Centre for Sustainable Energy

Low carbon neighbourhood planning: *opportunities to build happier, healthier and greener communities*

Cycling in a UK park | iStock/Tom Merton

Mark Wells

Community Energy and Neighbourhood Planning

4 July 2018

Overview

- Introducing CSE
- Why include low carbon policies in your plan?
- Creating an attractive low carbon vision
- Example policies
- The support we offer

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Introducing the Centre for Sustainable Energy

Registered Charity Founded in 1979 – Bristol based, national impact

Our vision: “a world where sustainability is second nature, carbon emissions have been cut to safe levels and fuel poverty has been replaced by energy justice.”

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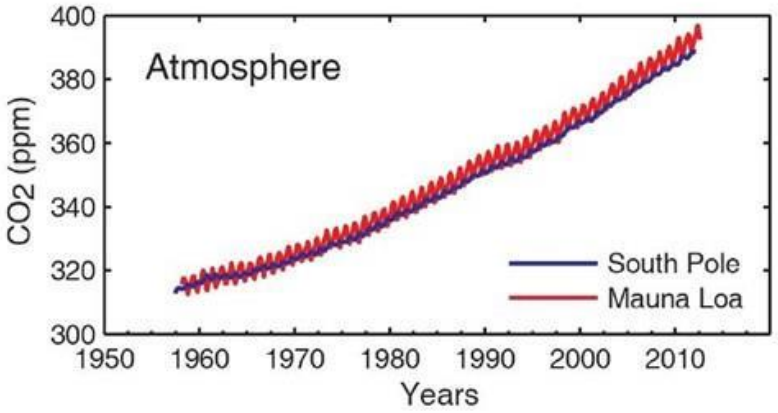
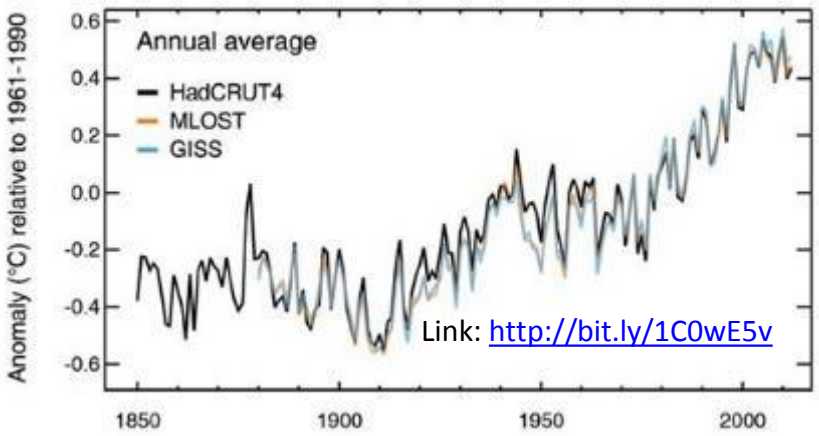
Why include low carbon policies in your plan?





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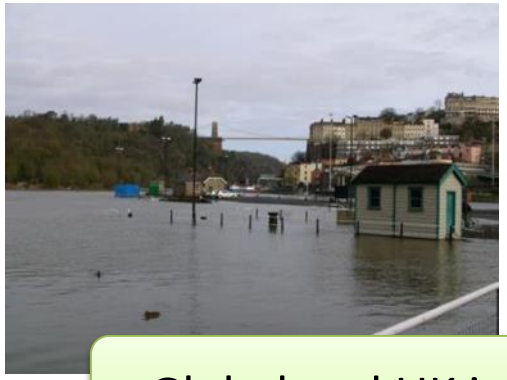

Global and UK impacts

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Making a persuasive case

The veto of attention : "A major problem with most climate messages isn't that people disagree with or misunderstand them, it's that they don't even listen to them."

…so we open every communication with a vision of heaven – a "**desirable and descriptive mental picture of a low carbon future**"

SIZZLE
the new climate message

futerra sustainability communications

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Neighbourhood planning:

Building a positive vision for your community

3 golden threads

Vitality 'a balanced community of people of different ages, aspirations and circumstances '

Participation 'community has the right to participate in the process of development'

Sustainability 'a town-wide transition to a low carbon economy'

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Frome's vision of sustainability

Zero carbon

Making buildings more energy efficient and delivering all energy with renewable technologies.

Zero waste

Reducing waste, reusing where possible, and ultimately sending zero waste to landfill.

Sustainable transport

Encouraging low carbon modes of transport to reduce emissions, reducing the need to travel.

Sustainable materials

Using sustainable healthy products, with low embodied energy, sourced locally, made from renewable or waste resources.

Local and sustainable food

Choosing low impact, local, seasonal and organic diets and reducing food waste.

Sustainable water

Using water more efficiently in buildings and in the products we buy; tackling local flooding and water course pollution.

Land use and wildlife

Protecting and restoring biodiversity and natural habitats through appropriate land use and integration into the built environment.

Culture and community

Reviving local identity and wisdom; supporting and participating in the arts.

Equity and local economy

Creating bioregional economies that support fair employment, inclusive communities and international fair trade.

Health and happiness

Encouraging active, sociable, meaningful lives to promote good health and well being.

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Why create a low carbon neighbourhood?

Improved quality of life
E.g. creating more attractive, greener public spaces with improved walking and cycling

Improved access to facilities and employment:
E.g. More local shops and business space

Empowering your community
E.g. by building community owned renewable energy that generate funds for your community

Improved health
E.g. by improving air quality with more sustainable transport

Reduced energy bills
E.g. through more energy efficient homes

Improved resilience
E.g. through reduced exposure to rising energy prices

Addressing Climate Change
Meeting ethical responsibilities and legal duties

Potential benefits to local economy
E.g. reducing flows of money out of the area through energy bills

Low Carbon Neighbourhood planning

Green spaces and biodiversity

Energy efficient buildings

Sustainable transport

Renewable energy

Preparedness for flooding and extreme weather

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Renewable Energy

Why build local renewable energy?

Potential for local ownership: revenues can be re-invested to benefit local community

Potential for reduced bills: new mechanisms may allow reduced tariffs in locality

Sustainability: reducing reliance on finite fossil fuel reserves

Climate change mitigation: decarbonising energy supply

Resilience: balancing local supply with local demand

Westmill Wind Farm Co-op is a 100% community owned wind farm near Swindon, commissioned in 2008. Four years later a community-owned solar-farm was created on the same site.

Local tariffs

Energy Local
making energy work for you

- Set up local clubs of electricity consumers
- Output from local renewable energy schemes is shared between members
- Local energy is charged at a cheaper rate (around 7 or 8 p kWh)
- Consumers buy the rest of their energy from grid at commercial rates
- First club in Bethesda, new ones planned in Crickhowell and Carmathanshire

100 kW national trust hydro scheme (Snowdonia)

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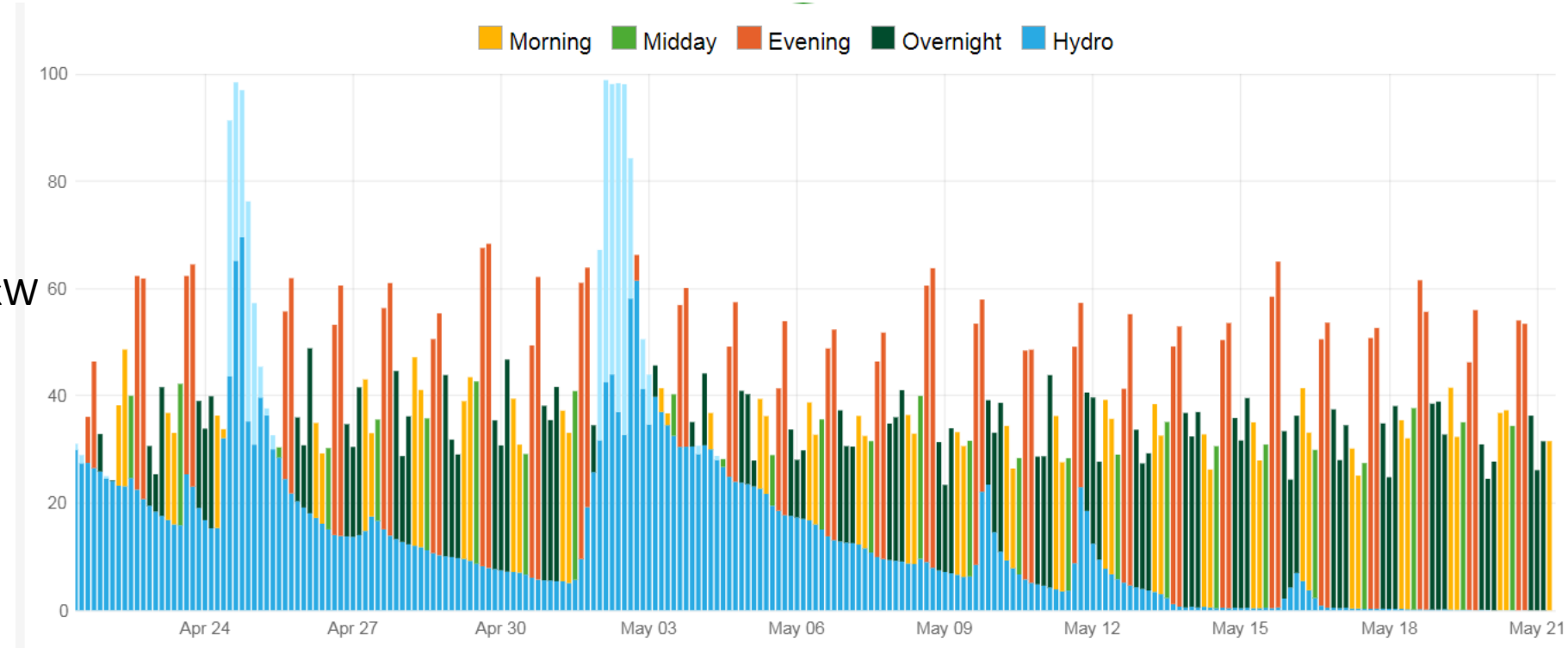
Local tariffs

Energy Local
making energy work for you



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Renewable Energy – identifying types and criteria

Much Wenlock Neighbourhood Plan (2014)

Policy SCC2
Proposals for individual and community scale energy from hydro-electricity, solar photovoltaic panels, local biomass facilities, anaerobic digestions and wood fuel products will be supported subject to the following criteria:

- **the siting and scale of the proposed development is appropriate to its setting and position in the wider landscape; and**
- **the proposed development does not create an unacceptable impact on the amenities of local residents; and**
- **the proposed development does not have an unacceptable impact on a feature of natural or biodiversity importance.**

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Renewable Energy – identifying sites

Colwich Neighbourhood Plan (2016)

Opportunities to contribute to energy efficiency and renewable low carbon energy generation will be encouraged, particularly if they conserve or enhance biodiversity. A solar farm proposal will be welcome alongside the river on the site shown in Map 20 as this could take advantage of a possible adjacent hydro-electricity scheme. It will also allow grazing beneath the panels and the creation of wildlife meadows. Hedges and landscaping around the perimeter of such farms should provide screening and important wildlife habitat.

Policy CE4: Proposals for a solar farm.
Map 20 identifies land north of Gt. Haywood marina for a solar farm to provide photo voltaic power. The solar farm should be less than 5ha, carefully designed to protect the local wildlife population and landscaped to enhance the scenic beauty of the area.

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Domestic Renewables - Merton Rule

"All new developments must secure at least 10% of their total regulated energy from decentralised and renewable or low carbon sources."

Tickhill Neighbourhood Plan - made July 2015

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Sustainable Transport

Why sustainable transport?

- Reduced reliance on imported oil
- Lower carbon emissions
- More choice of travel modes
- Improved air quality and reduced traffic noise
- Improved access to services and employment
- More popular public spaces and improved community cohesion
- Improved health and quality of life
- Reduced congestion

Community street design, Beechcroft Road, Oxford – Sustrans project

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Sustainable transport considerations

- Improvements for walking/cycling for key destinations
- Contributions from development for specific infrastructure
- Examines air pollution against legal standards
- Promoting local employment
- Electric vehicle infrastructure
- Accessibility of new housing sites

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Energy efficient buildings

Why energy efficient buildings?

Sustainability: reducing reliance on finite fossil fuel reserves

Warmer homes: improved comfort and better health

Lower energy bills: reducing fuel poverty and limiting flows of money out of the local economy

Climate change mitigation: decarbonising energy supply

Resilience: reducing reliance on imported oil and gas

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Energy Efficiency - Sustainable design policy for new housing

Long Ashton Neighbourhood Plan (2016)

Policy LHN 1 - Provision of well-designed energy efficient buildings and places

The design and standard of any new development should aim to meet a high level of sustainable design and construction and be optimised for energy efficiency, targeting zero carbon emissions. This includes:

- **Siting and orientation to optimise passive solar gain.**
- **The use of high quality, thermally efficient building materials.**
- **Installation of energy efficiency measures such as loft and wall insulation and double glazing.**
- **Non-residential developments should aim to meet the Buildings Research Establishment BREEAM building standard 'excellent'.**
- **Any new development to incorporate on-site energy generation from renewable sources such as solar panels, to at least the extent required by NS core strategy policy CS2.**

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Retrofitting Historic Buildings – suggested policy

".. The sensitive retrofitting of energy efficiency measures and the appropriate use of micro-renewables in historic buildings will be encouraged, including the retrofitting of listed buildings, buildings of solid wall or traditional construction and buildings within in conservation areas, whilst safeguarding the special characteristics of these heritage assets for the future."

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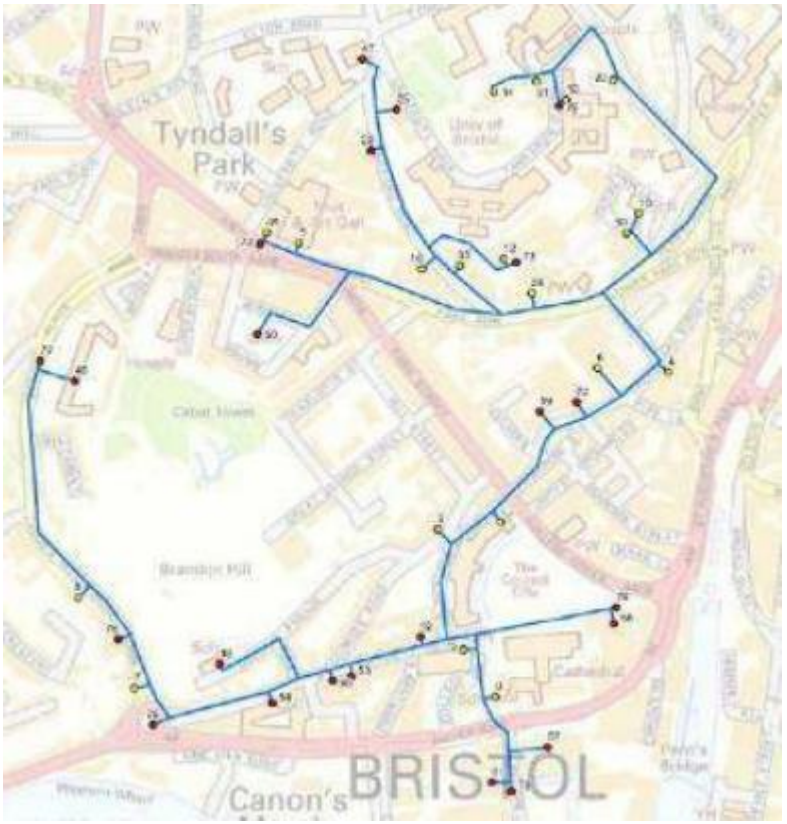
District Heating

- “Development will be expected to incorporate, where feasible, low-carbon-energy generation and distribution by these means – or connect to nearby networks where there is available capacity for this to be viable..”

Selcey Neighbourhood Plan



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Green spaces and biodiversity

Reduction in flood risk: increased flood water retention and reduce surface water runoff

Spaces for local food growing

Protecting and improving biodiversity

More attractive and popular public spaces

Why improve green infrastructure?

Protection from heat waves: mitigation of heat island effects and shading from trees

Improved mental health and well-being

More outdoor play opportunities for children

Create routes for walking and cycling

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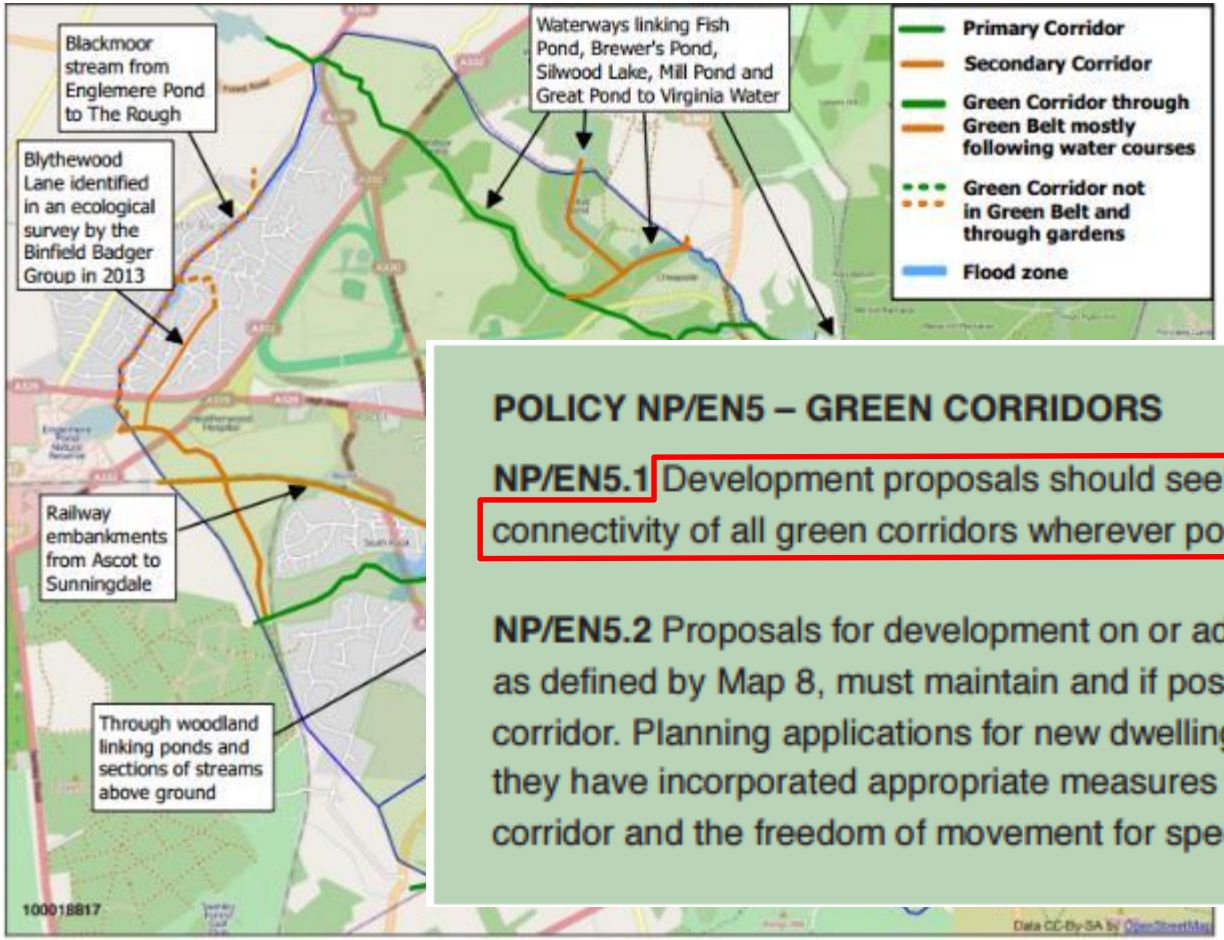
Biodiversity / Ecology



POLICY NP/EN5 – GREEN CORRIDORS

NP/EN5.1 Development proposals should seek to maintain and enhance the connectivity of all green corridors wherever possible.

NP/EN5.2 Proposals for development on or adjacent to primary green corridors, as defined by Map 8, must maintain and if possible enhance the function of the corridor. Planning applications for new dwellings must clearly demonstrate how they have incorporated appropriate measures to secure the connectivity of the corridor and the freedom of movement for species on or through the site.

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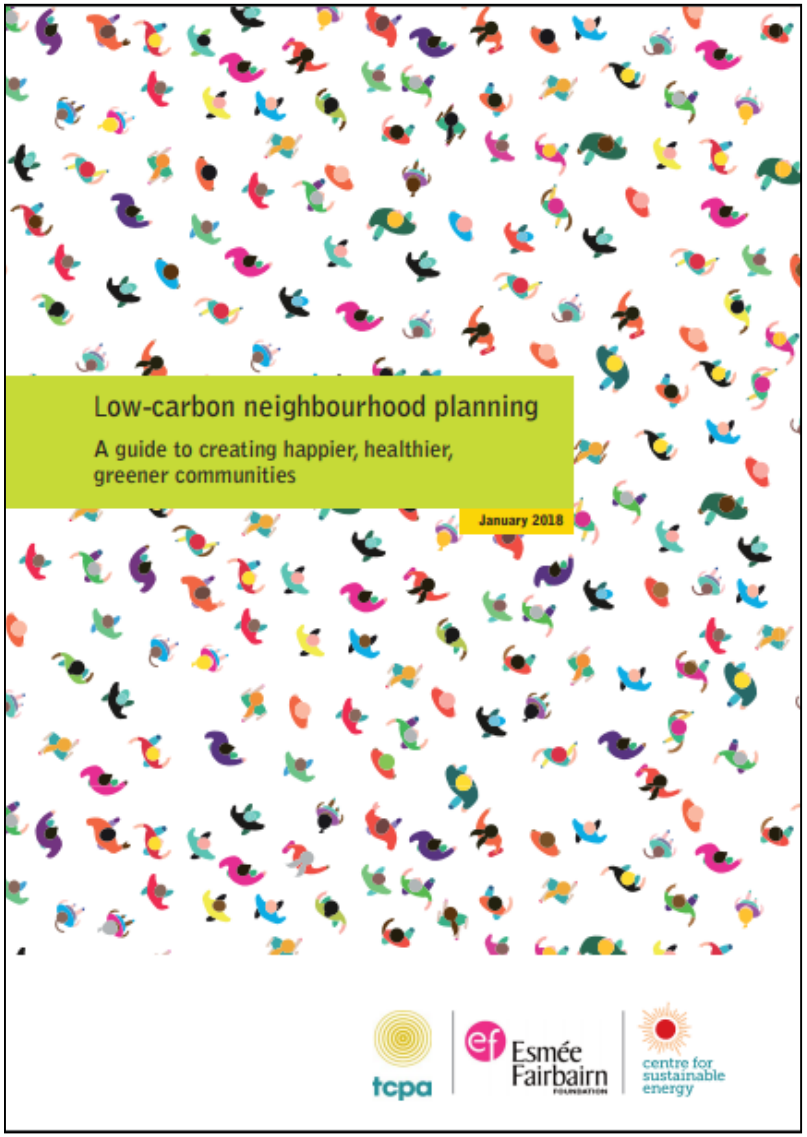
The support we offer

- 3 year project supporting Low Carbon Neighbourhood Planning
- Published guidebook, collating exemplar low carbon policies

www.cse.org.uk/news/view/2079

- Free advice from our in house chartered planner Dan Stone



Questions & Answers

For free support on your plan, please get in touch:
Email: neighbourhoodplanning@cse.org.uk

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