lifestyles need to be much better supported, so they can be easily adopted by all.

We can play our part in Somerset, but the Somerset climate emergency strategy needs to aim higher. A more radical and stronger approach is needed to work towards a zero carbon Somerset, as described below.

### THE NEED FOR URGENCY – CLIMATE AND ECOLOGICAL EMERGENCIES

Greenhouse gases accumulate in the atmosphere, where carbon dioxide can persist for centuries or even thousands of years, nitrous oxide lasts for more than 100 years, methane for 12 years and fluorinated gases can last from only a few weeks to thousands of years<sup>4</sup>.

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<sup>1</sup> Page 4 - Somerset Climate Action Network: Report on the public consultation on Somerset Climate and Ecological Emergency, Prepared for Somerset Councils, March 2020

<sup>2</sup> See: IPBES, May 2019 - Global Assessment Report on Biodiversity and Ecosystem Services ([nbn.org.uk/stateofnature2019](http://nbn.org.uk/stateofnature2019)) and State of Nature 2019 ([nbn.org.uk/stateofnature2019](http://nbn.org.uk/stateofnature2019)).

<sup>3</sup> See: ODI, 2018 - G7 fossil fuel subsidy scorecard ([www.odi.org/publications/11131-g7-fossil-fuel-subsidy-scorecard](http://www.odi.org/publications/11131-g7-fossil-fuel-subsidy-scorecard)).

<sup>4</sup> Our World in Data, August 2020 (updated) - CO<sub>2</sub> and Greenhouse Gas Emissions ([ourworldindata.org/co2-and-other-greenhouse-gas-emissions](http://ourworldindata.org/co2-and-other-greenhouse-gas-emissions)).

Already, average global temperatures have increased by about 1°C. If emissions of greenhouse gases continue unchecked, global heating is expected to reach 4.1°C – 4.8°C above pre-industrial levels by the end of the century. Current policies in place around the world are projected to reduce the increase to 2.7°C – 3.1°C and if Paris Agreement pledges are achieved the increase is projected to be 2.4°C – 2.7°C<sup>5</sup>. The central aim of the UN Paris Agreement is to keep the global temperature rise this century well below 2°C and to pursue efforts to limit the increase to no more than 1.5°C<sup>6</sup>, so national pledges will have to ratchet up to allow this target to be achieved.

The International Panel on Climate Change (IPCC) estimate<sup>7</sup> that average global heating is likely to reach 1.5°C between 2030 and 2052 if it continues at the current rate; and that risks are significantly higher if 2°C is reached, as this would have greater impacts on the weather around the world (droughts, floods, heat and extreme conditions), sea level rises, species loss and extinction, ocean acidification and higher temperatures, and increased climate-related risks for human health, livelihoods, food security, water supply, security and economies.

Some scientists predict that tipping points could be exceeded by average temperature increases of between 1 and 2°C leading to irreversible climate change and further global heating<sup>8</sup>. Tipping points risked include the melting of ice sheets in Antarctica and Greenland, which eventually could leave future generations facing 10m of sea level rise. Arctic sea ice is already shrinking rapidly. At 2°C of heating, the Arctic could become largely free of sea ice in summer. Also threatened are the Amazon rainforest, North American boreal forests and the thawing of Arctic permafrost, which would release further carbon dioxide and methane.

These changes could cascade, one after another, due to reinforcing feedback, leading to a 'Hothouse Earth', where there is heating of 4-5°C above pre-industrial temperatures, sea levels 10-60m higher than today and large parts of the Earth that have become uninhabitable<sup>9</sup>.

Climate scientists have concluded “the evidence from tipping points alone suggests that we are in a state of planetary emergency”, “the risk and urgency of the situation are acute” and we need to “act now”<sup>8</sup>.

To stop further global heating, we need to stop the accumulating emissions of greenhouse gases that act like a blanket around the Earth. The sooner we stop these emissions, the sooner the threats and impacts of global heating can be reduced. We need to achieve carbon neutrality by bringing greenhouse gas emissions as close as possible to zero and by using natural methods to absorb emissions that remain, before then looking to move on to remove greenhouse gases already emitted.

At the same time, as greenhouse gas emissions threaten our climate and the impacts of climate change threaten the human and natural worlds, our resource consumption and expanding land use degrades and destroys wildlife habitats.

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<sup>5</sup> Source: [climateactiontracker.org/global/temperatures](https://climateactiontracker.org/global/temperatures)

<sup>6</sup> See: [unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement](https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement)

<sup>7</sup> International Panel on Climate Change, 2018: Special Report - Global Warming of 1.5°C ([www.ipcc.ch/sr15](https://www.ipcc.ch/sr15))

<sup>8</sup> Source: Climate tipping points - too risky to bet against; Nature, 27 November 2019 - [www.nature.com/articles/d41586-019-03595-0](https://www.nature.com/articles/d41586-019-03595-0)

<sup>9</sup> See: [www.stockholmresilience.org/research/research-news/2018-08-06-planet-at-risk-of-heading-towards-hothouse-earth-state.html](https://www.stockholmresilience.org/research/research-news/2018-08-06-planet-at-risk-of-heading-towards-hothouse-earth-state.html). Also: Future of the human climate niche, PNAS, May 2020 at: [www.pnas.org/content/117/21/11350](https://www.pnas.org/content/117/21/11350)

Due to overuse of natural resources, WWF's 2020 global Living Planet Index<sup>10</sup> shows an average 68% fall in monitored populations of mammals, birds, amphibians, reptiles and fish between 1970 and 2016.

An assessment<sup>11</sup> by the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) found that species extinction rates are now tens to hundreds of times higher than historical averages. Around one million animal and plant species are threatened with extinction, many within decades - more than ever before in human history.

The State of Nature 2019 report<sup>12</sup> highlighted the critical decline in biodiversity in the UK. Farming has had the biggest effect in recent decades and the impact of climate change is now increasing. 15% of UK species are classified as threatened with extinction and 2% are already extinct.

Soils and natural environments, especially peatland and woodland, are valuable carbon stores and restoring habitats and growing trees absorbs more carbon, reversing our emissions, as well helping to allow wildlife to recover.

## A GREEN APPROACH

Somerset Green Party believes the urgency of the climate emergency needs to be understood and climate strategies need to recognise the extent of action and change needed.

We need to stop burning fossil fuels as soon as possible and also reduce other sources of greenhouse gases, such as from ruminant farm animals and changes in land use that release stored carbon.

More nuclear power is not the answer. It is expensive and would be too slow to deliver new energy in time<sup>13</sup>. It also leaves a legacy of dangerous waste without a proven disposal solution<sup>14</sup>.

The green way forward involves using energy and materials efficiently, with less waste, and generating power from renewable sources, especially solar and wind, which have a large potential in Somerset<sup>15</sup> and falling costs, so that they are increasingly the most cost-effective new power options<sup>16</sup>.

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<sup>10</sup> WWF, 2020 - Living Planet Report 2020 ([livingplanet.panda.org/en-gb](https://livingplanet.panda.org/en-gb))

<sup>11</sup> IPBES, May 2019 - Global Assessment Report on Biodiversity and Ecosystem Services ([ipbes.net/global-assessment](https://ipbes.net/global-assessment) – also see: [www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report](https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report))

<sup>12</sup> National Biodiversity Network, 2019 - State of Nature 2019 ([nbn.org.uk/stateofnature2019](https://nbn.org.uk/stateofnature2019))

<sup>13</sup> World Nuclear Industry Status Report 2019, September 2019 - Climate Change and the Nuclear Power Option ([www.worldnuclearreport.org/WNISR2019-Assesses-Climate-Change-and-the-Nuclear-Power-Option.html](https://www.worldnuclearreport.org/WNISR2019-Assesses-Climate-Change-and-the-Nuclear-Power-Option.html))

<sup>14</sup> See: Power Technology, updated June 2020 - The dangers of maintaining nuclear waste in the UK ([www.power-technology.com/features/featuregood-riddance-maintaining-nuclear-waste-maintenance-in-the-uk-4872498](https://www.power-technology.com/features/featuregood-riddance-maintaining-nuclear-waste-maintenance-in-the-uk-4872498)); and Paul Brown, Feb 2019 - Growing nuclear waste legacy defies disposal ([climateneWSnetwork.net/growing-nuclear-waste-legacy-defies-disposal](https://climateneWSnetwork.net/growing-nuclear-waste-legacy-defies-disposal))

<sup>15</sup> The Resilience Centre and Molly Scott Cato MEP, 2015 - The power to transform the South West ([mollymep.org.uk/wp-content/uploads/MSW-Energy-leaflet-V2\\_spreads.pdf](https://mollymep.org.uk/wp-content/uploads/MSW-Energy-leaflet-V2_spreads.pdf) and [mollymep.org.uk/wp-content/uploads/The-power-to-transform-the-South-West\\_FINAL1.pdf](https://mollymep.org.uk/wp-content/uploads/The-power-to-transform-the-South-West_FINAL1.pdf))

<sup>16</sup> See Christian Bogmans, April 2019 - Falling Costs Make Wind, Solar More Affordable ([blogs.imf.org/2019/04/26/falling-costs-make-wind-solar-more-affordable](https://blogs.imf.org/2019/04/26/falling-costs-make-wind-solar-more-affordable)) and UN Environment Programme, June

For warmth in our homes, we need high levels of insulation and to switch to electric heat pumps, along with some district heating in suitable areas<sup>17</sup>. For transport, solutions include more walking, cycling and public transport, switching to electric and hydrogen powered vehicles, and reducing increases in car use and air travel<sup>18</sup>.

We should reduce food waste and adopt healthier low carbon diets, by reducing dairy and meat consumption, especially beef and lamb<sup>19</sup>.

It is important to reverse deforestation by planting the right trees in the right places and to restore soil and peatland carbon stores. We also need restored ecosystems that enhance natural processes to maintain and enhance biodiversity, healthy soil and clean air and water<sup>20</sup>.

Our lives can be better and healthier with these changes, as long as we ensure a quick and fair transition to a net zero carbon future, and our economy can be stronger and more resilient too.

## OPPORTUNITIES FROM A GREEN RECOVERY

The world currently faces another crisis in the form of the COVID pandemic. Although the initial lockdown was most unwelcome, it gave a glimpse of a different world, with less pollution, key workers recognised and more social cohesion. It also accelerated moves to more online meetings and working, reducing the need for travel as a result. However, the lockdown and on-going restrictions also exposed a lack of resilience and inequalities in society, with some of those in poverty and disadvantaged suffering most.

We need to build back better to create an economy and communities that are fair, sustainable and resilient. We must take this opportunity for a lasting green recovery.

The government announcement to deliver another 40 Gigawatts (GW) of power from offshore wind within a decade is welcome but this will require more investment than so far committed. Current generating capacity from all sources is around 75 GW, which will have to grow to meet climate targets and allow for the electrification of heating and transport<sup>21</sup>.

There are many other exciting new job opportunities from the green transition in energy saving retrofits for our housing, transforming our transport systems, building solar and onshore wind

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2020 - Falling clean energy costs provide opportunity to boost climate action in COVID-19 recovery packages ([www.unenvironment.org/news-and-stories/press-release/falling-clean-energy-costs-provide-opportunity-boost-climate-action](http://www.unenvironment.org/news-and-stories/press-release/falling-clean-energy-costs-provide-opportunity-boost-climate-action))

<sup>17</sup> Committee on Climate Change, February 2019 - UK housing: Fit for the future? ([www.theccc.org.uk/publication/uk-housing-fit-for-the-future](http://www.theccc.org.uk/publication/uk-housing-fit-for-the-future))

<sup>18</sup> See pages 47-53 of Centre for Alternative Technology, 2019 - Zero Carbon Britain: Rising to the Climate Emergency ([www.cat.org.uk/info-resources/zero-carbon-britain/research-reports/zero-carbon-britain-rising-to-the-climate-emergency](http://www.cat.org.uk/info-resources/zero-carbon-britain/research-reports/zero-carbon-britain-rising-to-the-climate-emergency))

<sup>19</sup> See pages 187, 188 and 241 of Committee on Climate Change, May 2019 - Net Zero: The UK's contribution to stopping global warming ([www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming](http://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming))

<sup>20</sup> See: The Wildlife Trusts, Natural solutions to climate change ([www.wildlifetrusts.org/what-we-do/natural-solutions-climate-change](http://www.wildlifetrusts.org/what-we-do/natural-solutions-climate-change))

<sup>21</sup> ENDS Report, Oct 2020 - Meeting Johnson's 40GW offshore wind target 'would cost £50bn' ([www.endsreport.com/article/1696586/meeting-johnsons-40gw-offshore-wind-target-would-cost-50bn](http://www.endsreport.com/article/1696586/meeting-johnsons-40gw-offshore-wind-target-would-cost-50bn))

farms (cheaper than offshore), changing to a smart energy grid, restoring nature, reusing and recycling more, and adopting healthier lifestyles with better diets and more walking and cycling.

## SCENARIOS FOR CLIMATE NEUTRALITY

There are two scenarios providing pathways to a secure carbon neutral future in the UK:

- Net Zero (see annex 1) has been produced by the Committee on Climate Change, who advise the government on climate policy.
- Zero Carbon Britain (see annex 2) has been produced by the Centre for Alternative Technology.

These guides are essential for showing the size of the challenge to achieve carbon neutrality and how much needs to be done.

Although the extent of changes can be different, Net Zero and Zero Carbon Britain largely advocate similar pathways<sup>22</sup>: energy efficiency, renewable power, active travel (walking and cycling), public transport, less flying, healthier diets, low carbon farming, afforestation, restored peatlands and reduced waste.

Net Zero aims to achieve the transition by 2050 and uses known technologies. Zero Carbon Britain only relies on proven technologies and in earlier versions (2007 and 2013) looked to a transition by 2030, but the 2019 updated edition says (page 10):

*“Without national-scale systemic transition in place, time is now very tight. 2030 remains a valid target from the perspective of climate science, but we must recognise that this is now becoming a hugely challenging delivery timeline.*

*“Whilst a net zero date well in advance of 2050 is vital, the climate emergency arises from the total amount of carbon released rather than any particular end point. It is vital that we focus on ambitious, large-scale, near-term emission reductions, strengthening interim carbon budgets and bringing forward policies to get zero carbon solutions deployed at scale in the very near future.”*

Somerset Green Party favours the Zero Carbon Britain scenario, but the important point is to progress as quickly as possible along reliable routes to carbon neutrality, so that greenhouse gas emissions are stopped at the earliest practical opportunity. We need a transition period and we need to find the best ways to ramp up solutions. Britain needs to be a leader and it will be too late if we leave it until 2050 to achieve carbon neutrality. So, we should do our best to work towards achieving this aim in 2030. Although, we may also need to accept that it will take a bit longer, but we should aim for 2030 where we can and as soon as possible after this, where necessary.

Somerset cannot make the changes on our own, we need government support and the right national policies and economic framework, but we should progress as best as we can, while we wait for the government to wake up to the urgency of the situation and the scale of changes needed.

Meanwhile, individually and communally, we can make great contributions and should do so, but this is only likely to achieve so much without effective government backing.

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<sup>22</sup> For a comparison of Net Zero and Zero Carbon Britain scenarios, including how they vary, see: [wiveygp.files.wordpress.com/2019/12/compare-zcb-and-ccc.pdf](http://wiveygp.files.wordpress.com/2019/12/compare-zcb-and-ccc.pdf)

## ACHIEVING SOMERSET GOALS AND WORKING WITH COMMUNITIES

Somerset Green Party supports the three goals of Towards a Climate Resilient Somerset – Somerset’s Climate Emergency Strategy (page 4):

- 1) To decarbonise Local Authorities, the wider public sector estates and reduce our carbon footprint;
- 2) To work towards making Somerset a Carbon Neutral County by 2030;
- 3) To have a Somerset which is prepared for, and resilient to, the impacts of Climate Change.

However, the Somerset joint strategy does not provide a scenario for the achievement of these goals and only gives the first early steps on pathways towards carbon neutrality. It fails to grasp the urgency for action and the scale of changes needed.

It is essential to work with our communities, but the Somerset strategy appears to pass on responsibility too, which goes too far. Statements in the strategy include:

- “Whilst the Local Authorities can set policies and create programmes to drive things forward, it is ultimately Somerset’s residents, and the everyday choices they make, that will have the biggest impacts. (page 28)
- “Town and Parish Councils, with their detailed local knowledge, understanding of local needs and ability to connect with and empower local residents to take action are ideally placed to support communities to take these steps. (page 28)
- “Choices must be made by individuals and communities to take ownership of carbon emissions within their own spheres of influence and concern. (page 82)
- “We require the support of our local communities and individuals to take forward many of the proposed actions... Communities and community groups have access to funding that is not available to Local Authorities and the onus will be on those groups to identify and secure funding to deliver localised schemes.” (page 82)

The response from the public consultation<sup>23</sup> gave a different view:

- “The idea that Somerset councils can go carbon neutral by 2030 was felt by many to be highly unlikely due to a mix of vested interests working against it, poor legislation, ineffective management and a general lack of public will to change habits. Indeed, some participants believed the consultation had too much focus on what individuals and communities can do, whereas the real power to act lies with business, industry and government.” (Section 5.2, page 9)

Somerset Green Party shares the belief that those most needing to act and failing to do enough are business, industry and, especially, government. Local authorities need to be clear on this too and not pass responsibility down to individuals and communities.

That said, it is very important to encourage, enable and provide support for individuals and communities to adopt carbon neutral solutions, but it must be recognised that some will find it easier to make green choices than others and that the policy and economic framework needs to change too, for lasting solutions at sufficient scale.

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<sup>23</sup> Somerset Climate Action Network: Report on the public consultation on Somerset Climate and Ecological Emergency, Prepared for Somerset Councils, March 2020



Many parish and town councils lack the capacity to address climate change in their communities, although they should be encouraged and supported where able and keen to do so. Our principal councils should take the lead on most projects and programmes and give support to local councils and communities to help promote and take these further locally.

Projects should keep in mind the capacity for individuals and communities to make changes, expecting most from those keen and able to move towards carbon neutrality, and providing support, wherever possible, to ensure the transition is just and fair.

As the consultation report also says:

- ... “the councils have proved they can take action, through Somerset Waste Partnership, replicating this model to tackle carbon emissions should be considered. Having a similar high profile and effective programme, for example developing and supporting community and individual renewable energy, might reassure residents that the councils really can be effective. Recent changes in planning restrictions on wind turbines might help, as would collective purchase of solar panels for homes, public buildings and businesses.” (5.2, page 9)

## OUTCOMES

The table below shows selected outcomes from the Councils’ joint strategy, Towards a Climate Resilient Somerset, on the left, with replacement Green Party outcomes alongside (on right). Also listed are Climate Resilient Somerset outcomes supported by Somerset Green Party.

Overall, outcomes in the Councils’ joint strategy show a lack of focus on working towards carbon neutrality by 2030, which was a target set by Council climate emergency declarations. In some cases, the outcomes show this aim has been downgraded to 2050 (contradicting the strategy’s second goal that aims for 2030). Some outcomes lack specific details for their effect by only looking to achieve a ‘significant’ change or saying it will be achieved ‘as soon as possible’.

Somerset Green Party’s outcomes are targeted more closely towards carbon neutrality by 2030. We accept that in some cases this will now be difficult, but progress still needs to be made as quickly as possible. Our outcomes should also be much better aligned to what will be required to achieve carbon neutrality, which would not result from the joint Council strategy outcomes.

Towards a Climate Resilient Somerset – Somerset’s Climate Emergency Strategy	Towards a Zero Carbon Somerset - A Green Climate Emergency Strategy for Somerset
<b>Section 7.1 - ENERGY</b>	SUPPORT outcomes 1-4, 6 and 8
COUNCILS’ STRATEGY 5) A significant proportion of electricity demand across Somerset is met by locally generated and locally owned low carbon and renewable energy (excluding nuclear) by 2030, moving towards 100% and then becoming a net exporter by 2050	REPLACE WITH: Meet 100% of electricity demand across Somerset from locally generated renewable energy by 2030, with local grid constraints addressed, and develop additional sites to allow renewable energy export.
COUNCILS’ STRATEGY 7) Heat demand within Somerset is reduced and decarbonised as far as possible by 2030 and fully by 2050	REPLACE WITH: Reduce heat demand and fully decarbonise heat supply by 2030 through heat pumps, district heating and green hydrogen.

<b>Section 7.2 - TRANSPORT</b>	SUPPORT outcomes 2, 3 and 4
COUNCILS' STRATEGY 1) Change in Vehicle Types - By 2030, carbon emissions generated on Somerset's roads are reduced through the change to electric vehicles, ultra-low emission commercial vehicles and an overall reduction in road use (no. of miles travelled).	REPLACE WITH: Change in Vehicle Types - Carbon emissions generated on Somerset's roads are reduced by at least 75% by 2030 and by 100% before 2040 through the change to electric and hydrogen powered vehicles (including e-bikes and e-scooters) and at least a 20% reduction in car mileage.
	NEW OUTCOME: Modal shift – Increase pedestrianisation in the centres of the largest towns and aim for a 40% reduction in car use in urban centres by 2030 through switching to active travel and public transport.
	NEW OUTCOME: Encourage Somerset residents to reduce aviation use by 50% by 2030, with a review for a higher target undertaken in 2025.
<b>Section 7.3 – BUILT ENVIRONMENT</b>	SUPPORT outcomes 3, 4 and 9
COUNCILS' STRATEGY 1) All new developments (new homes and non- residential) will be highly energy efficient, at least zero carbon and climate resilient from as early a date as possible.	CHANGE TO achieve this outcome by 2023.
COUNCILS' STRATEGY 2) All new developments will be constructed from sustainable, carbon neutral materials designed for reuse with circular economy principles in mind from as early a date as possible.	CHANGE TO achieve this outcome by 2023.
COUNCILS' STRATEGY 5) All Local Authority housing stock to be at least EPC C by 2030 COUNCILS' STRATEGY 6) All private landlords' properties to be at least EPC C standard by 2030 COUNCILS' STRATEGY 7) A significant number of private homes are rated at least EPC C by 2030	REPLACE WITH: Undertake integrated whole house retrofits <sup>24</sup> to improve insulation, heating, ventilation, air quality and comfort and provide smart control systems, so that heat demand in buildings can be reduced by 25-50% by 2030. All heating from 2030 to be net zero carbon, with the majority supplied by electric heat pumps, or by green hydrogen or biogas in buildings built before 2023.  (Unless redefined, EPC ratings may be used for targeting retrofit work but, otherwise, will not be used to drive changes as it is a cost-based method, which can give rise to perverse incentives and is not well suited to energy efficiency improvements or emission savings <sup>24</sup> )

<sup>24</sup> See page 13 (integrated whole house approach) and pages 116-117 (EPC ratings) of Committee on Climate Change, February 2019 - UK housing: Fit for the future? ([www.theccc.org.uk/publication/uk-housing-fit-for-the-future](http://www.theccc.org.uk/publication/uk-housing-fit-for-the-future))



COUNCILS' STRATEGY 8) Development Planning is undertaken on a Somerset wide basis with a County wide Development Planning Document (DPD) adopted	REPLACE WITH: Development Planning is undertaken by district councils with county-wide collaboration on common themes related to the climate and ecological emergencies.
COUNCILS' STRATEGY 10) The incidences and impacts of fuel poverty are significantly reduced across Somerset	Aim to eliminate incidences and impacts of fuel poverty across Somerset by 2025 through whole house retrofit and carbon neutral, electric or hydrogen-ready heating.
<b>Section 7.4 – BUSINESS, INDUSTRY AND SUPPLY CHAINS</b>	SUPPORT outcome 2
COUNCILS' STRATEGY 1) Businesses in Somerset will have a reduced carbon footprint (incl. both direct and indirect emissions).	REPLACE WITH: Businesses in Somerset to be encouraged and enabled to decarbonise their operations, including supply chains, by 2030.
COUNCILS' STRATEGY 3) Businesses in Somerset will have a strong understanding of the challenges and benefits of transitioning to a low carbon, clean growth economy	NEW OUTCOME: Businesses in Somerset to be encouraged and enabled to retain and restore natural ecosystem services, to respect environmental limits and to promote wellbeing.
COUNCILS' STRATEGY 4) Somerset will have transitioned to a Clean Growth economy	
<b>Section 7.5 - NATURAL ENVIRONMENT</b>	SUPPORT outcomes 2, 3, 4, 5 and 6
COUNCILS' STRATEGY 1) Biodiversity and bio-abundance are increased and natural processes including carbon storage, water quality and natural flood management across Somerset's natural environment are restored through a clear shared vision and spatial plan embedded in decision-making processes	REPLACE WITH: Targets to be set for biodiversity gain, increased woodland, peatland restoration, rewilding, carbon storage, water quality and natural flood management across Somerset, working with farmers and landowners.
<b>Section 7.6 - FARMING AND FOOD</b>	SUPPORT outcomes 2, 3, 4, 5, 6 and 7
COUNCILS' STRATEGY 1) The overall Agricultural Sector emissions are significantly reduced as we work towards to 'Net Zero' by 2030.	Work with farmers and landowners to encourage and enable the protection of soils, restoration of nature and changes in farming practices to reduce greenhouse gas emissions, including through regenerative agriculture.
	NEW OUTCOME: Encourage consumers, retailers and farmers to reduce food waste by at least 25% by 2030 and by 50% by 2040.
	NEW OUTCOME: While retaining personal choice, encourage consumers to reduce the consumption of beef, lamb and dairy by 20-50% by 2030, with a review in 2025.
	NEW OUTCOME: Working with farmers and landowners, switch 20-50% of agricultural land to other rural uses by 2030, including woodland, restored peatland, alternative

	crops and rewilding in line with carbon neutrality objectives.
<b>Section 7.7 – WATER AND FLOODING</b>	SUPPORT outcomes 1, 2, 4, 5, 6 and 7
COUNCILS’ STRATEGY 3) Flood risk is increasingly managed through nature-based solutions which also sequester carbon	REPLACE WITH: Wherever possible, flood risk is managed through natural flood management methods, with carbon-intensive solutions avoided and minimised.
<b>Section 7.8 - WASTE AND RESOURCES</b>	SUPPORT outcomes 1, 2, 4, 9, 10
COUNCILS’ STRATEGY 3) Domestic and non-domestic waste has reduced significantly following circular economy and waste hierarchy principles of refuse, reduce, reuse and recycle. This is enabled by the mechanisms and support to allow easier sorting and recovery of waste	DELETE: ‘This is enabled by the mechanisms and support to allow easier sorting and recovery of waste’; as this may not be the best way to enable reduction and reuse.
COUNCILS’ STRATEGY 5) By 2030, the waste vehicle fleet is made up of low carbon or electric vehicles	REPLACE WITH: All new recycling and waste vehicles purchased for council fleets (including at depots) are electric or hydrogen powered as soon as suitable vehicles are available and by no later than 2025.
COUNCILS’ STRATEGY 6) By 2030, year-on-year reductions in levels of fly-tipping achieved	REPLACE WITH: From 2023, achieve year-on-year reductions in levels of fly-tipping
COUNCILS’ STRATEGY 7) The majority of food waste is removed from general waste and processed in a way to minimise the release of greenhouse gas emissions and generate energy	REPLACE WITH: Encourage consumers, retailers and farmers to reduce food waste by at least 25% by 2030 and by 50% by 2035, with at least 75% of remaining food waste recycled.
COUNCILS’ STRATEGY 8) By 2030, the volume of single-use plastics has significantly decreased without a switch to unsustainable alternatives.	REPLACE WITH: Encourage an end to the use of single-use plastics, without effective on-going recycling systems in place, by 2025.
	NEW OUTCOME: Increase reuse and recycling rates to at least 65% for household, commercial and industrial waste in Somerset by 2025 and to at least 75% by 2030.
	NEW OUTCOME: Due to the high carbon emissions from the energy from waste treatment of Somerset’s residual household waste at Avonmouth, reduce the plastic content of this waste by 25% by 2025 (from a base following the roll-out of Recycle More), with a review for a future target by 2030.
<b>Section 7.9 - COMMUNICATIONS</b>	SUPPORT outcomes 1, 2, 3, 4, 5, 6 and 7

	<b>NEW OUTCOME: Residents, organisations and business are enabled and given support to adopt carbon neutral practices and lifestyles</b>
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## **TURNING STRATEGY INTO DELIVERY**

The joint Councils' strategy is right to identify that funding and a change in national policy will be required from Government (the 'Big Asks'), but the strategy does not sufficiently acknowledge the leading role that can still be taken by the Councils. Instead the joint strategy highlights action and ownership by town and parish councils and local communities and individuals (page 82). These groups are often very keen to contribute and should be supported to do so, but the scale of the changes required will need a much bigger effort too from those more able to contribute.

The resources of the principal councils (county and district) with their professional officer teams should lead on local programmes and projects that work towards carbon neutrality. New specialist officers should be appointed to the main work areas needed, some within existing teams.

As at Somerset Waste Partnership over the years, smart thinking should identify how to achieve the most possible from available funding and resources, and it can be important to be prepared to make full use of Government funding when it is available, including by making strong competitive bids when needed.

To avoid wasted efforts and piecemeal solutions, that might achieve little and soon need to be reworked, it is important to work along clear pathways to carbon neutrality that can achieve what is required.

Somerset Councils should view the challenge of carbon neutrality positively, show leadership and encourage and enable all to move steadily towards our goals.

To oversee the implementation of the Somerset climate strategy, a cross-party and representative steering group or board should be established. This could follow a similar model to the Somerset Waste Board, comprising Portfolio Holders for climate change along with one or two other councillor representatives from each Council. All political groups across the county should be represented on the board and thought should be given to the involvement of other agencies, such as Somerset Wildlife Trust, Somerset NFU and Somerset Climate Action Network, and, possibly, a Scrutiny Panel too.

To progress the Somerset strategy, it will be very important to establish methods for effective communication and partnerships between the public, business and community sectors as well as with individual residents in Somerset.

## **MEASUREMENT, MONITORING AND REVIEW**

Achieving carbon neutrality needs to be a global effort, with each country required to justify and make their own contributions under the UN Paris Agreement. Within each country, all local authorities should make their own contributions, while keeping national and international objectives in mind.

Current methods for counting local emissions exclude aviation and consumption emissions for goods and materials produced elsewhere, although, for Somerset, they include the emissions from all vehicles travelling through on the M5. To ensure positive progress, these exclusions and external inclusions should continue to be noted, to avoid taking actions that just shift emissions elsewhere and to retain a focus on what can be achieved by local efforts.

It is important to assess the impact of actions and proposals to understand their effect and how quickly we are moving along a path to carbon neutrality, while also ensuring actions are implemented fairly and as widely as possible. Annual monitoring and review are essential and needs cross-party involvement at principal councils.

Impact and value for money should not be the only measures for prioritising action. It is more important to establish clear pathways to carbon neutrality and to undertake projects that allow effective and efficient progress along these pathways, with eventual aims strongly in mind.

The Marginal Abatement Cost Curve method (page 84) suggested in the joint strategy to prioritise action by focusing on impact and cost effectiveness appears too simplistic and be likely to lead to short term decision-making and investments that require modification or addition in future. Somerset Green Party calls for a more sophisticated approach that takes full account of effective pathways to climate neutrality.

An example of how short term thinking and a focus on impact and cost-effectiveness can lead to the wrong solutions is the UK's piecemeal approach to home insulation. Installing single measures, like loft or cavity wall insulation, can lead to unwelcome side-effects, like increased condensation and damp. It can also fail to take into account changes in heating, so, for instance, if installing underfloor insulation, this may be the best time to consider an underfloor heating system too, which works effectively with a heat pump. A whole house approach should be adopted for planning housing retrofit that considers energy saving, comfort, insulation, heating, air quality and ventilation. Even if measures are introduced over time, so that they are affordable, it is best to work to a complete plan with reinforcing features, as well as to ensure quality work is undertaken.

For new projects and work programmes, it will be important to learn from doing and to seek to make progress on all workstreams. There may be some areas, such as farming and food, where the councils have less of a direct role, but leadership can still be taken by showing the type and scale of changes needed, and by helping to build support and a plan to achieve these.

Timelines for actions and outcomes need to be clear, but are currently vague in the joint Councils' strategy, and indicators will be needed to measure and monitor actions to address both the climate and ecological emergencies.

## **ACTIONS AND PRIORITIES**

Somerset Green Party supports actions proposed so far by district and county councils in Somerset but wishes to see these go further and have a greater strategic focus with clear priorities. Many of the proposed actions are vague and lack detail for their delivery, so need further work. It also needs to be clear that actions will fully address strategy outcomes.

Somerset Green Party priorities for early actions are listed below, which take account of funding

constraints and the need to move along pathways to carbon neutrality. High priority is given to addressing the sectors with the highest emissions, which are transport, housing and commerce and industry. It will be important to seek smart solutions through low cost changes or where actions can be funded from savings, and, where possible, to seek and generate funding for desired outcomes.

It should be possible to undertake or start most of the following priority actions at relatively low cost and they can then be expanded and taken further as funding becomes available.

RENEWABLE ENERGY – There is a big potential to generate more renewable energy from solar and wind power on Council buildings and land, including former landfill sites. This should be an early priority and offers an opportunity to make a return on funds invested from prudential borrowing. Like solar and wind power, the costs of battery storage are falling and should also be considered for investment. The Councils should take early steps to ensure appropriate planning policies facilitate new renewable power schemes, including solar farms, wind turbines and energy storage, by both community and private investors. Early work should be undertaken with Western Power Distribution to address local grid capacity constraints, especially in areas with high generation potential.

PEDESTRIANISATION – New pedestrianisation schemes in major town centres, such as Taunton, should be a priority to make central shopping areas more attractive and pleasant to visit and to encourage greater access by foot, bike and public transport.

ACTIVE AND ELECTRIC TRANSPORT – Trials of easy-access hire schemes for conventional bikes and electric bikes and scooters, such as recently launched in Taunton, should be extended to bus and train stations and other town centres. Work also needs to proceed more rapidly on establishing a network of electric car charging points throughout Somerset, especially in car parks and to provide access to charging points for those without the option for home parking and charging.

MODAL SWITCH FOR COMMUTERS – To encourage commuters, especially to town centres and business parks, to switch to active travel and public transport, a Workplace Parking Levy should be introduced, with expected revenues used at the same time to support alternatives to car use.

PARKING STRATEGY – Parking strategy reviews should encourage use of Park and Ride in Taunton, especially by commuters and visitors, and set car park charges so that they give an incentive to use public transport and active travel, where these are realistic options. The provision of further Park and Ride sites across Somerset also needs to be reviewed.

MORE TRAINS – Assess and support opportunities for more new train stations, such as Langport, and more services to link Somerset towns.

RETROFIT (PRIVATE HOUSING) – A Council programme(s) to encourage whole house retrofit should be introduced as an early priority, initially focused on both those able to pay and those in fuel poverty (who will have different needs). It should also target house movers, who often look to make home improvements, and those needing to replace old heating systems. This may be undertaken by working with experienced practitioners, such as the Centre for Sustainable Energy. Bulk purchase discount schemes should also be promoted by working with local quality installers, including for solar PV, heat pumps and battery storage.

RETROFIT (COUNCIL AND SOCIAL HOUSING) – District Councils and housing associations should seriously look at the potential for a high quality and large scale retrofit programme for social

housing following Energiesprong<sup>25</sup> principles, possibly working with partners in Devon, where trials have already been undertaken<sup>26</sup>. This approach has the potential to be self-funding over time and to quickly convert existing housing into net zero carbon homes.

ZERO CARBON PLANNING – It should be a top early priority for Councils to adopt planning policies that require all new development to be zero carbon in construction and use, as far as national policy restrictions allow.

20-MINUTE NEIGHBOURHOODS – Assess the potential for putting the 20-minute neighbourhood concept into practice in local planning policies, which would allow residents in urban areas to access most of their needs within a short walk or bike ride from their home<sup>27</sup>.

NATURE RESTORATION – Manage Council services, buildings and land in a biodiversity-friendly manner. Adopt planning policies and design guides for new development that identify areas for habitat restoration, woodland planting, peatland restoration and rewilding. Work with partners to increase wildlife habitats, green infrastructure and natural capital.

NATURAL FLOOD MANAGEMENT – To provide flood protection, there should be an expanded role for natural flood management throughout Somerset, including increased support for the Hills to Levels initiative and Adapting the Levels project.

REUSE SHOPS – Extend the successful Reuse Shop at Taunton Recycling Centre to other Recycling Centres around the county.

PENSIONS – Priority needs to be given for establishing policies to ensure Council pension funds are not invested in fossil fuels.

COMMUNITY ENGAGEMENT – Community engagement specialist officers are needed in all districts to work with local community groups, including town and parish councils, on projects that address the climate emergency, such as switching to renewable energy suppliers, e-car clubs, share shops, repair cafes, food reuse, active travel, less frequent flying, healthy low carbon diets, tree and wild flower planting and rewilding.

CARBON MANAGEMENT PLANS – These plans should be prepared to identify what will be needed to decarbonise the operations of each council and other public sector organisations (goal 1 of the Somerset strategy).

CARBON BUDGETS – Budgets for greenhouse gas emissions need to be established and monitored to work towards making Somerset carbon neutral by 2030 (goal 2 of the Somerset strategy).

ADAPTATION PRIORITIES – A review should be undertaken to identify priorities for early action on adapting assets and infrastructure so that they can be protected, where possible, from expected impacts of climate change in Somerset (goal 3 of the Somerset strategy).

**Somerset Green Party Councillors – 20<sup>th</sup> October 2020**

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<sup>25</sup> See: Energiesprong UK ([www.energiesprong.uk](http://www.energiesprong.uk))

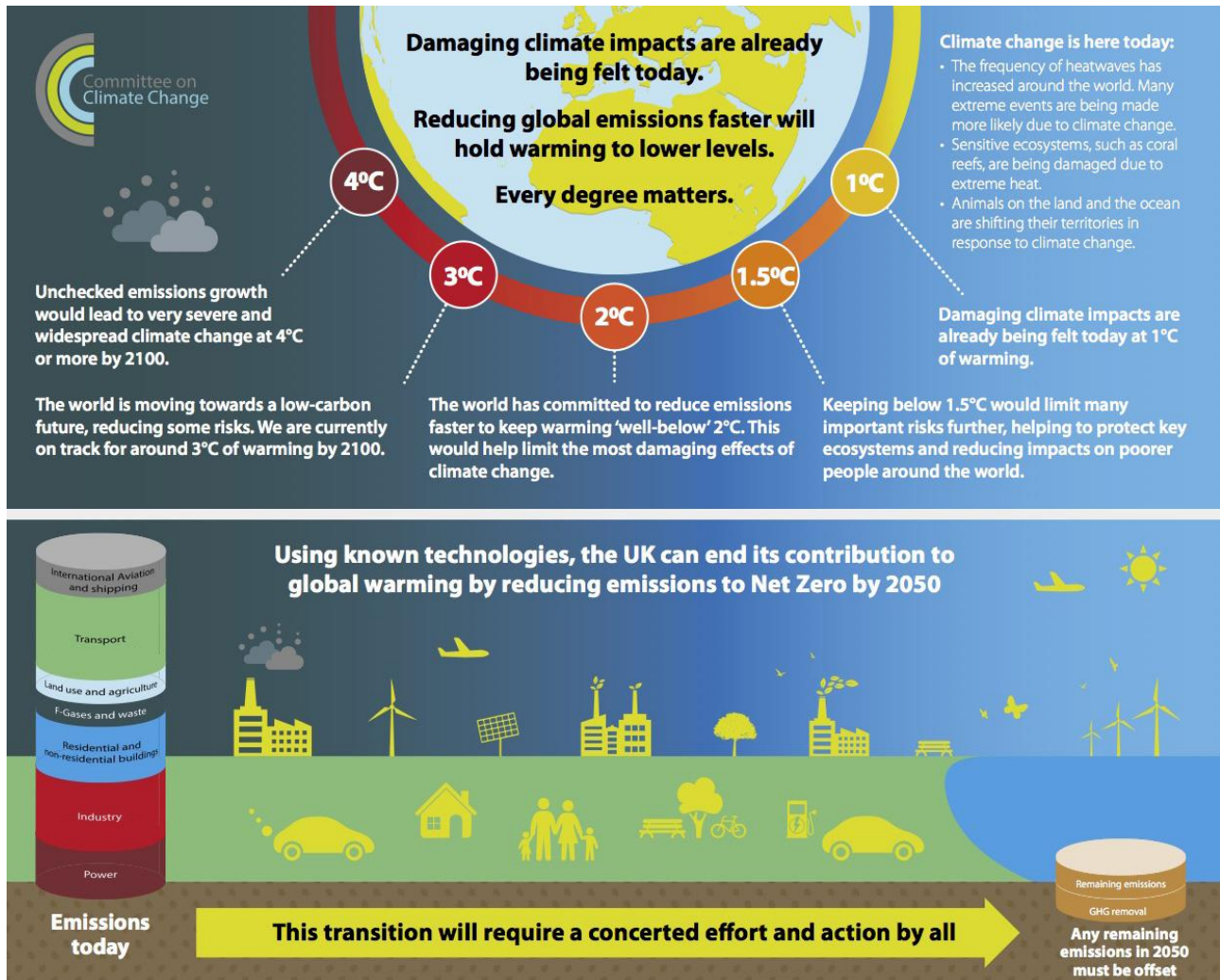
<sup>26</sup> Regen, Zero Energy Buildings Catalyst ([www.regen.co.uk/project/zero-energy-buildings-catalyst](http://www.regen.co.uk/project/zero-energy-buildings-catalyst))

<sup>27</sup> Town and Country Planning Association - The 20-minute neighbourhood ([www.tcpa.org.uk/the-20-minute-neighbourhood](http://www.tcpa.org.uk/the-20-minute-neighbourhood))



## ANNEX 1

### Net Zero - The UK's contribution to stopping global warming Committee on Climate Change - May 2019



The following are extracts from the report, which can be viewed at:

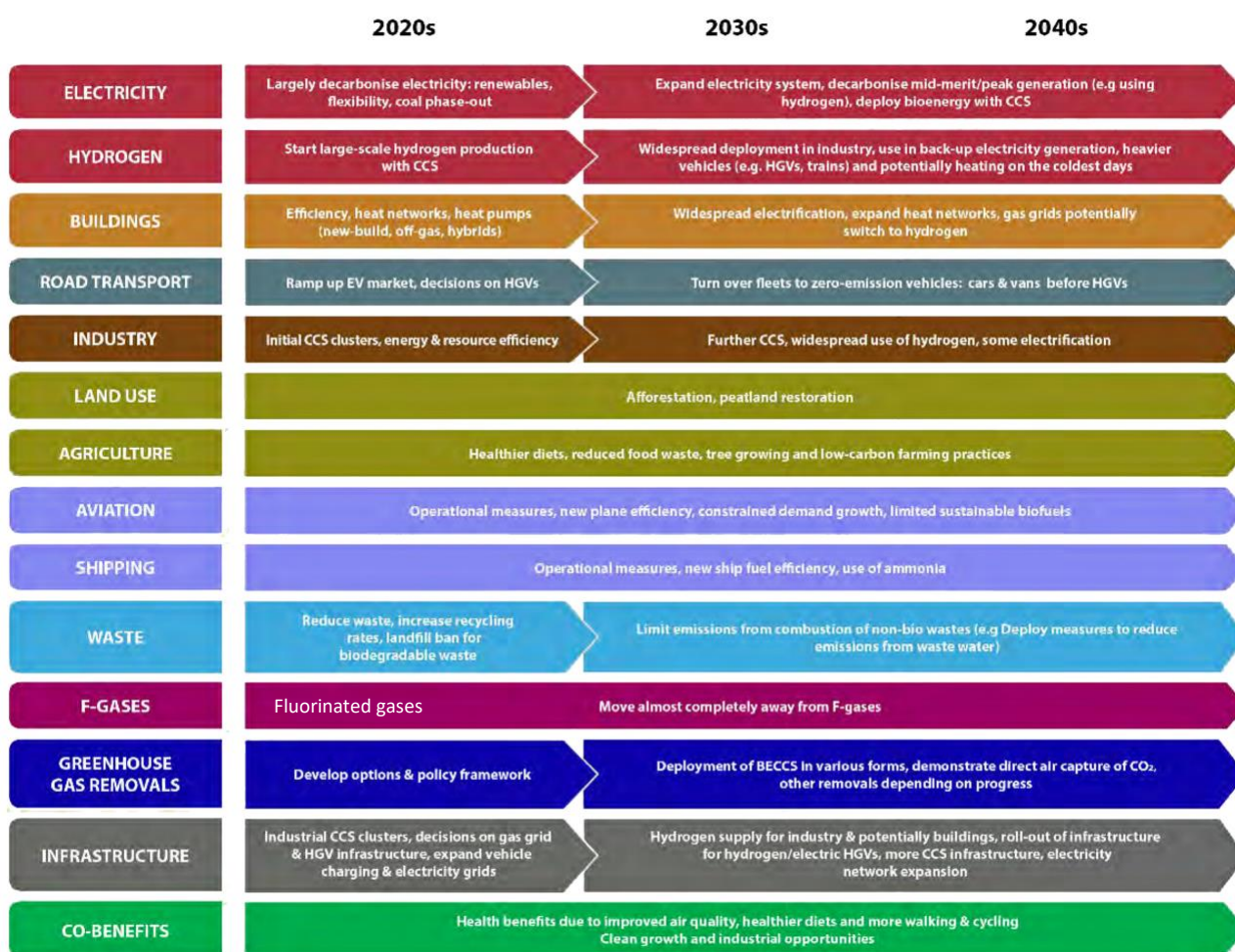
[www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/-infographic](http://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/-infographic)

#### Options for deep decarbonisation in the UK (page 141)

There is a range of technologies and behaviour changes that can help reduce emissions.

- Core options are those low-cost low-regret options that ... broadly reflect the Government's current level of ambition (but not necessarily policy commitment or action).
- Further Ambition options are more challenging and on current estimates are generally more expensive than the Core options.
- Speculative options currently have very low levels of technology readiness, very high costs, or significant barriers to public acceptability. It is very unlikely they would all become available. Some of these options would be required alongside the Core and Further Ambition options to reach net-zero GHG [greenhouse gas] emissions by 2050.

## The transition implied in the Further Ambition scenario over the period to 2050 (page 179)



Speculative options (some also required) include (pages 156-158):


- Agriculture - further changes in diets (could allow more peatland restoration).
- Aviation – further reduce the increase in passenger demand.
- More extensive changes to land - higher rates of afforestation and additional peatland restoration.
- Removal of atmospheric carbon by more ambitious uptake of using wood in construction, bioenergy with carbon capture and storage (BECCS) and a small deployment of direct air capture of Carbon Dioxide with storage (DACCS), but these may be possible as well as including enhanced weathering (finely crushing up rocks and spreading them on land so that the fragments of rock react with CO<sub>2</sub> in the air) and biochar (treating biomass to store bio-carbon in a stable form resistant to decomposition when mixed with soil).
- Synthetic fuels.
- Higher rates of carbon capture and storage (CCS) applied to electricity generation, industry, and for hydrogen production.
- Wider hydrogen roll-out across industry, to replace residual gas use in buildings, and for use in trains.



ANNEX 2

Zero Carbon Britain: Rising to the Climate Emergency  
 Centre for Alternative Technology - November 2019

A summary and the full report can be viewed at: [www.cat.org.uk/info-resources/zero-carbon-britain/research-reports/zero-carbon-britain-rising-to-the-climate-emergency](http://www.cat.org.uk/info-resources/zero-carbon-britain/research-reports/zero-carbon-britain-rising-to-the-climate-emergency). The following infographic highlights some key features, including that this strategy for carbon neutrality is based only on proved technologies.




Centre for Alternative Technology  
Canolfan y Dechnoleg Amgen


# ZERO CARBON BRITAIN

# RISING TO THE CLIMATE EMERGENCY

## How can we achieve net zero greenhouse gas emissions using only proven technology?



Centre for Alternative Technology  
Canolfan y Dechnoleg Amgen




### POWER DOWN

**REDUCE ENERGY DEMAND FOR HEATING 50%**


**CUT EMISSIONS WITH:**


- High 'Passivhaus' standards for new buildings
- Retrofitting all existing buildings
- Improve internal temperature control




Reducing how much we travel, changing modes of travel and using more efficient vehicles could

**CUT ENERGY DEMAND FOR TRANSPORT 78%**






Centre for Alternative Technology  
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### CAPTURE CARBON

with natural climate solutions

**FOREST AREA is DOUBLED to 24%**  
of the LAND AREA of the UK




**RESTORE 50%**  
OF UK PEATLANDS.




Each year, on average, we could **CAPTURE** around

**47 MILLION TONS OF CO<sub>2</sub> EMISSIONS**




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### POWER UP


**WE CAN SUPPLY 100%** of the UK's 'powered-down' energy demand with **RENEWABLE AND CARBON NEUTRAL ENERGY SOURCES.**




SMART APPLIANCES and short-and long-term STORAGE mean a 100% renewable energy system can provide power

**24 HOURS A DAY ALL YEAR ROUND**

	<b>50%</b> Wind
	<b>20%</b> Biomass
	<b>11%</b> Ambient heat
	<b>7%</b> Solar PV
	<b>5%</b> Wave & Tidal
	<b>2%</b> Geothermal electricity
	<b>2%</b> Solar thermal
	<b>1%</b> Hydro
	<b>1%</b> Geothermal heat



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### HEALTHY HAPPY LIVES

- BETTER BALANCED DIETS
- RESTORED AIR QUALITY
- RESTORED BIODIVERSITY
- SUSTAINABLE, THRIVING ECONOMY

Through **dietary change, food waste reduction** and **improved agricultural practices** we can provide a **healthy, sustainable diet**, whilst also reducing food imports.

