

# Zero Carbon Britain:

## Climate emergency resources for citizens and councils

Since its inception in 2007, CAT's Zero Carbon Britain project has offered the hard data and confidence required for visualising a future where we have risen to the demands of climate science. It has helped to reduce fear and misunderstandings and open new, positive, solution-focused conversations at national and local scales. This technically robust scenario integrates detailed research in key areas such as – 'keeping the lights on' with a 100% renewable energy supply, and 'feeding ourselves properly' on a healthy, climate friendly diet. We hope councils will utilise this research to open conversations within their local area to help identify the immediate key actions and investments which will deliver the maximum emissions reductions, whilst also delivering local climate resilience. The Zero Carbon Britain technical scenario clearly shows that it is possible for the UK to rise to the climate challenge through two key processes:

- **Power-down;** By using smart efficient technologies we can move away from our extreme energy lifestyles and deliver society's needs using 60% less energy than we do today. This is a vital part of the process of reducing emissions from the systems that deliver our energy, buildings, industry, food and transport.
- **Power-up;** Using hour-by-hour modelling from ten years of real weather data we show that 100% renewable energy sources can meet our energy demand at all times of the day and all seasons of the year. In our scenario, the largest contribution comes from offshore wind turbines, which produce around half of the energy we need.

The key driver of climate change is the cumulative amount of GHG's released, so we need to focus on immediate action which can deliver maximum emissions reduction as quickly as possible, whilst also building the skills, infrastructure and resources for the more challenging deeper shifts.

### **A Council's Climate Emergency Action Plan can operate in four key ways:**

Climate Emergency Action Plan will depend on what the council has control over, and can be developed by a range of working groups including local citizen expertise, supported by a steering group. Councils will not be able to reverse global warming by themselves, but working in these four directions will help encourage and put pressure on Regional and National Governments to act while councils undertake meaningful practical actions. A Climate Emergency Action Plan can operate in four key ways:

#### **Downward**

Local action through education, mitigation and building a community mandate for strong and immediate action through a steering group and working groups in key areas.

#### **Upward**

Lobbying Local Authority and National Governments to adopt and fund Climate Emergency actions that the local council does not have direct control over.

#### **Sideways**

Encouraging other councils to implement a Climate Emergency response through their networks (e.g contacting those you are twinned with) and by leading by example.

#### **Inwards**

Councils will need to educate their staff about the climate emergency, its causes, the solutions and what role a council can play to drive broader climate emergency response. This could include using existing 'Continual Professional Development' (CPD) funding to enable a 1 day Carbon Literacy training for all decision-makers to ensure their skills base is compliant with the needs of the council. This can then result in Peer-to-Peer training in education or health sectors, developing a new approach to work by many of its staff working on the emergency or related projects. This new approach needs to occur from the CEO downward.

## Ideas for Climate Emergency Action Plan working-groups:

- **Energy:** We can power-down demand by using energy in smart, efficient ways for domestic, municipal and industrial applications. We can end use of fossil fuels and power up clean renewable energy supply from a mix of sources such as wind energy – both onshore and offshore, plus solar, geothermal, hydro, tidal and others – for both electricity and heat. To maximise benefits locally, as much as possible of the towns energy can be generated and owned locally/municipally offering a direct contribution to local employment, council income and divestment opportunities. It might be good to ask a local renewable energy company to do a ball-park assessment? The remaining energy demand can be generated in other areas of the UK; but can still include part-ownership by our local municipality or purchase from schemed fully owned by municipalities in other parts of the UK.
- **Transport:** We can explore conversations around measures which reduce unnecessary travel by enabling home-working, supporting people to move nearer where they work, on-line meetings etc. In addition, changing how we travel – with more walking, cycling, use of public transport and efficient electric vehicles. Might be worth considering a public survey of ‘what journeys we all do’ and what the town feels is needed to improve local transport systems – e.g. busses and trains meet up, single tickets for bus and train trips etc.
- **Buildings:** A good first step is the evaluation/categorisation of all existing local housing/building stock and development of plans for mass retro-fit to high insulation standards, based on real life examples of how each building type has been retrofitted elsewhere across the UK – including funding schemes. Press for Zero Carbon homes standards to be introduced for new buildings including location near public transport, high insulation standards, use of low impact materials, renewable energy provision and proximity to schools, shops and places of work.
- **Food and Diets:** The dietary changes Zero Carbon Britain explores is based around providing a diet which is healthier for both humans and the planet; for example, through less meat and dairy and more from plant sources like beans, nuts, cereals and vegetables. Through encouraging and enabling dietary shifts, food waste reduction and improved agricultural practices, local councils can provide a healthy, sustainable diet for their population. These changes would reduce emissions from agriculture, more of our food would be produced locally or within the UK so reducing our impacts overseas. Our health would be improved by eating a better and more balanced diet and land currently used for intensive agriculture could be re-purposed. Could your town council host a ‘convergence’ or ‘open space conversations session’ to hear conversations from local society???
- **Land-use and Biodiversity:** The emerging restorative agriculture practices aim to balance the need for land to produce food, manage carbon and support the biodiversity loss emergency included in the Aberystwyth declaration. It aims to multi-solve key issues including; viable revenues for farmers, restoration of habitat to increase biodiversity, healthy diet, resilient locally produced food supplies, climate adaptation, net-negative carbon sequestration and re-connection with nature – e.g. social prescription. Again, could the council facilitate a ‘convergence’ or ‘open space’ on this
- **Multi-Solving:** Council Steering Group could facilitate regular ‘multi-solving meetings’ between members of all the different the working groups, so we can link up changes in energy, transport, buildings, diets and land-use, and identify and maximise the potential co-benefits, such as cleaner air, resilient supply systems, more active citizens, healthier diets, easier to heat homes, and economic and employment opportunities. This is particularly useful in areas where these budgets are devolved under the jurisdiction of the council, so the cost reductions have benefits in local budgets. See <https://www.youtube.com/watch?v=prF8trTallQ>  
<https://www.climateinteractive.org/programs/multisolving/multisolving-at-the-intersection-of-health-and-climate/>
- **Resilience:** Develop plans to increase local resilience and protect citizens, institutions and businesses from impacts of extreme weather events, economic shocks etc. This can include a wide range of measures from re-vitalising local supply chains to re-planting trees. For example, Frome Council has created the role of a ‘Resilience Manager’ see <https://www.frometowncouncil.gov.uk/officer/anna-francis/>

- **Engagement, education, arts and culture:** Arts and culture have long been a powerful catalyst in transforming social norms and worldviews. Arts can do what science, politics, academia, media and other disciplines simply cannot. Link to local schools, collages, arts organisations and cultural groups who can help build the story of the transition and explore the voices of future generations. Could the council ask the local arts venue to host such a future visioning exhibition? Also, Arts and Culture Organisations and Individuals are about to Declare a Climate and Ecological Emergency. Culture Declares Emergency will launch on 3rd April 2019 with an artist-led ceremony. This will begin at Somerset House, cross Waterloo Bridge, and move on to other arts institutions on the South bank of the river. At each location, Declarations of Emergency will be announced.

## Key Zero Carbon Britain resources include:

### Technical Scenario for the UK

How can Britain reach net zero greenhouse gas emissions using only technology available today? This technically robust scenario integrates new research to show how is possible for us to meet our climate challenge.

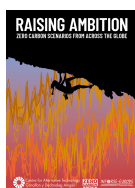


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### Learning from other countries

*Raising Ambition - Zero carbon scenarios from across the globe (2018)* brings together an international range of scenarios exploring climate-stable futures at global, regional, national and sub-national scales. It offers an in-depth look at 18 case studies, drawn from 130 scenarios modelling net zero, deep decarbonisation, and up to 100% renewable energy.



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### Overcoming Barriers

Rather than an unresolved technical challenge, it is increasingly accepted that we must overcome a mix of political, cultural and psychological barriers. This report investigates how we can overcome them, linking up insights from research with examples and stories from individuals and organisations that are living the changes we need to see.



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## **Useful information sources for Councils and communities;**

<https://www.local.gov.uk/topics/environment-and-waste/climate-change>

<https://www.local.gov.uk/topics/environment-and-waste/climate-local>

<https://www.local.gov.uk/councillor-briefing-pack-resilient-communities>

<https://www.tcpa.org.uk/planning-for-climate-change>

<https://climateemergency.uk>

<http://carbonliteracy.com>

<https://climateemergency.uk/blog/category/resources/councillors/>

<https://climateemergencydeclaration.org>

<https://climateemergencydeclaration.org/wp-content/uploads/2018/09/DontMentionTheEmergency2018.pdf>

[https://static1.squarespace.com/static/5a8b2f10017db29af12740d5/t/5c5105ac4ae23755fa8e3739/1548813761390/Darebin\\_Climate\\_Emergency\\_Plan\\_lo-res\\_-\\_web-ready\\_June\\_1\\_2018.pdf](https://static1.squarespace.com/static/5a8b2f10017db29af12740d5/t/5c5105ac4ae23755fa8e3739/1548813761390/Darebin_Climate_Emergency_Plan_lo-res_-_web-ready_June_1_2018.pdf)

<http://www.caceonline.org/a-guide-for-councils.html>

<http://www.caceonline.org/nuts-and-bolts-toolbox.html>

<https://www.yoursaydarebin.com.au/climateaction>

[https://www.campaigncc.org/councils\\_climate\\_emergency?fbclid=IwAR2Z1I9lzz\\_-lMopaUIPI8lzNwUjagxM0tpKFRyVA8FW\\_d0T4ZwZlgxNDxk](https://www.campaigncc.org/councils_climate_emergency?fbclid=IwAR2Z1I9lzz_-lMopaUIPI8lzNwUjagxM0tpKFRyVA8FW_d0T4ZwZlgxNDxk)

<https://www.theclimatemobilization.org/emergency-mode/>

<https://www.theclimatemobilization.org/the-case/>

[https://static1.squarespace.com/static/5a8b2f10017db29af12740d5/t/5afb37bf575d1f2beddf900a/1526413250017/Local-first+implementation\\_local+govt.pdf](https://static1.squarespace.com/static/5a8b2f10017db29af12740d5/t/5afb37bf575d1f2beddf900a/1526413250017/Local-first+implementation_local+govt.pdf)