

Name:	Eloise Waldon-Day
Organisation:	Extinction Rebellion Southwark
EiP Hearing Matter no:	Matter 1: Procedural and legal requirements including the Duty to Co-operate
Section	Climate Change
Specific Strategy, Policy or Question	1.10 Does the NSP accord with s19(1A) of the Planning and Compulsory Purchase Act (2004) (as amended) by including policies that are designed to secure that the development and use of the land in the Borough contribute to the mitigation of, and adaptation to, climate change?

**Response:**

No, the New Southwark Plan does not meet this requirement. There has been no review, starting from the baseline position from 1990 and at the start of the plan period of 2020, of whether any policies which are aimed at reducing carbon emissions are effective to meet the net zero target by 2050.<sup>1</sup> In addition there is a recently announced government target of a reduction to carbon emissions from the 1990 baseline of 68% by 2030. The New Southwark Plan does not meet the legal requirements found at section 19 (1A) PCPA 2004, section 35 PCPA 2004 and the Strategic Environmental Assessment Regulations 2004.

The New Southwark Plan also does not meet the policy requirements in the National Planning Policy Framework (primarily chapter 14) and the Planning Practice Guidance on climate change.

Firstly, we refer to the NPPF outline: “The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.”

This means that local plans should:

1. Include an understanding of the baseline CO2 emissions within the council area, and the emissions inherent in future development within the plan period.
2. Demonstrate how the policies and actions in the local plan will reduce emissions in line with an 100% reduction in CO2 emissions by 2050 as required by the Climate Change Act. (In practice this generally means that new development needs to be zero carbon in construction.)

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<sup>1</sup> United Kingdom of Great Britain and Northern Ireland’s Nationally Determined Contribution published on 12 December 2020

3. Demonstrate how the policies and actions in the local plan will reduce emissions in line with an 68% reduction in CO2 emissions by 2030 as required by the Nationally Determined Contribution.

At present the New Southwark Plan policies do not meet the above criteria and we are crucially very concerned about the lack of baseline data for CO2 emissions which would then feed into policies aimed at reduction of carbon emissions. Policies designed to mitigate and adapt to the impact of climate change need to have robust targets and sound evidence. There has been no updating of the Energy and Carbon Reduction Strategy in 2011, now nearly 10 years out of date. This is the data that is still used in the Integrated Impact Assessment, Appendix 3 at page 38. It also uses the target of 100% reduction by 2050, which is not the Council's stated policy since the declaration of a climate emergency as they commit to a policy of achieving carbon neutrality by 2030.<sup>2</sup> In addition, the Energy Background paper does not meet the legal requirements at section 19 1A PCPA 2004 and the Strategic Environmental Assessment Regulations 2004 because it does not set out a local carbon target with adequate baseline data and with an annual monitoring mechanism and targets.

Sustainability appraisal can be used to help shape appropriate strategies in line with the statutory duty on climate change and ambition in the Climate Change Act 2008.

In March 2019, Southwark Council declared a climate emergency, yet since this date there has been no fundamental review of the New Southwark Plan to review, add to and amend policies so that they may meet the aim to be carbon neutral by 2030. We are unsure why Southwark Council has not taken the opportunity to do a fundamental review of the plan before examination to ensure it meets section 19(1A) PCPA.

What we are seeking are policies which would meet the requirements of the Planning Practice Guidance on Climate Change:

1. Baseline data on the level of emissions at 1990, robust evidence based on the level of emissions at the start of the plan period in 2020 and a robust evaluation of future emissions which will require consideration of different emission sources, likely trends taking into account requirements set in national legislation, and a range of development scenarios;<sup>3</sup>
2. A robust climate change risk assessment to inform policies designed to mitigate these risks and meet Southwark Council's climate emergency declaration of net-zero carbon emissions by 2030;<sup>4</sup>
3. Main modifications to the New Southwark Plan so it is aligned with the London Plan and Southwark Council's Climate Strategy in ambition, implementation and monitoring to address the climate emergency declaration;
4. A requirement to report back on set indicators that support the mitigation of climate change such as carbon emissions reduction, renewable and low-carbon energy infrastructure and developments, use of reused and renewable materials in buildings and the progress to carbon neutrality, sustainability in building design and construction, increase in sustainable transport availability and usage, amongst other agreed indicators, and

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<sup>2</sup> As Southwark Council Assembly declared on 27 March 2019

<sup>3</sup> Planning Practice Guidance on climate change, paragraph 006

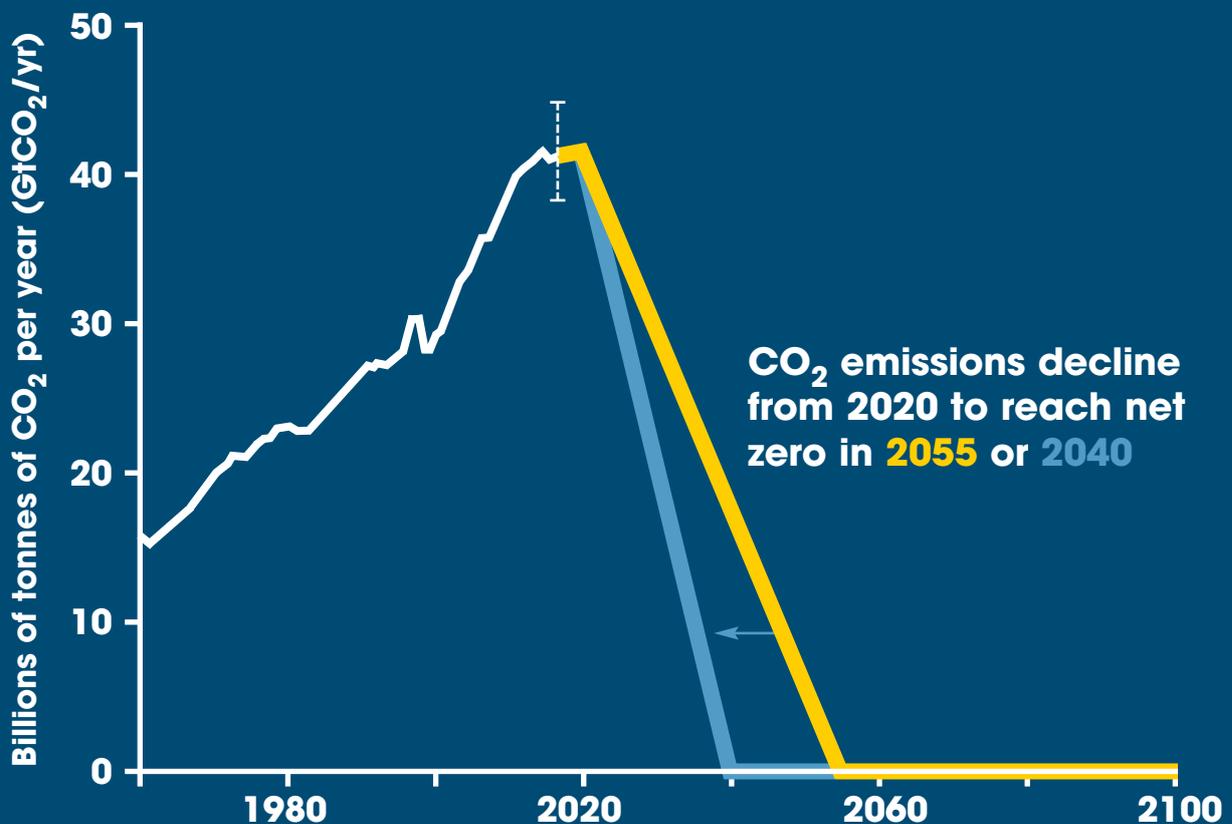
<sup>4</sup> Planning Practice Guidance on climate change, paragraph 006 which states: Risk assessments could consider the implications for the built environment and development, infrastructure, services and biodiversity, and their subsequent implications for vulnerable groups and community cohesion

5. Transparency in respect of the carbon off-setting fund and a plan to reduce the practice of carbon off-setting.

We refer to guidance published by the Town and Country Planning Association and the Royal Town Planning Institute at Appendix 1 which shows examples of policies other local authorities have adopted from pages 29 to 37. We are requesting main modifications to the New Southwark Plan so it can be aligned with the legal requirements, the London Plan and Southwark's Council own policies on addressing the climate emergency.

# Rising to the Climate Crisis

## A Guide for Local Authorities on Planning for Climate Change



Supported by

## Rising to the Climate Crisis – A Guide for Local Authorities on Planning for Climate Change

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Cover diagram based on graph b), 'Stylized net global CO emission pathways' in Figure SPM.1, 'Cumulative emissions of CO<sub>2</sub> and future non-CO<sub>2</sub> radiative forcing determine the probability of limiting warming to 1.5°C', in V Masson-Delmotte *et al.*: *Global Warming of 1.5°C. An IPCC Special Report. Summary for Policymakers*. Intergovernmental Panel on Climate Change, Oct. 2018



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# Rising to the Climate Crisis

## A Guide for Local Authorities on Planning for Climate Change

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# Forewords

**T**he fate of future generations depends on our ability to take radical action to deal with climate change. The global impacts of increased temperatures and severe weather are stark and intensifying, and will have major negative impacts on communities across the UK. From sea level rise to heat waves, our society will be increasingly defined by our ability to get control of carbon dioxide emissions and build our resilience. We have known about the science of climate change for more than quarter of century, but action has been far too slow.

This guide represents not just technical advice, but a call to arms to put climate change at the heart of the planning process. It represents a unique collaboration between the UK's leading planning organisations in order to promote the health and wellbeing of existing communities and the long-term welfare of future generations.



**Hugh Ellis**  
Interim Chief Executive, TCPA

**C**limate change is undoubtedly one of the greatest challenges faced by humanity. But we have the tools to respond effectively, and spatial planning is one of the most powerful. Indeed, despite the challenges facing the planning system, we have three crucial things on our side. First, the ambition to collaborate and respond to climate change is very much alive across the built environment sector. Second, emerging technologies are enhancing our potential to respond – and generating growth and jobs in the process. Third, we have strong legislation and policy at our disposal.

This guide brings these three forces together; it empowers local authorities to act on climate change, using spatial planning to bring together the expertise and ambition, technology, and legislation available to them. This is why I am delighted to endorse this guide, and why we will promote it widely to our 25,000 members and beyond. We have the tools – it is now up to us to act.



**Victoria Hills**  
Chief Executive, RTPI

# Who is this guide for?

This guide, prepared by the Town and Country Planning Association (TCPA) and the Royal Town Planning Institute (RTPI), is intended to help planners and politicians to tackle climate change and improve resilience. It is designed to inform the preparation of strategic and local development plans being prepared by local and combined authorities in England. The guide is aimed primarily at the local planning system in England, although the principles have wider applicability.

# Why is this guide being published now?

Although the current National Planning Policy Framework contains strong policy on climate change, delivery on the ground through local plans has been relatively poor. Local plans in England are not dealing with carbon dioxide emissions reduction effectively, nor are they consistently delivering the adaptation actions necessary to secure the long-term resilience of local communities.

This inaction is due partly to a chronic lack of resources in English local government, which has contributed to a loss of skills on energy and climate change. But it is also related to the government's cancellation of both the zero-carbon commitment and the Code for Sustainable Homes, as well as the deregulation of planning through the expansion of permitted development, which has led to the conversion of buildings for residential use without effective planning controls.

In this context, action on climate change can seem hard to achieve. But there are clear opportunities to act now, and strong legal and policy requirements do remain in place. We can also embrace new, transformative, technological opportunities to reduce carbon dioxide emissions and deal with flood risk when making planning decisions.

What is required in this environment is the confidence to act, and the certainty to make best use of this existing policy, legislation, and technology. This is what this guide aims to provide.

# The status of this guide

While the guide is not a government document, the approaches set out have been designed to support the policy outlined in the National Planning Policy Framework and online Planning Practice Guidance and in relevant law, including the 2008 Climate Change Act. The guide is a living document, partly because renewable energy and adaptation technologies are changing so fast, and partly because the planning system is under near-constant reform.

# What this guide does not do

The guide cannot cover the full breadth of planning policy issues raised by climate change. Instead, it focuses on mitigation (particularly in relation to energy use and generation), adaptation, and resilience. It does not contain detailed material on important elements such as green infrastructure, biodiversity and food security, nor the detail of flood risk assessment. Some of this material – including flood risk assessment – is dealt with in the government's online Planning Practice Guidance resource. Related cross-sector guides on green infrastructure<sup>iii</sup> and sustainable construction<sup>iv</sup> provide useful and more detailed guidance on implementation. Similarly, while the guide refers to the relationship between planning and the Building Regulations, it is focused on the former.

## Notes

- i <https://www.tcpa.org.uk/Handlers/Download.ashx?IDMF=7d92ec4c-09f7-4b21-9d22-b1aad77fd062>
- ii <https://www.nao.org.uk/wp-content/uploads/2014/11/Impact-of-funding-reductions-on-local-authorities.pdf>
- iii <https://www.tcpa.org.uk/Handlers/Download.ashx?IDMF=34c44ebf-e1be-4147-be7d-89aaf174c3ea>
- iv [https://tools.breeam.com/filelibrary/BREEAM%20and%20Planning/Good\\_Practice\\_Guidance\\_-\\_Sustainable\\_Design\\_and\\_Construction.pdf](https://tools.breeam.com/filelibrary/BREEAM%20and%20Planning/Good_Practice_Guidance_-_Sustainable_Design_and_Construction.pdf)

# Section 1 Introduction

Climate change is now the greatest challenge facing our society. The scientific evidence of climate change is overwhelming and the global impacts of climate change will be severe. It is often seen as a long-term challenge, but, as the latest IPCC (Intergovernmental Panel on Climate Change) report<sup>1</sup> makes clear, the impacts are being experienced now, through unprecedented global trends and through more localised severe weather events. While climate change will have a lasting impact on people and wildlife, it will also define future economic progress. Only those places that can demonstrate climate resilience will be able to secure insurance and investment.

It had been assumed that to avoid climate change's worst impacts, it was vital to secure climate stabilisation at less than a 2°C global temperature increase above pre-industrial levels. This is the foundation of the UN Paris Agreement on climate change.<sup>2</sup> However, the latest science indicates that 1.5°C is a more realistic target to avoid these worst extremes. Even if we can stabilise temperatures at or below the 1.5°C target there will still be significant impacts through severe weather incidents and sea level rise. Above all, the

latest IPCC report illustrates the vital need to reduce climate change emissions now by transforming our energy systems.

Remarkably, we now have solutions to both the mitigation and adaptation challenges. A wide variety of engineering and technological solutions are available to build resilience and transform our energy supplies, creating new opportunities for a dynamic, low-carbon economy. The costs of such solutions have reduced dramatically in recent years. For example, the cost of onshore wind has fallen by 23% since 2010 and the cost of solar photovoltaic electricity has fallen by 73%.<sup>3</sup> Furthermore, many of the solutions, such as the delivery of green infrastructure, have multiple benefits in building resilience while also enhancing biodiversity and human health and wellbeing. As many other nations have discovered, action on climate change can be a driver for economic renewal and for new models of energy ownership that genuinely localise our economies.

The planning system can help to plan for this future, and it is also a vital gateway to gaining consent for new technologies. Spatial planning plays a central role

## Notes

- 1 V Masson-Delmotte *et al.*: *Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-industrial Levels and Related Global Greenhouse Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty. Summary for Policymakers.* Intergovernmental Panel on Climate Change, Oct. 2018. [http://report.ipcc.ch/sr15/pdf/sr15\\_spm\\_final.pdf](http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf)
- 2 *Paris Agreement.* United Nations, Dec. 2015. [http://unfccc.int/files/essential\\_background/convention/application/pdf/english\\_paris\\_agreement.pdf](http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf)
- 3 *Renewable Power Generation Costs in 2017.* International Renewable Energy Agency, 2018. [http://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Jan/IRENA\\_2017\\_Power\\_Costs\\_2018.pdf](http://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Jan/IRENA_2017_Power_Costs_2018.pdf)



in the transition to a low-carbon society, engaging communities and enabling environmentally-friendly choices in everything from energy to transport. Planning can do this by shaping new and existing developments in ways that reduce carbon dioxide emissions and positively build community resilience to problems such as extreme heat or flood risk.

## 1.1 Climate justice

Fairness and justice should be at the heart of planning for climate change, based on an acknowledgement that climate change affects those on the lowest incomes the worst. The Climate Just resource<sup>4</sup> provides a powerful way of mapping the relationship between social exclusion and the impacts of climate change, offering the opportunity to tailor policy to meet the needs of those likely to be most vulnerable to climate change.

## 1.2 Local action

While we need to work nationally and internationally to secure progress on addressing climate change, we

must also galvanise local action. Local and combined authorities are at the cutting edge of the climate change challenge because they have responsibility for decisions that are vital to our collective future.

Many of the adverse impacts of climate change, such as extreme heat, flooding or water scarcity, will result in costs to businesses and householders, and solutions to the problems they pose need to be developed locally. Adaptation to the risks presented by climate change is key to future-proofing our existing communities and making sure that new developments maintain and enhance the health and wellbeing of local communities, as well as their competitiveness.

## 1.3 Planning for the fourth Industrial Revolution<sup>5</sup>

While the impacts of climate change are dynamic and change over time, so, too, will our technological responses. This applies equally to both soft and hard engineering solutions supporting the climate resilience of buildings and communities.

### Notes

<sup>4</sup> See the Climate Just webtool, at <http://www.climatejust.org.uk/>

<sup>5</sup> That is, the interlocking impact of robotics, artificial intelligence, nanotechnology, quantum computing, biotechnology, 3D printing, and autonomous vehicles

Some solutions are beautifully simple in concept (such as using trees and other forms of green infrastructure to reduce urban temperatures) and, with careful design, bring multiple benefits for health and wellbeing.

On energy, solar and wind are now cheap enough that projects are coming forward without subsidies. Electric vehicles will become ever more commonplace, and new decentralised low-carbon technologies, including batteries, and advances in artificial intelligence are combining to form interconnected decentralised networks.

Together, these changes will have profound implications for development and how we plan and re-plan new and existing communities. While we cannot anticipate every aspect of these changes, planners should be alive to the possibilities of new technology and adopt a flexible approach to innovation

## 1.4 The economic opportunity

Climate change is a major threat, but the approaches required to tackle it also offer major economic opportunities, with the potential for significant job creation.

In October 2017 the government published an ambitious Clean Growth Strategy,<sup>6</sup> setting out a powerful direction of travel using low-carbon technology to meet our carbon dioxide emissions reduction targets. It states:

*'As a result of this technological innovation, new high value jobs, industries and companies have been created. And this is driving a new, technologically innovative, high growth and high value 'low carbon' sector of the UK economy. Not only are we rapidly decarbonising parts of the domestic economy, but thanks to our world leading expertise in technologies such as offshore wind, power electronics for low carbon vehicles and electric motors, and global leadership in green finance, we are successfully exporting goods and services around the world – for example, 1 in every 5 electric vehicles driven in Europe is made in the UK. This progress now means there are more than 430,000 jobs in low carbon businesses and their supply chains, employing people in locations right across the country.'*<sup>7</sup>

### Notes

6 *The Clean Growth Strategy: Leading the Way to a Low Carbon Future*. HM Government, Oct. 2017

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/651916/BEIS\\_The\\_Clean\\_Growth\\_online\\_12.10.17.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/651916/BEIS_The_Clean_Growth_online_12.10.17.pdf)

7 *Clean Growth Strategy: Executive Summary*. HM Government, updated Apr. 2018.

<https://www.gov.uk/government/publications/clean-growth-strategy/clean-growth-strategy-executive-summary>

8 'Why does the green economy matter?'. Webpage. United Nations Environment Programme.

<https://www.unenvironment.org/explore-topics/green-economy/why-does-green-economy-matter>

### Box 1

#### Key definitions in policy

The glossary to the National Planning Policy Framework sets out a number of useful definitions. Those relating to climate mitigation and adaptation in the NPPF's Annex 2, 'Glossary', are reproduced here for completeness:

- **Climate change adaptation:** Adjustments to natural or human systems in response to the actual or anticipated impacts of climate change, to mitigate harm or exploit beneficial opportunities.
- **Climate change mitigation:** Action to reduce the impact of human activity on the climate system, primarily through reducing greenhouse gas emissions.

Seizing this new opportunity requires that local economic growth strategies recognise both the potential and the vital role that the planning system plays in delivering these new technologies and, ultimately, a new kind of green economy.<sup>8</sup>

## 1.5 The 2018 revised NPPF

The government published a revised National Planning Policy Framework (NPPF) in the summer of 2018, and this guide reflects the policy in the new NPPF. In terms of the implications of the revised NPPF for planning for climate change, there are four headline issues:

- The revised NPPF retains the key link between planning policy and the provisions of the Climate Change Act 2008. This means all local plans must set a carbon dioxide emissions reduction target and lay out clear ways of measuring progress on carbon dioxide emissions reduction.
- Guidance for viability testing has been rebalanced, creating more opportunity for policy that might address climate change.
- There is still real confusion about the scope of planning authorities to set ambitious targets beyond the Building Regulations on energy efficiency.
- There is nothing to stop local plans adopting requirements for on-site renewable energy generation.

# Section 2

## Background

Planning makes a major contribution to both mitigating and adapting to climate change, through decision-making on the location, scale, mix and character of development (as well as density and layout, including building orientation, massing and landscaping). Planning can do this over the long periods of time necessary to deal with impacts such as sea level rise.<sup>9</sup> This guide sets out how local planning authorities (LPAs) can help to shape places with greater resilience to the impacts of climate change. Increased resilience will reduce future costs both for businesses and for households.<sup>10</sup>

Local authorities have a responsibility to help to secure progress on meeting the UK's emissions reduction targets (see Box 2), both through direct

influence on energy use and emissions (by, for instance, encouraging renewable energy and promoting low-carbon modes of travel) and by bringing others together and encouraging co-ordinated local action. A key part of any local authority strategy to encourage economic growth and improve energy security should be to help reduce the costs of buying in energy – by identifying renewable and local sources of energy, and also by reducing the amount of energy used.

Planning can also give local communities real opportunities to take action on climate change by encouraging community-based development and active participation in local and neighbourhood plan-making.

### Box 2

#### UK emissions reduction targets

Through the 2008 Climate Change Act, the government has committed to:

- reduce emissions by at least 80% of 1990 levels by 2050; and
- contribute to global emissions reductions, to limit global temperature rise to as little as possible above 2°C.

To meet these targets, the government has set five-yearly carbon budgets, which currently run until 2032.

Budget	Carbon budget level, MtCO <sub>2</sub> e*	Reduction below 1990 levels, %
First carbon budget (2008 to 2012)	3,018	25
Second carbon budget (2013 to 2017)	2,782	31
Third carbon budget (2018 to 2022)	2,544	37 by 2020
Fourth carbon budget (2023 to 2027)	1,950	51 by 2025
Fifth carbon budget (2028 to 2032)	1,725	57 by 2030

\* Metric tons of carbon dioxide equivalent

To meet future carbon budgets and the 80% target for 2050, the UK will need to reduce emissions by at least 3% a year from now on.

### Notes

- 9 *Adapting to Climate Change in the UK: Measuring Progress*. Progress Report. Committee on Climate Change, Adaptation Sub-Committee, Jul. 2011. <https://www.theccc.org.uk/publication/adapting-to-climate-change-in-the-uk-measuring-progress-2nd-progress-report-2011/>
- 10 *Stern Review on the Economics of Climate Change*. Published as *The Economics of Climate Change*. The Stern Review. Cabinet Office/ HM Treasury, Oct. 2006 (Published by Cambridge University Press, 2007). [http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/sternreview\\_index.htm](http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/sternreview_index.htm)

## 2.1 The impact of planning reform

It is important to recognise that the structures and policy that guide the English planning system have undergone radical change. This has involved major changes to planning legislation and to the operational principles of decision-making.

The main changes that have already reshaped planning for climate change are described in Sections 2.2 and 2.3 below, but two recent changes need to be kept in mind:

- The legal requirement to set out a local authority's strategic priorities was set out in the Neighbourhood Planning Act 2017. Whether local authorities are working on their own, or in co-operation with other authorities, these strategic plans will need to comply with the strategic priorities set out in paragraph 20 of the NPPF. These include planning for climate change.
- The expansion of permitted development, to include the conversion of buildings to residential use, has made the delivery of actions to secure mitigation and adaptation much more difficult. While the prior approval for permitted development process requires consideration of flood risk, there is no mechanism for a Merton-style energy or green infrastructure requirement (more information is given in the Planning and Energy Act 2008 subsection of Section 2.2 below). Proposals to extend these powers to include demolition and rebuild will greatly reduce the ability of planning to deliver effective action on climate change.

## 2.2 The legislative context

There is a mass of complex legislation which impacts on planning for climate change. The legislation set out in Sections 2.2.1-2.2.6 is listed in priority order for local planning.

### 2.2.1 Planning and Compulsory Purchase Act 2004 and the duty on mitigation and adaptation

The Planning and Compulsory Purchase Act 2004<sup>11</sup> sets out the structure of the local planning framework for England, including the duty on plan-making to mitigate and adapt to climate change.

#### Notes

11 Available at [http://www.legislation.gov.uk/ukpga/2004/5/pdfs/ukpga\\_20040005\\_en.pdf](http://www.legislation.gov.uk/ukpga/2004/5/pdfs/ukpga_20040005_en.pdf)

12 Section 19 of the 2004 Planning and Compulsory Purchase Act, as amended by Section 182 of the Planning Act 2008 (available at <https://www.legislation.gov.uk/ukpga/2008/29/section/182>), states: 'Development plan documents must (taken as a whole) include policies designed to secure that the development and use of land in the local planning authority's area contribute to the mitigation of, and adaptation to, climate change.'

13 Available at [http://www.legislation.gov.uk/ukpga/2008/27/pdfs/ukpga\\_20080027\\_en.pdf](http://www.legislation.gov.uk/ukpga/2008/27/pdfs/ukpga_20080027_en.pdf)

14 UK Climate Change Risk Assessment 2017. HM Government, Jan. 2017.

<https://www.gov.uk/government/publications/uk-climate-change-risk-assessment-2017>

#### Why is this relevant?

Local planning authorities are bound by the legal duty set out in Section 19 of the 2004 Planning and Compulsory Purchase Act, as amended by the 2008 Planning Act, to ensure that, taken as whole, plan policy contributes to the mitigation of, and adaptation to, climate change.<sup>12</sup> This powerful outcome-focused duty on local planning clearly signals the priority to be given to climate change in plan-making. In discharging this duty, local authorities should consider paragraph 149 of the NPPF and ensure that policies and decisions are in line with the objectives and provisions of the Climate Change Act 2008 (Section 1) (discussed below) and support the National Adaptation Programme. For the sake of clarity, this means that local plans should be able to demonstrate how policy contributes to the Climate Change Act target regime, and this, in turn, means understanding both the baseline carbon dioxide emissions and then the actions needed to reduce emissions over time – which, in turn, means that annual monitoring reports should contain ongoing assessments of carbon performance against the Climate Change Act target. **The Section 19 duty is much more powerful in decision-making than the status of the NPPF, which is guidance, not statute. Where local plan policy which complies with the duty is challenged by objectors or a planning inspector on the grounds, for example, of viability, they must make clear how the plan would comply with the duty if the policy were to be removed. Whatever new policy may emerge, compliance with the legal duty on mitigation must logically mean compliance with the provisions of the target regime of the Climate Change Act.**

### 2.2.2 Climate Change Act 2008

The Climate Change Act 2008<sup>13</sup> introduced a statutory target of reducing carbon dioxide emissions to at least 80% below 1990 levels by 2050, with interim targets, set through five-yearly carbon budgets, of 37% by 2020, 51% by 2025 and 57% by 2030. Government departments have prepared carbon budgets to indicate how greenhouse gas emissions will be reduced across the government estate and in sectors where departments take a policy lead. The Act also created a framework for climate change adaptation. The second national Climate Change Risk Assessment was published in January 2017,<sup>14</sup> and the second

National Adaptation Programme (NAP) was published in July 2018.<sup>15</sup> This addresses the risks affecting communities across England and sets out the government's ongoing investment and work to tackle these risks. The Climate Change Act set out a reporting power, requiring compulsory reporting of climate change impacts and adaptation plans for certain public bodies and organisations.<sup>16</sup> The Committee on Climate Change has produced guidance on the implementation of the Act.<sup>17</sup>

#### **Why is this relevant?**

The outputs from the Climate Change Act provide an evidence base that can be used in identifying priorities for action and appropriate adaptation measures.

### **2.2.3 Flood and Water Management Act 2010**

The Flood and Water Management Act 2010<sup>18</sup> addresses the threats of flooding and water scarcity. Under the Flood Risk Regulations 2009,<sup>19</sup> the Environment Agency is responsible for managing flood risk from main rivers, the sea and reservoirs.

#### **Why is this relevant?**

Lead local flood authorities (LLFAs) are responsible for local sources of flood risk, in particular surface run-off, groundwater, and ordinary watercourses. LLFAs are statutory consultees on major development. Local authorities are responsible for ensuring that requirements for preliminary flood risk assessments are met.

### **2.2.4 Planning Act 2008**

The Planning Act 2008<sup>20</sup> introduced a new planning regime for Nationally Significant Infrastructure Projects (NSIPs), including energy generation plants of capacity greater than 50 megawatts (50 MW). The government has produced National Policy Statements (NPSs) to guide decisions on such projects, applications for which are decided by the Planning Inspectorate. Alongside this regime, there is a duty (also introduced by the 2008 Act) on local development plans to include

#### **Notes**

15 *The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting: Making the Country Resilient to a Changing Climate*. Department for Environment, Food and Rural Affairs, Jul. 2018. <https://www.gov.uk/government/publications/climate-change-second-national-adaptation-programme-2018-to-2023>

16 The second round of climate change adaptation progress reports are available at <https://www.gov.uk/government/collections/climate-change-adaptation-reporting-second-round-reports>

17 See the Climate Change Committee's 'UK regulations: the Climate Change Act' webpage, at <https://www.theccc.org.uk/tackling-climate-change/the-legal-landscape/the-climate-change-act/>

18 Available at [http://www.legislation.gov.uk/ukpga/2010/29/pdfs/ukpga\\_20100029\\_en.pdf](http://www.legislation.gov.uk/ukpga/2010/29/pdfs/ukpga_20100029_en.pdf)

19 *Environmental Protection: The Flood Risk Regulations 2009*. Statutory Instrument 2009 No. 3042. TSO, 2009. <http://www.legislation.gov.uk/uksi/2009/3042/contents/made>

20 Available at [http://www.legislation.gov.uk/ukpga/2008/29/pdfs/ukpga\\_20080029\\_en.pdf](http://www.legislation.gov.uk/ukpga/2008/29/pdfs/ukpga_20080029_en.pdf)

21 *Explanatory Memorandum to the Infrastructure Planning (Onshore Wind Generating Stations) Order 2016*. Statutory Instrument 2016 No. 306. TSO, 2016. [https://www.legislation.gov.uk/uksi/2016/306/pdfs/uksiem\\_20160306\\_en.pdf](https://www.legislation.gov.uk/uksi/2016/306/pdfs/uksiem_20160306_en.pdf)

22 Available at [http://www.legislation.gov.uk/ukpga/2008/21/pdfs/ukpga\\_20080021\\_en.pdf](http://www.legislation.gov.uk/ukpga/2008/21/pdfs/ukpga_20080021_en.pdf)

#### **Box 3**

##### **The Merton rule**

The 'Merton rule' was a planning policy, developed by Merton Council in 2003, which required new developments to generate at least 10% of their energy needs from on-site renewable energy equipment, in order to help reduce annual carbon dioxide emissions in the built environment. The policy then spread out nationally, but with the expectation of the commitment to zero carbon in 2016 the policy was considered redundant.

After the cancellation of zero-carbon policy, the Merton rule approach remains a powerful way to drive energy-positive or zero-carbon development.

policies which ensure that they make a contribution to both climate mitigation and adaptation. ***It is important to note that in 2016 onshore wind installations above 50 MW were removed<sup>21</sup> from the NSIP regime, and such applications are now dealt with by local planning authorities, based on the NPPF and associated Ministerial statements.***

#### **Why is this relevant?**

Local planning authorities need to apply aspects of the NPS series to issues such as renewable energy applications. This guide sets out below how LPAs should discharge the duty on local plans to deal with climate change.

### **2.2.5 Planning and Energy Act 2008**

The Planning and Energy Act 2008<sup>22</sup> sets out powers for local authorities to require a proportion of the energy need related to new development to be sourced in the locality of the development, through renewable or low-carbon generation. This enables what is known as a Merton-style approach (see Box 3 on the previous page) which can be used to develop zero-carbon policy.



Maaiké Bunschöten-Bolh/Thinkstock

The focus of such policy can be broader than a site so as to enable area-based solutions such as district heating. It also enabled local authorities to require standards for energy efficiency in new buildings beyond those in the Building Regulations. However, in 2015 the energy efficiency requirements were repealed, to effectively make the Building Regulations the sole authority regarding energy efficiency standards for residential development, and leaving local authorities no longer able to set their own energy efficiency standards. However, while the power was removed in principle, the government has not yet produced a commencement date for repealing these powers, which therefore remain in place. This means that planning authorities can set such standards, subject to the limitations set out in this guide.

#### **Why is this relevant?**

The Act allows local authorities and communities to reap the benefits of local renewable energy generation and supports the adoption of Merton-style renewable energy requirements, provided they are consistent with national policy. National policy is the 2015 Written Ministerial Statement, which allows LPAs to set Code for Sustainable Homes level 4 energy standards.<sup>23</sup>

## **2.2.6 Neighbourhood Planning Act 2017**

The Neighbourhood Planning Act 2017<sup>24</sup> strengthens the powers of neighbourhood plans, but also creates a new legal duty on local planning authorities to set out their strategic priorities. The government has now indicated that these priorities should be expressed in a strategic plan. This plan is focused on high-level strategic issues set out in the NPPF, and these issues include action on climate change (see paragraph 20 of the NPPF).

#### **Why is this relevant?**

The Act provides an opportunity to deal with longer-term energy planning and adaptation issues at a strategic scale, which can provide a more efficient way of managing housing and energy needs. It allows for effective catchment-scale planning for flood risk and landscape-scale planning for green infrastructure. The major risk is that following the 2018 NPPF's removal of the policy presumption for a local plan, some local authorities may choose not to prepare one and so will lose the detailed policy necessary to deliver effective adaptation and mitigation.

#### **Notes**

23 See D Browne: 'LAs and energy efficiency standards'. *Public Law Today*, 6 Apr. 2018.

<http://publiclawtoday.co.uk/housing/property/380-property-features/38092-las-and-energy-efficiency-standards>; and

*Driving Sustainability in New Homes: A Resource for Local Authorities*. Version 1.2. UK Green Building Council, Sept. 2018.

<https://www.ukgbc.org/wp-content/uploads/2018/09/Driving-sustainability-in-new-homes-UKGBC-resource-Sept-2018-1.pdf>

24 Available at [http://www.legislation.gov.uk/ukpga/2017/20/pdfs/ukpga\\_20170020\\_en.pdf](http://www.legislation.gov.uk/ukpga/2017/20/pdfs/ukpga_20170020_en.pdf)



Anastasia Nikolajanni

## 2.3 The policy context – key documents

### 2.3.1 The National Planning Policy Framework

The NPPF<sup>25</sup> sets out the key national planning priorities for England. It is non-statutory guidance and is a material consideration in plan-making and development management decisions. The NPPF, revised in July 2018, is accompanied by online Planning Practice Guidance.

Paragraph 148 of the NPPF underlines that tackling climate change is central to the economic, social and environmental dimensions of sustainable development. The NPPF (in paragraph 149 and accompanying footnote 48) expects LPAs to adopt proactive strategies to mitigate and adapt to climate change, in line with the Climate Change Act 2008 and Section 19 of the 2004 Planning and Compulsory Purchase Act. This has the effect of making the objective of an 80% reduction in carbon dioxide emissions by 2050 clearly relevant to the discharge of the duty on planning authorities to shape policy which reduces carbon dioxide emissions.

#### Note

25 *National Planning Policy Framework*. Cm 9680. Ministry of Housing, Communities and Local Government, Jul. 2018.  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/740441/National\\_Planning\\_Policy\\_Framework\\_web\\_accessible\\_version.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/740441/National_Planning_Policy_Framework_web_accessible_version.pdf)

As a result, planning authorities will need a clear grasp of their carbon profile, and their policy should support ‘radical’ reductions in carbon dioxide emissions.

***While the presumption in favour of development is a key objective of the NPPF, the presumption in favour does not apply to development in areas subject to flood risk or coastal erosion, where policies in the NPPF suggest that development should be restricted. Further information is given in Sections 4.4 and 5 of this guide.***

#### ***NPPF core planning principles***

Paragraph 8 of the NPPF makes clear that ‘mitigating and adapting to climate change’ is a core planning objective. To be in conformity with the NPPF, local plans should reflect this principle, ensuring that planning policy clearly and comprehensively deals with climate change mitigation and adaptation. The NPPF also highlights climate change as a key part of strategic planning policy which local authorities are legally obliged to set out in their local plans (see paragraph 20 and footnote 12 of the NPPF).

***The importance of proportionate evidence***

The NPPF supports the need for objective and proportionate evidence bases for plan-making, which underpins the approach established in Section 4.2 of this guide. In relation to both carbon dioxide emissions and key adaptation data, it may be useful to share approaches across local authority boundaries as part of the wider commitment to fulfil the duty to co-operate. The NPPF stresses the importance of viability testing; this is dealt with in more detail in Section 4.2.1.

***Mitigation and renewable energy***

The NPPF sets out a positive vision of local plans securing ‘radical reductions in greenhouse gas emissions’ (paragraph 148). Footnote 48 in paragraph 149 of the NPPF makes clear that decisions should be taken in line with the 2008 Climate Change Act, which requires an 80% reduction of carbon dioxide emissions by 2050. Since compliance with national law and policy is central to the soundness test of local plans, compliance with the Climate Change Act is a clear obligation on both the Planning Inspectorate and LPAs.

This also provides an opportunity to support innovative approaches on matters that can contribute to radically reducing carbon dioxide emissions, such as energy systems and building standards. Paragraph 150 of the NPPF makes clear that this can be achieved by shaping the location and design of development, supporting energy efficiency in existing buildings, and setting local requirements for building sustainably, so long as they are in line with national standards. The NPPF, for the first time, identifies the risks from overheating.

In planning for renewable energy, local authorities are encouraged to take a positive approach by identifying suitable areas for renewable energy generation and its supporting infrastructure, and by maximising the

opportunities for community-led and decentralised energy production (paragraphs 151 and 152).

***Adaptation***

Paragraph 149 of the NPPF states that:

*‘Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures. Policies should support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts, such as providing space for physical protection measures, or making provision for the possible future relocation of vulnerable development and infrastructure.’*

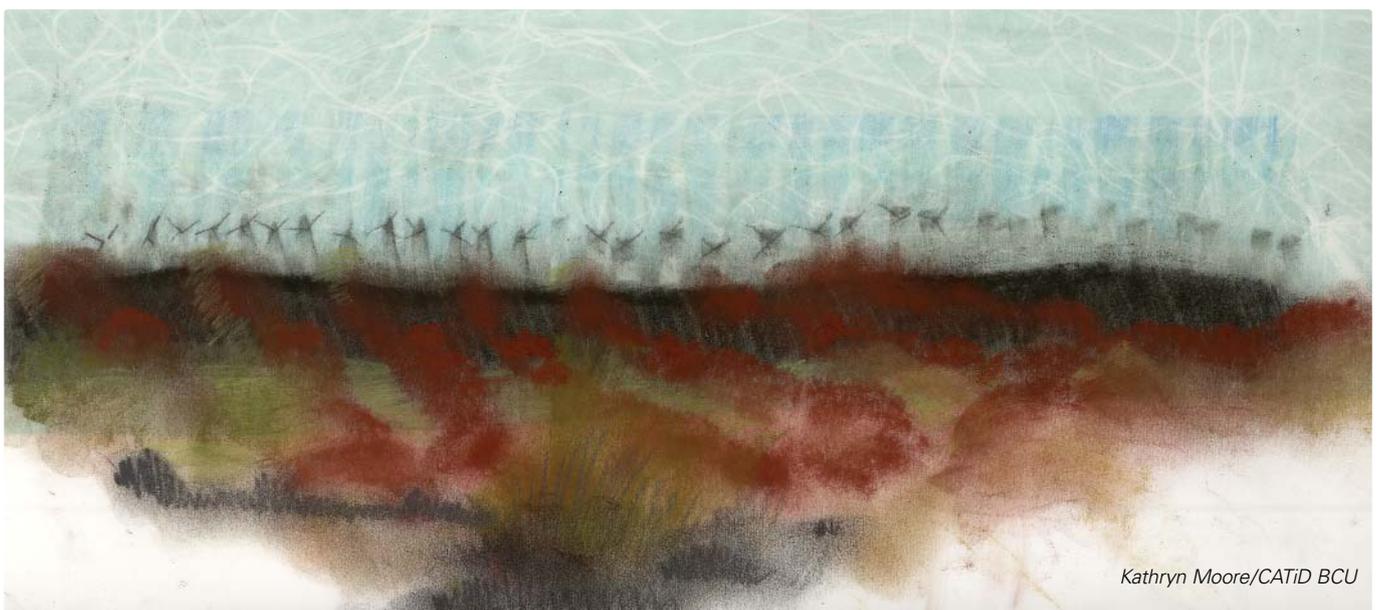
Taken as a whole, the NPPF requires local planning authorities to have a holistic understanding of climate adaptation, ranging from flood risk to increased temperatures and heat stress. Local plans should play a full part in building community resilience to a changing climate.

The NPPF addresses several adaptation-related policy issues – in particular Section 9 emphasises the need to encourage sustainable transport modes and locate development with a view to reducing the need to travel.

***The impact of the NPPF and Planning Practice Guidance viability test on climate change policy***

The 2018 NPPF and revised Planning Practice Guidance have made significant changes to the ‘viability test’ which is applied to plan policy and particular applications.

The detail of how this affects climate policy is set out in Section 4.2.1 of this guide.



Kathryn Moore/CATiD BCU



### 2.3.2 Planning Practice Guidance

The Planning Practice Guidance online resource provides vital additional and detailed guidance on aspects of the NPPF. Planning Practice Guidance is periodically updated to include interpretations of various Ministerial Statements relevant to planning. The 'Climate change' section of Planning Practice Guidance has not yet been revised to reflect the new policy in the NPPF.

The most significant part with respect to climate change is the guidance on planning for onshore wind, which repeats the tests introduced in 2015, stating that local planning authorities should grant planning permission only if a proposed wind turbine is in an area identified as suitable for wind energy development in a local or neighbourhood plan, and if, following consultation, it can be demonstrated that the planning impacts identified by affected local communities have been fully addressed and that the proposal therefore has their backing. Whether a proposal has the backing of the affected local community is a planning judgement for the local planning authority, and the courts have ruled that 'addressed' does not mean 'resolved' or 'eliminated'.<sup>26</sup>

It is also important to note that plans can allocate areas as suitable for wind turbines and do not have to follow the more onerous route of allocating actual sites, as is sometimes mistakenly assumed.

#### Notes

<sup>26</sup> *Holder, R (on the application of) v Gedling Borough Council & Ors*. Court of Appeal – Civil Division, 16 Feb. 2018. Case No.: C1/2016/4728. [2018] EWCA Civ 214

<sup>27</sup> See the Environment Agency's 'Flood risk assessments: climate change allowances' webpage, at <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>

The critical sections of Planning Practice Guidance are on:

- **climate change** – note, however, that this guidance was last revised in 2014 and does not take account of government cancellation of the zero-carbon commitment;
- **renewable and low-carbon energy** – planning for onshore wind, photovoltaics, heat networks, etc.; and
- **flood risk and coastal change**, setting out the approach to the sequential test and exception test and providing detailed guidance – this guidance has been updated to include the latest Environment Agency 'flood risk assessments: climate change allowances'.<sup>27</sup>

### 2.3.3 Other climate-change-related government policy

Also in place is a significant amount of other policy that has an impact on planning and the policies that underpin plan-making and development management.

Tables 1 and 2, set out on pages 15 and 16 of this guide, summarise the various considerations relevant to climate change that local plans need to comply with, and further details on other climate-related government policy are provided in Annex 1.

**Table 1**  
Overview of the mitigation compliance framework for local plans

Plan stage	Law	NPPF (2018)	Planning Practice Guidance	Guidance from statutory bodies
<b>Evidence-gathering</b>	Section 19 of the Planning and Compulsory Purchase Act 2004 (PCPA 2004); Climate Change Act 2008	Paragraphs 31 and 156, but no specific reference to carbon	'Climate change' section 'Renewable and low carbon energy' section 'Viability' section	N/A
<b>Engagement</b>	PCPA 2004; Localism Act 2011	Paragraph 16	'Local plans' section 'Plan-making' section	N/A
<b>Policy formulation</b>	Section 19 of the PCPA 2004; Climate Change Act 2008	Paragraphs 20, 148-169	'Climate change' section 'Renewable and low carbon energy' section 'Viability' section	N/A
<b>Policy testing</b>	Section 19 of the PCPA 2004; Climate Change Act 2008	Paragraphs 35-37 (on soundness)	'Climate change' section 'Renewable and low carbon energy' section 'Viability' section	Planning Inspectorate local plan examination procedure
<b>Policy outcomes</b>	Section 19 of the PCPA 2004; Climate Change Act 2008	Paragraphs 20, 148-169	'Climate change' section 'Renewable and low carbon energy' section	N/A
<b>Decision-making</b>		Paragraphs 38-58		N/A
<b>Monitoring and review</b>			'Plan-making' section	N/A

The Planning Practice Guidance online resource should be checked for the latest updates – <https://www.gov.uk/government/collections/planning-practice-guidance>

**Table 2**  
Overview of the adaptation compliance framework for local plans

Plan stage	Law	NPPF (2018)	Planning Practice Guidance	Guidance from statutory bodies
<b>Evidence-gathering</b>	Section 19 of the Planning and Compulsory Purchase Act 2004 (PCPA 2004); Climate Change Act 2008; Water Management Act 2010	Paragraphs 148-169, particularly paragraph 149 (footnote 48)	'Climate change' section 'Flood risk and coastal change' section 'Water supply, wastewater and water quality' section 'Viability' section	National Adaptation Programme; Environment Agency (EA) climate change flood allowances; <sup>a</sup> UK Climate Impacts Programme (UKCP18) <sup>b</sup>
<b>Engagement</b>	PCPA 2004; Localism Act 2011	Paragraphs 16, 24-27	'Local plans' section 'Plan-making' section	
<b>Policy formulation</b>	Section 19 of the PCPA 2004; Climate Change Act 2008; Planning and Energy Act 2008	Paragraphs 20 (strategic planning principles), 148-169, 57 (on plan-making and viability)	'Climate change' section 'Flood risk and coastal change' section 'Water supply, wastewater and water quality' section 'Viability' section	
<b>Policy testing</b>	Section 19 of the PCPA 2004; Climate Change Act 2008; Planning and Energy Act 2008	Paragraphs 35-37 (on soundness)		
<b>Policy outcomes</b>	Section 19 of the PCPA 2004; Climate Change Act 2008	Paragraphs 20, 148-169	'Climate change' section 'Flood risk and coastal change' section 'Water supply, wastewater and water quality' section	
<b>Decision-making</b>	(Section 19 of the PCPA 2004 applies only to plan-making, not to development management decisions)	Paragraphs 38-58	'Flood risk and coastal change' section	
<b>Monitoring and review</b>			'Plan-making' section	

a See the Environment Agency's 'Flood risk assessments: climate change allowances' webpage, at <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>  
b See the Met Office's UK Climate Projections website, at <https://www.metoffice.gov.uk/research/collaboration/ukcp>

The Planning Practice Guidance online resource should be checked for the latest updates – <https://www.gov.uk/government/collections/planning-practice-guidance>



Institutions and bodies with a role in local planning for climate change

## 2.4 The importance of embedding climate change in local plan-making

Effective local and strategic plans can help to deliver a range of key solutions to climate change issues, and can also help local communities to reap the economic, environmental and social benefits of such action over the long term. The NPPF reinforces the importance of the legal basis of the local plan-led system and the need for a strong and proportionate evidence base, including the need to test the viability of policy. Planning Practice Guidance sets out useful sources of evidence, including national data on local carbon dioxide emissions. Section 4 of this guide sets out a logical set of steps, from evidence-gathering to suggested policy approaches, for both mitigation and adaptation, and provides an indication of the key sources of evidence and of how future patterns of spatial development can

be designed to maximise opportunities – through, for example, the use of decentralised renewable energy systems and reducing the need to travel (see the London Plan case study in Annex 2).

New developments should take the full range of mitigation and adaptation factors into account. For example, good site selection at the plan-making stage is crucial. This is why Section 4 of this guide sets out criteria which can be used to assess suitability when allocating sites, considering, for example, the type of building and the intensity of use.

Climate change is a strategic priority of the NPPF. Action on climate change should be an integral part of the culture of plan-making and should be embedded and integrated into policy preparation. Only by treating climate issues as central to policy formulation will a local authority have effectively discharged its duty under the 2004 Planning and Compulsory Purchase Act.

Climate change effects can have devastating consequences, as seen in the floods in Gloucestershire in 2007, in Cumbria in 2009, and in Leeds, York, Calderdale and Carlisle in 2015. Local planning authorities can consider the likely impacts of climate change and, using the available evidence, both plan for these impacts when considering new development and develop adaptation options for existing areas.

The key evidence sources for adaptation are laid out in Section 4.2 below, and Section 4.4 presents a proposed planning approach to adapting to a changing climate. A separate guide to planning for green infrastructure, produced by the TCPA and The Wildlife Trusts, provides more detailed advice.<sup>28</sup>

## 2.5 The importance of political and community leadership

Effective action on climate change requires strong political leadership. It is also vital that communities are at the heart of local policy debate so that local knowledge can shape decision-making<sup>29</sup> (see the Gwithian and Gwinear Neighbourhood Plan case study in Annex 2). In communicating the challenge posed by climate change, there is a risk that we may underestimate the multiple benefits that effective action can bring to communities. For example, reducing carbon dioxide emissions can result in the community ownership of energy supply, with direct benefits to consumers and the local economy.

Many of the initiatives that can be taken to address climate change are simply ‘win-win’ actions for communities, and help to shape low-carbon resilient places with high-quality design and access to the natural environment.

## 2.6 Neighbourhood planning

The government has put increased emphasis on the value of the neighbourhood planning process as a way for communities to express their aspirations for future

development. Two issues have arisen in the existing practice of neighbourhood planning:

- To date, most neighbourhood plans have not included policy on climate change mitigation, and there is feedback that some that have tried have encountered difficulties in navigating the viability test and the perceived limitations on policy for energy efficiency and building fabric. However, there are some examples of neighbourhood plans which have tried to address climate change and energy considerations and demonstrate the huge potential of neighbourhood planning to add to, and reinforce, climate change policy at a local level (see the Wirksworth Neighbourhood Plan case study in Annex 2).
- In the 2018 redrafted NPPF, increased reliance has been placed on neighbourhood plans to fill gaps that could be left by the end of the policy requirement for detailed local plans. In this context, it is important to recognise that local authorities have no control over the contents of neighbourhood plans, apart from checking the lawfulness of what is included. It cannot be assumed that many of the detailed actions necessary to achieve carbon dioxide emissions reduction and community resilience will be taken up by neighbourhood plans.<sup>30</sup> Furthermore, LPAs will need to check compliance with the legal duties on climate change before a neighbourhood plan is adopted.

None of this should detract from the positive opportunity that neighbourhood plans present for dialogue with communities on climate change. CSE (the Centre for Sustainable Energy) has produced useful guidance on how communities can make the most of the renewable energy opportunity.<sup>31</sup> The Environment Agency has contributed to the development of a neighbourhood planning toolkit, which will be published by the end of 2018 on the Locality website<sup>32</sup> and will provide advice to neighbourhood planning groups about the statutory consultees and how they can make plans resilient to the impacts of climate change. The Landscape Institute also has produced information on design and green infrastructure for neighbourhood plans.<sup>33</sup>

### Notes

- 28 *Planning for a Healthy Environment – Good Practice Guidance for Green Infrastructure and Biodiversity*. TCPA and The Wildlife Trusts. TCPA, Jul. 2012. <https://www.tcpa.org.uk/Handlers/Download.ashx?IDMF=34c44ebf-e1be-4147-be7d-89aaf174c3ea>
- 29 See the Centre for Sustainable Energy’s ‘Future Energy Landscapes – community consultation method’ webpage, on a new approach to local energy planning, at <https://www.cse.org.uk/projects/view/1315>
- 30 Guidance primarily aimed at planners but also useful for communities can be found on the communityplanning.net ‘Resilient communities’ webpages, at <http://www.communityplanning.net/resilientcommunities/introduction.php>
- 31 *Low-Carbon Neighbourhood Planning: A Guide to Creating Happier, Healthier, Greener Communities*. Jan. 2018; *How Green Is My Plan?* (two versions – ‘Urban & suburban’ and ‘Rural’) (undated); and *How to Identify Suitable Areas for Onshore Wind Development in Your Neighbourhood Plan*. Guidance Note (undated). Centre for Sustainable Energy. All available at <https://www.cse.org.uk/projects/view/1343>
- 32 This will be a Locality document (see <https://locality.org.uk/>), with contributions from the Environment Agency, Natural England, Historic England and the Forestry Commission
- 33 *Neighbourhood Planning*. Technical Information Note 04/2016. Landscape Institute, Apr.2016. [https://www.landscapeinstitute.org/wp-content/uploads/2016/09/NeighbourhoodplanningTIN04\\_16.pdf](https://www.landscapeinstitute.org/wp-content/uploads/2016/09/NeighbourhoodplanningTIN04_16.pdf)

## Section 3

# Barriers to effective local plan action

**W**hile there is a strong evidential case for planning for climate change, there are some controversial issues which can be barriers to effective action.

### 3.1 Climate adaptation – more than just about planning for flooding

Because of its visible impact, flood risk is often the top priority of any adaptation strategy; but planning for flood risk is not always carried out with sufficient grasp of the long-term risks, nor of the opportunities to design resilient places. However, successful adaptation policy involves much more than simply addressing flood risk and has to take account of a range of severe and complex climate impacts. Even if global climate stabilisation can be achieved at no more than a 2°C global temperature change compared with pre-industrial levels (an optimistic assumption), there will be a dramatic increase in severe weather incidents – from heat waves to flooding and major changes in rainfall that will have a major impact on water supply. Dealing with this reality requires holistic planning over the long term based on an understanding of how such changes will interact and affect people’s health and wellbeing. Building climate resilience requires an inter-organisational, inter-departmental local response in which the local plan can be an integrating aspect. Above all, climate adaptation must be understood as the main priority for long-term planning to secure climate resilience, and must be accepted as equally as important as meeting housing need.

### 3.2 Making the most of opportunities for strategic co-operation

Nearly all aspects of climate change will require work that must be carried out across local authority

boundaries, on landscape,<sup>34</sup> travel-to-work areas or river catchment area scale. The Localism Act 2011 introduced the duty to co-operate, which requires local planning authorities to co-operate strategically on plan-making issues that cross administrative borders. The 2017 Neighbourhood Planning Act created a legal obligation on LPAs to set out their strategic priorities. The NPPF outlines a number of strategic priorities that should be included in the local plan and to which the duty to co-operate particularly applies. These strategic priorities include climate change mitigation and adaptation (in paragraph 20).

The revised 2018 NPPF requires ‘statements of common ground’ (see paragraph 27) to demonstrate that the duty to co-operate has been fulfilled. These statements could provide a vital framework for dealing with strategic aspects of climate change. The complex patterns of devolution in England, with combined authorities and joint strategic plans (such as that for the West of England), should provide opportunities for a clear policy narrative on mitigation and adaptation. A strategic approach could reflect the importance of watershed management/river basin management and landscape-scale issues, and could work closely with key sub-regional partnerships such as Local Enterprise Partnerships, Local Nature Partnerships and strategic transport bodies such as Transport for the North, as well as key private sector organisations such as water companies.

### 3.3 Making the most of opportunities offered by new energy technologies

The trajectory of the deployment and costs of solar photovoltaics (PV) in the UK, and globally, is one that has surpassed expectations. As little as a decade ago, few people were talking seriously about PV. Since then, growth has been exponential, with a doubling of

#### Note

34 *Green Infrastructure: An Integrated Approach to Land Use*. Position Statement. Landscape Institute, Mar. 2013.  
[https://www.landscapeinstitute.org/wp-content/uploads/2016/03/Green-Infrastructure\\_an-integrated-approach-to-land-use.pdf](https://www.landscapeinstitute.org/wp-content/uploads/2016/03/Green-Infrastructure_an-integrated-approach-to-land-use.pdf)



deployment globally every two years and costs dropping by around a quarter for each of these doublings.<sup>35</sup> Were this rate of growth to continue to 2030, then the entire global energy demand could be met from solar alone!

Solar PV, along with onshore wind, is now cheaper over its lifetime than new-build coal and nuclear generation, and close to being comparable with gas.<sup>36</sup>

The utility of solar energy (and indeed other variable renewable energy sources such as wind) is also improving as the costs of battery energy storage drop (prices have declined by nearly 80% since 2010<sup>37</sup>), enabling solar power availability to better match demand and address concerns about intermittency.

Set against the relentless rise of solar PV globally, the UK's deployment has been more mixed. From 2010 to the end of 2016 there was massive growth in capacity, from close to zero to nearly 12,000 MW.<sup>38</sup> Following

the government's decision to cut financial support for solar farms in July 2015 and with restrictions on domestic installations, deployment has dropped, with less than 1,000 MW deployed in 2017.

More positively, the first signs that deployment costs have dropped sufficiently for the industry to develop without subsidies are emerging, with several schemes (such as Clayhill Farm in Buckinghamshire<sup>39</sup>) having been completed and an estimated further capacity of over 3,000 MW in the planning process.<sup>40</sup> However, major challenges remain. Currently, no new generation capacity (fossil fuel or renewable) can be built without reliance on some form of subsidy, but solar and onshore wind are the only two power sources that are currently excluded from available support mechanisms. The government has indicated that this may change, encouraged by the industry and the Committee on Climate Change, but, until it does, solar remains reliant on securing private supply agreements with large end-users, for example large companies or local authorities.

#### Notes

35 *New Energy Outlook 2017*. Bloomberg New Energy Finance, 2017. <https://about.bnef.com/new-energy-outlook/>

36 *Electricity Generation Costs*. Department for Business, Energy and Industrial Strategy, Nov. 2016. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/566567/BEIS\\_Electricity\\_Generation\\_Cost\\_Report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/566567/BEIS_Electricity_Generation_Cost_Report.pdf)

37 *New Energy Outlook 2017*. Bloomberg New Energy Finance, 2017. <https://about.bnef.com/new-energy-outlook/>

38 *Solar Photovoltaics Deployment*. National Statistics. Department for Business, Energy and Industrial Strategy, May 2014, updated Apr. 2018. <https://www.gov.uk/government/statistics/solar-photovoltaics-deployment>

39 L Stoker: 'Inside Clay Hill, the UK's first subsidy-free solar farm'. *Solar Power Portal*, 27 Sept. 2017. [https://www.solarpowerportal.co.uk/blogs/inside\\_clay\\_hill\\_the\\_uks\\_first\\_subsidy\\_free\\_solar\\_farm](https://www.solarpowerportal.co.uk/blogs/inside_clay_hill_the_uks_first_subsidy_free_solar_farm)

40 F Colville: 'UK post-subsidy solar sites revealed as pipeline exceeds 3.5 GW'. *Solar Power Portal*, 6 Sept. 2017. [https://www.solarpowerportal.co.uk/blogs/uk\\_post\\_subsidy\\_solar\\_sites\\_revealed\\_as\\_pipeline\\_exceeds\\_3.5gw](https://www.solarpowerportal.co.uk/blogs/uk_post_subsidy_solar_sites_revealed_as_pipeline_exceeds_3.5gw)



Looking ahead to the next decade, solar costs will continue to drop and, combined with wind, electric vehicles, batteries and other technologies, solar power generation will be able to meet an increasing proportion of our energy needs. At the same time, because fossil-fuelled power will always be subject to variable fuel costs it will become relatively less competitive. Consequently solar and other renewable technologies will only become more attractive, and the planning system will have an important role to play in managing their deployment.

### **3.4 What local planning can do on energy performance following the cancellation of the zero-carbon homes commitment**

In 2011, the coalition government made a commitment to deliver the zero-carbon homes policy by 2016. In 2015, the Housing Standards Review reported, and the government announced a number of changes to the building regulation framework, including new optional technical standards on accessibility, water, waste, security and space that may be adopted by a local authority through its local plan. It was silent on energy efficiency standards in anticipation of the then forthcoming 2016 zero-carbon homes policy.

#### **Note**

41 *Planning Update*. HCWS488. Written Statement by the Secretary of State for Communities and Local Government, Mar. 2015.  
<https://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2015-03-25/HCWS488/>

A Written Ministerial Statement soon followed, in which provision in relation to energy performance was made as follows:

*'For the specific issue of energy performance, local planning authorities will continue to be able to set and apply policies in their Local Plans which require compliance with energy performance standards that exceed the energy requirements of Building Regulations until commencement of amendments to the Planning and Energy Act 2008 in the Deregulation Bill.'*<sup>41</sup>

These specific amendments to the 2008 Planning and Energy Act were intended to remove the ability of LPAs to require energy performance standards for new homes higher than those set in the Building Regulations and were to be enacted at the same time that the government introduced higher energy performance requirements in 2016, through the Building Regulations. The performance increase was expected to be equivalent to a 19% improvement from the target emission rate of the 2013 edition of the 2010 Building Regulations (Part L) and was also the standard referenced within the aforementioned Written Ministerial Statement (i.e. equivalent to Code for Sustainable Homes level 4 energy criteria). However, the government's Productivity Plan subsequently stated that: *'The government does not intend to proceed with the zero carbon Allowable Solutions carbon offsetting scheme, or the proposed 2016 increase in on-site*

#### Box 4

### Government statements supporting local-authority-set energy efficiency standards

During the passage of the Neighbourhood Planning Bill through the House of Lords on 6 February 2017,<sup>i</sup> Baroness Parminter asked in relation to carbon dioxide emissions reductions:

*'... can the Minister confirm that the Government will not prevent local councils requiring higher building standards? There is some lack of clarity about whether local authorities can carry on insisting in their local plans on higher standards. ... Will the Government confirm that they will not prevent local authorities including a requirement for higher building standards?'*

To which Lord Bourne replied:

*'The noble Baroness asked specifically whether local authorities are able to set higher standards than the national ones, and I can confirm that they are able to do just that.'*

Subsequently, the draft revised NPPF consultation document gave the following signal:

*'The Clean Growth Strategy sets out the Government's plans for consulting on energy performance standards in Building Regulations later this year. Local authorities can play an important role in improving the energy performance of buildings, in line with the ambitions of the Clean Growth Strategy, and this will be considered further as the Government develops its consultation proposals.'*<sup>ii</sup>

It then specifically asked for feedback on whether paragraph 149b (relating to building standards) needed further amendment to reflect the ambitions in the Clean Growth Strategy to reduce greenhouse gas emissions from buildings. Furthermore, a 19% energy improvement standard (equivalent to Code for Sustainable Homes level 4) was adopted in Ipswich last year and by Brighton in 2016, while Havant and Cambridge City are targeting this standard in their emerging plans. Milton Keynes is pushing for a 19% improvement on the target emissions rate (regulatory minimum), plus a 20% Merton-type rule on top for renewables – this is yet to be adopted.

i House of Lords Grand Committee Debate of the Neighbourhood Planning Bill. *House of Lords Hansard*, 6 Feb. 2017, Vol. 778, cols 358-60. <https://hansard.parliament.uk/Lords/2017-02-06/debates/76AF5263-A938-4851-929D-8CAE765C56B8/NeighbourhoodPlanningBill>

ii *National Planning Policy Framework: Consultation Proposals*. Ministry of Housing, Communities and Local Government, Mar. 2018. p.22. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/685288/NPPF\\_Consultation.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/685288/NPPF_Consultation.pdf)

**Note:** The policy position on energy performance is 'fluid' and this information will be updated when the government clarifies the position.

*energy efficiency standards, but will keep energy efficiency standards under review, recognising that existing measures to increase energy efficiency of new buildings should be allowed time to become established.'*<sup>42</sup> [Emphasis added]

This cancellation, or perhaps more accurately suspension, of the zero-carbon homes agenda has since created a great deal of confusion and uncertainty. However, at the time of writing, the amendments to the Planning and Energy Act 2008 **have not been enacted, and the powers afforded to LPAs through the Act to set energy efficiency standards in new homes still exist**. LPAs have the power to adopt such standards where they are compliant with other national policy. This is not a loophole, but is believed to be a deliberate act of government, as the intent to deliver on zero-carbon homes has always remained (albeit the original policy mechanisms have been wound down and the current

state of play is set to be reviewed). Several recent government statements support this, as set out in Box 4.

Consequently, both the TCPA and the RTPI (and other stakeholders) believe that LPAs are able to set standards above the building regulatory minimum. **A 19% reduction in carbon dioxide emissions on the regulatory minimum is a sound 'standard' for LPAs to aim for** (provided there is an evidence base to support viability, etc.). All these policies apply to new dwellings only. There are no limits on standards across the non-domestic sector (schools, healthcare, retail, industrial offices, etc.) and for 'place' (besides those typical to planning). The UKGBC, in association with Core Cities UK, has produced a 'live' resource pack<sup>43</sup> that is designed to help local authorities drive up the sustainability of new homes. The core content is a 'Policy Playbook' which focuses on energy and carbon, mitigating overheating risk, and the cross-cutting issue of assuring performance.

#### Notes

42 *Fixing the Foundations: Creating a More Prosperous Nation*. Cm 9098. Productivity Plan. HM Treasury, Jul. 2015.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/443897/Productivity\\_Plan\\_print.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/443897/Productivity_Plan_print.pdf)

43 See the UK Green Building Council's 'Sustainability Standards in New Homes' project webpage, at <https://www.ukgbc.org/ukgbc-work/sustainability-standards-new-homes/>

# Section 4

## Local planning approaches



The following guidance represents a comprehensive package of measures which create a pathway from setting objectives to evidence-gathering and specific mitigation and adaptation policies. The measures build upon and amplify the approach set out in the NPPF and Planning Practice Guidance.

### 4.1 Overarching climate change objectives in local planning

Plan-making and development management can fully support the transition to a low-carbon future in a changing climate. Local communities are empowered to:

- Shape places to help secure radical cuts in greenhouse gas emissions. This requires the location and layout of new development to be planned to:
  - deliver the highest viable energy efficiency, including the use of decentralised energy;
  - reduce the need to travel, particularly by private car; and
  - secure the highest possible share of trips made by sustainable travel.

- Actively support and help to drive the delivery of renewable and low-carbon energy generation and grid infrastructure.
- Shape places and secure new development to minimise vulnerability and provide resilience to impacts arising from climate change, in ways consistent with cutting greenhouse gas emissions.
- Ensure that there are real opportunities to take positive action on climate change by encouraging community-led initiatives such as the promotion of decentralised renewable energy use or securing land for local food sourcing.
- Increase sustainable transport use and local transport solutions.

It is worth emphasising that these policies simultaneously achieve other social objectives. For example, safe cycling options are good for enhancing human health and the mobility of young people, and local food sourcing can provide an opportunity for the kind of community engagement that the localism and health agendas are seeking to foster.

## 4.2 The evidence base for plan-making

There has been concern that the evidence for local plan-making can be overly complex. In practice, such evidence should be effective and proportionate. Some elements of climate change evidence are clearly available through strategic flood risk assessments or through national data on carbon dioxide emissions and heat networks. Some emerging tools, such as the Climate Just mapping resource,<sup>44</sup> can help to consolidate map-based data on risks and vulnerabilities to illustrate the impacts on communities and communicate them to wider audiences.<sup>45</sup> On other aspects, such as the risk of future heat stress, the evidence is less clear and may require the commissioning of specific new resources. Partnering or joint commissioning with universities can be a cost-effective way to access high-quality data and secure research evidence.

It is important to recognise that evidence on climate change is dynamic. For example, risk and vulnerability will change over time in relation to flood plains or sea level rise.

### 4.2.1 Evidence on viability

Many of the policies set out in this guide can yield tangible and long-term cost savings to individuals and to the insurance industry, as well as real gains to the economy through investment in renewable energy. The 2012 NPPF definition of development viability for plan-making set out a regime skewed in favour of landowners, which made the delivery of action on climate change more difficult. The 2108 NPPF and Planning Practice Guidance set out a significant shift to give local authorities a stronger hand in negotiating viability and securing ambitious local plan policy. The key guidance is set out in the 'Viability' section of Planning Practice Guidance.

Paragraph 002 of Planning Practice Guidance makes clear that:

*'It is the responsibility of site promoters to engage in plan making, take into account any costs including their own profit expectations and risks, and ensure that proposals for development are policy compliant. The price paid for land is not a relevant justification for failing to accord with relevant policies in the plan.'*

This guidance brings an added measure of certainty to viability assessments both through greater openness and by setting out the key inputs for land valuation, including the use of existing-use value plus a premium

for landowners. Room for challenge continues to exist in what this 'plus' factor should be, but the work of a number of local authorities and the impact of recent case law have demonstrated that ambitious local plan policy can be defended as long as it is evidenced and reasonable.

Evidence on viability should be transparent and accessible to all parts of the community, so that local aspirations can be accurately judged against development values over the long term. This means insisting on open-book accounting and adopting the approach of the London Mayor and some London boroughs. Some policy, such as requiring renewable energy from new development, has a positive economic benefit by generating long-term income streams and so should not be recorded as a cost in residual valuations. At the time of writing, CSE and other partners are developing mechanisms to enable the obligations for renewable energy requirements to be vested in community- and municipally-owned energy providers, using Section 106 powers in the same way that they are already used for the provision or maintenance of green infrastructure. The results of this research will be added to this guide once they are published.

Where there are challenges to climate change policy based on viability during the examination of plans, LPAs must ensure that they have discharged their legal duty under Section 19 of the 2004 Planning and Compulsory Purchase Act to include policy which deals with mitigation and adaptation. Decision-makers, including the Planning Inspectorate, should take into account the fact that statute has much greater weight than the policy content of the NPPF.

### 4.2.2 Good practice on evidence-gathering for local plans

It is recommended that local authorities should take the following action in evidence-gathering for their local development plans:

- **Joint working across local planning authority boundaries can be the most robust and cost-efficient way to prepare the evidence base for plan-making:** In preparing the evidence base for plan-making, and in the context of the duty to co-operate, the most robust and cost-effective evidence base on wider-than-local issues might be provided by joint working across local planning authority boundaries. Combined authorities have formal structures to achieve this co-operation, and in other areas the new requirements for strategic plans and statements

#### Notes

44 See the Climate Just webtool, at <http://www.climatejust.org.uk/>

45 See the maps on the MappingGM website, at <https://mappinggm.org.uk/>

of common ground set out in the 2108 revised NPPF provide opportunities for a co-ordinated approach. Such co-operation will need to involve the Environment Agency, Local Enterprise Partnerships, Local Nature Partnerships, Natural England and water companies to develop assessments for sub-regions, including city-regions.

- **All data used in the evidence base must be up to date:** Existing data contained in strategic flood risk assessments and other assessments of future climate impacts form the foundation of a robust evidence base. However, it is vital that these assessments are up to date and take into account changes such as the updated Environment Agency's 'flood risk assessments: climate change allowances',<sup>46</sup> which might significantly change the level of identified risk and vulnerability of planned new development to flooding. Local authorities may also draw on catchment abstraction management strategies, water resource management plans,<sup>47</sup> river basin management plans, water cycle studies and other vulnerability assessments to assess the risks from urban heat island effects, building overheating, and water availability. Local planning authorities may also have regard to the Climate Change Risk Assessment contained in the National Adaptation Programme.
- **Local planning authorities should consider using 'High++' scenarios when applying the UKCIP 09 projections:** In applying the UKCIP 09 projections, local planning authorities should consider using the 'High++' scenarios for assessing vulnerability and when planning for resilience and adaptation options regarding sea level rise – especially for particularly vulnerable locations or sensitive development. For impacts not covered by this derived material, such as changes in temperature or extreme weather events, assessments can be informed directly by the latest set of UK Climate Projections<sup>48</sup> and the latest UK Climate Change Risk Assessment,<sup>49</sup> and also by strategic flood risk assessments, surface water management plans, and local climate impacts profiles. Assessments and maps of existing and potential components of ecological networks can also form part of the evidence base for climate change mitigation and adaptation. The latest set of climate projections, UKCP18, were issued in November 2018. In applying the UKCP18 projections, local planning authorities should consider using the highest probabilistic projection scenarios.
- **An understanding of baseline carbon dioxide emissions is key for successful mitigation policy:** The key evidence for successful mitigation policy relates to baseline carbon dioxide emissions and a good local understanding of trends. National data sets for carbon dioxide emissions are held by the Committee on Climate Change, and the Department for Business, Energy and Industrial Strategy (DBEIS) produces disaggregated figures for local authorities.<sup>50</sup> Evidence on assessing policy options – for example on differing renewable energy options – can be obtained from DBEIS.<sup>51</sup>
- **The local community should be engaged in the plan-making process from the very start:** Involving communities in plan-making from the earliest stage and giving them the information and support to enable them to engage effectively in decision-making can help in identifying locally based low-carbon and resilience measures. Neighbourhood plans provide a particular opportunity to work with community and third-sector groups<sup>52</sup> already blazing a trail in this area.
- **The supply and demand for renewable and low-carbon energy must be mapped out for potential low-carbon communities:** Understanding the potential for the supply of and demand for renewable and low-carbon energy in a local area is an essential starting point in considering opportunities to move towards low-carbon communities. A range of methodologies are available to quantify and map renewable energy resources in a particular area. The objective should be to identify sustainable energy resources by considering both potential and environmental

#### Notes

- 46 See the Environment Agency's 'Flood risk assessments: climate change allowances' webpage, at <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>
- 47 *Planning Advice for Integrated Water Management: Integrating Water Management at the Strategic Scale of Planning and Design to Achieve Sustainable Development*. Institute for Sustainability Leadership, University of Cambridge, Jun. 2014. <https://www.cisl.cam.ac.uk/publications/natural-resource-security-publications/planning-advice-integrated-water-management>
- 48 See the UK Climate Projections website, at <http://ukclimateprojections.metoffice.gov.uk/>. The latest set of UK Climate Projections were issued in November 2018. Some users, such as Leeds City Council, are already engaging with their formulation – see the UK Climate Projections Project March 2018 Newsletter, at <http://ukclimateprojections.metoffice.gov.uk/media.jsp?mediaid=88748&filetype=pdf>
- 49 See the Committee on Climate Change's 'UK Climate Change Risk Assessment 2017 Evidence Report' website, at <https://www.theccc.org.uk/tackling-climate-change/preparing-for-climate-change/uk-climate-change-risk-assessment-2017/>
- 50 See the UK local authority and regional carbon dioxide emissions national statistics, available at <https://www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics>
- 51 *Renewable and Low-Carbon Energy Capacity Methodology: Methodology for the English Regions*. SQW Energy and Land Use Consultants, for the Department of Energy and Climate Change and the Department for Communities and Local Government, Jan. 2010. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/226175/renewable\\_and\\_low\\_carbon\\_energy\\_capacity\\_methodology\\_jan2010.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/226175/renewable_and_low_carbon_energy_capacity_methodology_jan2010.pdf)
- 52 See the CSE (Centre for Sustainable Energy) 'Sustainable Neighbourhood Planning Support – supporting communities to create low carbon neighbourhood plans' webpage, at <https://www.cse.org.uk/projects/view/1343>

restrictions. For example, for onshore wind this would mean considering where suitable wind speeds are attained and where there are environmental criteria such as constraints imposed by designated sites and species. Clearly identifying and mapping an area's sustainable resources helps to ensure that a strategic approach is taken, and enables effective community-led spatial planning. Sending clear signals to developers about where renewable energy would be most appropriate can accelerate deployment and avoid conflict. Both communities and energy providers must be integral to this process, so that decisions are realistic, viable and legitimate.

- **Opportunities for renewable and decentralised energy should be assessed at an early stage:** It is recommended that local communities assess their area for opportunities for renewable energy and decentralised energy. The assessment could focus on opportunities at a scale which could supply more than an individual building, and could include up-to-date mapping of heat demand and possible sources of supply. Local planning authorities can assist this process by looking for opportunities to secure:
  - decentralised energy to meet the needs of new development;
  - greater integration of waste management with the provision of decentralised energy;
  - co-location of potential heat suppliers and users;
  - the supply of heat through district heating networks; and
  - the use of renewable and low-carbon energy in public buildings, which can act as a critical mass for district heating systems.
- **Opportunities for increasing the proportion of trips made through sustainable transport routes should be maximised:** It is recommended that local communities assess their area for opportunities to reduce the need to travel, particularly by car, and to increase the share of trips made by sustainable travel, taking into account the need to maintain the sustainability of rural areas. Local planning authorities can assist this process by looking for opportunities to:
  - secure support for existing and new shops and services, including pre-school/primary education facilities, within walking distance of people's homes, thus reducing the need to travel;
  - secure better conditions for walking and cycling by lowering speed limits, managing motor traffic levels, increasing cycle storage provision and widening route options, for example by improving Rights of Way networks;

- secure better public transport services, including new demand-responsive and community transport, as well as integration between existing services and opportunities to set up car-clubs; and
- consider area-/community-based travel plans linked to neighbourhood plans and transport strategies.

### 4.3 The value of using established assessment frameworks

Adopting assessment frameworks can be a vital, resource-efficient way of delivering better quality and higher standards. Significantly, paragraph 129 of the 2018 NPPF makes clear that:

*'Local planning authorities should ensure that they have access to, and make appropriate use of, tools and processes for assessing and improving the design of development. These include workshops to engage the local community, design advice and review arrangements, and assessment frameworks such as Building for Life. These are of most benefit if used as early as possible in the evolution of schemes, and are particularly important for significant projects such as large scale housing and mixed use developments. In assessing applications, local planning authorities should have regard to the outcome from these processes, including any recommendations made by design review panels.'* [Emphasis added]

The BRE's Home Quality Mark (HQM),<sup>53</sup> BREEAM<sup>54</sup> for buildings, CEEQUAL<sup>55</sup> for public realm/infrastructure and BREEAM for communities and the Passivhaus Trust's Passivhaus<sup>56</sup> assessment frameworks are designed to drive standards through benchmarking and positive (credible) recognition supported by formal verification.

In the case of HQM, BREEAM and CEEQUAL, this verification comes in the form of a UKAS (United Kingdom Accreditation Service) accredited certification process. All schemes provide a holistic set of criteria which not only support the delivery of an energy-efficient, resilient built environment, but also help to mitigate unintended consequences (such as those related to temperature control) and drive healthier, better-managed places.

BREEAM and CEEQUAL assessments are made on a 'Good' to 'Excellent' and then 'Outstanding' scale.

#### Notes

53 See BRE's Home Quality Mark website, at <https://www.homequalitymark.com/>

54 See BRE's BREEAM website, at <https://www.breeam.com/>

55 See BRE's CEEQUAL website, at <http://www.ceequal.com/>

56 See the Passivhaus Trust website, at <http://www.passivhaustrust.org.uk/>

The HQM (launched in 2015) is structured differently: it has a two-tier scoring system which includes a five-star rating and three quality indicators relating to environmental footprint, wellbeing, and running costs. The indicators are also scored on a scale of one to five. A broad spectrum of sustainability and quality issues can be targeted within the HQM to contribute to the overall star rating, offering flexibility for housebuilders. However, certain performance levels on the indicators (which are generated in parallel with the star rating) have to be addressed to a prescribed level. If they are not met, the indicator score will be capped, despite the overall star rating achieved. HQM indicators are therefore best used to provide the assurance for policy-makers, financiers and other stakeholders that a certain level of performance within a certain area of sustainability has been met. Homes which achieve level 4 on the footprint indicator will meet the 19% energy and carbon improvement standard outlined in Section 3.4 above. BREEAM and CEEQUAL have minimum performance criteria embedded within the overall ratings.

BREEAM and CEEQUAL are already widely adopted in local plan policies, while the HQM is beginning to be used as a 'deemed to satisfy' and/or preferred option within emerging plans (for example at Havant, the London Borough of Camden, and Ipswich) as one way of demonstrating and committing to delivering performance. The HQM will form the delivery element of the recently launched Essex County Council Design Guide (and Essex LPAs' policies), and BRE is in discussion with Hampshire County Council,

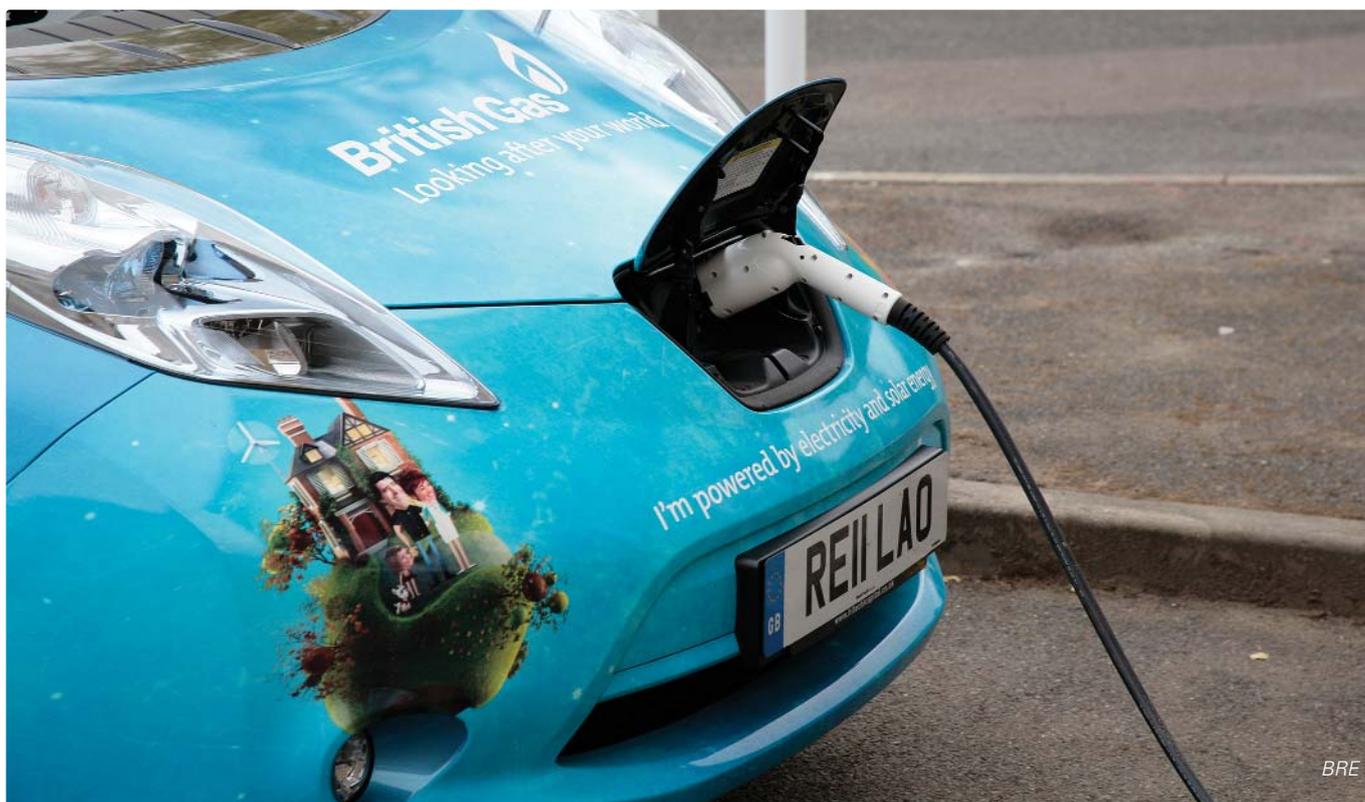
Hertfordshire County Council and the Greater London Authority on a similar thread.

## 4.4 Plan-making for adaptation

### 4.4.1 Local planning approaches to adaptation

Successful adaptation requires a holistic approach which includes everything from flood risk to heat stress. It requires evidence and policy that reflect the complex interrelationship of risks and vulnerabilities on matters such as people's health and wellbeing and the disproportionate impacts of issues such as heat stress on vulnerable groups. It requires co-operation with key agencies in public health to achieve a holistic approach. For much of the adaptation action that can be taken there will be multiple benefits, such as in the deployment of green infrastructure.

This guide does not repeat the comprehensive advice provided on flood risk by the NPPF, Planning Practice Guidance and the Environment Agency. However, it is worth noting that the application of the sequential test and the exception test should involve consideration of design innovation. Many EU nations have pioneered design approaches that allow communities to live with flood risk, and the UK's planning systems should seek to encourage such innovation, particularly in places that have no alternative realistic development options. Where building designs can demonstrate they can deal with flood risk safely over the long term, they should be positively considered against the exception test (and against the sequential test, if it has been applied).





### Principles

- Local development plans can set out how the local authority area will be planned over the long term to adapt to the opportunities and impacts arising from climate change. This requires a planning horizon of 50-100 years.
- Local development plans need to consider adaptation action across all spatial scales, from micro building-scale measures to future patterns of urban development. In some areas this will require the radical reconsideration of future growth options.

### Good practice

It is recommended that, in their local development plans, local authorities should take the following action:

- Bring forward adaptation options for existing development in areas with significant vulnerability to impacts likely to arise from climate change.
  - Pay particular attention to vulnerable groups,<sup>57</sup> as different impacts (and different options to manage impacts) will affect various parts of the community differently.
  - Set out how new development should be planned to avoid significant vulnerability to impacts arising from climate change on a 50-100 year time horizon, tailored to the local authority area and the lifetime of the proposed development.
- Ensure that, when new development is brought forward in areas with significant vulnerability to impacts arising from climate change, risks can be avoided or managed through suitable and sustainable adaptation measures so as to provide sufficient resilience – in areas of water stress, and in order to secure development that would otherwise be unacceptable for its proposed location, resilience could be provided by setting standards for water usage in new development (any proposed standard should comply with Section 4.5.5 of this guide).
  - Plan green infrastructure as part of wider green infrastructure networks in order to optimise its many benefits, including (in addition to supporting local biodiversity) supporting healthy living environments through providing, for example, urban cooling, local flood risk management, carbon sequestration, and local access to shady outdoor space. The planning guide to green infrastructure produced by the TCPA and The Wildlife Trusts provides more detail.<sup>58</sup>
  - Adopt a creative approach to design innovation. The NPPF indicates that new development should be steered away from flood risk areas, but there can be cases where it is not possible to do this, or where to do so would be incompatible with wider sustainable development objectives. In these situations, innovative design can be used not only to manage the flood risk, but also to help resolve tensions that sometimes

### Notes

<sup>57</sup> For example by using the Climate Just mapping tool, available at <http://www.climatejust.org.uk/>

<sup>58</sup> *Planning for a Healthy Environment – Good Practice Guidance for Green Infrastructure and Biodiversity*. TCPA and The Wildlife Trusts. TCPA, Jul. 2012. <https://www.tcpa.org.uk/Handlers/Download.ashx?IDMF=34c44ebf-e1be-4147-be7d-89aaf174c3ea>

exist between common mitigation approaches (for example the raising of finished floor levels or the provision of non-habitation uses on ground floors) and other planning issues such as access, overshadowing, heritage, and street scene. Such techniques range from internal ramping and localised land raising (with compensatory storage provided), through under-croft parking and pushing second storeys up into roof spaces, to approaches which allow buildings and their associated access routes to rise and fall with flood waters. Such measures – particularly where they help to reduce flood risk overall (for example by providing net additional flood storage, or by providing protection to existing homes from flood risk), or where they provide wider economic, social or environmental benefits to the community – can contribute to making appropriate development acceptable in flood risk areas. As ever, it will be up to decision-makers to determine the weight to be afforded to flood risk and other material planning considerations in the planning balance – although it should be noted that the presumption in favour of sustainable development does not apply when the NPPF's policies on development in flood risk areas suggest that development should be restricted. An industry-led code of practice on property level flood resilience techniques, due to be released at the end of 2018/early 2019, will provide more detail on such techniques. *Improving the Flood Performance of New Buildings*,<sup>59</sup> issued by the Department for Communities and Local Government, provides further guidance.

#### 4.4.2 Local planning approaches to selecting sites for new development

Local planning authorities are under intense pressure to allocate sites for new housing in local plans, but site selection is a foundational component of dealing with climate change. Reducing the need to travel, connecting to existing heat networks and avoiding areas of flood risk are obvious considerations that can sometimes be in tension.

##### Principles

- In assessing sites for their suitability for new development, local authorities should consider their potential to support the move to a low-carbon future and to adapt to or mitigate the impacts of climate change holistically. Where sites perform poorly against any of the criteria identified below, local authorities should consider alternative site allocations, including opportunities for new communities.

##### Note

<sup>59</sup> *Improving the Flood Performance of New Buildings: Flood Resilient Construction*. RIBA Publishing, for the Department for Communities and Local Government, May 2017.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/7730/flood\\_performance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7730/flood_performance.pdf)

##### Good practice

It is recommended that local planning authorities assess the suitability of sites for new development, and for the type and intensity of development, against the following criteria:

- whether developing the site is appropriate, having regard to the long-term suitability of building in the location, as well as the intended lifetime of the proposed development and any increases in risk resulting from climate change to known physical and environmental elements such as sea level rise, flooding, increased temperatures, instability, and extremes of weather;
- the extent to which existing or planned opportunities for decentralised energy could contribute to the energy supply for new development on the site;
- the potential for new development on the site to contribute to heat demand, or be a potential source of supply, where a heat network exists or could be provided;
- the scope for sustainable and low-carbon transport (particularly physically active modes) to make up a high proportion of trips to and from the site, including service trips;
- whether development of the site would result in the loss of a significant carbon sink;
- whether developing the site would offer opportunities to help the existing community to adapt to impacts arising from climate change, including through active water management (taking existing communities out of flood risk), sustainable drainage systems, and green infrastructure;
- the effect of developing the site on the capacity of biodiversity to adapt to likely climate change;
- whether the development provides gardens and plots for allotments, or other community areas to maximise opportunities for local food sourcing; and
- whether the development can improve sustainability through the creation of new jobs or by increasing the competitiveness of the area.

## 4.5 Plan-making for mitigation

### 4.5.1 Local planning approaches to reducing carbon dioxide emissions

The 2004 Planning and Compulsory Purchase Act duty on plan-making to mitigate climate impacts and the NPPF's requirement for 'radical reductions' (paragraph 148) in carbon dioxide emissions in line with objectives of the 2008 Climate Change Act create a powerful basis for local action. Local plans need a strong and precise policy narrative to show how such reductions will be achieved.

### Model policy

#### Draft Greater Manchester Spatial Framework – carbon emissions

##### Policy GM15: Carbon emissions

'Greater Manchester will have seen a 60% reduction in carbon emissions compared to 1990 levels by 2035. The following measures will help to achieve this:

1. Direct development to locations that will minimise the need to travel and maximise the use of sustainable modes of transport for the movement of people and freight;
2. Secure major improvements to the walking, cycling, public transport and sustainable freight networks, including the use of integrated ticketing to promote the use of the public transport network;
3. Require new development to accord with the energy hierarchy, which in order of importance seeks to minimise energy demand, maximise energy efficiency, utilise renewable energy, utilise low carbon energy, and only then use other energy sources;
4. Require new developments to include a detailed carbon assessment to demonstrate how the design and layout of the development has sought to maximise reductions in carbon emissions, where appropriate;
5. Support the implementation of programmes and projects for retrofitting the existing building stock, especially in those areas where fuel poverty is a significant issue;
6. Increase the area of habitats that sequester and store carbon, including through a more than doubling of tree cover and the extensive restoration of blanket bog and lowland raised bog;
7. Support the delivery of renewable and low carbon energy schemes for all development but with particular opportunities for the use of decentralised heating and cooling networks in the strategic development locations.'

**Source:** Draft Greater Manchester Spatial Framework. Draft for Consultation. Greater Manchester authorities, Oct. 2016, p.80.  
[http://www.greatermanchester-ca.gov.uk/download/downloads/id/371/draft\\_greater\\_manchester\\_spatial\\_framework\\_october\\_2016\\_-\\_full\\_version.pdf](http://www.greatermanchester-ca.gov.uk/download/downloads/id/371/draft_greater_manchester_spatial_framework_october_2016_-_full_version.pdf)

**Note:** This policy is currently being re-written.

### Model policy

#### Leeds City Council Core Strategy – carbon dioxide emissions

##### Policy EN1: Climate change – carbon dioxide reduction

'All developments of 10 dwellings or more, or over 1,000 square metres of floorspace, (including conversion) where feasible, will be required to:

- Provide a 20% reduction in CO<sub>2</sub> emissions over Part L Building Regulations requirements (2013) until such time as the energy performance requirement in Building Regulations is set at a level equivalent to that in Code Level 4 of the Sustainable Homes.
- Provide a minimum of 10% of the predicted energy needs of the development from low carbon energy.'

**Source:** Implementation of Core Strategy Policies EN1 and EN2. Leeds City Council, 2015.  
<https://www.leeds.gov.uk/docs/Implementation%20of%20Core%20Strategy%20Policies%20EN1%20and%20EN2.pdf>

### Principles

- Local development plans must contain policies which, taken as whole, secure radical reductions in carbon dioxide emissions. Plans should achieve this by identifying a range of policies which reduce carbon dioxide emissions and encourage renewable energy generation.
- Local authorities must have an effective monitoring regime to ensure that there is clear evidence of progress on reducing carbon dioxide emissions, and this progress must be clearly recorded in their annual monitoring reports.

#### 4.5.2 Local planning approaches to renewable and low-carbon energy and associated infrastructure

This guide has set out the opportunities offered by rapidly evolving renewable energy technologies and how they can support a low- and zero-carbon future. The most effective way to capitalise on such opportunities is through the development of a comprehensive energy plan which reflects how the various renewable technologies can be best tailored to the spatial development ambitions of a particular locality. *Spatial Planning & Energy: A Guide for*

### Model policy

#### **Barnsley Local Plan – commitment to consider biomass heating systems for new and refurbished buildings**

##### **Policy CC1: Climate change and sustainable construction**

*‘Development will be expected, subject to viability, to:*

- *Reduce and mitigate the impact of growth on the environment and carbon emissions*
- *Ensure existing and new communities are resilient to climate change*
- *Harness the opportunities that growth, and its associated energy demands, brings to increase the efficient use of resources through sustainable construction techniques and the use of renewable energy*

*We will take action to adapt to climate change by:*

- *Giving preference to development of previously developed land in sustainable locations*
- *Locating and designing development to reduce the risk of flooding*
- *Promoting the use of sustainable drainage systems*
- *Promoting investment in Green Infrastructure to promote and encourage biodiversity gain*

*Development will be expected, subject to viability, to demonstrate how it minimises resource and energy consumption, compared to the minimum target under current Building Regulations legislation, and how it is located to withstand the longer term impacts of climate change.*

*All non-residential development will be expected, subject to viability, to achieve at least BREEAM standard of ‘very good’ or equivalent. This should be supported by preliminary assessments at planning application stage.*

*All developments will be expected, subject to viability, to seek to initially incorporate appropriate design measures to reduce energy use, and thereafter decentralised, renewable or low carbon energy sources in order to reduce carbon dioxide emissions and should at least achieve the appropriate carbon compliance targets as defined in the Building Regulations.’*

**Source:** Local Plan Publication Draft 2016. Barnsley Metropolitan Borough Council, Dec. 2016.

<http://consult.barnsley.gov.uk/portal/development/planning/lppd2016/lppd2016?pointId=s1466625746635>

*Planners*<sup>60</sup> and *Energising Masterplanning*<sup>61</sup> (both outputs from the EU SPECIAL project) provide further guidance on the benefits of energy planning.

#### **Principles**

- Building on the evidence base approaches set out in Section 4.2, local planning authorities are advised to design their policies to support and not unreasonably restrict renewable and low-carbon energy developments. Strategic sites which are central to delivering a local planning approach for decentralised energy should be allocated in the local plan.
- Given the need to build public consent for renewable projects, LPAs may wish to consider experimenting

with bottom-up energy planning approaches at the neighbourhood scale, built around workshops which foster *informed consent* for renewables. This work is being pioneered by CSE.<sup>62</sup>

#### **Good practice**

It is recommended that local authorities:

- Ensure that any local criteria-based policies – including local approaches for protecting landscape and townscape – which will be used to assess planning applications for renewable and low-carbon energy and associated infrastructure:
  - provide appropriate safeguards, so that any adverse impacts are addressed satisfactorily, but

#### **Notes**

60 *Spatial Planning & Energy: A Guide for Planners*. SPECIAL project. TCPA, Mar. 2016.

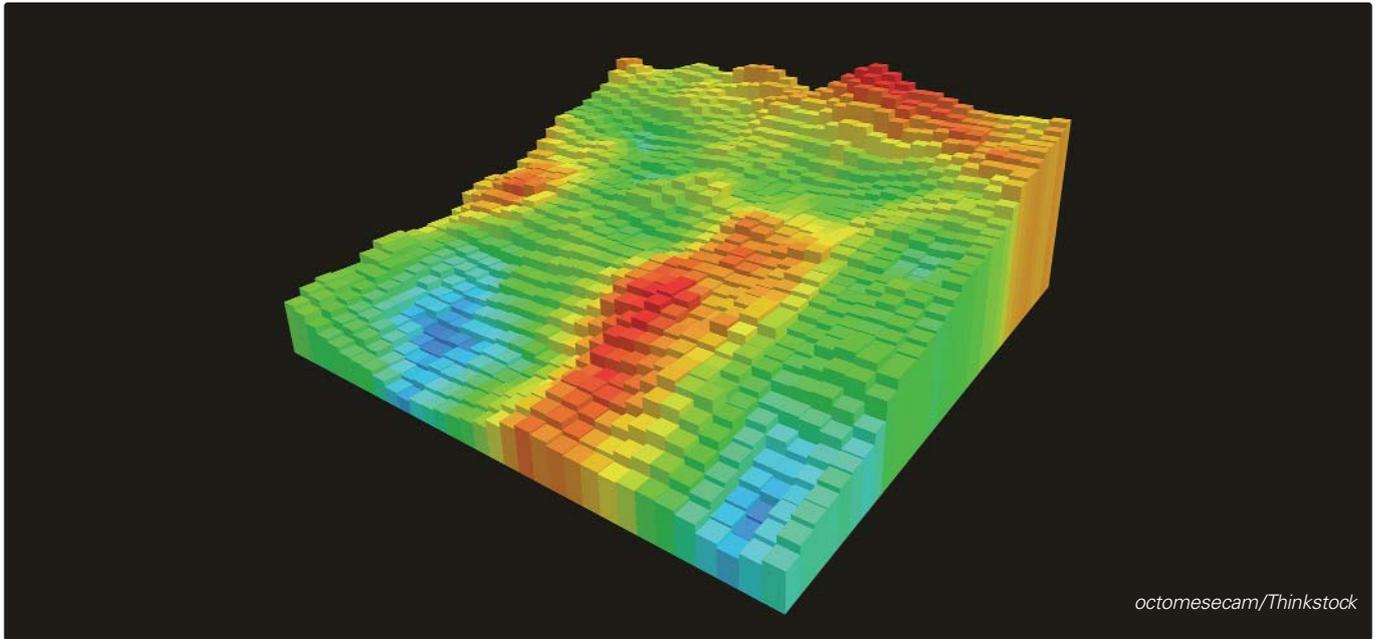
[http://www.special-eu.org/assets/uploads/SPECIAL\\_Pan\\_Euro-Guide.pdf](http://www.special-eu.org/assets/uploads/SPECIAL_Pan_Euro-Guide.pdf)

61 K Henderson: *Energising Masterplanning*. SPECIAL Expert Paper 1. SPECIAL project. TCPA, Jun. 2015.

[http://www.special-eu.org/assets/uploads/SPECIAL\\_EP1.pdf](http://www.special-eu.org/assets/uploads/SPECIAL_EP1.pdf)

62 See the CSE (Centre for Sustainable Energy) ‘Future Energy Landscapes – community consultation method’ webpage, at

<https://www.cse.org.uk/projects/view/1315>



do not preclude the development of specific technologies other than in the most exceptional circumstances;

- require the scale and impact of developments affecting recognised designations (Sites of Special Scientific Interest, Local Wildlife Sites, irreplaceable habitats such as ancient woodland, National Nature Reserves, National Parks, the Broads, Areas of Outstanding Natural Beauty, Nature Improvement Areas, Heritage Coasts, Scheduled Monuments, Conservation Areas, Listed Buildings, Registered Historic Battlefields, internationally recognised designations (Natura 2000 sites), and Registered Parks and Gardens) to be compatible with the purpose of the designation; and
- are informed by the approach and policies set out in the National Policy Statements for nationally significant energy infrastructure.
- Identify the most, and least, environmentally sensitive areas for deployment of different renewable technologies, and communicate this information to developers and communities, making explicit what criteria have been applied, including the relevant approaches set down in the NPPF on renewable energy.<sup>63</sup>
- Set out how any opportunities for district heating (to supply existing buildings and/or new development) identified through heat mapping will be supported.
- Set out the decentralised energy opportunities that can supply new development proposed for the area.
- Support opportunities for community-led renewable and low-carbon energy developments, including the

production, processing and storage of bio-energy fuels.

#### **4.5.3 Local planning approaches to setting requirements for using decentralised energy and district heat networks in new development**

The government has signalled its support for developing heat networks and is supporting some local authorities to develop strategies to exploit heat networks.

##### **Principles**

- Local requirements for decentralised energy can be set out in a development plan document and could be derived from an assessment of local opportunities in line with Section 4.2.
- Where there are existing, or firm proposals for, decentralised energy supply systems with capacity to supply new development, local planning authorities can expect proposed development to connect to an identified system, or to be designed so that it can connect to it in future. In such instances, and in allocating land for development, it is recommended that local authorities set out how the proposed development would be expected to contribute to the decentralised energy supply system.
- Where a local requirement relates to a decentralised energy supply system fuelled by bio-energy, local planning authorities could ensure that fuel sources meet the objectives of sustainable development by not creating demand for bio-energy fuels known to

##### **Note**

<sup>63</sup> See paragraph 151 of the NPPF

result in net carbon emissions through production methods, transport requirements, loss of carbon sinks or other environmental harm, such as loss of habitat or damage to landscapes.

**Good practice**

It is recommended that local authorities set requirements for decentralised energy that:

- relate to identified development areas or specific sites;
- are consistent with giving priority to energy-efficiency measures; and
- focus on opportunities at a scale that developers would not be able to realise on their own in relation to specific developments.

If a local requirement is set out as a target for the use of decentralised energy in new development, the target could be expressed as:

- the percentage reduction in carbon dioxide emissions to be achieved (in doing so, local planning authorities should set out how the target relates to standards for carbon dioxide emissions set by the Building Regulations); or
- an amount of expected energy generation, expressed in megawatt-hours per year.

**4.5.4 Local planning approaches to setting authority-wide targets for using decentralised renewable energy (the ‘Merton rule’)**

The powers in the 2008 Planning and Energy Act enabling local authorities to require ‘Merton style’ targets for renewable energy generation remain in place, and local authorities can require such measures, subject to the viability test. The problems of dealing with this test are set out in Section 4.2.1. The best example of the use of this requirement and a supporting methodology is contained in the draft London Plan, as set out as a model policy in the box below. The abolition of zero-carbon commitment creates an opportunity to use a Merton rule type of policy to achieve local ambitions for zero-carbon and energy-positive development.

**Principles**

- To deliver on the ambition of zero-carbon and energy-positive communities, local plans should set out decentralised renewable energy targets for application across a whole local authority area. These targets should be designed to secure a

**Model policy**

**London Plan – zero-carbon commitment**

**Policy SI2: Minimising greenhouse gas emissions**

*‘A Major development should be net zero-carbon. This means reducing carbon dioxide emissions from construction and operation, and minimising both annual and peak energy demand in accordance with the following energy hierarchy:*

- 1) Be lean: use less energy and manage demand during construction and operation.*
  - 2) Be clean: exploit local energy resources (such as secondary heat) and supply energy efficiently and cleanly. Development in Heat Network Priority Areas should follow the heating hierarchy in Policy SI3 Energy infrastructure.*
  - 3) Be green: generate, store and use renewable energy on-site.*
- B Major development should include a detailed energy strategy to demonstrate how the zero-carbon target will be met within the framework of the energy hierarchy and will be expected to monitor and report on energy performance.*
- C In meeting the zero-carbon target a minimum on-site reduction of at least 35 per cent beyond Building Regulations<sup>i</sup> is expected. Residential development should aim to achieve 10 per cent, and non-residential development should aim to achieve 15 per cent through energy efficiency measures. Where it is clearly demonstrated that the zero-carbon target cannot be fully achieved on-site, any shortfall should be provided:*
- 1) through a cash in lieu contribution to the relevant borough’s carbon offset fund, and/or*
  - 2) off-site provided that an alternative proposal is identified and delivery is certain.*
- D Boroughs must establish and administer a carbon offset fund. Offset fund payments must be ring-fenced to implement projects that deliver greenhouse gas reductions. The operation of offset funds should be monitored and reported on annually.’*

*i Building Regulations 2013. If these are updated, the policy threshold will be reviewed*

**Source:** *The London Plan: The Spatial Development Strategy for Greater London. Draft for Public Consultation.* Greater London Authority, Dec. 2017. [https://www.london.gov.uk/sites/default/files/new\\_london\\_plan\\_december\\_2017.pdf](https://www.london.gov.uk/sites/default/files/new_london_plan_december_2017.pdf)



minimum level of decentralised renewable energy use in new development.

- Development plans should ensure that such targets are based on a strong evidence base and are linked to the wider ambition of delivering radical cuts in carbon dioxide emissions.

#### **4.5.5 Local planning approaches to setting requirements for sustainable buildings**

Section 2 of this guide sets out the legal and policy background to the adoption of building standards. It emphasises that local planning authorities still have some flexibility with respect to housing standards, and have retained the pre-2015 reform powers with respect to non-domestic buildings and the public realm.

In this context there are a range of building standards and assessment frameworks which local authorities can adopt, subject to the viability test, including:

- BRE's Home Quality Mark;
- BRE's BREEAM Buildings;
- BRE's CEEQUAL (for public realm/infrastructure);
- BRE's BREEAM Communities;
- Passivhaus standards<sup>64</sup> (owned by the Passivhaus Trust); and
- the Sustainable Homes' SHIFT standard.<sup>65</sup>

#### **Notes**

64 See the BRE's 'Passivhaus standard' webpage, at <http://www.passivhaus.org.uk/standard.jsp?id=122>

65 See Sustainable Homes' SHIFT website, at <https://www.sustainablehomes.co.uk/shift/>

66 *Overheating in Homes: Risk Management Strategies for Local Authorities*. Zero Carbon Hub.

<http://www.zerocarbonhub.org/sites/default/files/Strategies%20for%20Managing%20Overheating%20Slides%20for%20Local%20Authorities%20FINAL.pptx>

The BRE schemes are holistic in their scope and include criteria that address a wide range of climate change issues (including energy and carbon efficiency, water use, flooding, and mitigation of the risks of overheating). Other kinds of design advice are available on specific issues – for example, the Zero Carbon Hub website includes guidance on assessing and addressing overheating in homes.<sup>66</sup>

#### **Principles**

- Any local requirement for a building's sustainability should be set out in a development plan document and applied appropriately to specific sites.

#### **Good practice**

In setting any local requirement for a building's sustainability, it is recommended that local authorities:

- Ensure that any local standards for a building's performance, or for measuring a building's performance, on matters relating to construction techniques, building fabric, products, fittings and finishes have a robust justification and do not duplicate the Building Regulations (unless, in the case of electric vehicle charging infrastructure/cabling, this is a local requirement, or, in the case of green roofs, this supports a local planning approach to adaptation).

## Model policy

### Camden Local Plan – making buildings resilient to climate change

#### Policy CC2: Adapting to climate change

*'The Council will require development to be resilient to climate change.*

*All development should adopt appropriate climate change adaptation measures such as:*

- a. the protection of existing green spaces and promoting new appropriate green infrastructure;*
- b. not increasing, and wherever possible reducing, surface water runoff through increasing permeable surfaces and use of Sustainable Drainage Systems;*
- c. incorporating bio-diverse roofs, combination green and blue roofs and green walls where appropriate; and*
- d. measures to reduce the impact of urban and dwelling overheating, including application of the cooling hierarchy.*

*Any development involving 5 or more residential units or 500 sqm or more of any additional floorspace is required to demonstrate the above in a Sustainability Statement.*

#### **Sustainable design and construction measures**

*The Council will promote and measure sustainable design and construction by:*

- e. ensuring development schemes demonstrate how adaptation measures and sustainable development principles have been incorporated into the design and proposed implementation;*
- f. encourage new build residential development to use the Home Quality Mark and Passivhaus design standards;*
- g. encouraging conversions and extensions of 500 sqm of residential floorspace or above or five or more dwellings to achieve 'excellent' in BREEAM domestic refurbishment; and*
- h. expecting non-domestic developments of 500 sqm of floorspace or above to achieve 'excellent' in BREEAM assessments and encouraging zero carbon in new development from 2019.*

**Source:** Camden Local Plan 2017. London Borough of Camden, Jul. 2017, pp.258-59.

[https://camden.gov.uk/ccm/cms-service/stream/asset/?sessionid=85C6D0261034D0539EAD99D386146724?asset\\_id=3655163&](https://camden.gov.uk/ccm/cms-service/stream/asset/?sessionid=85C6D0261034D0539EAD99D386146724?asset_id=3655163&)

In the use of assessment frameworks, local authorities are advised to:

- Consider the stages and timings of certification, so as to ensure that development is not impeded and that a specific performance level has been met – for example, a final certificate issued under a BRE scheme would have been assessed using as-built evidence,<sup>67</sup> providing the highest level of rigour and confidence in performance.
- Take account of the impact and size of the development – some LPAs prefer to set higher performance levels based on floor area, cost and/or unit number, and this can enable higher standards to be met where viability is potentially stronger, while ensuring a minimum standard across the board.
- Focus on policy resilience and long-term aspirations – the BRE schemes are updated regularly to ensure that the performance criteria remain relevant and challenging where appropriate. As such, a BREEAM 'Excellent' rating under a 2011 scheme version will be less onerous to achieve in comparison with that under the recently launched 2018 scheme. LPAs should consider their long-term objectives, and may wish to set standards aligned to annual targets.
- Consider the flexible application of ratings. The highest rating under the BRE schemes (i.e. 'Outstanding' ratings) make up less than 2% of all projects assessed<sup>68</sup> – they are designed to be challenging and, while the highest level of performance should be encouraged, it may not always be suitable for every project.

#### Notes

67 With the exception of BREEAM Communities, which assesses the masterplanning stages

68 *The Digest of BREEAM Assessment Statistics. Volume 01, 2014.* BRE Global, 2014.

<https://tools.breeam.com/filelibrary/Briefing%20Papers/BREEAM-Annual-Digest--August-2014.pdf>

**Model policy****Leeds City Council Core Strategy - sustainability in building design and construction****Policy EN2: Sustainable design and construction**

*'Commercial developments of 1,000 or more square metres (including conversion) are required to meet the BREEAM standard of 'excellent', where feasible. Residential developments of 10 or more dwellings (including conversion) are required to meet a water standard of 110 litres per person per day and an energy efficiency standard equivalent to the standard at Level 4 of the Code for Sustainable Homes, where feasible.'*

**Source:** Implementation of Core Strategy Policies EN1 and EN2. Leeds City Council, 2015.

<https://www.leeds.gov.uk/docs/Implementation%20of%20Core%20Strategy%20Policies%20EN1%20and%20EN2.pdf>

**4.5.6 Local planning approaches to sustainable transport**

Transport is major source of carbon dioxide emissions, giving rise to major impacts on human health, including through pollution in urban areas. The increase in transport emissions over the last 50 years has primarily been caused by the increase in trip lengths and by a modal shift towards the car, accompanied by changing land use patterns. This increase has offset any emissions reductions from improved vehicle efficiency.<sup>69</sup> Well-planned development can create opportunities for more sustainable transport choices and healthy lifestyles. Planning also needs to consider the technological transformation of transport systems, with the rapid introduction of electric vehicles, the use of autonomous vehicles, and radical changes in the nature of work and leisure, all of which may alter travel patterns.

**Principles**

- LPAs should prioritise walking, cycling and public transport and other smarter choices by setting targets for the proportion of trips in their area by these modes.
- Sustainable transport needs to be considered in an integrated manner<sup>70</sup> at the beginning of the plan-making process, so that development patterns are shaped by existing and planned sustainable transport infrastructure and to enable transport

operators to respond as early as possible to development.

- LPAs should consider how the rapid and large-scale deployment of electric vehicles will impact on their plan policies.

**Good practice**

In this context, local authorities are recommended to:

- Support the development of voluntary travel plans for existing developments and communities – for example using the neighbourhood planning process.
- Ensure that appropriate targets are set within travel plans for new development, particularly for new neighbourhoods.
- Ensure that their infrastructure delivery plan includes investment in transport infrastructure, including public transport, that will contribute towards the achievement of these targets.
- Work in partnership with the regional or local transport authority and local transport providers (bus/train operators and community transport) to:
  - identify and establish within the local plan a strategic and local transport network to serve the needs of the area throughout the plan period;
  - support the delivery of the associated infrastructure and services throughout the period of the plan; and
  - establish the extent and levels of service that should underpin the strategic and local networks for existing and new developments, ensuring that they are consistently underpinned by other relevant policies.
- Monitor the numbers of trips and the proportions undertaken by different modes of transport.
- Establish a car parking management strategy and maximum car parking standards that are consistent with the promotion of the above principles, so as to support smarter choices, including the promotion of walking, cycling and public transport.

Local authorities should design their policies to focus on prioritising a move away from car dependency.

Policies could include:

- prioritisation of development which focuses on improving local high streets and town centres;
- the prevention of both urban sprawl and the development of out-of-town centres; and
- measures to ensure that planning, transport and public health policies are joined up such that actions committed to and priorities outlined in the local transport plan are supported by planning approaches – local authorities should ensure that all developments are at least air quality neutral and do not lead to further deterioration of existing poor air quality.

**Notes**

69 A Wenban-Smith: 'Land-use drivers of transport emissions – revisited'. *Proceedings of the Institution of Civil Engineers – Transport*, 2016, Vol. 170 (2), 76-85. doi.org/10.1680/jtran.15.00097

70 R Hickman, C Seaborn, P Headicar, D Banister and C Swain: 'Spatial planning for sustainable travel?'. *Town & Country Planning*, 2010, Vol. 79, Feb., 77-82. Available at <http://www.tsu.ox.ac.uk/pubs/rhickman-paper02.pdf>

In the context of their transport strategies, LPAs should consider how to support the rapid deployment of electric and plug-in hybrid vehicles, ensuring in particular that new developments with parking facilities:

- are designed to provide opportunities for charging such vehicles, especially at home;

- include cabling for charging infrastructure;
- provide relevant charging infrastructure; and
- support the use of car clubs, particularly for such vehicles.

### Model policy

#### Nottingham City Council – workplace parking levy to fund public transport improvements

##### Proposal PP1: Workplace parking levy

*The City Council is fully committed to introducing a Workplace Parking Levy (WPL) within its administrative boundary having developed a robust business case for the scheme. This demand management tool will influence the travel behaviour of commuters by introducing a levy for employers within the city of Nottingham's administrative boundary that provide 11 or more liable parking places. The WPL is a charge made for each parking place provided by an employer and used by employees, certain types of business visitors, and pupils and students. The decision remains with the employer as to whether they decide to pass the charge on to their employees. Employers will be required to obtain an annual licence for the maximum number of liable places they provide.*

*As commuters are the main cause of congestion in Nottingham, the City Council believes that it is only fair that employers accept their responsibility and proactively manage the traffic going to and from their employment sites and contribute to investment in public transport alternatives to the car. Ultimately employers will benefit from less congestion than otherwise would occur and employees will gain better public transport options.*

*The WPL will also:*

- Further encourage the uptake of travel plans and responsible parking management policies.
- Encourage employers to give stronger consideration to the development potential/costs of land used as parking in the city.
- Represent a financially efficient, high value for money proposal, with relatively low development costs and shorter implementation timescales than alternative charging mechanisms.

*The WPL will contribute to the necessary local funding contribution required for Nottingham's extension to the tram system, (NET Phase Two), safeguard the long-term future of supported Linkbus services and contribute to the redevelopment of Nottingham's Station Hub. It is estimated that the WPL will raise in the order of £14 million a year. This revenue will be ring fenced for investment in improving public transport in Nottingham. The City Council considers that the introduction of an extensive package of improvements as a result of the availability of WPL income will create a modern transport system, which will have a major impact on lessening congestion pressures and provide the necessary network capacity for future anticipated growth.*

*Extensive modelling has been used to assess both direct and indirect transport impacts of the WPL:*

- Direct transport impacts are where employee travel behaviour is altered directly by the imposition of the levy charge. As a tool in itself, it is considered that the WPL would have a positive but modest impact on modal shift. This is because not all employers will pass the levy onto their staff and where they do, due to the low costs involved, the number of affected employees who decide to transfer to public transport rather than use their car is likely to be relatively modest.
- Additional and larger direct positive impacts on modal shift would accrue from the wider demand management impacts of the WPL, complementary employer action to actively promote alternatives to the car and by positively managing staff parking provision.
- Indirect transport impacts will arise as a result of changes in travel behaviour due to the introduction of public transport infrastructure, integration actions and services funded wholly or in part by the WPL income, including NET Phase Two, Nottingham Station Hub improvements, and maintaining and enhancing bus services (e.g. Linkbus network development).

**Source:** Nottingham Local Transport Plan Strategy 2011-2026. Nottingham City Council, Apr. 2011, pp.53-54.

<http://www.transportnottingham.com/wp-content/uploads/2017/10/LTP-3.pdf>

# Section 5

## Delivery and development management

In theory, England has a plan-led system. This means that all planning decisions should be taken in line with the local plan (which should contain detailed policy on climate mitigation and adaptation). However, as over half of English local planning authorities do not have a post-2012 up-to-date adopted plan, and many plans that were adopted post-2012 fail to demonstrate a five-year land supply (and can therefore be judged out of date), housing-related policy in a local plan may carry less weight and then the presumption in favour of development applies. It is vital that development management decisions made where a plan is absent or out of date reflect the principles identified in Section 14 of the NPPF, in Planning Practice Guidance and in Section 4 of this guide. Decisions must be based on sound evidence, assessing and reflecting the likely climate impacts, including carbon dioxide emissions, of a scheme over the full lifetime of the development. The importance of these factors will depend on the scale and location of the development. Just as with plan policy, changes in the climate impacts of the new development over time must also be considered, including responses to increased temperatures, river flows and sea level rise<sup>71</sup> over the full lifetime of the development.

The NPPF and Planning Practice Guidance contain well established guidance on the application of the sequential and exemption tests for flood risk. There is much less guidance for other adaptation issues and on mitigation. In particular, more attention must be paid to overheating and the impacts it has on human health and wellbeing; it is necessary to have a full understanding of the fabric of urban areas and of how design and the deployment of green infrastructure can reduce summer temperatures. Local planning authorities must be aware of the extent of permitted development in their area, and should keep track of the cumulative impacts that this type of development may have on the urban environment, particularly while the government is promoting other new policies on increasing the density of homes. Such high-density living can work well, but only when development meets the highest design standards and takes factors such as the urban heat island effect into account.

### Note

<sup>71</sup> Expressed in Environment Agency flood risk allowances

### Box 5

#### Dealing with the presumption in favour of development

The general presumption in favour of development set out in paragraph 11 of the NPPF is qualified for where development would conflict with NPPF policy. Footnote 6 of the NPPF lists examples of development subject to this qualification, and identifies flood risk as an example.

In practice this means that the presumption does not apply where a development conflicts with NPPF policy. The courts have determined that the word 'restricted' in paragraph 14 of the 2012 NPPF should have a relatively wide meaning and could cover any situation where the NPPF indicates a policy that cuts across the underlying presumption in favour of development. Arguably, this includes, for example, the local environmental concerns set out in the fifth bullet point of paragraph 170 of the NPPF and the broader package of pollution concerns brought into play by paragraph 170.

### 5.1 Greenhouse gas emissions as a material consideration

There has been ongoing uncertainty about the treatment of greenhouse gas (GHG) emissions from new development, and particularly those that result from energy minerals. There is no doubt that carbon dioxide emissions are a material consideration, but it has been argued that little weight should be attached to these considerations when there are separate regulatory frameworks to deal with emissions from, for example, coal production. A recent planning application decision by the Secretary of State for Housing, Communities and Local Government provides a useful clarification on how government might expect these issues to be considered,

including the importance of the cumulative effect of GHG emissions:

*'The Secretary of State has given careful consideration to the Inspector's analysis at IRC112-C115. For the reasons given he agrees that Green House Gas (GHG) emissions from the proposed development would adversely impact upon measures to limit climate change. He further agrees that most of the GHG emissions would be emitted in the short term, resulting in an adverse effect of substantial significance, reducing to minor significance in the medium term; and that Green House Gas emissions in the long term would be negligible, but that the effects of carbon in the atmosphere would have a cumulative effect in the long term (IR115). Given that cumulative effect, and the importance to which the government affords combatting climate change, he concludes that overall the scheme would have an adverse effect on Green House Gas emissions and climate change of very substantial significance, which he gives very considerable weight in the planning balance.'*<sup>72</sup>

## 5.2 Delivering a low-carbon and climate-resilient future

### Principles

- Local planning authorities should engage constructively with developers to deliver well-designed sustainable buildings and high-quality local environments suitable for low-carbon living. It is reasonable for LPAs to expect proposals for major new development (ten or more dwellings, or commercial development with 1,000 square metres or more of commercial floorspace) to demonstrate how the proposed development complies with the criteria set out as good practice below. In determining planning applications for development, great weight could be given to the objective of securing climate mitigation and adaptation in line with the criteria set out below.
- LPAs are encouraged to support innovation which secures well-designed sustainable developments. Some features essential for securing a zero-carbon or energy-positive building, or for adapting to impacts arising from climate change, may give rise to concerns about incompatibility with an existing townscape. Such concerns should not, in themselves, normally warrant planning applications being refused permission. Planning permission may be refused only where the concern relates to a designated heritage asset and the impact would cause material harm to, or the removal of significance in relation to, the asset or its setting, and this is not outweighed by the proposal's wider social, economic and environmental benefits.

### Note

72 Secretary of State for Housing, Communities and Local Government decision letter, 2 Mar. 2018. PINs ref. APP/P2935/V/16/3158266. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/692060/18-03-23\\_DL\\_IR\\_Highthorn\\_3158266.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/692060/18-03-23_DL_IR_Highthorn_3158266.pdf)

Shortly before this edition of the guide went to press a legal challenge against the decision was upheld by the High Court, and so the case has gone back to the Secretary of State for re-decision

### Good practice

In determining planning applications, LPAs are advised to expect proposed new development to:

- Avoid adding to the vulnerability of existing or other proposed development to impacts arising from climate change.
- Maximise the opportunities of new development to enhance resilience by, for example, reducing the causes of flooding.
- Contribute to achieving national targets to reduce greenhouse gas emissions set out in the Climate Change Act 2008 by:
  - using landform, layout, building orientation, tree planting, massing and landscaping to reduce likely energy consumption and increase resilience to increased temperatures;
  - using the layout, density and mix of development to support identified opportunities for decentralised energy;
  - connecting to an existing decentralised energy supply system with capacity to supply the proposed development, or being designed for a future connection where there are firm proposals for such a system;
  - not creating demand for bio-energy fuels known to result in net carbon dioxide emissions through production methods, transport requirements, and/or loss of carbon sinks.
- Provide public or private open space so that an accessible choice of shade and shelter is offered, recognising the opportunities for people, biodiversity, flood storage and carbon management provided by multi-functional green spaces and green infrastructure networks.
- Give priority to the use of sustainable drainage systems, paying attention both to the potential contribution to water harvesting to be gained from impermeable surfaces and to layouts that accommodate waste water recycling.
- Support sustainable waste management by providing space for recycling and composting.
- Increase the proportion of trips in the local area made by sustainable modes, particularly active travel modes, by:
  - giving comparative advantages to sustainable travel – for example by placing cycle parking closer to a main entrance than car parking (other than disabled parking);
  - implementing travel plans (unless the scale of the development is small) so as to reduce greenhouse gas emissions;
  - providing for safe and attractive walking and cycling opportunities, including secure cycle parking and, where appropriate, showers and changing facilities;



Energy strategy diagram from Shelter's 2014 Wolfson Economics Prize runner-up, 'Stoke Harbour'

- managing the provision of car parking (including consideration of charging for use), so that it is consistent with cutting greenhouse gas emissions, including the provision of electric vehicle charging infrastructure; and
- improving public transport and utilising a travel planning approach.
- Reflect, in cases where the site has not been allocated for development in a development plan document, the site selection criteria set out in Section 4.4.2.

### 5.3 Assessing renewable energy generation, storage and distribution

#### Principles

- Development management should not prevent, delay or inhibit proposals for renewable and low-carbon energy, and associated infrastructure, which could be permitted having regard to the objectives and advice set out in this guide.
- Decision-makers should recognise that energy technologies are changing, and they should be prepared to deal positively with the implications of new transport and energy technologies, such as battery storage and infrastructure for electric vehicles.

#### Good practice

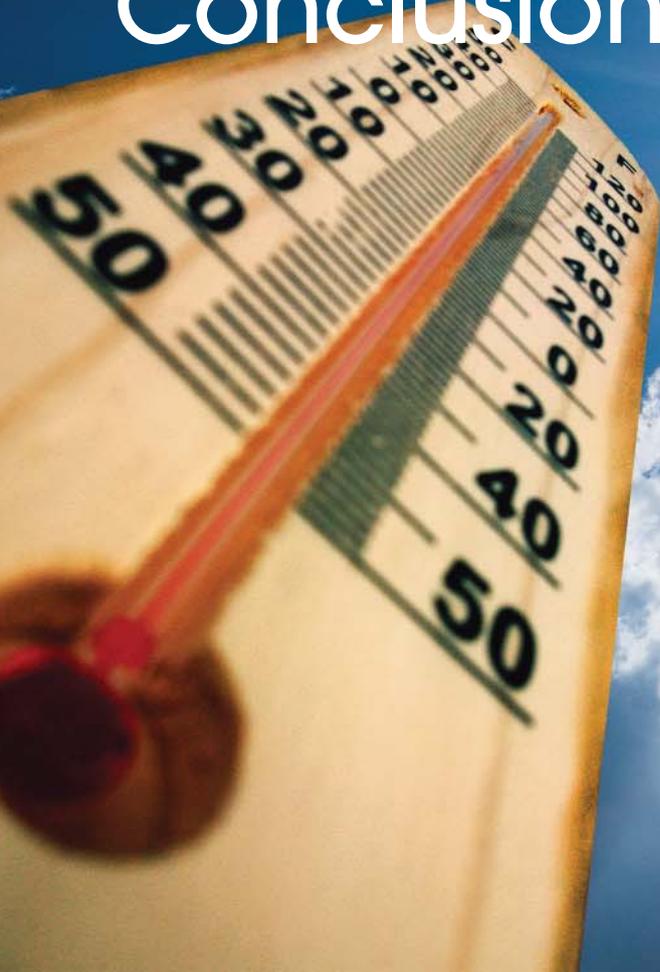
In determining planning applications for the development of renewable or low-carbon energy, and associated infrastructure, LPAs are recommended to:

- Expect applicants to have taken appropriate steps to avoid and then mitigate any adverse impacts through careful consideration of location, scale, design and

other measures, including ensuring that all reasonable steps have been taken, and will be taken, to minimise noise impacts.

- Give significant weight to the wider environmental, social and economic benefits of renewable or low-carbon energy projects and fuel sources, whatever their scale, recognising that small-scale projects provide a valuable contribution to the local area and contribute to security of supply and to cutting greenhouse gas emissions – and not reject planning applications simply because the level of output, or the number of buildings supplied, is small.
- Not require applicants for renewable energy development to demonstrate the overall need for renewable or low-carbon energy.
- Expect developers of decentralised energy to support the local planning approach for renewable and low-carbon energy set out in the local development plan, and, if not, to provide compelling reasons to justify the departure – but, otherwise, not question the energy justification for why a proposal for renewable and low-carbon energy must be sited in a particular location.
- Recognise that, when located in the Green Belt, elements of many renewable energy projects will comprise inappropriate development, which may impact on the openness of the Green Belt. Careful consideration will therefore need to be given to the visual impact of projects, and developers will need to demonstrate very special circumstances that clearly outweigh any harm by reason of inappropriateness and any other harm if projects are to proceed – such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources.

# Section 6 Conclusion



batuhan toker/Thinkstock

**A**ddressing climate change must be a central priority of the planning system if we are to ensure our future economic, environmental and social wellbeing. While communities can benefit from the deployment of renewable energy systems, they can also build a resilient social and economic future by anticipating and responding to climate change that is now inevitable. Communities that ignore the challenge will find the cost of impacts and of insurance rising sharply, threatening their economic and social fabric.

***This guide has set out some of the ways that local authorities and communities can make a real difference to delivering a sustainable future. The threat of climate change is real, but so too are the opportunities. A resilient and sustainable future is achievable, but only if we act now.***

# Annex 1

## Additional context

### A1.1 Key national and local government bodies with a stake in planning for climate change

There are several government bodies that have crucial roles in planning for climate change:

- Ministry of Housing, Communities and Local Government (MHCLG) – responsible for planning policy.
- Planning Inspectorate (agency of MHCLG) – conducts the soundness test of plans and conducts appeals.
- Department for Business, Energy and Industrial Strategy (DBEIS) – responsible for ensuring the delivery of low-cost and clean energy systems.
- Department for Environment, Food and Rural Affairs (Defra) – responsible for the National Adaptation Programme.
- Committee on Climate Change (CCC) and the Adaptation Sub-Committee (ASC) – statutory bodies charged with oversight of the government's implementation of the Climate Change Act 2008.
- Environment Agency (agency of Defra) – responsible for some kinds of flood risk (but has no overall responsibility for other aspects of climate adaptation).
- Lead local flood authorities (and emergency planning teams/local resilience forums) – statutory consultees to planning.
- Natural England (agency of Defra) – the government's adviser on the natural environment in England. Its role includes work on climate change adaptation and mitigation for the natural environment, and how that can also help society to adapt.
- Historic England – statutory advisor on the historic environment.

- Highways Agency – responsible for the operation, maintenance and improvement of England's strategic road network.

### A1.2 Other climate-related government policy

There is a significant amount of other policy that has an impact on planning and the policies that underpin plan-making and development management. The list below, while not exhaustive, demonstrates how much has happened in the last couple of years:

- The UK Climate Projections 2018 (UKCP18)<sup>A1</sup> were released in November 2018, and illustrate a range of future climate scenarios until 2100 resulting from different global emissions scenarios. These show across the board that increasing summer temperatures, more extreme weather and rising sea levels are all on the horizon, and urgent international action is needed. UKCP18 can be used as a tool to feed the most up-to-date scientific evidence into decision-making. These projections are now being factored into the Environment Agency flood risk allowances.<sup>A2</sup>
- The Committee on Climate Change and its Adaptation Sub-Committee reports:
  - Volume 1: *Reducing Emissions and Preparing for Climate Change: 2017 Report to Parliament. Summary and Recommendations.*<sup>A3</sup>
  - Volume 2: *Meeting Carbon Budgets: Closing the Policy Gap: 2017 Report to Parliament*<sup>A4</sup> gives policy guidelines. Current policies would leave a gap of at least around 100 MtCO<sub>2</sub>e in 2030 compared with what is required by the fifth carbon budget.

#### Notes

A1 See the Met Office's UK Climate Projections website, at <https://www.metoffice.gov.uk/research/collaboration/ukcp>

A2 *Flood Risk Assessments: Climate Change Allowances*. Guidance. Environment Agency, updated Feb. 2017. <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>

A3 *Reducing Emissions and Preparing for Climate Change: 2017 Report to Parliament. Summary and Recommendations*. Committee on Climate Change, Jun. 2017. <https://www.theccc.org.uk/wp-content/uploads/2017/06/Reducing-emissions-and-preparing-for-climate-change-2017-Report-to-Parliament-Summary-and-recommendations.pdf>

A4 *Meeting Carbon Budgets: Closing the Policy Gap. 2017 Report to Parliament*. Committee on Climate Change, Jun. 2017. <https://www.theccc.org.uk/wp-content/uploads/2017/06/2017-Report-to-Parliament-Meeting-Carbon-Budgets-Closing-the-policy-gap.pdf>

- Volume 3: *Progress in Preparing for Climate Change. 2017 Report to Parliament*<sup>A5</sup> assesses the effectiveness of the National Adaptation Programme in preparing the UK for the effects of climate change and identifies policy recommendations. It concludes that, despite some areas of progress, the level of risk has increased for a significant number of priorities, such as surface water flood risk. The measures set out in the current National Adaptation Programme are not sufficient to avoid the impacts of climate change increasing.
  - The UK Climate Change Risk Assessment sets out the priority climate change risks and opportunities for the UK. It includes an independent evidence report setting out the latest evidence on the risks and opportunities to the UK from climate change. In January 2017, the government presented the second UK Climate Change Risk Assessment to Parliament.
- This was informed by the Adaptation Sub-Committee's evidence report for CCRA2 published in July 2016.<sup>A6</sup>
- The 25 Year Environment Plan,<sup>A7</sup> published in January 2018, contains a very strong vision for a high-quality, multi-functional environment, along with a large number of aspirations and some clear commitments from government.
  - *Clean Growth Strategy: Leading the Way to a Low Carbon Future*<sup>A8</sup> was published in October 2017 and sets out proposals for decarbonising all sectors of the UK economy through the 2020s. It explains how the whole country can benefit from low-carbon opportunities, while meeting national and international commitments to tackle climate change.
  - The Industrial Strategy<sup>A9</sup> published in 2017 also sets out how the move to cleaner economic growth – through low-carbon technologies and the efficient use of resources – is one of the greatest industrial opportunities of our time.

#### Notes

- A5 *Progress in Preparing for Climate Change. 2017 Report to Parliament*. Committee on Climate Change, Jun. 2017.  
<https://www.theccc.org.uk/wp-content/uploads/2017/06/2017-Report-to-Parliament-Progress-in-preparing-for-climate-change.pdf>
- A6 *UK Climate Change Risk Assessment 2017 Synthesis Report: Priorities for the Next Five Years*. Committee on Climate Change, Jul. 2016.  
<https://www.theccc.org.uk/wp-content/uploads/2016/07/UK-CCRA-2017-Synthesis-Report-Committee-on-Climate-Change.pdf>
- A7 *A Green Future: Our 25 Year Plan to Improve the Environment*. HM Government, Jan. 2018.  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/673203/25-year-environment-plan.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/673203/25-year-environment-plan.pdf)
- A8 *The Clean Growth Strategy: Leading the Way to a Low Carbon Future*. HM Government, Oct. 2017.  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/651916/BEIS\\_The\\_Clean\\_Growth\\_online\\_12.10.17.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/651916/BEIS_The_Clean_Growth_online_12.10.17.pdf)
- A9 *Industrial Strategy: Building a Britain Fit for the Future*. HM Government, Oct. 2017.  
<https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future>

# Annex 2

## Case studies

### **45 Mitigation**

- 45 Ardley Energy Recovery Facility
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- 50 Hamburg Energy Hill and Energy Bunker
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- 51 Hannover zero:e Park, Germany
- 51 Integrating Multiple Climate Change Policies in Regeneration, Fornebu, Norway
- 52 London Plan Policy to Promote Decentralised Energy
- 52 North West Bicester Supplementary Planning Document
- 52 North West Cambridge Development
- 53 Nottingham Workplace Parking Levy
- 53 Oakham North Climate Change Adaptation Strategy
- 53 Richmondshire Local Plan Renewable and Low Carbon Energy Study
- 54 Stafford Close Housing Scheme, Dartmoor National Park
- 54 Wirksworth Neighbourhood Plan
- 55 UEA Enterprise Centre

### **56 Adaptation**

- 56 Burghfield Park
- 56 Climate Change Vision and Action Plan for the Lower Ouse Valley
- 56 Cockermouth Flood Alleviation Scheme, Cumbria
- 57 Ellis Meadows – Leicester City Council
- 57 King’s Cross Square, London
- 57 Leeds Flood Alleviation Scheme
- 58 Northampton Green Infrastructure Plan
- 58 Small-Scale SuDS Tool, Royal Borough of Kensington and Chelsea
- 58 Tame Valley Landscape Vision Development
- 59 Wallasea Island Wild Coast Project
- 59 Willow Way, Christchurch

## A2.1 Mitigation

### Ardley Energy Recovery Facility

Tags: Mitigation; Energy

**Planned initially at a strategic level, this is a good example of a low-carbon heat network development.**

It is located approximately 5 kilometres from North West Bicester eco-town, with the premise that the eco-town can use the waste heat from the facility. Outcomes include a planning condition for the EfW facility requiring a CHP Feasibility Review, assessing potential commercial opportunities for the use of heat from the plant, and the Local Plan site allocation policy for the North West Bicester Eco Town area. The SPD references using the waste heat and encourages new developments to explore potential to hook up to the facility.

**Further information:** <https://viridor.co.uk/our-operations/energy/energy-recovery-facilities/ardley-erf/>

### Battersea Power Station Masterplan

Tags: Mitigation

**Located south of the River Thames, the iconic Grade II\* listed Battersea Power Station building is undergoing a substantial refurbishment along with the birth of a new community. Plans for the 42 acre site include new residential accommodation, hotels, offices, community and leisure facilities along with an extension of the tube line, a new underground station, and a wharf for the river bus.**

Battersea Power Station has committed to contributing more than £200 million to the extension of the Northern Line amongst other investments to improve transport links in the area (see Battersea Power Station, Phase 3 Amendment ES Addendum, Non-Technical Summary, 2014).

The masterplan will be served by a 7MWe combined heat and power unit providing low-carbon heat and electricity which can possibly export energy to nearby communities and expand the district heating network. The energy-efficient design and site-wide energy centre are predicted to reduce carbon emissions by 38%. The renovated and new buildings have high sustainability targets under BREEAM and the Code for Sustainable Homes.

**Further information:** <https://www.batterseapowerstation.co.uk>

### Big Birmingham Bikes

Tags: Mitigation; Transport

**Birmingham City Council, through its Wellbeing Service, has provided more than 4,000 free bikes and cycle training to residents living in deprived areas, in order to improve their mobility, health and wellbeing, as well as increasing access to workplaces, education and training.**

The scheme was also designed to bring about behaviour change by encouraging people to travel by bike rather than private car, thereby reducing congestion – and pollution – on roads. Big Birmingham Bikes has linked up with over 50 community groups including homeless and mental health charities, and GPS tracking is used to monitor the effectiveness of the scheme and provide data to guide planning and policy to support cycling.

**Further information:** <https://www.ashden.org/winners/birmingham-bikes>

## BRE Flood Resilient Repair Home

Tags: Mitigation; Housing

An existing Victorian terraced home on the BRE Innovation Park, Watford, was refurbished and adapted by BRE and partners to demonstrate how homes can be both resistant and resilient to flooding while still looking and feeling homely. It showcases a range of innovative products and practical design measures that reduce the risk of a flood and the time/resources spent on flood remediation.

The house has undergone several testing scenarios and performs well. It has featured on the BBC's *Countryfile* and is open to the public.

The house is designed to both resistant and resilient to flooding:

- Resistant to flooding from water up to 600 millimetres (2 feet) deep, with measures including:
  - studded cavity drainage barriers within walls and floors to channel water to drainage outlets;
  - drainage channels beneath the floor, around the perimeter of the room;
  - a sump in the corner of the home fitted with automatic pumps to remove the water, pumping it outside, before it can reach up to the floor.
- Resilient to the effects of being flooded, with measures including:
  - sockets and switches placed higher up the wall with ceiling wiring;
  - waterproof, magnesium oxide wall boards;
  - ceramic tiled floor and loose rugs in place of fitted carpets.

Several thousands of litres of water were poured into the home to replicate a flood event that would have caused severe damage and taken days, potentially weeks to remediate. After just one hour, the water had been removed via the floor drains and sump pump, the floor was dry and the house habitable.

Further information: <https://www.bre.co.uk/resilience>

## Brescia District Heating Network, Italy

Tags: Mitigation; Carbon dioxide emissions; District heating

Brescia's district heating network has been developing since 1972, with the newest production plants using the latest technology to limit carbon emissions. To date, over 70% of the population of the Brescia Municipality live or work in areas supplied by the district heating network.

An important step forward was taken in 2004 with the completion of the plant with biomass-powered design. Heat produced by energy from waste covers over 40% of the heating requirements of district-heated places. The district heating network of Brescia goes beyond the municipal boundaries to serve parts of the adjoining municipalities of Bovezzo and Concesio. By the end of 2009 over 40 million cubic metres of buildings were connected, and Brescia anticipates reaching its ambitious target of 45 million cubic metres by 2020.

By 2015, the heating network had nearly reached its full potential size and the challenge was then to improve the efficiency of the heat sources in the system. One project that is working towards this is PITAGORIS,<sup>i</sup> funded by the European Commission, in which A2A<sup>ii</sup> and Ori Martin<sup>iii</sup> are working in collaboration to recover waste heat from the smoke from the steel industry blast furnaces and produce both electricity and heat for the district heating network.

i Planning with Innovative and low energy Thermal And power Generation from Residual And renewable Sources – <https://pitagorasproject.eu/>

ii A2A organisation – <https://www.a2a.eu/>

iii Ori Martin organisation – <https://www.a2a.eu/>

Further information: <http://stratego-project.eu/wp-content/uploads/2014/09/3a-STRATEGO-local-case-IT-Brescia.pdf>

## Bus Rapid Transit (BRT) Route in Catania, Italy

Tags: Mitigation; Transport

**Municipal planners in Catania have helped facilitate the preparation of an urban traffic plan, addressing a new transport policy for sustainable mobility related to bus rapid transit (BRT). A BRT is a transport system with a high percentage of protected routes that predominantly operates as a light rail transit away from existing road and tram systems to avoid busy intersections.**

In April 2013 the first BRT line began operating in the city of Catania. AMT (Azienda Metropolitana Trasporti Catania)<sup>i</sup> is the Catania municipal public transport company, operating 50 bus lines, and covering approximately 40% of the city road network. It covers 11 million kilometres and transports 30 million passengers. The mixed-traffic operation and the high level of car traffic strongly affect the capability of AMT to supply a competitive and sustainable energy public transport service with respect to car use. In view of the long time needed to build rail systems, in 2011 the Municipality of Catania collaborated with the University of Catania on the preparation of a short-term transport plan.

An urban traffic plan was then implemented, which included BRT among other pilot projects to promote a change in the transport choice of citizens, saving energy and reducing carbon dioxide emissions. The BRT showed that public transport can compete with car usage and that modal shift can be increased in order to save energy and reduce carbon emissions.

i AMT organisation – <http://www.amt.ct.it/>

**Further information:** <https://sustainabledevelopment.un.org/partnership/?p=331>

## Delivering Renewable Energy through Local Development Orders in Swindon

Tags: Mitigation; Renewable energy

**Swindon Council has provided upfront planning permission in certain areas for solar photovoltaics and other renewable energy forms, via the creation of three low-carbon Local Development Orders (LDOs) in 2015.**

This case study demonstrates how a streamlining of the system for granting permission for renewable sites has enabled a democratic and more efficient delivery of renewable energy in Swindon. This has been achieved through the use of LDOs. LDOs require sites to be submitted upfront and then permission can be granted at the right time when the sites are ready to be developed.

The process of applying for planning permission can be time-consuming, even where the principle for renewable energy has already been established in an area. To streamline this system, LDOs were introduced to facilitate the granting of permission for renewable energy. The process requires landowners, developers and the community to submit potential sites for inclusion in their LDO. A consultation then takes place with engagement of the community.

**Further information:** [http://www.emcouncils.gov.uk/write/LDOs\\_as\\_a\\_Proactive\\_Planning\\_Tool\\_-\\_David\\_Dewart.pdf](http://www.emcouncils.gov.uk/write/LDOs_as_a_Proactive_Planning_Tool_-_David_Dewart.pdf)

## Dunsfold Park Carbon Ambition

Tags: Mitigation; Carbon dioxide emissions; Masterplanning

**The masterplan for Dunsfold Park, developed by The Rutland Group, shows how the aerodrome will be redeveloped and the business park group grown to create a new sustainable village of around 1,800 homes.**

It aims to minimise the environmental footprint of the village by incorporating and delivering innovative designs, technologies and practices for energy, transport, waste and construction. The new eco-village settlement will be both socially and environmentally sustainable, providing local people with access to new homes, new jobs, a 350-acre country park, new schools, shops and other community facilities.

The planning application includes:

- district heating and energy provided by an on-site CHP plant fuelled by locally sourced low-grade timber;
- on-site waste processing to convert unrecyclable waste into biofuel;
- an urban drainage system which would feed surface water run-off into landscaped water features which would link with the Wey and Arun Canal;
- car-user charging and provision for electric cars.

The scheme demonstrates that sustainable rural development need not necessarily be deemed a paradox – new rural communities have the potential to contribute to a sustainable future. It also highlights the critical role of an enthusiastic and supportive landowner, and of an inspirational professional team in driving forward an ambitious project.

This planning application was approved by MHCLG in March 2018.

**Further information:** <http://www.dunsfoldparkmasterplan.com/>

## Energy Policy Review for Central Bedfordshire Council

Tags: Mitigation

**The review was undertaken by Third Revolution Projects on behalf of Central Bedfordshire Council in summer 2017 to assess whether the council's policy was compliant, in particular with the 2015 Government onshore wind Written Ministerial Statement, and generally fit for purpose in terms of the UK's transition to a decentralised low-carbon energy system.**

The review highlighted examples around the country where planning inspectors had only found onshore wind policy sound where specific areas had been identified as being suitable. Successful policy followed two main approaches:

- allocating areas, following a call for sites, similar to the allocation of housing; or
- identifying areas based on landscape character and other constraints.

Inspectors appear comfortable with either, but experience of calls for sites appears to have yielded few sites. The review also noted that the low-carbon energy transition requires planners and the public sector to become more proactive – first, to manage the spatial implications of developers bringing forward large numbers of smaller energy schemes; and secondly to support delivery through, for example, focusing on infrastructure (for example increasing capacity on the electricity grid).

**Further information:** [http://www.centralbedfordshire.gov.uk/Images/renewable-policy-review\\_tcm3-27331.pdf](http://www.centralbedfordshire.gov.uk/Images/renewable-policy-review_tcm3-27331.pdf)

## Grey to Green Phase 1, Public Realm Resilience in Central Sheffield

Tags: Mitigation

The 'Grey to Green Phase 1' scheme originated in the City Centre Masterplan 2013 as a key step towards restoring the boundary of Sheffield City Centre to its historic origins around the River Don. It transforms redundant carriageway in the city into a network of sustainable drainage, flower meadows and rain gardens. The project has improved the city's resilience to climate change, enhanced the public realm, and increased connectivity in the city centre. The project is now attracting investment in new and existing jobs.

The overall project provides:

- attractive new public spaces replacing 1.2 kilometres of redundant roads;
- a sustainable urban drainage system (SuDS) to reduce flooding and improve the city's climate change resilience;
- rain gardens, public art and street furniture that enhance the public realm;
- high-quality footways that have increased walkability to the city centre;
- extensive planting of perennial flower meadows, increasing amenity and natural environment; and
- 2016 CEEQUAL (Civil Engineering Environmental Quality Assessment and Award Scheme) Outstanding Achievement Award winner.

Further information: <http://www.ceequal.com/case-studies/grey-to-green-phase-1/>

## Gwithian and Gwinear Neighbourhood Plan, Cornwall

Tags: Mitigation; Political leadership; Neighbourhood planning

Led by the Parish Council, with support from Cornwall Council's planning team, the community of Gwithian and Gwinear in Cornwall prepared a neighbourhood plan for their area. Drawing on strong support for appropriately scaled and sited renewable energy projects within the community, the plan contains technology-specific policies, including the identification of locations for wind turbines, and an overarching policy which promotes community-ownership of renewable energy projects.

The policies build upon evidence and guidance developed for the whole of Cornwall by Cornwall Council. The community of Gwinear-Gwithian parish supports wind energy development by the number of operational wind turbines throughout the parish and the creation of the Gwinear-Gwithian Sustainable Community Fund (GGSCF). The community does, however, believe that wind energy development should only be permitted in appropriate locations, and this is evidenced through the various public consultations undertaken as part of the neighbourhood development plan. For this reason, a policy has been established to ensure that future wind energy development is located in landscape areas capable of accommodating such development providing a range of criteria are met.

This policy has been informed by Cornwall Council's draft supplementary planning document (SPD) on renewable energy, using its descriptions on community energy models and assessments on landscape sensitivity to evidence the approach taken. The policies within the neighbourhood plan (NP) have been drafted following considerable interaction and consultation with the community over the last two years by way of setting up a dedicated NP website, forming a Steering Group & Task Group, holding regular consultation/drop-in events across the parish (five stages in total), leaflet and draft plan delivery to every household, informing local media, drop-off boxes for comments/questionnaires in local shops/post offices/pubs, advertising in the two local parish magazines, and advertising on five parish notice boards and local shops.

The NP was created by a group of committed individuals from both Gwinear-Gwithian Parish Council, a clerk and project officer and dedicated members of the community who formed the Steering Group.

Further information: <https://www.cornwall.gov.uk/media/28922186/final-gg-neighbourhood-plan-after-examination.pdf/>

## Hamburg Energy Hill and Energy Bunker

Tags: Mitigation; Energy

The 'Renewable Wilhelmsberg Climate Protection Concept' set out the ambition to supply the Elbe islands with 100% renewable energy and deliver a sustainable approach to energy across the district. To achieve this, a range of energy projects were introduced including local renewable energy production and distribution, and energy efficiency.

Potential sites for local renewable energy production were assessed and a former land-fill site was selected. This 45 hectare area of contaminated land had been used for toxic industrial waste. Local people had not been allowed on the site for decades.

The site, now known as the Georgswerder Energy Hill, has been transformed. It is an important source of renewable energy and supplies around 4,000 households with electricity using wind and solar generation. The energy from land-fill generated gas is also being used.

**Further information:** [https://www.iba-hamburg.de/fileadmin/Mediathek/Whitepaper/140801\\_Energy\\_Bunker\\_english\\_final.pdf](https://www.iba-hamburg.de/fileadmin/Mediathek/Whitepaper/140801_Energy_Bunker_english_final.pdf)

## Hanham Hall, Gloucestershire

Tags: Mitigation; Housing

A flagship Carbon Challenge scheme promoted by the Homes and Communities Agency. England's first large-scale housing scheme to achieve the 2016 zero-carbon standard. The development will create 187 new homes, ranging from one-bedroom starter flats to five-bedroom family houses.

Two thirds of the units will be sold privately, while the rest will be offered for affordable rent. There is no visible distinction between the private and rented housing.

**Further information:** <http://www.hta.co.uk/projects/hanham-hall>

## Hannover zero:e Park, Germany

Tags: Mitigation; Carbon dioxide emissions; Housing; Design

**Part of Germany's 'Energiewende' (energy transformation), this is Europe's largest zero-emissions housing development. It is an exemplar for future large-scale passive housing projects and sets the standard for outcomes from urban land use planning.**

In 2002 Hannover City Council agreed to develop a zero-emissions housing estate to support Hannover's aim to reduce carbon dioxide emissions by 40% by 2020, as part of the Climate Alliance Hannover 2020. In 2010, over 300 detached, semi-detached and terraced houses and a supermarket were built in the suburb of Wettbergen to the PassivHaus Standard,<sup>i</sup> a highly efficient design with a significantly lower energy footprint than conventional housing.

The whole development has been designed to be reduce carbon dioxide emissions over the long term:

- power for household electricity and heat is compensated for by renewable energy generation;
- the plots face south to exploit solar energy, and rainwater is drained using private and public through-trench systems.

The PassivHaus construction was supported by Hannover's proKlima climate fund, which continues to analyse the energy data from the development.

i The PassivHaus Standard – <http://www.passivhaus.org.uk/standard.jsp?id=122>

The PassivHaus Standard sets out a range of requirements, including:

- a maximum primary heating requirement of 40kWh per square metre per year;
- usage guidance for home owners; and
- the obligation that additional energy for heating or household electricity should be supplied through renewable energy generation

**Further information:** <https://www.hannover.de/en>

## Integrating Multiple Climate Change Policies in Regeneration, Fornebu, Norway

Tags: Mitigation

**Multiple energy saving policies can be adopted in one development. Fornebu includes a combination of renewable energy sources, such as heat from sea water and the provision of extensive recreational and wildlife spaces, into a newly planned community on brownfield land (a former airport).**

Following the relocation of Oslo international airport, the decision was made to redevelop the old airport site into 6,000 housing units, social and commercial infrastructure, 20,000 offices and extensive recreational and wild life spaces. The underlying philosophy was that the area should be a showcase for modern environmental thinking, emphasising sustainability in terms of energy, environmental standards and adaptation to climate change. The visions and strategies were incorporated into the masterplan, a statutory instrument, adopted by the Baerum Municipality<sup>i</sup> in 1999. The entire development process is expected to be complete by 2025.

The project emphasises the combination of renewable energy sources such as heat from sea water and solar energy with passive house standards, the use of appropriate building materials, energy efficient lighting, local recycling and handling of waste and a strong emphasis on public transport.

i Baerum municipality website : <https://www.baerum.kommune.no/politikk-og-samfunn/barum-2035/stedsutvikling-i-barum/sandvika/AMT-organisation> – <http://www.amt.ct.it/>

**Further information:** <http://www.special-eu.org/assets/uploads/05-Norway-description.pdf>  
<http://www.special-eu.org/assets/uploads/05-Norway-panels.pdf>

## London Plan Policy to Promote Decentralised Energy

Tags: Mitigation; Carbon dioxide emissions; Decentralised energy

**The Mayor of London is supporting the greater use of renewable and low-carbon generation technologies, and has set a target for London to generate 25% of its heat and power requirements through the use of local, decentralised energy (including the use of energy from waste and biomass schemes) systems by 2025.**

Shifting 25% of London's energy demand to be supplied through decentralised systems could save up to 2.57 million tonnes of carbon dioxide a year. Greater use of decentralised energy will also help London become more self-sufficient and secure in relation to its energy needs. An innovative support programme combines engagement, training, planning advice, technical support and commercial analysis from Arup to help London boroughs identify and deliver decentralised energy schemes. This has helped to create a thriving market for heat in London, helping to achieve the capital's ambitious carbon reductions targets. The programme provides an excellent model that could be transferred to other cities across the UK.

The Mayor has developed an online London Heat Map tool which will help boroughs and developers identify and develop key decentralised energy opportunities.

The London Plan is currently being updated; it was published for consultation in December 2017 and the final version is being examined in early 2019.

**Further information:** <https://www.london.gov.uk/what-we-do/planning/london-plan/current-london-plan/london-plan-chapter-five-londons-response/poli-0>

## North West Bicester Supplementary Planning Document

Tags: Mitigation; Design; Evidence

**This Supplementary Planning Document for North West Bicester is a good example of a local authority setting ambitious design guidance to promote climate change adaptation and mitigation.**

This guidance has a strong evidence base, including the results of research with Oxford Brookes University on modelling the climate that Bicester is likely to experience in the future.

**Further information:** <https://www.cherwell.gov.uk/downloads/download/281/north-west-bicester-spd-february-2016>

## North West Cambridge Development

Tags: Mitigation; Housing

**The largest expansion plans in the University's 800 Year history and includes 3,000 new homes and University research and teaching facilities, community facilities and public open space on the 150 hectare site.**

The proposals are intended to meet the University's development needs for the next 20 years. The scheme meets Code for Sustainable Homes level 5 and BREEAM 'Excellent' standards across the entire site. The community have been engaged from day one through extensive and collaborative consultation. Early delivery of state-of-the-art community facilities has embedded this site into the local area.

**Further information:** <http://www.nwcambridge.co.uk/>  
[http://www.nwcambridge.co.uk/sites/www.nwcambridge.co.uk/files/o1\\_16\\_sustainability\\_statement.pdf](http://www.nwcambridge.co.uk/sites/www.nwcambridge.co.uk/files/o1_16_sustainability_statement.pdf)

## Nottingham Workplace Parking Levy

Tags: Mitigation; Transport

**The Workplace Parking Levy (WPL) places a modest charge on employers providing 11 or more parking places, and invests the revenue in sustainable transport measures such as new tram routes, electric buses, cycling and public transport smartcards.**

Nottingham City Council is the first local authority in Europe to implement such a scheme, which is increasingly being recognised as an innovative solution, and is already encouraging more sustainable travel behaviour across Nottingham. Congestion on the city's roads is falling and air pollution is being reduced as commuters switch to the efficient public transport that is being paid for by the levy. Nottingham's integrated approach to sustainable public transport and parking is outstanding, setting an example for other cities to follow.

**Further information:** <https://www.nottinghamcity.gov.uk/transport-parking-and-streets/parking-and-permits/workplace-parking-levy/>

## Oakham North Climate Change Adaptation Strategy

Tags: Mitigation; Housing

**The climate change adaptation strategy for Larkfleet Homes' Oakham North development aims to manage the most significant impacts of climate change and create a more attractive and comfortable development that is resilient and flexible to future change.**

The risks, including overheating, flooding, water shortages, and changes in ground conditions affecting structural stability, were assessed, and technical feasible solutions were identified to reduce the vulnerability of the homes on the site. This includes modifications to the building fabric and services, internal layout and structural design. Sustainable drainage systems and green infrastructure, particularly trees, were highlighted as having a crucial role in maintaining a safe and comfortable environment.

The study provides valuable lessons for the construction industry. An adaptation strategy was developed, taking into account cost/benefit analysis, householder perceptions, market factors, supply chain capacity and the policy context.

The findings will be used by Larkfleet to address climate change in Oakham North and future developments.

**Further information:** <https://www.arcc-network.org.uk/wp-content/D4FC/D4FC40-Oakham-north-full-report.pdf>

## Richmondshire Local Plan Renewable and Low Carbon Energy Study

Tags: Mitigation; Carbon dioxide emissions

**This study, prepared for Richmondshire District Council by AECOM, developed policy recommendations for the area covered by the local plan to reduce building- and development-related carbon dioxide emissions through the planning process.**

It examined the current and future energy demand from the existing housing and non-domestic building stock, as well as energy requirements from new build delivered through the growth strategy proposed in the emerging Local Plan to 2028.

**Further information:** <https://www.richmondshire.gov.uk/media/5123/richmondshire-local-plan-renewable-and-low-carbon-energy-study-august-2012.pdf>

## Stafford Close Housing Scheme, Dartmoor National Park

Tags: Mitigation; Housing

**Stafford Close provides 18 'Passivhaus' dwellings in Dartmoor National Park, a nationally protected landscape. It is believed to be the first of its kind in a UK National Park.**

Fourteen dwellings are aimed at providing affordable rented housing for local people; these are owned by the Community Land Trust and will be managed in conjunction with Teign Housing Association. The remaining four dwellings will be sold to local people at a reduced market value.

**Further information:** <https://www.theexeterdaily.co.uk/news/business-daily-local-news/dartmoor-housing-scheme-wins-award-planning-excellence>

## Wirksworth Neighbourhood Plan

Tags: Mitigation; Neighbourhood planning

**Wirksworth is a small market town within the Derbyshire Dales. It is a relatively prosperous community, albeit with an ageing population (37% over sixty years of age). The neighbourhood plan objectives include striving to become a more energy-efficient/low-carbon town.**

The following policies were included:

- Code for sustainable homes policy – code level 4 to 2017, code level 5 from 2017-2020, code level 6 from 2020 onwards.
- Minimum BREEAM standards for non-residential development – BREEAM 'Very Good' from 2017; BREEAM 'Excellent' from 2020. Proposals not achieving these standards refused unless open-book evidence submitted to explain and justify.
- Promoting retrofitting of existing buildings including traditional buildings.
- General policy supporting renewable energy (microgeneration only), provided there is no harm to landscape character/biodiversity/heritage assets.
- Creation of specific new dedicated cycling routes.
- Rainwater and stormwater management.
- Short design briefs given for development sites, encouraging renewable energy and sustainable design.

**Further information:** <https://www.derbyshiredales.gov.uk/planning-a-building-control/planning-policy/neighbourhood-planning/wirksworth-neighbourhood-plan>

## UEA Enterprise Centre

Tags: Mitigation; Energy

**This ground-breaking project on the University of East Anglia campus showcases low-carbon sustainable building with a highly ecological specification that achieves the Passivhaus and BREEAM 'Outstanding' standards.**

The project aimed to develop future businesses, provide dedicated space to support workshops, networking, open-plan offices, and incubation hatchery space for start-up companies in the knowledge economy. A commitment to sourcing local trade and low-carbon materials made it an exemplar for specification as well as energy performance.

As part of the formal pre-application process, there was an extensive consultation, including stakeholder workshops and numerous engagements with Norwich City Council Planning Department, conservation officers, the Greater Norwich Development Partnership Design Review Panel, Highway and Parks and Open Spaces Committees. There was also an exhibition of the proposed designs, where members of the community were invited to comment on the proposals, and a presentation was given to the Norwich Forum for the Construction Industry.

**Further information:** <https://www.architype.co.uk/project/the-enterprise-centre-uea/>

## A2.2 Adaptation

### Burghfield Park

Tags: Adaptation; Flooding

**A mixed-use proposal for 156 sustainable homes, 45 affordable, 24 flood resilient can-float homes, a new flood relief scheme to provide added protection to the local community, and a new sailing club leisure facility, and comprehensive ecological mitigation and enhancement and new public access and open spaces.**

The proposals do not form part of the local development plan but do accord with other key policy needs including: West Berkshire Economic Development Strategy, Thames Valley Berkshire LEP Strategic Economic Plan, and West Berkshire Strategic Flood Risk Assessment. The development directly fully funds additional essential infrastructure needs, including removing an entire community and businesses from flood zone 3 (high risk) to flood zone 1 (low risk), a new flood cell to offer wider alleviation, new leisure sporting facilities, and new high-quality sustainable housing.

*Further information:* <http://www.burghfield-park.com/>

### Climate Change Vision and Action Plan for the Lower Ouse Valley

Tags: Adaptation; Flooding; Community engagement

**LDA Design worked with communities in Newhaven, Seaford and Lewes and rural areas to help them understanding the risks and opportunities and prepare to adapt. The work was part of Coastal Communities 2150, an EU project exploring innovative ways to engage people in planning for the future.**

Long-term adaptation scenarios were created, including traditional flood defences and more creative solutions such as managed realignment, buildings and infrastructure relocated to higher ground or raising them up on stilts or floating platforms, and crops and farming techniques which are more resilient to extreme weather.

Illustrations and case studies were developed to help people visualise these scenarios and their implications. These were used in a series of consultation events including public exhibitions, a formal workshop and a pub quiz. A vision and action plan were then developed, working with the community steering group. Additionally, a climate trail was designed with displays in five popular local destinations.

The work was completed in 2013 and received a Landscape Institute Award in 2014.

*Further information:* <https://www.lda-design.co.uk/projects/climate-change-vision-and-action-plan-for-the-lower-ouse-valley/>

### Cockermouth Flood Alleviation Scheme, Cumbria

Tags: Adaptation; Flooding

**Cockermouth and adjoining communities experienced flooding in 2009. Existing defences had a 10% chance of overtopping frequently in any given year. The scheme provided 1.7 kilometres of improved flood defences and a self-closing flood barrier.**

Located in a conservation area, close to a SSSI and SAC the scheme required a sensitive approach to design and construction.

*Further information:* <http://www.volkerstevin.co.uk/en/news/detail/cockermouth-flood-defences-officially-unveiled>

## Ellis Meadows – Leicester City Council

Tags: Adaptation; Flooding

**Ellis Meadows has delivered flood management for the city and also provided a great new open space; with more access and routes, and improved biodiversity.**

Leicester is one of the top cities at risk from surface water flooding. One solution would have been hard engineered defences; the solution adopted is multi-beneficial. It also provides new open areas for one of the most densely built-up housing areas in the city.

*Further information:* <https://www.leicester.gov.uk/news/news-story-details/?nid=88872>

## King's Cross Square, London

Tags: Adaptation; Urban regeneration; Tree planting; Sustainability

**King's Cross is one of the largest and most exciting redevelopments in London. The 67 acre site has a rich history and a unique setting.**

What was an under-used industrial wasteland is being transformed into a new part of the city with homes, shops, offices, galleries, bars, restaurants, schools, and even a university.

King's Cross has included everything from promoting energy efficiency to encouraging green transport; from re-use of heritage buildings to a massive programme of tree planting; from sustainable building design to ensuring social and cultural diversity.

*Further information:* <https://www.kingscross.co.uk/about-the-development>

## Leeds Flood Alleviation Scheme

Tags: Adaptation; Flooding

**The Leeds Flood Alleviation Scheme represents a critical infrastructure scheme within Leeds city centre, which is being promoted and delivered by Leeds City Council. Project partners included the Environment Agency, Canal and Rivers Trust and Yorkshire Water, with Arup acting as technical advisors and BMM as contractor.**

The project comprises the delivery of a sympathetically designed and innovative infrastructure which raised the standard of protection to flood risk in the city centre. Arup acted as technical advisor to the scheme, which included provided full planning, engineering, project management and technical specialist support to the scheme.

*Further information:* <https://www.leeds.gov.uk/parking-roads-and-travel/flood-alleviation-scheme/flood-alleviation-scheme-phase-one>

## Northampton Green Infrastructure Plan

Tags: Adaptation; Green infrastructure

**The Northampton Green Infrastructure Plan is an innovative planning document, interactive map and toolkit to deliver practical implementation of multi-functional green infrastructure at local level.**

It forms part of the evidence base for the Northampton Local Plan Part 2 and demonstrates the role of green infrastructure within the borough. It also provides guidance for developers who submit future planning applications within the borough. The plan is supporting by an interactive map.

**Further information:** <https://www.northampton.gov.uk/info/200205/planning-for-the-future/2049/green-infrastructure-in-northampton/1>

## Small-Scale SuDS Tool, Royal Borough of Kensington and Chelsea

Tags: Adaptation; Sustainable urban drainage

**Royal Borough of Kensington and Chelsea Small Scale Sustainable Drainage Systems (SuDS) Tool is designed to assist the council in assessing the suitability of SuDS provision within small-scale development proposals.**

The main focus of the tool is to enable the council to ensure that the water attenuation requirements for SuDS are met by development proposals. It is designed for small scale development up to a maximum of ten dwellings.

**Further information:** <http://rbkc.suds-tool.co.uk/index.php?autoid=7390459b545f6cd1d8679c578ee640f>

## Tame Valley Landscape Vision Development

Tags: Adaptation; Strategic scale; Climate change; Significance of water; Urban and regional regeneration

**The boroughs of North Warwickshire and Tamworth are under major development pressures from new housing, industrial and infrastructure projects.**

This makes it an important time for the authorities in the region, including Birmingham City Council, North Warwickshire Borough Council, Solihull Metropolitan Borough Council, Tamworth Borough Council, Warwickshire and Staffordshire County Councils, as well as the cross authority groupings such as the combined authority, the Midlands Engine and the Local Economic Partnerships.

Pressure from development has provided the catalyst to consider the Tame Valley in the context of strategic regional environmental, social and economic concerns. The purpose of this report is to demonstrate the great potential the valley has to provide a substantial ecological, cultural and economic role in the future of the region.

**Further information:** [http://www.tamevalleywetlands.co.uk/wp-content/uploads/2017/01/TVWW\\_Report\\_Final\\_WEB.pdf](http://www.tamevalleywetlands.co.uk/wp-content/uploads/2017/01/TVWW_Report_Final_WEB.pdf)

## Wallasea Island Wild Coast Project

Tags: Adaptation; Sea level rise; Green infrastructure; Design

**This is a landmark conservation and engineering scheme which has been designed with climate change and sea level rise in mind.**

The project is transforming the island into a landscape of marshland, lagoons, ditches and sea. The land has been raised above sea level using 3 million tonnes of earth from the Crossrail scheme in London, and a new 115 hectare inter-tidal region has been created. There are long shallow slopes from the new sea wall to provide space for the saltmarsh to gradually migrate inland as sea levels rise.

**Further information:** <https://www.rspb.org.uk/reserves-and-events/reserves-a-z/wallasea-island-wild-coast-project>

## Willow Way, Christchurch

Tags: Adaptation; Flooding

**A proposal for two flood resilient can-float homes situated in flood zones 2 and 3, having being classified as safe with dry access by the Environment Agency and conforming to current UK guidelines.**

It has been accepted that the proposals are fully flood-resilient taking in to account the new climate change requirements and in this case sea level rise up to 2116. Having passed the Environment Agency requirements, the proposals are subject to the sequential and exceptions tests. The sequential test is currently being disputed and contested following a recently failed planning appeal. The proposals are deemed to have passed the exceptions test as the buildings do not make flooding worse elsewhere and offer betterment to the local community.

**Rising to the Climate Crisis – A Guide for Local Authorities on Planning for Climate Change**

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# **Tackling the Climate Emergency Together**

**Southwark's strategy to become Carbon Neutral by 2030**

**July 2020**

## Executive Summary

Manmade climate change is already having an impact across the world, there is overwhelming evidence that the planet continues to heat which threatens all who inhabit it. This threat is not even, it is the poorest and most vulnerable who are most threatened. The effects can already be seen in Southwark with more extreme weather, greater flood risk and an impact on the health of our residents. Carbon, wherever it is produced in the world, is contributing to this crisis and so every part of the world needs to play its part. That is why Southwark Council has declared a climate emergency and committed to do everything it can to make the borough carbon neutral by 2030.

Southwark, is joining with other London Boroughs to demand urgent action now from government to retrofit London, invest in low carbon development, halve petrol and diesel road journeys, secure 100% renewable energy for London, reduce emissions from consumption and build a green economy.

In addition, this strategy sets out a plan of work, which taken together can take us to carbon neutrality.

### Defining our Approach

In developing and delivering this plan, we remain committed to the council's fairer future principles, and want to align our work with the global UN Sustainable Development Goals. The council supports a just transition, where the burden of change to a more sustainable future is shared amongst those who can most afford it. Our approach is governed by three principles to be: inclusive, transparent and ambitious. These principles will underpin how we work and how we engage with our residents, **businesses** and partners.

The council is only one part of the solution. Action is needed at every level, from the individual to the government. We have a role in leading and bringing together different people and ideas – but the solution will only be achieved by working together. The council is aligning this strategy with its other plans and strategies and will embed its principles and targets in every part of the council's work so that as one council we are driving this work forward for the whole borough.

It is essential to be able to measure the carbon we produce, and the effect of the decisions we take on the overall carbon produced by the borough. We are working to develop a robust way to do this, and a way that means our emissions can be compared to other boroughs. While our focus will be on scope 1 emissions, our strategy will also take steps to reduce scope 2 and 3 emissions.

### Developing our Ambition

To deliver the change that is necessary our work will focus on five key areas. In each of these, the strategy sets out a series of objectives, and a programme of activity that can help us to achieve these objectives. For each area of work there is a combination of actions that are

**Commented [1]:** 'support a just transition' - yet the categories in the document are 'individuals, council and national level' - the last of which this strategy has also no control over. Can we create sub sections in each category for businesses, sub-divided by sector as different sectors have different responsibilities? If we're campaigning for individuals or national government to change behaviour, we should also target local businesses and national businesses located in Southwark (BAE?)

**Commented [2]:** Focus must be on scope 2 and 3 as well.

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needed at the individual, borough and national level. As we move from the strategy into action planning, we will evaluate the different ideas in each area, and assess how we will do it, whether it is a small change, an area which requires a larger change but we have a route to achieve it, or whether it is a more major change that may require changes to legislation or national policy. Our objectives are:

● **Buildings, construction and regeneration**

- Planning regulations that put carbon neutrality at the heart of development.
- Embedded building techniques such as green roofs and solar panelling.
- Encouraging the repurposing of existing buildings where practical.
- Using and creating buildings that protect and enhance our green spaces.
- Buildings which minimise carbon emissions in their use.
- Ruling that the preservation of mature trees be factored into all new planning and development projects - removal and replacement with saplings is not an acceptable alternative, and any plans that propose this course of action should be rejected.

Commented [3]: save for the most exceptional circumstances?

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● **Transport and travel**

- Make cycling and walking easier.
- Discourage the ownership and use of polluting private cars.
- Improve the accessibility and sustainability of public transport.
- Reduce unnecessary journeys.
- People cut down on unnecessary flying, and offset their carbon when they do fly.

Commented [4]: Change to Enabling far more journeys by walking and cycling

Commented [5]: Change to Reducing the ownership and use of polluting private cars.

Commented [6]: What does this mean, exactly?

Commented [7]: Does Southwark have control over this? What about freight and businesses, instead of individual actions?

● **Biodiversity, trees and green spaces**

- Greener streets, with more planting and fewer cars, making our streets places for nature to flourish.
- Improved biodiversity with green corridors to help wildlife to move.
- Increasing tree coverage across the borough with more planting and loss of existing trees as an absolute last resort - mature trees MUST be regarded as a precious and essential component of our plan to become carbon neutral by 2030.
- Converting disused car parks into wooded areas and creating orchards in parks around the borough.

Commented [8]: Mentioned elsewhere, but need much firmer, bolder and ambitious measures.

- Residents in touch with nature, more “grow your own” and community gardening.
- Building and development that works alongside and enhancing our natural environment.

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Commented [9]: Again, much more ambition needed in language to represent the scale the council intend/need to see this in borough.

Commented [10]: So crucial - should be up top, as developers are key partner here

● **Consumption**

- For Southwark to have a more circular economy, that reduces consumption, and keeps resources in use for as long as possible.

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- To drive behaviour change about what we consume and what we eat so that we are more sustainable consumers.
- To support local supply chains and local businesses to be more sustainable.
- To shift the approach of large businesses away from carbon heavy methods of delivery and production.
- To encourage more plant based diets with more sustainable choices and less waste.

**Commented [11]:** Turn the multi storey car park into a vertical farm: local food supply, education, farming apprenticeships

**Commented [12R11]:** Agreed - be more ambitious!

● **Energy**

- To move towards zero carbon, green energy for all businesses, residents and services in the borough.
- To increase local sustainable energy production.
- To tackle fuel poverty by promoting and providing accessible energy alternatives.
- To reduce energy demand and cut energy waste.

**Commented [13]:** OFGEM has detailed what this means. Moixa has turned what OFGEM wants into local component production, design and community implementation

**Commented [14]:** this language is too little too late. If houses are not being built / retrofitted with whole house underfloor water heating and cooling right now if houses are not being built / retrofitted with whole house grey water and rain water retention and use right now it is too late. Almost no one is retrofitting with any zero carbon structural components or an electricity based house wiring

Delivering an Action Plan

This strategy sets out the ideas that we will need to implement if the borough is to be carbon neutral by 2030. Following a period of consultation, and further changes to the strategy, we will develop an action plan containing a timetable for implementation and a programme of work to put these ideas into practice. This will include identifying the resources needed.

**Commented [15]:** When will this be? Shouldn't consultation come once we have a programme of work and costs?

Our strategy and its delivery will be transparent. We will report on progress and embed the targets into the council's performance system where we publish an annual performance report. We will work towards making data public whenever we can so that our residents, businesses and partners can better understand the issues that we face and the progress we are making together as a borough.

**Commented [16]:** And New Southwark Plan?

This strategy is the start of a climate conversation with the public. We will only make it a success if we engage, educate and empower. We will engage with the public making sure that diverse voices are heard, and that everyone in Southwark can be part of the conversation.

**Commented [17]:** Hackney are submitting this annual report to a Citizens' Assembly to encourage active participation and local engagement. Will there be any equivalent process for Southwark and if so what are the processes and timetables, and who will have oversight.

We will put education at the heart of what we do. Making sure that people have the facts and information they need to make good choices about how they live and what they expect from others. And, we will empower our residents, ensuring they have the tools they need to make positive change. Our transparent approach means that residents can access what they need to take action.

**Commented [18]:** the building trades and traders have to be trained as educators

**Commented [19R18]:** In line with Green New Deal objectives, this needs to go hand in hand with promoting unionisation via Southwark TUC with metrics to ascertain engagement and success/failure at intervals. This will conflict with developers and business interests, and if this is not a stance the council is willing to put action behind it needs to clarify its position.

Our delivery will be inclusive, ensuring that vulnerable communities, BAME communities and our young people are all equal participants in tackling climate change together.

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Delivery relies on our residents, but also our partners. Our approach will work with local business, public institutions as well as global companies based in our borough.

It is through a clear and ambitious action plan with a transparent and inclusive approach that we will work with our residents, our businesses, our partners and everyone with an interest in Southwark and its future, that we will tackle the climate emergency together.

**Commented [20]:** This is FAR more key than resident activity. Agree that resident discussion and support is important but the focus of this document seems towards individuals instead of these key global companies and businesses based here

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## Foreword

The world is currently undergoing the sixth mass extinction in the history of life on earth.

In 2018, the UN's Intergovernmental Panel on Climate Change (IPCC) warned that the world faces catastrophic climate and ecological risks if global warming exceeds 1.5 degrees centigrade above pre-industrial levels, which presents an existential risk to human communities and other life on the planet. Time is running out to prevent catastrophe, which requires halting emissions to net-zero as soon as possible.

Every tonne of greenhouse gas that is produced, wherever it is produced anywhere in the world is contributing to the warming of the planet and so all of us, whoever we are and wherever we are, have a responsibility to take urgent action now. That is why in 2019, Southwark declared a climate emergency with the ambitious aim to make Southwark carbon neutral by 2030 so that as a community, we can play our part in tackling this global crisis.

This strategy is a major step towards achieving our ambition. It sets out what we believe needs to happen to become carbon neutral. It shows that the solution is not the responsibility on one organisation, but collectively the responsibility of everyone who lives, works or uses our borough.

Our strategy is inclusive and ambitious and it will not be easy to deliver. Southwark is one of the key organisations in the borough that must strive for change to aid its delivery, but there are also many others that are responsible too. Our aim is to be a convener, bringing residents, businesses, partners as well as movements and groups together.

Developing this strategy has been a challenge because it is being done at a time that the world faces another global crisis – coronavirus. This crisis means we have not done the engagement that we want or need, and so this strategy is a step towards our goal, but is not the whole journey. In launching this strategy, we want to open up a dialogue with the community, to hear whether these ideas are the right ones, or whether there is a different path. Our work though must be evidence led and open to change. We will technically assess Southwark's Carbon outputs, and use evidence to inform our action both across our borough and when lobbying government and beyond to deliver this ambitious Carbon Neutral target by 2030.

This strategy sets out our commitment to engage as we move from a draft to a final strategy, and also as we implement our policies over the next decade. Southwark must embark on a climate conversation.

As well as work that the council must do, there is individual action, action for other institutions and organisations and for those who do business in the borough. Everyone with a stake in the borough must be part of this conversation. This enables us to engage, educate and empower the borough, but also to learn and evolve as new ideas are developed and we try out ideas that we may then need to modify and change. By actively engaging with each other and keeping the conversation going, we will ensure that we can all play our part in

**Commented [21]:** If Southwark is serious I would have thought everyone undertaking renovation projects and building projects across the borough would already be working to already mandated specifications with builders willing and able to install to those specifications. This is not happening. There are no new house system heating and plumbing and energy generation specifications so for hundreds of houses and millions of pounds of renovation right now are already outdated and wasted

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tackling the climate emergency together in Southwark. We recognise that some actions are easier for some than for others, and so in developing an action plan we will be inclusive recognising the different steps that different people and communities can take so that everyone is enabled to be part of this change.

Where the council does not have powers to carry out all the actions needed, the strategy suggests lobbying of other bodies that can enable those actions is imperative. The strategy also highlights that we are one borough of many, we must therefore join up regionally and nationally to deliver. Recent events have taught us that we can do this and it is possible. Co-operation with like-minded organisations to achieve change isn't just desirable, it's a necessity.

The coronavirus pandemic has shown the strength and resilience of our residents, but also that they and we all have the power to change, to live differently and to be part of a different and better future. In developing this strategy, COVID has limited the engagement that we would have liked to have done. This strategy should therefore not be seen as the finished, unchangeable blueprint for the next ten years, but instead our ideas about what needs to happen and clear direction of travel for the council and the borough. Over the coming weeks and months, we will engage with our residents, businesses, groups, institutions and others to develop this strategy further and to develop a clear and measurable action plan to move the borough forward together.

Now is the time to come together as a community to more explicitly discuss and identify what must change and what stands in the way, both inside and outside Southwark. This strategy is the start of that journey, but now the hard work begins for all of us to tackle climate change together in Southwark.

**Cllr Richard Livingstone**  
**Cabinet Member for Environment, Transport and the Climate Emergency**

**Commented [22]:** Should be more of this in here - especially as we have sections on national action which Southwark presumably can't influence - but we can influence at London and SE London level. Which other boroughs are we partnering with? What does this lobbying look like?

## **Introduction**

### **Southwark's Commitment and the Climate Emergency**

In March 2019, Southwark's council passed a climate emergency declaration. It noted the council's commitment to make Southwark carbon neutral by 2050 and to halve Southwark Council's own emissions by 2022. It noted progress including cutting the council's carbon emissions, divesting pensions funds away from fossil fuels into sustainable alternatives; protecting the borough's biodiversity and keeping recycling rates high – currently the highest in inner London.

The declaration noted the impact of manmade climate changes and the 2018 IPCC report on limiting global temperature rises and that urgent action was needed by all levels of government, business and individuals.

The declaration stated that "despite the leadership already shown by Southwark Council to reduce carbon, it needs to go further still if we are to play our part in preventing further climate change and to set an example to others." Therefore, that the council should "Declare a Climate Emergency and do all it can to make the borough carbon neutral by 2030."

Further, that we develop a strategy, working with local stakeholders, to ensure that the council becomes carbon neutral at a much more rapid pace than currently envisaged. This carbon reduction strategy should aim to achieve carbon neutrality by 2030 if feasible. This strategy should be clear in its targets. As it develops from a draft to a final plan, together with an action plan, it will need to identify the resources that are required. It should also be developed in a way that is sufficiently flexible to make best use of new carbon reduction technologies as they develop.

### **Manmade climate change**

Manmade climate change is real, and it is happening now. The scale and pace of change presents a catastrophic threat to our planet and our future. Global temperatures have already risen by 1°C from pre-industrial times. The recent 2018 Intergovernmental Panel on Climate Change has now said we have just 12 years to act on climate change if global temperature rises are to be kept within the 1.5°C. That means the world being carbon neutral by 2030.

Everyone has to play their part if we are to succeed in limiting global temperature rises. Every tonne of carbon that is produced anywhere in the world matters and has an impact. Greenhouse gases don't respect local, national or international borders and so every tonne of carbon whether produced in Southwark, America or China is all contributing to this crisis.

While there are some very vocal opponents to the climate emergency, we do not believe that this fringe debate should distract us from the overwhelming scientific evidence of global warming and climate crisis. It is this consensus that has brought together world leaders and

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mobilised millions around the world to take action. This strategy is part of that global movement, how we in our borough can help make the difference that the world urgently needs.

The UK is already seeing the effects of climate change; the Met Office's analysis of annual temperature records shows that all of the UK's ten warmest years have occurred since 2002, whereas none of the ten coldest years have occurred since 1963.

The earth's climate has changed throughout history. Within the past 650,000 years alone there have been seven major climate shifts, with the last ice age ending approximately 7,000 years ago resulting in the climate we know today. In more recent years, the earth's temperature has been rising faster than anticipated, more so than we would expect to happen typically. Climate scientists therefore consider that these changes are due to human activity over the past one hundred years.

The sun is the earth's biggest source of energy, and some of the energy that reaches the earth is trapped by greenhouse gases. Since the Industrial Revolution, the amounts of these gases in the atmosphere have gone up significantly. There has been a 40% increase in the atmospheric concentration of carbon dioxide, a 20% increase in nitrous oxide, and a 150% increase in methane. The increases have not been at a steady rate and have gone up steeply since the 1970s.

Increased greenhouse gases trap more heat close to the earth, leading to rising temperatures. The IPCC has said that the world reached around 1°C of human-induced warming over pre-industrial temperatures in 2017. Moreover, some regions, such as the Arctic, have had more warming than others. While the temperature changes may seem small, the effect on humans and the natural world is profound. Even if we were to stop the emission of all greenhouse gases immediately, global warming would continue for at least several more decades. The IPCC think that it is possible to keep temperature rise to less than 1.5°C but only with urgent and wide-ranging action from governments and people.

Greenhouse gases are produced by a number of human activities including the burning of fossil fuels for heat, transportation, and electricity; and also agriculture and deforestation. Despite international pressure on governments and industry to switch to more renewable sources of energy and to improve land and agricultural management, progress has not been fast enough. There are many reasons for this, including a lack of support for change amongst some governments. The use of fossil fuels is going up in many countries as they industrialise and develop their economies. In the UK they are falling and in London have fallen from a peak in 2000. However, when considering historic emissions, the UK is near the top of cumulative emitters so must do more to reduce its emissions and faster.

Climate change is already causing damage to our planet; glaciers are shrinking, plant and animal species have moved from their normal locations or have become extinct, and extreme weather events are becoming more frequent. Rising sea levels are risking coastal-cities and small island states and more extreme weather impacts on our lives, our food supply and our

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safety. It causes crops to fail, impacts on global insecurity and means millions of deaths. A change in global climate affects our land, freshwater, and ocean ecosystems. This is already happening now and is already starting to affect our everyday lives.

According to the Met Office, summer heatwaves are now 30 times more likely than they would be typically. The Environment Agency has warned us that many species of bird are reducing in number, mostly related to reductions in food supply in response to extreme weather.

If we do not change our behaviour, it could be devastating for our world. Even if we stopped releasing greenhouse gases immediately, some estimates show that global heating would continue for at least another 70 years. If things do not change, it will affect our world in dramatic ways. We could see more extreme weather, rising sea levels, more people dying from disease and wars caused by poor food supply. There is a climate emergency and we need to take urgent action now.

### **What does climate change mean for Southwark?**

Temperature rises are already leading to changes in the borough and even if we become carbon neutral by 2030, adaptation will be necessary to adapt to a different way of living. Some people in Southwark, and around the world will be more impacted by change than others. This strategy does not include an adaptation strategy, but moving forward the council will need to develop an adaptation strategy to ensure that the impacts of the changing climate does not disproportionately affect the communities who have the least resource to adapt.

### Unequal impact of climate change on Southwark's residents

The impacts of climate change are not felt equally. Poorer and otherwise disadvantaged communities, including the elderly, are more at risk. This strategy recognises that and in developing an approach, supports a just transition.

Although we are all affected by our changing climate, factors such as race, income, age and health play a big role in how directly we feel this impact. In Southwark we are proud to be home to a diverse community and significant BAME population. According to the 2011 census (the latest detailed figures available), 16.4% of the borough is Black African, 6.2% Black Caribbean and almost 3% Chinese. The borough is also home to many other BAME residents, including those from countries as widespread as India, Pakistan, Columbia and Iraq.

The global south is disproportionately affected by climate change. The risk of floods, landslides and other natural disasters is much higher in countries with hot climates and this has been exacerbated by man-made climate change. The impact of these disasters can sometimes significantly impact economies and lead to people needing to immigrate to places like Southwark. It is important to recognise that the impact of global natural disasters on residents in Southwark with close family and friendship ties to countries in the global south. We must listen, learn and partner this experience with our actions in the borough.

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The impact of climate change is also experienced differently here in Southwark. An individual's income significantly impacts their experience of climate change and the resources they have available to adapt to the changing environment. According to the 2019 Indices of Deprivation study, Southwark ranked 43<sup>rd</sup> out of 137 local authorities in terms of socio-economic deprivation and almost a third of our residents live in communities ranked in the 20% most income deprived in England. People living in deprived areas are more affected by poor air quality because these areas tend to be near busier roads. In contrast, 8% of our residents also live in communities ranked within the 20% least income deprived. This disparity in wealth highlights that not every individual has capacity to act at the same rate or in the same way but will also not experience the impact equally. For example, housing adaptations such as triple glazing and solar panels are understandably less of a priority for people on lower incomes than food and rent. Simultaneously, people from a higher income are more likely to emit more carbon, with larger homes in need of greater heating and most disposable income for long haul flights. We must recognise this disparity in resource and its relationship with our fight against climate change.

Other important characteristics that are disproportionately affected by climate change are age and health. People with more vulnerable health are more affected by climate change, which is sometimes determined by age. Researchers at Queen Mary University found that in the UK children were exposed to higher levels of pollution, particularly while walking to school and on the playground, and that the effects of this pollution were more serious in children than in adults. Exposure to air pollution at a young age can hinder lung growth, inhibit brain development and increase the risk of conditions such as asthma. Alongside this, air pollution has shown to disproportionately affect people with existing heart or respiratory conditions, who are more likely to be older than average. Vulnerable groups, such as the very young, elderly and those with health issues are more affected by the climate.

### Health and disease

Climate change endangers human health. It will have impacts on nearly all aspects of our lives and so it will have a wide-ranging effect on health. We know that the greater the warming of the planet, the greater the risk to health, and also that many of the actions we could take against climate change could have additional positive impacts on health.

Changes in climate are also increasing the risk of insect-borne diseases in the UK. Warmer climates mean that diseases that are carried by, for example, mosquitos are now becoming more prevalent in Europe and we expect this trend to spread to the UK and London.

Climate change and air pollution are closely related. The burning of fossil fuels in cars and industry release greenhouse gases contributing to global warming, but also pollute the air that we breathe. Globally, around eight million premature deaths are caused every year by air pollution. In the UK, around 40,000 premature deaths are thought to occur due to air pollution. While detailed local data is not available, given our population and air quality, this is likely to be around 200 premature deaths every year in Southwark.

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### Changes to temperature

If we do not change, then deaths in the UK due to heat are projected to increase by two-thirds by the 2020s and around two and a half times by the 2050s.

Average and extreme temperatures in the UK are expected to increase. That is a temperature that is significantly higher or lower than the average for that time of year in that place. Climate change means that heatwaves such as the one in the UK in 2003 are expected to become normal by the 2040s. This is increased in areas like Southwark because of the urban environment which can cause temperature to be 5-10 degrees warmer than neighbouring countryside.

The reverse is also a risk with periods of extreme cold. There are tens of thousands more deaths over the winter period than would be expected given the death rate over the rest of the year when it is warmer. Extremes of cold are likely to increase this.

### Rainfall and flooding

With changes in temperature come changes in rainfall. It is very hard to predict exactly what the pattern and seasonality of rainfall will be in the future as a result of climate change but because London is growing, it is already expected that the city will have to deal with water shortages in the coming decades.

With more extreme weather patterns there is also a greater risk of flooding. Floods in the UK over the past decade have had a devastating impact on peoples' lives. Southwark is protected from tidal and river flooding by the Thames Barrier and other defences. As 60% of residents live on land less than ten meters above sea level, any changes in sea levels will have a direct effect on Southwark. Our defences are being maintained and upgraded. But even with this, around 1.3 million people are living or working in areas where there is a flood risk. The risk area includes large parts of the north of Southwark. Additionally, flooding can occur less predictably as a result of heavy rainfall leading to surface water and sewer flooding. London's Victorian sewer and drainage systems were not built for the size of the population in the city today, and having large areas of land covered by tarmac and other impermeable surfaces means rain water drains less quickly. Some areas of the borough are more susceptible, especially those in the valleys of hidden rivers.

### Food Supply

An estimated 75,000 of Southwark's residents are food insecure. This is defined as someone who has no food for a day or more, normally due to lack of resources. The COVID crisis is likely to have increased this in the short term, and we do not yet know what the long term impact of that will be on food security. But, with climate change food insecurity is set to increase.

Commented [23]: A food insecure person

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One of the major effects of climate change is going to be problems with the availability of food. Extremes of weather will impact on crop production, and increased carbon dioxide is making the oceans more acidic impacting on marine life and commercial fishing. While weather changes mean Britain's climate will be more suitable for growing some new crops, this will be outweighed by the effects of more extreme temperatures and changes in rainfall.

The UK imports a lot of its food (roughly 40%) which means we will be affected by the changes happening in other countries. As food insecurity increases globally, we would expect to see increasing inequality. Trade is also likely to be affected with countries considering the income for food export against the requirements to feed their own populations. A country like the UK which relies on imports would see a reduction, meaning higher prices and greater food insecurity in a borough like Southwark.

### Impact of conflict and migration

There is growing evidence of the link between climate change and conflict. While much of this happens many miles away from London, its impact is felt and experienced by our residents. Southwark is rightly proud to celebrate its diversity as a borough, where people from around the world have chosen to make the borough home. But this diverse population means our communities and neighbourhoods are often personally connected to communities around the world who will be facing food and water shortages, failed crops and forced migration in search of food or to avoid war.

The European migrant and refugee crisis is in part due to reduced food and farming land in Africa and the Middle East, which causes local violence and prompts people to leave their country of origin in search of better economic opportunities. There is usually not one simple cause for why a person leaves their home and sometimes the country they live in, but changes to the environment including climate change are going to have more of an impact on the movement of people in the future. We should be aware of the fact that these catastrophic climate changes have been and are being caused by richer, developed countries, our own included, and acknowledge our responsibility towards those migrants who turn to us for assistance.

This has profound effects on those moving but also places real pressures on the new host country to support and protect often vulnerable people who have fled. We as a borough will always be a welcoming place to those in need, but we should also be doing everything we can to avoid that need arising, so people are not forced to flee in the first place making often dangerous journeys in search of security for them and their families.

### **The London and the national context**

Around 65% of local authorities in the country have declared a climate emergency; this includes most councils in London. The GLA has declared a climate emergency and to be carbon neutral by 2050. The Mayor of London is committed to a date of 2030.

**Commented [24]:** In line with this, can we get a concrete commitment from Southwark that its current Firewall with the Home Office around undocumented and precarious migrants will not only continue, but be committed to as a long-term policy with specific boundaries?

**Commented [25]:** We should be aware of the fact that these catastrophic climate changes have been and are being caused by richer, developed countries, our own included, and acknowledge our responsibility towards those migrants who turn to us for assistance.

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Since declaring the climate emergency, the context in London has evolved. Our priority is, and remains, to be carbon neutral by 2030, but the growing support across the city means that we are now delivering this alongside other boroughs which will have a greater impact for our city and our planet.

London Councils has started work to support boroughs that are developing climate change strategies. This will ensure that as far as possible council strategies align and across the city boroughs can realise opportunities to work together to achieve climate change commitments. Some of the changes required to become carbon neutral are in our gift, and although challenging, can be delivered by working as a single borough with partners and stakeholders. Others are more complex and will require working together regionally and nationally to ensure that funding and regulation come together to achieve significant results, for example retrofitting energy efficient solutions to existing homes.

**Commented [26]:** Which boroughs are we working most closely with? Can you link to their strategies?

Chief Executives and Strategic Directors in London have agreed a series of priorities for London where boroughs need to work together as the local government sector to deliver. In a joint statement on climate change, London boroughs have agreed to six programmes of work (<https://www.londoncouncils.gov.uk/our-key-themes/environment/climate-change>).

- **Retrofit London:** Retrofit all domestic and non-domestic buildings to an average level of EPC B. Programme timescale: 2020 – 2030.
- **Low-carbon development:** Secure low carbon buildings and infrastructure via borough planning. Programme timescale: 2020 – 2022.
- **Halve petrol and diesel road journeys:** Halve road journeys made by petrol and diesel via combined measures that can restrict polluting journeys and incentivise sustainable and active travel options. Programme timescale: 2020 – 2030.
- **Renewable power for London:** Secure 100% renewable energy for London’s public sector now and in the future. Programme timescale: 2020 – 2030.
- **Reduce consumption emissions:** Reduce consumption emissions by two thirds, focusing on food, clothing, electronics and aviation. Programme timescale: 2020 – 2030.
- **Build the green economy:** Develop London’s low carbon sector and green our broader economy. Programme timescale: 2020 – 2030.

**Commented [27]:** What steps does the Council propose to take to assist the London Borough of Newham in reducing aviation emissions by two thirds?

Southwark will campaign on these issues with other boroughs across London. In addition to these projects, councils have agreed to collaborate on management and use of data. This is to ensure that there is a common means of measuring carbon and progress across the city for greater transparency and accountability.

## COVID-19 – Changing the context

The coronavirus pandemic has brought about unprecedented changes. The loss of human life has been severe, and measures to reduce further loss have inevitably led to disruption to communities, livelihoods, businesses and the delivery of other public services. In amongst this, we have seen an amazing response from every sector. Individuals, communities and businesses have also shown an unprecedented ability and willingness to adapt their behaviour.

It is clear that the coronavirus has created a huge social and economic change, and that as we transition through the crisis things will be different. We also hope to see a far greater investment in climate resilience, and a cleaner environment. As we focus on recovering from this crisis, we must not lose sight of the urgency of tackling the climate and ecological crises, there inherent connection, now more than ever we should look for joined up solutions.

Coronavirus is stark reminder that prevention is better than cure, and that when designing how to deliver the ‘new normal’ we need to re-think what this should look like in Southwark and London.

As this strategy will set out later, much of the response to the climate emergency will involve individual behaviour changes. People travelling differently and consuming differently. People have already started making these changes in response to the pandemic. People are driving less, and instead walking and cycling more. People are shopping locally and changing their habits. Business is operating differently with and remote working has become more normal. There has been an estimated 17% drop in greenhouse gas emissions in this time – which is unprecedented. While the pandemic has brought much tragedy, there is also an opportunity to build on some of the changes that have taken place. This strategy should therefore start from the new world as it exists in the wake of COVID, not from the world that existed before. As the world goes back to work, much of this will change, but there is an opportunity to do things differently and to not throw away the climate gains that this terrible pandemic has delivered.

Our aim must be to build back better, investing in resilient communities, a low and zero carbon economy and a clean and thriving natural environment.

We believe that in Southwark, this is what our community wants. People are valuing clean air, our parks and open spaces are being discovered and rediscovered by residents, and our thriving local businesses are showing they can adapt to new ways of working. Polling shows that two thirds of Britons believe that climate change is as serious as Coronavirus, and the majority of them want to see climate change prioritised in the economic recovery.

The government’s Committee on Climate Change has advised that action to strengthen the economy the UK can, and should, also deliver on our climate goals. In their letter to the Prime Minister, the Committee said that ‘Actions towards net-zero emissions and to limit the damages from climate change will help rebuild the UK with a stronger economy and increased

Commented [28]: Climate change also increases the likelihood of such pandemics in future, while environmental failures such as high air pollution have made outcomes worse

Commented [29R28]: Point worth making, as does deforestation.

Commented [30]: When?

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resilience.’ They recommend six principles for an integrated recovery and five specific measures.

1. Use climate investments to support economic recovery and jobs. The CCC has previously identified a detailed set of investments to reduce emissions and manage the social, environmental and economic impacts of climate change. Many are labour-intensive, spread across the UK and ready to roll out as part of a targeted and timely stimulus package.
2. Lead a shift towards positive, long-term behaviours. The Government can lead the way to new social norms that benefit wellbeing, improve productivity and reduce emissions. This includes actions to support home-working, remote medical consultations and improve safety for cyclists.
3. Tackle the wider ‘resilience deficit’ on climate change. Strong policies are needed to reduce the UK’s vulnerability to the destructive risks of climate change and to avoid a disorderly transition to Net Zero. They must be implemented alongside the response to COVID-19 and will bring benefits to health, well-being and national security.
4. **Embed fairness as a core principle.** The benefits of acting on climate change must be shared widely, and the costs must not burden those who are least able to pay, or whose livelihoods are most at risk as the economy changes. Lost or threatened jobs of today should be replaced by those created by the new, resilient economy.
5. Ensure the recovery does not lock-in greenhouse gas emissions or increased risk. As it kick-starts the economy, the Government should avoid locking-in higher emissions or increased vulnerability to climate change in the longer-term. Support for carbon-intensive sectors should be contingent on them taking real and lasting action on climate change and all new investments need to be resilient to future climate risks.
6. Strengthen incentives to reduce emissions when considering tax changes. Revenue could be raised by setting or raising carbon prices for sectors of the economy which do not bear the full costs of emitting greenhouse gases. Low global oil prices provide an opportunity to increase carbon taxes without hurting consumers.

**Commented [31]:** climate breakdown is racialised - how does ensuring those areas being gentrified are greener help bame working class people being pushed out of the borough by redevelopment projects? There needs to be a dual commitment to centring existing communities and greening Southwark - and not just greening it for those who can afford luxury flats.

### The Southwark Context

Following the declaration of a climate emergency in March 2019, the council has been working to develop a climate strategy. This started with a climate summit in July 2019, and has been informed by amongst other things the work of the environment scrutiny commission who made a series of recommendations at the end of 2019 on the council’s approach. In 2020 the council set up a new Climate Change division in the council and appointment a Climate Change Director to take the council’s work forward. Since then we have established

**Commented [32]:** How does this fit with the New Southwark Plan?

**Commented [33]:** appointed

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a partnership steering group and started a process of public engagement around the issue of climate change.

The council has been promoting the climate emergency with new branding, a special feature in Southwark Life, and is currently developing further ways to promote and encourage action to address the climate emergency.

The council has allocated an initial £2m to the work. The council is also drawing on increasing resources that are becoming available from think tanks, environmental groups and others. Friends of the Earth for example, in collaboration with the environmental charity Ashden, has produced an action plan of 31 things that councils can do to reduce carbon. This work identifies actions that councils can take, as well as the carbon savings and examples of where they have already been tried and succeeded elsewhere in the country. Resources like this will help the council develop its strategy, but also learn from the experiences of others to ensure that our strategy is aligned with work that others are doing. Already the council is taking some of the actions that are identified. These include:

- Set up a carbon offset fund through s106 agreements;
- Require higher than national energy efficiency standards for privately built new homes;
- Introduce measures to encourage walking and cycling;
- Enable the rapid shift to electric vehicles through putting in place EV charging;
- Reduce the need to own and use a car through managing developments in the local plan;
- Upgrade the insulation and heating systems of council buildings;
- Switch street lighting to well designed and well directed LED lighting;
- Cut the council's paper waste by offering papers electronically.

Alongside the council's work on engagement and the development of the strategy, the council has continued to develop policy as well as programmes which reduce our carbon emissions and support greater sustainability. In the last few months:

- The council has started work on renewing its energy contracts. The gateway 1 report sets out proposition to move to 100% green energy for all Southwark electricity supplies. This would create a saving of around 25,000 tonnes of CO2 per year.
- Work is underway between Southwark and Veolia to expand the SELCHP district heat network, moving from gas fired boilers to waste heat. This could initially realise CO2 savings of around 9,000 tonnes per year. Officers are looking at further expansion beyond this, to include the Old Kent Road regeneration area which would offer even greater CO2 savings.
- The council is working in partnership with Lewisham for our residents to receive home visits and advice on how they can reduce energy bills and save carbon, helping to alleviate fuel poverty in the Borough.

Commented [34]: To what specifically? Who is in charge of this spending? How does this link up across departments?

Commented [35]: Bibliography of what you've been consulting for this strategy would be helpful.

Commented [36]: <https://www.moixa.com/case-studies/>  
[https://www.ofgem.gov.uk/publications-and-updates/ofgem-proposals-turn-your-street-green-transforming-local-electricity-networks?utm\\_medium=email&utm\\_source=dotMailer&utm\\_campaign=Daily-Alert\\_30-07-2020&utm\\_content=Ofgem+proposals+to+turn+your+street+green%2c+transforming+local+electricity+networks&dm\\_i=1QCB,6Z6R8,35NMB,S3DFQ,1](https://www.ofgem.gov.uk/publications-and-updates/ofgem-proposals-turn-your-street-green-transforming-local-electricity-networks?utm_medium=email&utm_source=dotMailer&utm_campaign=Daily-Alert_30-07-2020&utm_content=Ofgem+proposals+to+turn+your+street+green%2c+transforming+local+electricity+networks&dm_i=1QCB,6Z6R8,35NMB,S3DFQ,1)

Commented [37]: Replace encourage with enable.

Commented [38]: Like what? Examples?

Commented [39]: Great! How many and up to what capacity?

Commented [40R39]: This must be done in a way that does not reduce pavement space or be placed in locations where safe cycleways are needed.

Commented [41]: What does this mean?

Commented [42R41]: Does this include car free developments?

Commented [43]: Great! How many and when will this be done by? If we're already doing this can we point to numbers and estimated savings?

Commented [44]: All street lighting in the borough? By when?

Commented [45]: Are these listed somewhere publicly accessible?

Commented [46]: Can you link to this? By when?

Commented [47]: Who are these guys, can you link?

Commented [48]: schools / community buildings as energy hubs. solar panels and batteries. all new buildings geo-thermal

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- Work is underway to fit out the council offices in Tooley Street to convert all lighting to LED. This will save around 572 tonnes of CO2 per year.

As well as sustainable energy measures, the council has also undertaken a review of work across every part of the council. This has considered existing initiatives as well as possible future initiatives. This work, together with our community engagement, will all be considered as part of our strategy development.

## Principles and approach

Southwark Council is committed to the borough being carbon neutral by 2030, and building a sustainable carbon neutral future for all. To be successful in tackling climate change, our work must be part of a much larger global movement for change, and so our approach will be rooted in the global foundational framework of the UN Sustainable Development Goals which provide a blueprint to achieve a better and more sustainable future for all.

Alongside this, our approach should be guided by our own values. The council's fairer future values inform and guide all our decisions and determine how we deliver on the commitments that we have made. The values of treating everyone as a valued member of our own family, using our resources well, working for everyone to achieve their potential, being open, honest and accountable and making a Southwark a place to be proud of should also inform and guide our work to tackle the climate emergency. We therefore believe Southwark's climate strategy should reflect the borough, by ensuring it is inclusive, transparent and ambitious.

There is an opportunity during a just transition for not just a reduction in carbon, but also other wider social benefits that align with Southwark's values. For example, there are opportunities to address the housing crisis and tackle fuel poverty. There are opportunities to improve public health, both mental and physical, and opportunities to tackle employment issues with green jobs. A climate strategy can reduce our carbon but also work alongside the council's other ambitions to deliver a fairer future for all in Southwark. Our approach will recognise this and capitalise on opportunities to maximise social gain in the decisions that we take.

### Inclusive

Climate change is an ethical and political issue, not just an environmental one. It is an issue that does not affect all people equally and where the burden to change is not spread evenly. It is often underrepresented or excluded groups whose voice is least heard, but who are also those who will suffer the most as the result of climate change. Existing social inequalities in Southwark and elsewhere could be made worse by the effects of a changing climate.

Our approach to the climate emergency will be inclusive. Built on the principles of social justice we will support a just transition where the burden is spread fairly with the greater share to those most-able to afford it. We will support plans that tackle climate change but which also reduce inequality and promote a fairer future for all.

Southwark is rightly proud to celebrate its diverse population. Our approach will be inclusive of all our residents, whoever they are and whatever their background. We will reach out to every part of Southwark and meet the climate emergency with a response built by all of our community and owned by all of our community.

### Transparent

We want to ensure that we are open and honest in our approach. We do not know all the

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answers and information on our climate can sometimes be difficult to produce. However, as a council we must be open and honest about what we can do and what else needs to be done. We will only achieve carbon neutrality if we work together as a community but to do this, we need to be honest with each other and accountable to each other.

Being open, honest and accountable will help foster a constructive and inclusive environment in which we can come together to find solutions to the challenges that we all face. We will be a good partner and work with others to lead change in Southwark and to campaign for change across London, the country and beyond.

As a public body we are and will always remain accountable to our residents, businesses and partners.

### Ambitious

Our commitment must be bold and ambitious. We should not constrain ourselves to changing existing projects, or activities that the council traditionally delivers. We should instead look at all opportunities to take action and be ambitious in the scale and scope of our work. Failure is not an option and so we will be bold in our ambition and bold in our actions.

We know that we do not know all the answers, and so will be flexible, adaptable, always learning and willing to try new approaches. We will achieve change by pushing the boundaries of what is possible and not being afraid to try new ideas and approaches to deliver change.

### **A whole system approach**

The council will operate as 'one-council'. The climate crisis will be considered at all levels and be an integral part of the decision making process. Just as council decisions currently consider legal, financial, community and equality implications, in the future they will consider the climate impact of a decision. This means that decision makers at whatever level will need to consider the impact on the environment of what they are agreeing, and whether there are alternatives that will have a better impact that they should instead consider. This decision making process is currently open to member and public scrutiny and this will ensure that that level of scrutiny can take place on all decisions in relation to their climate impact.

Climate change is also an issue that impacts on every part of the council's work. As such climate change will be incorporated into the work plans of departments and through the performance schedules for the council. We will publish the performance reports annually.

The council plays a leading role in climate work across London and will continue to engage with other councils to learn from and encourage best practice.

The council has a role as a leader of a whole borough approach to tackling the climate emergency. The council only has direct control over a small proportion of the total emissions in Southwark. However, it does have a role as a leader, a convener and an enabler. A body

**Commented [49]:** With respect. There is nothing in this document that is remotely bold or ambitious. There is nothing that shows you have researched the world for solutions / players who can implement change

**Commented [50R49]:** Agreed - action plan must match fine rhetoric

**Commented [51]:** Why is this a separate process to the New Southwark Plan? Shouldn't they be integrated?

**Commented [52]:** all decisions can be monitored and assessed

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with democratic legitimacy to challenge government and be a voice for the borough regionally and nationally. It has a role in convening partners and communities to develop a strong vision.

The council has influence in a range of areas:

- Direct control - areas and decisions that we control directly such as the use of our buildings.
- Local facilitation and influence – areas where our policies affect others, where our funding enables others to deliver work or where we can use our influence to encourage others to act.
- Regional and national influence – where we can work with regional bodies such as TfL or national government to implement policies and programmes that will deliver change.

A holistic approach to decision making recognises our role across these different levels and the multi-layer solutions that may be necessary to deliver change. To do this, as part of our action plan, we will develop a lobbying and advocacy strategy to help ensure that our climate goals are delivered. We recognise that we cannot do this on our own, and must use our influence at every level from the individual to national government.

### **Alignment with Southwark’s priorities and operations**

Southwark’s four-year Council Plan already includes a range of ambitious commitments that will have an impact on carbon emissions. The council reports on progress on these annually through and departments are focused on delivering these. Commitments in the existing four-year council plan include:

- Make Southwark carbon neutral by 2050 (when declaring a climate emergency, the council set 2030 as a new target)
- Halve council emissions by 2022
- Divest council investments away from fossil fuels and into sustainable alternatives
- Vary parking charges to encourage cleaner vehicles
- Adapt lamp posts to charge electric cars
- Support the creation of community led sustainable energy projects on estates
- Protect Southwark’s biodiversity
- Halve single use plastics in the borough
- Introduce water fountains throughout Southwark to reduce plastic bottles
- Campaign to reinstate frequency of RV1 bus service
- Work with Mayor of London to build a pedestrian and cycling bridge from Canada Water to Canary Wharf
- Develop a green walking network
- Boost access to cycle hire

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- Increase cycle hangaers
- Make cycling accessible for all
- Double number of bicycle journeys in Southwark
- Open a new leisure centre in Canada Water
- Close roads around schools at drop off and pick up times
- Campaign for TFL to make all roads in the borough 20mph
- Deliver new safe pedestrian crossings
- Campaign to re-open Camberwell train station
- Support proposals for Coal Line Greenlink in Peckham
- Establish a Southwark construction company
- Ensure that every new development has enough GPs, school places and parks for its residents
- Campaign for 3 new tube stations on Old Kent Road

Commented [53]: Can we link to this? Which 4 years does it reference and where are we against targets now?

Commented [54]: This is going to push up prices + lead to rent hikes - what are the safeguards we can put in place to mitigate these effects?

As well as these commitments that the council is currently working to deliver, there are a number of key strategies, policies and programmes of work in the council that we also need to ensure align with the ambitions of this strategy. As a next phase, we will undertake an analysis of existing council policies and review whether there are changes that should be considered to them to ensure that we meet this target. This includes key strategic plans such as:

- Movement Plan – strategy to improve how we move around the borough, encouraging sustainable travel.
- The New Southwark Plan – the council’s key planning document which sets out our framework for planning and regeneration in the borough.
- Asset Management Strategy – the council’s approach to managing its building stock.

Commented [55]: Can these be linked for ease of access?

Commented [56R55]: Have these already been finalised? Presumably the climate strategy will affect these

Commented [57]: Please link and give dates of publication

It also includes a range of other action plans which include:

- School Travel Plans
- Economic Wellbeing Strategy
- Skills Strategy
- Carbon Offset Funds
- Air Quality Action Plan
- London Energy Project and Procurement
- Southwark Nature Action Plan
- Tree Management Strategy
- Public Health strategies and action plan
- Investments and improvements in housing and the council’s other buildings
- Divestment in pension funds from fossil fuels

Commented [58]: Are you still refusing to turn the cemeteries into venerable tree parks? It would not be hard at all to get all the religious leaders on side to landscape ways to use trees for memorials in perpetuity. All the pomp ceremony and expense of ornate funerals can continue. Where the parade will end up is a tree and a plaque not a cement hole and plastic flowers. And one good thing would be: you will never run out of space. In perpetuity will actually mean: forever. And you can price it so everyone is included. What a win win for climate change and tradition.

### Iterative development

Given the scale, urgency and complexity of climate change this strategy cannot and should not be the final approach. Since declaring a climate emergency, we have hosted a climate

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summit, established a steering group of local partners and a cross party councillor working group. We have researched and received advice locally, regionally and nationally. We have commissioned research and started on a programme of community engagement. This strategy is our thinking about what needs to happen. This period has helped us to define the issue.

The next stage will be to engage further with residents, to seek expert input and to shape the contents of this strategy further. It will be an opportunity to test assumptions, and to bring in new and different ideas so that together we develop an approach that is true to our values, and which delivers for our borough.

From this we will develop an action plan that defines programmes, considers financing, governance and monitoring and becomes a plan for the whole borough to deliver together. Given the urgency of the situation, we should not delay on delivering 'quick wins' and implement those decisions that require relatively little change. The action planning should therefore take place alongside the borough making progress where it can without significant change.

Commented [59]: What is this?

We then move to delivery, a large scale mobilisation to deliver projects and drive behavioural change, including monitoring and evaluation of progress. The action plan will need to set medium and long term goals, and the delivery phases should include suitable reporting. Annual updates, and an open approach to data and carbon reduction.

Our whole approach should be iterative and also flexible to respond to the rapidly changing regional, national and international contexts. The process is one which will define, develop and deliver. Through this process we need to constantly review and evaluate what we are doing and how, so that we can ensure that we are always using the best ideas which will have the greatest impact.

### Engagement

Central to this strategy is quality engagement with our residents and stakeholders. For the progress we need to make as a borough, we must build support in our communities and work with them to achieve our aims. For the strategy to be robust, we also want to ensure that there is the opportunity for engagement with expert groups and those with a particular interest in these issues.

Throughout the process, we want to speak to a breadth of people. This is a social change and so engaging with as many people as possible is essential. This is to talk through their concerns, hear their ideas and better understand what people in the borough want. But, it is also an opportunity to educate and inform so that people understand the issues and have the information they need to make and demand change.

Commented [60]: Paula: specific efforts will need to be made to contact people who are particularly vulnerable to climate change because of their physical or socio-economic characteristics or where they live, e.g. BAME communities, homeless people, young people.

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As well as a breadth of people, we will ensure that we engage in depth. We want to have detailed conversations with people from different communities and parts of the borough to really explore ideas that exist in the borough that can take Southwark forward.

Finally, we want to utilise the expertise that exists in the borough. We are privileged to have world leading universities, global businesses, and people with expertise from all parts of our community. We want to ensure that we have an informed approach where we benefit from those with expertise in this field to guide and shape our work.

### Partnership

Our response to climate change is only successful if the council is working as a partner and influencing at local, regional and national levels. As part of the action plan development, the council will carry out a gap analysis on areas in this strategy that are beyond our ability to deliver on our own and identify those we need to work with to deliver. This strategy already contains many ideas that will require partnership working, but a full gap analysis will ensure that we have undertaken a fully holistic review of the work that needs to happen at every level.

At a borough level, the council should use its membership of groups of organisations to ensure that their policies are aligned with the council's climate change ambitions. This includes groups such as the Local Enterprise Partnership. It should also work with other partners who also have climate strategies such as the NHS trusts, local universities, colleges and transport providers to as much as possible align our approaches both in direct delivery but also in our shared supply chains.

As well as bodies and institutions, the council will work with businesses, both through organisations like the Southwark Business Forum or our local Business Improvement Districts, but also directly through our partnerships to help businesses to reduce emissions. The council will work with major companies located in the borough such as EY or PWC, but also the many small and medium size businesses that drive our local economy.

Southwark is a member of London Councils, and the Leader currently holds the chair of this group. We will continue to work with London Councils as well as bilaterally with other boroughs to align climate strategies across the city and use our collective voice to deliver and campaign for change. Alongside local government, we will work with regional government through both the Mayor and the Greater London Authority. We welcome the Mayor's commitment to being carbon neutral by 2030 and will work with him and his administration to help deliver this.

The government has committed to the UK being carbon neutral by 2050. We do not believe that this is ambitious enough, but current policies suggest that the government will miss even this target. It is clear that the only way the country will come close is with councils delivering for the government. The government must see councils as equal partners to deliver. As with so much, the real innovation and political drive happens at the local level, we encourage the

**Commented [61]:** □ Paula: Ensure that engagement involves existing community networks and organisations in Southwark, who have deep roots into the community and are trusted by community members - e.g. TRAs, parks and greenspace groups, Southwark Planing Network. Mutual Aid Groups, etc. Expand the Council's Partnership Steering Group to ensure it is representative and includes representation from a range of groups.

**Commented [62R61]:** Agreed - currently PSG is a bit ad hoc, and if it's an official part of this process (especially as 'expert review') should be formalised

**Commented [63]:** A lot riding on the action plan! Looking forward to seeing first draft

**Commented [64R63]:** In terms of identifying those we need to work with to deliver, presuming many will be employers (businesses) - if this is the case, in line with Green New Deal objectives, will Southwark be using the opportunity of dialogue to push for living wage policies for all small and medium businesses in particular? If so, what form will this take and how can progress be tracked?

**Commented [65]:** How are these groups being engaged in the consultation over next 4 months?

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government to recognise this and to work with councils to deliver the change that is needed. We will lobby the government to match the commitment of Southwark, the Mayor of London and many other councils to move its target forward to 2030 so that the UK can truly be a global leader in delivering change. We will continue to lobby government to properly fund councils to delivery change and to devolve greater powers to councils so that they can drive the change that is needed.

### A Green New Deal

Southwark's fight against the climate emergency is part of a wider movement to limit carbon emissions and move towards carbon neutrality. Within the borough and nationally, this movement will undoubtedly put some pressure on businesses of all sizes to adapt the way they work. Understandably, some businesses and residents will be apprehensive about the economic impact of making radical changes to the way with live, particularly in the context of COVID-19 and Brexit. However, a lack of action on tackling carbon emissions will significantly affect our economy in the long run. The 2005 Stern Review estimates that if strong and early action is not taken, the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year for the foreseeable future. If a wider range of risks and impacts is taken into account, the estimates of damage could rise to 20% of GDP or more. The costs of action - reducing greenhouse gas emissions to avoid the worst impacts of climate change - can in contrast be limited to around 1% of global GDP each year.

**Commented [66]:** I'm sure there's more up to date research which is even more gloomy!

Simultaneously, decarbonisation can strengthen and invigorate our economy if done correctly. There is now a clear emphasis from business leaders, economic experts, politicians and others that government must ensure that our economy and jobs are central to tackling the climate emergency. A significant part of this is the implementation of a Green New Deal.

Many global organisations have been calling for a Green New Deal since the economic crash in 2008, to reframe our economy to best deliver decarbonisation. The United Nations Environment Programme (UNEP) called for a Global Green New Deal because of its 'enormous economic, social and environmental benefits... ranging from new green jobs in clean tech and clean energy businesses up to ones in sustainable agriculture and conservation-based enterprises'. In 2009, then UK Prime Minister, Gordon Brown called for an international "green new deal" to boost the environmental sector and help lift the global economy out of recession. More recently, the Green New Deal bill has had its first reading in Parliament in March 2020 where is asked that 'the government, Treasury, Bank of England and the Debt Management Office cooperate so that the funding required for the Green New Deal will be available at the lowest possible price for society'.

The fundamental pillar of the Green New Deal is that economic, social and climate justice are indissoluble. It argues that for decarbonisation through actions like greener transport and more environmentally friendly building to be successful, our economy needs to be prepared to support it and flourish from it. This means large scale investment in renewables, a 'just transition' into well paid, unionised green job and supporting developing countries climate transitions. In Southwark, this means greater and broader funding for green initiatives, having

**Commented [67]:** Need some clarity on how the council will promote unionisation in emergent and existing sectors - will it set clear parameters for the involvement of Southwark Trades Council and how will this involve speaking to workers and not business owners as part of the process of 'greening' conversations?

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the latest green technology available and an influx of available and well paid jobs in green businesses. The council's priority, particularly in the context of COVID-19, is that a green recovery is able to support business and provide significant economic opportunities for our residents.

We understand that businesses in the borough may have concerns about how this is implemented and the practical implications of policies in this strategy. While in the long run, a carbon neutral future ensures a strong economy, we recognise that in the short term, policy changes can cause disruption for business and apprehension amongst our colleagues in the business community. Throughout the process of developing an action plan and moving from a draft to a full strategy, we will engage with business, as partners on this journey. There is huge opportunity, but only if we work as partners with business and the community.

### Impact of COVID

The proposed climate engagement approach that was going to be taken between April and June 2020. As the unprecedented seriousness of the Covid-19 situation took hold, many of the proposals had to change.

It is clear that a full, inclusive and wide-ranging engagement approach is the most appropriate way to ensure a diverse reach across residents and partners, including businesses. This breadth is hugely important to understand the views of everyone who lives and works in Southwark. To enable this, we have used an innovative online portal:

[www.southwark.gov.uk/yourclimateviews](http://www.southwark.gov.uk/yourclimateviews)

There are many different reasons that carbon emissions are rising and a number of areas to delve into to understand these to ensure a thoughtful response in helping to stop temperature rises and really make a positive difference. With this in mind it was our intention to have a summit and a number of in-depth workshops, both geographically spread across the borough and targeted at those harder to reach groups. We were also planning on having on-street pop up stalls to gauge public opinion. However, this was not possible at this time. We have therefore focussed on the online portal to as well as discussion with key partners (who form the partnership group) and partnerships across London and the UK to create this strategy. Our intention is to have in-depth deliberative discussions with groups of residents and partners in the Autumn/Winter to which will help the design of a detailed climate action plan.

**Commented [68]:** This isn't clear - are we adopting a Green New Deal in Southwark?

**Commented [69R68]:** And in any case, accepting the limitations with regards to 'green living' enforced by personal financial circumstance and stability, is there going to be a concrete commitment and concomitant strategy engaging Southwark TUC to ensure these partners on our journey aren't brandishing greening initiatives off the back of precarity and poverty pay?

**Commented [70]:** Can we have dates on this?

## Baseline

To achieve our target of being carbon neutral by 2030, Southwark needs to know how much carbon it is producing now, and how the various decisions over the next decade will impact on that carbon. Obtaining accurate data on carbon emissions in the borough is a challenge for the council. We are working with London Councils to develop a London-wide approach which will enable them to be transparent about what is happening in their boroughs and identify areas where work needs to be done. However, while this work is ongoing, there is still a need for a means of measuring progress to ensure that we are accountable for the work we are doing. This section will therefore baseline our current carbon emissions as a borough with the best data we have available to ensure that we can start to measure progress and make informed decisions that include carbon impact.

The council has commissioned technical reports on the borough's carbon emissions and the potential savings that can be achieved through a range of measures. It is essential that during our process, we have a robust mechanism to measure carbon and carbon reduction.

Some estimates do already exist. The Department for Business, Energy and Industrial Strategy estimate that Southwark, in its most recent figures, produces just under 1,030kt of CO<sub>2</sub> per year. Of that, approximately 50% is from industry, 30% from housing and 20% from travel. The data is on an "end-user" basis where emissions are distributed according to the point of energy consumption or point of emission if not energy related. It does not therefore include, for example, the energy used to produce products consumed in the borough, or things such as international travel. Data does however vary, and the section below on baseline data sets out the best estimate of carbon emissions in the borough.

Figures from 2011 show that around 86% of the borough's carbon emissions are not within direct control of the council, and around 14% are. The vast majority (12% of overall emissions) comes from our own housing stock.

The council has also been taking steps to reduce the carbon from its own operations. From a 2008 baseline, the council has reduced its own carbon by 36.7%. We have done this through a range of measures such as consolidation of buildings, increasing use of renewables and capital investment in boilers and insulation. We have invested in LED lighting in streetlights as well as a 75% reduction in electricity consumption in Tooley Street by switching to LED lights.

## Scope of Emissions

The council's commitment is for the borough to be carbon neutral by 2030. This means that the greenhouse gases we produce as a borough will be equal to or less than the amount of greenhouse gases that we take out of the environment. Greenhouse gases are categorised into three groups, or scopes: scope 1 covers direct emissions from owned or controlled sources; scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed and; scope 3 includes all other indirect emissions that

**Commented [71]:** This is why focus on individual residents in this strategy is misplaced -- where is business/private landlords?

**Commented [72]:** As of 2015 more than 25% of Southwark residents are private renters - we have virtually no recourse to making our homes more environmentally friendly (or blue tac posters to a bedroom wall, for that matter), and many of us can't afford to anyway. This report doesn't mention private landlords in any substantial way - what's the strategy for engaging with private landlords, and how will tenants be centred in any such process?

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occur in the supply chain.

Our **commitment** is to reduce the borough’s own emissions – scope 1. However, we must look beyond that as a large amount of the greenhouse gases produced to sustain the activity and life of the borough fall outside our direct control. Scope 2 emissions through the power we use and scope 3 through what we consume are all contribute to climate change. So while our aim is to be carbon neutral in terms of our own direct emissions, we will also aim to reduce our scope 3 emissions.

**Commented [73]:** I think a commitment to reducing all scope Emissions for carbon neutrality or at least setting a major ambitious target around scope 2 & 3. There is a lot of power and influence that the council wields and it sets the strategy up as one fixed on the ambition necessary for its people and wider world.

This will involve encouraging individuals, businesses and institutions in the borough to make decisions about supply chains and their investments. The council has been leading the way by already disinvesting from fossil fuels in our **pension fund**, but we need others to follow.

**Commented [74]:** And vastly increasing investments in renewable energy and sustainable infrastructure both directly and indirectly.

Committing to reducing scope 3 emissions means that we need to work with those who want to work in the borough about the carbon that is produced at different stages of production and supply. For example, when building new homes, we should be considering carbon that is used throughout the process of producing materials not just in the final building.

**Carbon Offset**

Offsetting carbon will always be required in any measurement of greenhouse gases in the borough. Some activities, even with the best methods will still produce some carbon. Offsetting will be necessary to account for carbon that cannot be taken out of the system in any other way. The council is developing a carbon offset policy to ensure that any carbon offset is used strategically to reduce overall carbon in the atmosphere.

**Baseline Data**

As outlined above, there are various measures of carbon that are used by different organisations. This section brings some of that together to present data which identifies where our carbon comes from, and what will happen if we continue without making changes. There are different assessments available, but this attempts to give a high level view of where the challenge lies and what the scope of the problem is.

The table below shows the origin of tonnes of carbon emitted within Southwark in 2017, according to the London Energy and Greenhouse Gas Inventory (LEGGI). These are the latest available dataset, and are also currently considered an ‘interim’ publication, therefore may be updated further at a future date.

**Commented [75]:** Can we have a similar table at the end showing reduction of carbon anticipated with all measures being taken?

Energy source	Domestic (CO2e)	Commercial (CO2e)	Total
Electricity	124	333	457
Gas	199	192	391
Coal	1	0	1
Oil	2	9	11

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Waste and renewables	n/a	4	4
<b>Total</b>	<b>325</b>	<b>519</b>	<b>845</b>

Figure 1: LEGGI carbon dioxide equivalent emissions by energy source for The London Borough of Southwark 2017 (most recent dataset)

In addition to this road transport contributes 142 tonnes CO2e of the total 168 tonnes CO2e emitted due to transport overall in the borough.

The data suggests that in total 1,013 tonnes of CO2e were emitted in Southwark in 2017, ranking the borough 22nd highest out of the 33 London boroughs in that year.

Year	Total tonnes of CO2e
<b>2016</b>	1,070
<b>2015</b>	1,195
<b>2014</b>	1,170
<b>2013</b>	1,406
<b>2012</b>	1,406
<b>2011</b>	1,318
<b>2010</b>	1,502

Figure 2: Historic annual carbon dioxide equivalent emissions by energy source for The London Borough of Southwark

In order to assess the progress that the council makes we need to also consider future changes that we expect to take place following existing policies. The tables below set out assumptions for Southwark if it continues on a business as usual forecast pathway. The following graphs then forecast the impact of these assumptions on carbon emissions.

Commented [76]: Assume action plan will model impact of new strategy against this?

1. Agriculture and Land Use

<b>Forestry</b>	5% increase in forest cover by 2030.
<b>Land Management</b>	2% decrease in grassland
<b>Livestock Management</b>	0.2% annual growth in dairy cows & livestock
<b>Tree-planting</b>	Tree-planting to increase current coverage by 30% by 2030; no subsequent commitments.

2. Domestic Measures

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<b>Demand for heating and cooling</b>	By 2050, domestic lighting and appliance total energy demand has dropped to 80% of current levels.
<b>Electrification of lighting, appliances, and cooking</b>	Small reductions in energy demand from cooking; no change in heat source.
<b>Domestic space heating and hot water – Demand</b>	Hot water demand per household grows 5% every 5 years
<b>Insulation of new houses</b>	All new houses are built to 2013 building regulations (no change).
<b>Retrofit</b>	All current households remain at weighted average heat loss.
<b>Technology mix for heating</b>	No change to current technology mix for home heating.

3. Energy Supply

<b>National Grid – Electricity Carbon Factor</b>	As per Government (BEIS) forecast – Future UK Electricity carbon factors.
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4. Commercial, Industrial and Institutional

<b>Demand for heating and cooling</b>	In 2050, commercial heating, cooling and hot water demand is 103% of today's levels
<b>Technology mix for heating and cooling</b>	No change to current technology mix for commercial heating.
<b>Energy demand for lighting, appliances and cooling</b>	Commercial lighting & appliance energy demand increases 28% by 2050
<b>Electrification of lighting, appliances, and catering</b>	Share of cooking which is electric is as today.
<b>Industrial processes – Efficiency</b>	Industry moves to higher natural gas consumption, with electricity consumption falling before 2035 then remaining constant.
<b>Industrial processes – Output</b>	Other industry process emissions are reduced at a rate of 2.6% per year.

5. Transport

<b>Domestic freight (road and waterways)</b>	47% increase in distance travelled by road freight; 40% increase in efficiency. In waterborne transportation, 15 % decrease in fuel use.
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<b>Domestic passenger transport – Demand</b>	No change to total travel demand per person
<b>Domestic passenger transport - Modal Shift</b>	No change to current national average modal split by total miles: 74% transportation by cars, vans and motorcycles.
<b>Domestic passenger transport – Technology</b>	Cars, buses and rail is 100% electric by 2050. Slight increase in average train occupancy.
<b>International aviation</b>	Department for Transport "central" forecast for aviation.
<b>International shipping</b>	47% increase in distance travelled by road freight; 40% increase in efficiency. In waterborne transportation, 15 %decrease in fuel use.

6. Waste

<b>Increase in rates of recycling</b>	65% recycling, 10% landfill, 25% incineration by 2040; remaining constant to 2050
<b>Reduction in volume of waste</b>	Total volume of waste is 124% of 2017 levels by 2040.

With the assumptions set out above, the graph below shows expected change in Southwark's carbon emissions.

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### BAU Southwark Emissions CO<sub>2</sub>e

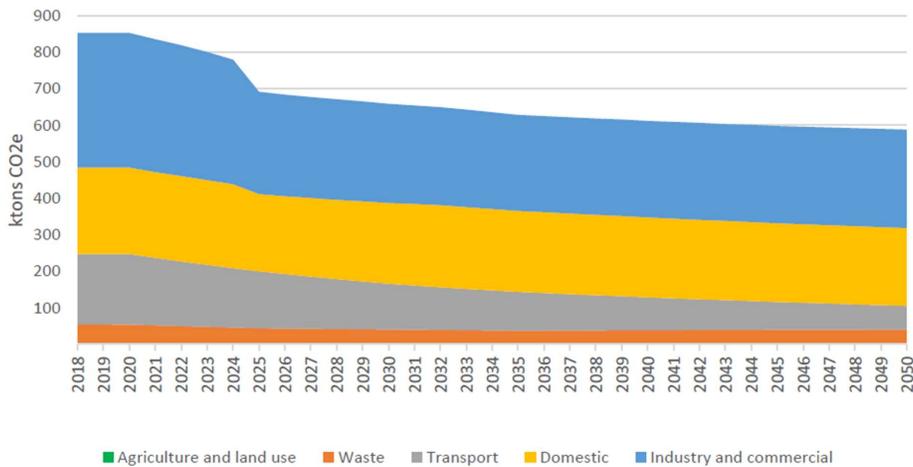


Figure 3: Summary Carbon emissions for the London Borough of Southwark 2020-2050 (tCO<sub>2</sub>e), Business as usual

As is shown in figure 3 above:

- Agriculture and land use contribute only a small quantity of emissions to the borough (negligible, to the point of not identifiable on the graph at this scale)
- Waste is the next smallest fraction of emissions
- Transport accounts for approximately 25% of emissions, and is forecast to fall in the future
- Domestic emissions account for approximately 25% of emissions and is forecast to remain relatively unchanged in the future
- Industry and commercial are the largest component of emissions, at approximately 50% and are also forecast to remain relatively unchanged in the future
- Overall total emissions are forecast to reduce by 20-30% by 2050

This baseline data suggests that without further action, including policy intervention at all levels of Government, it is unlikely that Southwark will achieve the emissions reductions required by 2030.

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Emissions associated with the built environment account for approximately 75% of estimated emissions for the London Borough of Southwark and are forecast to remain relatively unchanged into the future. As the majority these are the current focus for energy policy. They may be further broken down into more detail.

A further breakdown of emissions to review those from building stock is presented in figure 4 with the same business as usual assumptions. As may be seen, approximately half of emissions arise from domestic gas consumption for space heating and hot water in domestic and non-domestic properties. This demonstrates that gas consumption is one of the largest contributions to CO<sub>2</sub> in Southwark with this forecast to remain relatively static under a business as usual scenario.

Figure 5 shows Nitrous Oxide emissions forecast for building stock under business as usual. Nitrous oxide is a regulated greenhouse gas as well as a contributor to poor air quality. Again, it may be seen that domestic and non-domestic gas combustion for space heating and domestic hot water accounts for 50% of emissions. These are direct local emission within the borough, remaining emissions associated with electricity may not arise immediately within the borough, but are generated at a national level at power stations across the UK

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### BAU Build Stock Emissions CO2e

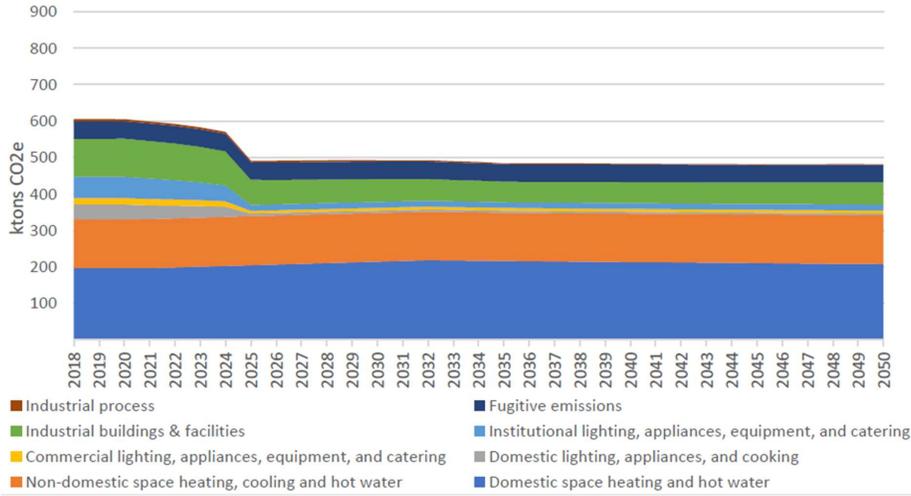


Figure 4: Summary carbon emissions for building stock the London Borough of Southwark 2020-2050 (tCO2e), business as usual

### BAU Build Stock Emissions N2O

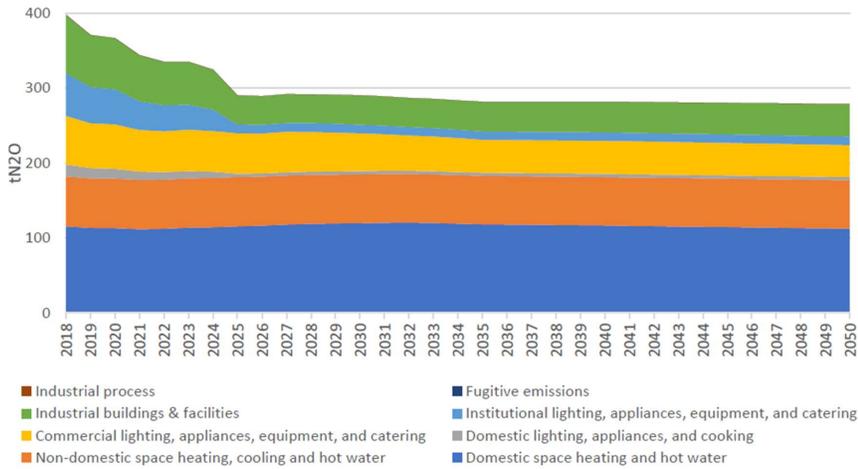


Figure 5: Summary N2O emissions for Building Stock the London Borough of Southwark 2020-2050 (tN2O), Business As Usual

## Ambition

To deliver the carbon reduction necessary to be carbon neutral by 2030, changes are needed in various aspects of our lives, our borough and from national government. This section sets out the five main themes where we will focus our work to tackle climate change. We believe that these are the most important areas for us to focus on in Southwark.

Not all of the ideas in this section will have equal impact or are equally possible to deliver, but instead present a portfolio of actions which if taken together would drastically reduce our carbon emissions. While this is a set of ideas, there are other ideas too and work that we could do that has not been thought about. As we move from developing a strategy to delivering an action plan, these ideas will all need to be assessed against how achievable they are, how we resource them and what impact they will have on overall carbon emissions. Importantly, will delivering them increase or diminish our ambition for a just transition.

We also recognise that there is inequality within the borough and the country. The actions, particularly those for individuals, will be much easier for some than others. We want everyone to play their part and want to have the opportunity to reduce their emissions. As we move from the strategy into the action planning phase, we will ensure that as much as possible our ambitions can be realised by everyone in the borough and that we empower residents to enable everyone to play their part.

In developing an action plan we must ensure that we comply with current legislation, have a framework to set robust targets, identify key actions and have the resources we need to achieve them.

These five areas of action are:

- **Buildings, construction and regeneration**

In Southwark we're proud of the fact that we are the largest Landlord in London with over 52,500 properties and 14,500 leaseholders with a further 17,000 homes owned by housing associations. 42% of our housing is social housing. The council also has control over 350 buildings including offices, schools and depots. We also have approximately 15,000 businesses and a truly diverse population that comes from being in central London. We've been growing and regenerating for a number of years and this bring challenges as well as huge opportunity. We want to continue to grow, but find a way to create a green economy that delivers co-benefits of economic growth and carbon reduction.

- **Transport and travel**

Improving our streets to help with how we move around the borough of Southwark, encouraging sustainable travel and improving the environment is a key to the success of reducing the impact of climate change.

**Commented [77]:** We now need to understand that perpetual economic growth is both unsustainable and undesirable in a world of finite resources, and examine ways of promoting a green, equitable and sustainable economy which benefits the whole of society, not just the wealthy few.

**Commented [78]:** enabling

**Commented [79]:** enabling sustainable travel and movement of freight...

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- **Biodiversity, trees and green spaces**

Southwark’s award-winning parks and open spaces and built environment provide homes for a range of common and rare wildlife, including birds, bats, invertebrates and plants. We value our parks and trees as a vital component of the borough’s landscape. We have 80,000 trees that bring joy to people and help clean our air.

- **Consumption**

What our residents use, eat, and wear, and how these things are made and transported - is a large and sometimes hidden driver of carbon emissions. Southwark’s place in central London and demographics mean in consumptions levels are high on average. As well as what we consume, we need to think about how we dispose of the things we use. Southwark has the highest recycling rate in inner London at 35% of waste recycled. There is however still a lot to more we can all do, with 70% of what we throw out as rubbish being recyclable. We want to ensure we reduce what we buy, reuse as much as possible and recycle, including food and garden waste.

- **Energy**

Generating energy from renewable sources can help reduce our dependency on non-renewable sources like fossil fuels. Southwark has been a local government leader in this field for many years, and is determined to push forward the transition to 100% renewable energy sources by 2030. We have two ways we want to achieve this, leading by example and reducing our own energy use, and working with others to convince residents and businesses within Southwark of the urgent need to reduce carbon emissions.

For each theme, this section will explore what needs to happen to become carbon neutral, and the measures that need to be taken. It will consider what our approach should be to each as well as what are the ideas that need to be developed in order to take action.

We are now embarking on a period of public engagement to review whether these are the right areas of work, or whether additional areas are needed. Following this, we will access what needs to be done to deliver change. This will consider the scale of the work required and include:

- Small changes to current policies – these ideas include policies we already have in place but which need some changes to make them more efficient or deliver differently. It is not a significant departure from the council’s existing work, but improves what we already do.
- New policies with significant change – these ideas include pursuing a new approach and changing what and how we do things. For this section, we will know what we need to do, and will have the powers and ability to do them, but we will need a significant change in approach to deliver them.

**Commented [80]:** Can we have examples of ways in which Southwark has led the field in promoting the move towards renewables?

**Commented [81]:** to convince residents and businesses within Southwark of the urgent need to reduce carbon emissions

**Commented [82]:** Paula: I would like to see energy efficiency mentioned upfront in this section. Making existing council properties extremely energy efficient would be a straightforward way in which the Council could take action right away (the methods to do it are well-known), it would create new jobs and develop skills, and it would be an expression of the 'just transition' to a zero carbon future, where those who face the greatest threats get the early gains.

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- Major structural change – these ideas are things that need to happen to achieve carbon neutrality, but there are major barriers (for example financial, political or legislative). Ideas in this section may require new powers for councils, major financial changes or other innovation. These ideas may include some that we consider need to be delivered, but we do not know, at this stage, how practically they can be delivered. The challenge of the action plan will be to develop strategies to turn these ideas into deliverable policy.

**Commented [83]:** Can we colour code all ideas below into these categories so we can assess how much structural change is happening/how ambitious we're being?

## Construction, building and regeneration

Buildings, how we build them and how we use them are a significant source of carbon emissions and air pollution in Southwark. How we plan construction, what resources we use to build new buildings and how we live in our homes, workplaces and public spaces all play a part in changing our environment. The demand for buildings is growing, new affordable homes are desperately needed to address the housing crisis, and the spaces that we use to work are all part of the infrastructure London needs to thrive. Our climate change response must consider how we ensure we have the buildings that we need, that work for us, but also work for the planet.

To tackle climate change we must adapt the way we construct and regenerate buildings. Crucial to this is creating and maintaining truly sustainable homes. This means retrofitting our existing properties to be more carbon efficient and when developing new homes using sustainable materials whilst limiting carbon production during construction. Creating carbon neutral buildings of all kinds will require a significant shift in approach, from the initial planning stage all the way through to how buildings are used.

The environmental impacts of building and construction can be seen across the globe. It is estimated that buildings and construction are responsible for 39% of all carbon emissions globally. Half a million people die every year around the world due to outdoor air pollution caused by energy used in building and in the UK, buildings are responsible for about 40% of the total carbon footprint. Construction is a significant element of this and the materials used play an important role in overall emissions. Starkly, the manufacturing of cement is responsible for eight per cent of all overall global CO2 emissions.

In London, buildings account for over 70% of the capital's overall emissions, with public buildings accounting for approximately 10% of its total carbon footprint. Schemes such as London's RE:FIT programme aim to reduce carbon emissions from London's public buildings by helping public bodies make energy efficient improvements to their buildings. This scheme and others are important because 80% of the public buildings in London will still be in use in 2050.

In Southwark, 42% of homes are social housing. Southwark Council is proud to be the biggest landlord in London with over 52,500 rental properties and 14,500 leaseholders. Here as across London, demand for residential and commercial space is high and new development is ongoing across the borough. However, construction and regeneration bring challenges as well as opportunities. The process of building in the borough has environmental impacts, and once built, new homes and offices also have an impact on the borough's carbon emissions through their energy use.

### A Carbon Neutral Southwark

A carbon neutral Southwark ensures that all our buildings are as efficient in their use, design and construction as possible. It is a borough where environmental impacts are at the heart of

**Commented [84]:** New homes are not the only solution to the housing crisis. New council homes could be sourced by taking ownership of unused or underused private properties.

**Commented [85]:** Never demolishing and replacing structurally sound buildings; instead we should refurbish existing housing stock as well as looking to place compulsory purchase orders on thousands of properties both new and old that have lain empty for more than a year, with the aim of using them to provide sorely needed social rent homes.

**Commented [86]:** Huge number of carbon intensive building projects including elephant and castle, old Kent road etc have already been approved which will extend over the next decade or more. We need a moratorium on all new developments now and a reassessment of the projects already planned otherwise any shift to stricter carbon limits will not come into force in time to reduce carbon in the timescale required to avert catastrophic warming. This is an emergency we can't keep pushing off action into far future.

**Commented [87]:** Paula: It would be good to see a stated ambition for the Council to be a leader in retrofitting social housing - it has the potential and capacity to do that, which would set an example for private landlords to follow.

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any planning scheme large or small and existing green spaces are protected. Use of building techniques such as green roofs, solar panelling, passive cooling and heat pumps are required from the outset and implemented as a priority across the borough.

A carbon neutral Southwark finds the best way to reduce carbon in its buildings. Reusing and retrofitting of existing buildings when this is the most efficient way to reduce carbon, and using low carbon building practices when constructing new ones. In partnership with local residents, buildings of historic and cultural importance are protected and maintained whilst meeting carbon emission standards. Where construction is used, the most carbon efficient materials are required and developers are held to stringent and public environmental regulations.

Our residents in the borough experience the impact of building emissions most directly, particularly those related to housing. They are well placed to shape the future of building and construction within the borough. A carbon neutral Southwark requires all of us to change the way we power and heat our homes and find new ways to limit the energy the buildings we use produce.

Our objectives are:

- Planning regulations that put carbon neutrality at the heart of development
- Embedded building techniques such as green roofs and solar panelling
- Encouraging the repurposing of existing buildings where practical
- Using and creating buildings that protect and enhance our green spaces
- Buildings which minimise carbon emissions in their use

**Delivering our objectives**

To achieve a carbon neutral Southwark there are a range of initiatives, policies and actions we can take as individuals, as a borough and a city, and which we need national government action to take forward. In this area more than any, we need government action and investment to enable the homes that Londoners need while reducing carbon emissions and building a sustainable city for the future.

Individual Actions

This strategy supports promoting individual actions that people can take to make buildings as efficient as possible. This includes supporting individual actions, as well as campaigns and organisations that promote change. We support encouraging education so that individuals can make positive choices and better understand what actions can be taken to limit the impacts of our buildings. Individual actions that we will promote include:

- Installing energy efficient lightbulbs in your home
- Limit use of central heating use wherever possible

**Commented [88]:** batteries. Geothermal as the first action in a building site. Using the Underground for captured heat for the buildings above. Green roofs and vertical farms. What you have written here throughout is already past the sell-by date. There nothing radical nothing new nothing that will win win win economy equal opportunity global warming. And you are still consulting. Wow

**Commented [89]:** Paula: Using a mitigation hierarchy, which requires developers to always consider retrofitting before any other options are considered. Without this, there is no incentive for developers to retrofit.

**Commented [90]:** Paula: See above: this needs to be greatly strengthened, with retrofitting being the first option which a developer must consider. Without this we will continue to see resource- and carbon-intensive developments in Southwark.

**Commented [91]:** How will these be promoted?

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- Making energy efficient improvements to your own home like loft insulation and triple-glazing
- Utilising any green space with techniques such as rewilding
- Using sustainable building resources for works such as extensions or loft conversions
- Engaging with your work place facilities teams to implement a carbon neutral working environment
- Selecting ethical low carbon architects and builders where possible
- Continue to lobby developers to embed low carbon construction and buildings

Borough and Regional Actions

This strategy promotes actions to ensure that decisions are made at both Southwark and London level to develop and maintain buildings in a way that limits carbon output and air pollution. The New Southwark Plan sets out the council's approach to planning and building in the borough. This strategy sets out actions that could take place at the borough level to reduce our carbon impact. However, to be implementable, changes would be required to the New Southwark Plan to do this. This strategy sets out ideas that should be considered to make policy amendments.

Whenever possible, repurposing, renovating and refitting existing buildings in order to keep carbon emissions to a minimum should always be preferred over demolishing and rebuilding.

- *When new build/demolition is the only remaining option,* Ensure that planning applications make greater use of recycled construction materials, green roofs, solar panelling, passive cooling and heat pumps from the outset
- Enforce the inclusion of emissions and embodied carbon from construction in net zero targets on developments. Alongside this, introduce a cap on emissions produced throughout the construction process and building lifecycle
- Bring forward low waste, low impact council home development
- Encourage the repurposing of existing buildings when practical
- Make policy amendments to the New Southwark Plan to ensure it fully reflects the impact of the climate emergency, including requirements for whole life cycle carbon assessments
- Ensure that all estates have a Carbon Management Plans, developed with resident involvement.
- When gas heating systems need to be replaced, replace with more sustainable alternatives whenever possible
- Enforce minimum energy efficiency standards in the private rented sector through targeted licensing
- Explore the creation of green roofs on council buildings
- Provide detailed information and guidance to residents on how to lessen carbon emissions from homes, where to receive financial support for these changes and which builders and developers use sustainable techniques
- Move towards all new council homes being built to as close to Passivhaus standard as possible through building regulations and planning conditions

Commented [92]: Bit confused by this - isn't this the council's job?

Commented [93]: We know that developers will never shift practices without regulations and compulsion. Competitive tendering is driven by price. Unless every developer has to abide by the same rules then 'green' contractors will always be undercut by those who take the cheap option. Lobbying is not a viable strategy. The council must set and enforce standards that make it economically unviable NOT to make environmentally sustainable decisions such as refurbishing rather than building new.

Commented [94]: Can this not be incorporated into the planning process? What incentives are there for developers to 'green' of their own accord without expecting concessions in other areas eg social housing etc?

Commented [95]: How would this be achieved? I'm confused as to what these ideas are and how they fit with other plans the Council has. How are these actionable, if you accept they need to happen?

Commented [96]: Whenever possible, repurposing, renovating and refitting existing buildings in order to (... [1])

Commented [97]: Added

Commented [98]: I know these are early ideas, but this strategy has to start having some costings, targets (... [2])

Commented [99]: Would also need to ensure that approved building materials reflect the emergency (... [3])

Commented [100]: Or net negative - all development applications should provide a whole life cycle carbon (... [4])

Commented [101]: It is very important that this cap cannot be circumvented by offsetting payments

Commented [102]: What does 'bring forward' mean? This should be the standard

Commented [103]: Where directly running on renewable energy is not possible, the Council should promote (... [5])

Commented [104]: This seems quite weak in ambition. If we want to treat the emergency as an emergency, (... [6])

Commented [105]: Repurposing should go at the top of the list, to emphasise its importance. 'Encourage' if (... [7])

Commented [106]: Can you give some examples of where you think this would be achievable? This sh (... [8])

Commented [107]: This seems imperative, not a suggestion. How will this be done?

Commented [108]: Council must proactively ensure there are alternatives by leading a renewable energy (... [9])

Commented [109]: What could this look like in practice?

Commented [110]: Not just residents - all sites under the Council's operation (for example, schools) and pr (... [10])

Commented [111]: Again, what incentive is there for private landlords to implement these?

Commented [112]: Within the next year make it mandatory through building regulations and planr (... [11])

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- Identify ways to retrofit all existing housing stock to as close to carbon neutral as possible
- Allow residents to sell energy back to the grid through embedding batteries in council owned properties, and explore its use in larger commercial and public buildings.
- Work with local partners to retrofit homes to make them more green
- Continue to support higher than national building standards
- Explore the possibility of district heating from the London Underground network, as has been done elsewhere in London
- 

National Action

Many actions that can be taken at an individual, borough and city level require national government action. This can include financial support and top level policy changes such as increase regulation. Actions at this level include:

- Increase investment in the research and development of innovative housing
- Fund and promote research into sustainable alternatives to construction materials such as concrete
- Increase grants and funding (such as Solar Feed-in Tariffs and Green Home Finance Innovation Fund) to incentivise people retrofitting homes with improvements such as insulation, triple glazing, energy efficient boilers
- Use data capture and building information modelling in national regulations to shift away from targeting delivery of buildings and towards performance of buildings as an indicator of success
- Re-implement the Fabric Energy Efficiency Standard to part L of national building regulations
- Further regulate the home building sector and increase incentives for companies to take carbon minimal approaches
- Review building regulations to enable better use of sustainable building products.
- A reforestation programme including where feasible in greenbelt land

**Commented [113]:** Quite weak in language. "Encourage, support, ensure" etc.

Also, this part quite vague. Why not just make it happen on all viable council owned blocks without or without battery (could still be viable without battery storage).

**Commented [114]:** What consultation is taking place around community energy initiatives?

**Commented [115]:** Yes, expanding the development of energy storage is key

**Commented [116]:** Need to see this as something done on a major scale. It also ties in nicely with job creation, just transition and green new deal. Why with local partners? Could this be tied to apprenticeship schemes?

**Commented [117]:** What scale is this possible on?

**Commented [118]:** How much higher? What does this mean in practice?

**Commented [119]:** From XR's draft input strategy: People on existing heat networks in the borough experience intolerable levels of outages. It must be a priority to get them in working order. Meanwhile the promise of full compensation must be kept: no one should be out of pocket for using alternative means of space or water heating when the system is down.

**Commented [120]:** increased

**Commented [121]:** How will Southwark Council work to ensure these happen?

**Commented [122]:** Southwark could spearhead more radical immediate steps to get rid of gas boilers entirely by taking a borough wide initiative to introduce air source heat pumps etc where presumably there could be savings on cost to do this switch on a large scale rather than by individual households switching at different times.

**Commented [123]:** Still not sure why national actions (that SC presumably won't contribute much to) are in this strategy doc?

## **Energy**

Whenever we use our homes and other buildings we use energy, much of this comes from burning fossil fuels which produces carbon. This energy is often utilised through heating, lighting and other appliances. The way we produce, store and eventually use this energy has a significant impact on climate change.

Over the last 200 years the majority of energy has come from non-renewable fossil fuels such as oil and coal. Fossil fuels generate greenhouse gases which contribute to climate change. Governments across the world are seeking more renewable, sustainable ways of generating energy. Examples of renewable sources of energy are wind, water and solar energy.

In the home, appliances have become far more energy efficient over time. For example, the average number of devices on at any one time in a typical family house has risen from 4 to 13 over the past thirty years, but the amount of energy we use to operate them has stayed the same.

Renewable energy is becoming a more viable and common source of energy that has less negative impact on the climate. In 2018, it was around 26% of global electricity generation globally. In the third quarter of 2019, renewable energy sources generated more electricity in the UK than fossil fuels for the first time. Renewable energy sources made up 40% of overall electricity generated and coal-fired power made up less than 1% of all electricity generated. Wind power is the largest source of renewable energy in the UK and it made up 20% of the UK's electricity in 2019.

Alongside the national grid, there are local energy solutions. Local generation whether by individuals with solar panels, or on a larger scale such as the SELCHP plant which produces heating and hot water that supplies approximately 2,600 properties locally, all has an impact and needs to be considered as we plan for our energy needs.

As well as considering the type of energy we use, we need to reduce our energy demand. We can all make choices in our homes and businesses that will reduce our energy demand – whatever the source of the energy.

How much energy we use and the source of that energy has a large impact on carbon emissions. The steps that we take to reduce our energy need and ensuring that the energy we use is from clean sources will all help Southwark to become carbon neutral.

### **A Carbon Neutral Southwark**

A carbon neutral Southwark uses sustainable sources of energy to heat, light and use its buildings. It also encourages businesses, public services and residents to conserve energy where possible and supports the provision of carbon friendly energy supplies. A carbon neutral Southwark tackles fuel poverty through sustainable measures that are accessible to those who cannot afford to heat their homes.

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Structural energy supplies like heat networks are consistently revisited and developed to hit stringent sustainability guidelines.

Our objectives are:

- To move towards zero carbon, green energy for all businesses, residents and services in the borough.
- To increase local sustainable energy production
- To tackle fuel poverty by promoting and providing accessible energy alternatives
- To reduce energy demand and cut energy waste

### Delivering our objectives

To achieve a carbon neutral Southwark there are a range of initiatives, policies and actions we can take as individuals, as a borough and a city, and which we need national government action to take forward.

#### Individual Actions

This strategy supports promoting individual actions that people can take to limit their personal energy use and to find greener alternatives. This includes supporting individual actions, as well as campaigns and organisations that promote change. We support encouraging education so that individuals can make positive choices and better understand what actions can be taken. Individual actions that we will promote include:

- Monitor your energy use with a smart monitor, and/or install a smart thermostat which only heats the rooms you are using
- Switch to a green energy supplier that uses more sustainable methods of gas and electricity supply
- Install LED lightbulbs in your home and shared spaces
- Use tap attachments to limit water waste
- Unplug idle devices like televisions, microwaves and printers
- Insulate your home including double and triple glazing
- Replace fire places and wood burners for a heat pump
- Reduce water usage such as taking showers instead of baths when you can, not running taps unnecessarily and using a watering can instead of a hosepipe.
- Install solar panels in your home.

#### Borough and Regional Actions

This strategy promotes actions to ensure that decisions are made at both Southwark and London level to help individuals to reduce their energy consumption. Actions at this level include:

**Commented [124]:** I would place this last in structure. Individual sections important, helps with critical mass etc, but needs a systemic prioritisation first and foremost in terms of importance.

**Commented [125]:** All largely irrelevant in the face of companies' energy usage - need a section focused on them

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- Ensure energy companies are provided with information on 'fuel poor' homes so they can insulate them as part of their legal ECO obligations
- Retrofit 100% LED lighting in council owned facilities, including sports grounds and libraries
- Investigate the creation of a community municipal investment bond for renewable energy
- Make planning conditions for solar and wind energy adaptations to new developments as easy as possible
- Promote use of LondonPower in council housing, providing renewable sourcing can be confirmed and meets stringent standards
- Partner with a renewable energy supplier for more efficient and economic energy provision
- Conduct a viability study of the borough and install renewable energy generation projects where possible
- Aim to retrofit all council buildings to a higher energy standard including its housing stock
- Develop a programme to fit solar or green roofs across rooftops in the borough.
- All council buildings should aim to use 100% renewable energy
- Actively engage with public building owners to move to renewable energy
- Use branding or signage to emphasise and support businesses with renewable energy contracts
- Directly invest in renewable energy capacity for national grid through pension funds

Commented [126]: Should specify energy companies we're partnering with here. They have a massive role

Commented [127]: More commitments to financial support please! This is all 'encourage' and 'investigate'. What's it going to cost?

Commented [128]: Can you be more specific here? What does this look like?

Commented [129]: On what scale?

Commented [130]: This action needs to be scaled up so as to be the supplier for all intents and purposes. Council need to further fund the renewable future we need to see, and will see major long term savings over 30 life-span if they aim for ambitious PPA agreements like Warrington Council.  
<https://theenergyst.com/warrington-council-signs-massive-solar-plus-battery-storage-deal/>

Commented [131]: Vague - what does this mean?

Commented [132]: How about actual financial support or subsidies?

National Action

Many actions that can be taken at an individual, borough and city level require national government action. This can include financial support and top level policy changes such as increase regulation. Actions at this level include:

- Decarbonise the national grid
- End the installation of new gas boilers and invest in retrofitting existing gas boilers to sustainable alternatives.
- Legislate to ensure that energy providers move towards sustainable models as soon as possible
- Create more jobs in renewables, especially in renewable storage, demand management and improved energy efficiency
- Increase the national target for energy coming from renewable sources
- Increase funding for local authority grants set up to specifically tackle fuel poverty through sustainable measures
- Increase funding to help individuals green their homes.
- Encourage onshore wind power and move away from fracking
- The Forestry Commission, Highways Agency, and other statutory bodies to maximise the amount of carbon that is sequestered and fixed in permanently stable forms.

Commented [133]: Still not sure why national actions are in here when this is Southwark's strategy. What about local business?

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**Transport and Travel**

Transport is a major source of carbon emissions and contributes to poor air quality. The way people move around and through the borough therefore has a big impact on Southwark's emissions and on the air we breathe.

The biggest impact we can have on the environment in our travel and transport use is walking and cycling more. Public transport uses road space and energy more efficiently than private vehicles, so the more that people are able to use the train, tube and bus network instead of their cars, and the cleaner we can make these forms of transport, the greater the reduction in carbon emissions, congestion and air pollution.

Commented [134]: walking and cycling more and reducing the numbers of private driven journeys.

Worldwide, transport emissions make up over 24% of global CO2 emissions. In the UK, this represents around a fifth of our total emissions. Road traffic in the U.K. increased by 29% from 1990 to 2018 and emissions have gone up by around 6% over the same period. Currently less than 1% of vehicles in the UK are ultra-low emission vehicles.

The Government is bringing forward a ban on selling new petrol, diesel or hybrid cars to 2035. Only electric or hydrogen cars will be available from that date. At present there are only 15,000 charging devices in the whole country, a third of which are in London but there are over 32 million passenger cars in the UK.

In Southwark our streets support over a quarter of a million motor vehicle trips every day. 88% of traffic on Southwark streets is cars and taxis; the remaining 12% is buses, vans and larger vehicles. Four out of ten households in Southwark have access to a car although only 22% of these use it as their main mode of transport. The council's movement plan is promoting less polluting vehicles and a reduction in the number of cars owned in the borough. Southwark aims to reduce trips made by car/motorbike to 13% by 2041.

Commented [135]: Why 2041? Surely this needs revisiting in light of the 2030 net zero target?

To become carbon neutral, we all need to work together to increase, promote and maintain sustainable travel as a way of moving around the borough. This requires a radical shift in approach to how we work and live.

For residents, this means embracing walking and cycling as part of our daily lives and limiting the use of carbon emitting vehicles as much as possible (such as cars, buses and other road vehicles).

Across the borough, this means authorities (such as the council, TFL and the GLA) ensuring that sustainable travel is as accessible as possible to all and that carbon reliant travel is de-incentivised. It also means employers decarbonising their fleet and support sustainable commuting.

Commented [136]: Functionally, does this mean the Council will investigate subsidies for under-18s using TFL?

Nationally, this means a wide scale shift away from carbon heavy transport schemes such as roads and air travel and funding being channelled into sustainable alternatives.

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It also means that we need to rethink why we travel. Are all the journeys that we make necessary, and is there a way to reduce or combine journeys. Are we using services that rely on transport such as home deliveries using polluting vans? Finally, how do we travel long distances? While flying has opened up the world and made different countries and cultures accessible, what can we do to reduce the number of flights that are taken whether through business, or privately?

### A carbon neutral Southwark

In a carbon neutral Southwark we will have drastically increased the proportion of journeys that are carbon neutral such as walking or cycling. More people will be choosing clean public transport over private vehicles, and where motorised vehicles are necessary we will be using clean and sustainable vehicles. People will make different choices about long distance travel by reducing their use of flights or offsetting when a flight is necessary. People will expect that companies who service them, their lives and their businesses do the same and use sustainable carbon neutral travel.

Our objectives:

- Make cycling and walking easier
- Discourage the ownership and use of polluting private cars
- Improve the accessibility and sustainability of public transport
- Reduce unnecessary journeys
- People cut down on unnecessary flying, and offset their carbon when they do fly

**Commented [137]:** See earlier comments - Enabling walking and cycling journeys and Reducing the ownership and use of polluting private cars

### Delivering our objectives

To achieve a carbon neutral Southwark there are a range of initiatives, policies and actions we can take as individuals, as a borough and a city, and which we need national government action to take forward. The council's movement plan already promotes sustainable travel. In light of the declaration of the climate emergency, the council should review this.

### Individual Actions

This strategy supports promoting individual actions that people can take to reduce their carbon emissions. This includes supporting campaigns and organisations that promote individual action in this area, and encouraging education of individuals to help them to make positive choices. Individual actions that we will promote include:

- Choosing to walk and cycle to work, on the school run or to run local errands.
- Making changes to your driving. If you do buy a car, drive to limit your emissions (such as not idling) and choose a car with the lowest possible emissions.
- Offset your carbon when you have no alternative.
- Shop locally, on foot, bike or public transport.
- Encourage your workplace to support a cycle to work scheme and changing facilities

**Commented [138]:** This section should be lower. The most important part of this document is what the council can do so that section should lead.

**Commented [139R138]:** Strongly agree...this section should not begin with individual actions.

**Commented [140R138]:** Applicable across the board in this document

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- Reduce the use of long haul flights and offset carbon when they are necessary, try to use alternatives such as train rather than short haul flights.

Borough and Regional Actions

This strategy promotes action at a borough and city level to make Southwark and London a greener place to travel. Actions at this level include:

- Developing a network of accessible, safe cycle ways and walking paths
- Create low traffic neighbourhoods covering the entire borough
- Creating traffic free zones and pedestrianised areas
- Building more electric charging points
- Providing accessible workplaces for cycling and walking
- Encouraging employers to increase flexible home working to reduce the need to commute
- Increase the use of hubs for home delivery of goods to reduce delivery traffic
- Introducing a borough wide controlled parking zone with higher charges for more polluting vehicles and second vehicles.
- TFL to require all taxis to be EV's before 2030
- Greater use of cargo bike schemes by regional institutions.
- TFL and the council to make the temporary street adaptations (including pavement widening) following COVID 19 permanent
- Develop a small business grant for those who use carbon neutral 'last mile' distribution
- Implement a diesel surcharge of 50%
- Create 'diesel free zones' banning privately owned diesel vehicles from using key routes during core hours
- Ban privately owned cars from using key routes during core hours
- Consolidate delivery sites to reduce daily journeys by 50%
- Incentivise companies to electrify their vehicle fleets
- Introduce a car parking levy on work placed car parking
- Decarbonise the council's fleet
- Move to new developments and regenerated estates to being car free
- Continue reviewing tube stations to increase accessibility
- Prioritise the air quality improvement actions that also have a carbon reduction benefit.

National Action

Some action needs to be taken at a national level as individuals, councils and other local bodies do not have the powers or resources to deliver. In this area, these include:

- Making it as accessible as possible to buy an electric vehicle
- Providing greater funding to local bodies for sustainable transport
- Moving investment in roads to sustainable transport
- Not expanding airports in London

**Commented [141]:** Add cycle parking, particularly ensuring there is adequate secure cycle parking on all estates

**Commented [142R141]:** Add targets for school streets and other ways to reduce pollution at schools and ways to encourage students to take active travel to school

**Commented [143R141]:** TfL to implement smart user road charging

**Commented [144R141]:** Smart user road charging is a key policy to support.

**Commented [145]:** Southwark developed a very good cycling strategy in 2015 that lays out a network. There should be a goal of delivering this network.

**Commented [146]:** ...with delivery based on need and priorities as identified in the TfL Strategic Neighbourhoods Analysis

**Commented [147]:** These would be connected by a limited number of through roads

**Formatted:** Font: Font color: Auto

**Commented [148]:** These must not be on the pavement or in spaces where cycleways could go

**Commented [149]:** what does this mean?

**Commented [150]:** This should be preceded by:  
Develop a sustainable freight framework across the borough (with a focus on regeneration areas including the use of hubs...etc

**Commented [151]:** Change this to: Introduce small-area Controlled Parking Zones across the whole borough with higher charges etc...

Small area CPZs are important as otherwise people are enabled to drive WITHIN the borough more (as in K&C).

**Commented [152R151]:** It's also important to consider how this is going to affect private hire drivers (uber etc) given most of them are migrant/BAME and already exploited as "self-employed" drivers - they shouldn't be bearing the cost for this, given the tiny profit margins and already precarious pay levels.

**Commented [153]:** How will this be done?

**Commented [154]:** Does this include consolidating deliveries for businesses? What about restrictions on personal deliveries to businesses to reduce road traffic?

**Commented [155]:** Make stronger. "New developments and regenerated estates will be car free."

**Commented [156]:** There should also be a minimum standard of secure cycle parking

**Commented [157]:** TfL to extend the ULEZ to all 33 London boroughs.

**Commented [158]:** Above private vehicle use is discouraged, this should include electric vehicles.

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- End the sale of diesel and petrol cars and vans by 2030
- Bring national aviation emission target forward to 2030
- Reinstall national rail electrification schemes
- Investing in research for new carbon neutral transport models
- Increase the maximum threshold for the plug in grant to £10,000
- Deliver a zero emissions bus fleet by 2025
- Commit research funding to sustainable long haul travel
- Regulate private delivery companies
- Embed cycling proficiency testing into the curriculum

### Biodiversity, Trees and Green Spaces

Southwark’s award-winning parks, open spaces and built environment provide homes for a range of common and rare wildlife, including birds, bats, invertebrates and plants. Our parks are a vital component of the borough’s landscape, and our 80,000 trees not only provide wildlife habitats, they also help to clean our air. Maintaining and improving our green spaces is therefore beneficial to our health and wellbeing, as well as to wildlife.

To tackle climate change we must not only reduce our carbon production, but also support work which promotes biodiversity, trees and green spaces. Nature and green spaces provide valuable solutions towards net zero carbon as they absorb carbon dioxide from the atmosphere. They also enhance our local resilience against the impacts of climate change.

Climate change is having a negative impact on nature and ecosystems throughout the world. As climate change increases temperatures and alters weather patterns, the number and range of species are in rapid decline – currently, one million species are currently threatened with extinction. Some scientists have said there is enough evidence to show we are in a mass extinction event, meaning a widespread loss of 75% of species over the period of two million years. The earth has experienced mass extinctions before, but this is the only time one has been caused by human behaviour.

In the UK, species continue to decline with 15% of species in the UK facing extinction. We are seeing other visible impacts on native wildlife and habitats with the introduction of invasive species, drawn to southern England by increasing temperatures. For example, the box leaf caterpillar’s larvae feed on box plants causing widespread, severe and repeated defoliation. In Southwark too the Horse Chestnut Leaf Miner Moth has caused significant damage to Horse Chestnut trees throughout the borough. This causes damage to trees, disrupting photosynthesis process needed to absorb carbon dioxide in the atmosphere. The damage also leaves our trees far more susceptible to other pests and diseases which in some cases means they need to be cut down.

Biodiversity is important everywhere, even in a densely built up inner city area like Southwark. Just like every tonne of carbon that is produced has an impact, so too does every tonne absorbed from the atmosphere. Even in our built up borough we have over 215 parks and open spaces, and of these 65 are designated as Sites of Importance for Nature Conservation, including 7 Local Nature Reserves. Southwark is also home to important populations of nationally and internationally scarce flora and fauna.

#### A Carbon Neutral Southwark

A carbon neutral Southwark promotes biodiversity and the natural environment. It is a borough with more trees, and where trees are lost, we increase the number to reflect the greater carbon absorption of mature trees. It is a borough that uses its land well and incorporates green aspects into the built environment such as green rooves.

**Commented [159]:** Paula: The need a commitment at the top of this section to protect existing greenspace and create new greenspace. Once greenspace is lost, we have less space for planting trees, mitigating flood risk, providing opportunities for walking and recreation, etc etc, all things that this Strategy is offering to do. Protecting existing greenspace and creating new space means not agreeing schemes like Green Dale, and not allowing dense development of the kind proposed for many sites in the OKR.

**Commented [160]:** Need to upscale this commitment and where can I find where this is set in stone? I can only find a promise to replace trees.

Need to upscale ambition in tree planting in the borough, could be a really effective way of ensuring reductions in car parking spaces in the borough, replacing a space for cars with a tree.

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A biodiverse Southwark is one where we protect and create ecosystems to help a range of species to flourish. Where we support green corridors for wildlife to move and where we look for opportunities to rewild parts of the borough such as grass verges.

Our residents, and particularly children in the borough know and understand about the impact of the natural world so they work to promote and enhance it. A biodiverse Southwark is one where we find opportunities to change how we use our land, with fewer cars, we can change our streetscapes so they are greener and more natural.

Our objectives are:

- Greener streets, with more planting and fewer cars, making our streets places for nature to flourish.
- Improved biodiversity with green corridors to help wildlife to move.
- Increasing tree coverage across the borough with more planting and loss of existing trees as a last resort.
- Residents in touch with nature, more “grow your own” and community gardening.
- Building and development that works alongside and enhancing our natural environment.

### Delivering our objectives

To achieve a carbon neutral Southwark there are a range of initiatives, policies and actions we can take as individuals, as a borough and a city, and which we need national government action to take forward.

### Individual Actions

This strategy supports promoting individual actions that people can take to increase biodiversity and greening of the borough. This includes supporting individual actions, as well as campaigns and organisations that change. We support encouraging education so that individuals can positive choices and better understand the natural world and its value to all our lives. Individual actions that we will promote include:

- Grow your own produce
- In gardens or on balconies, plant a diverse selection of wildflowers
- Install bat boxes, bird boxes and homes for insects
- Tree giveaways
- Using community gardens, and shared green spaces where possible
- Picking up litter and promoting litter picking in the community
- Become a ‘friend’ of your local park
- Use less chemicals and more habitat friendly cleaning products
- Record the nature around you to help biodiversity conservation efforts
- Campaign for green spaces locally and nationally

**Commented [161]:** 1/2 bins free large bins paid. Schools / children should litter pick their perimeters analyse the waste discuss why people litter what it means what it costs. Discuss fast food waste and economic cost. Why do country economies support waste and inefficiency by not adding charges in the manufacturing process for materials used. Plastics. This can all be taught at primary level. Without informed citizens there will never be change.

### Borough and Regional Actions

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This strategy promotes action at a borough and city level to make Southwark and London a greener place, closer to nature which is accessible to all. Actions at this level include:

- Increasing the number and quality of trees in the borough
- Felling trees only as a last resort when they are diseased, dying or dangerous.
- Closing more roads, creating green zones and greening our roads and high streets.
- Increase green corridors across the borough.
- Remove all use of pesticides and ban their use on private developments
- Create and support community rewilding and meadowing schemes
- Create 'biodiversity' grant, awarded to best local scheme bid
- Create 'green routes' online map, showing routes to schools and other local places with greatest biodiversity
- Provide bat and nesting bird protection tools to residents on estates
- Identify car parking space with the lowest usage that could be rewilded
- Double the trees on council owned land
- Provide biodiversity protection and maintenance training to residents for free
- Promote forest school's programmes

**Commented [162]:** There is a limit to street trees for a myriad of reasons. Trees live in communities just like all other living things. We have to build wild areas. Cemeteries? And yes, there are problems there with.

**Commented [163]:** Bearing in mind that diseased trees often recover if left alone. And if they don't, 'dead and dying trees are part of nature's recycling process, stimulating biodiversity' (Isabella Tree: 'Wilding')

**Commented [164]:** Immediately discontinue

**Commented [165]:** Paula: These initiatives need stable and ongoing funding, which encourages collaboration and capacity building between different areas, not competition for scarce resources. Replace the competitive 'biodiversity' grant with a collaborative climate change support scheme which provides advice, training and funding to community groups for this kind of initiative.

### National Action

- Amend planning regulations so that planning applications have to enhance biodiversity
- Encourage farmers to leave field edges wild and protect/improve habitats
- Put tougher regulations on supermarkets, forcing them to pay for the waste they create that affects biodiversity
- Take national action to remove invasive species from green spaces
- Create a national tree planting month
- Put biodiversity and nature conservation on the national curriculum
- Restore degraded environments across the UK

**Commented [166]:** But this would have to be done without resorting to the use of pesticides/herbicides

## **Consumption and Waste**

What we all eat and wear, and how these things are made and transported, is a large and sometimes hidden driver of carbon emissions. Southwark's place in central London and the shape and size of our population means that consumption levels are high. What we buy, how it is packaged and the processes that created it all have an impact on carbon.

Likewise, when we have finished with goods, what we do with them also has an impact on the environment. Do we reuse it, recycle it or just send it to landfill? We currently have the highest recycling rate in inner London, with 35% of our waste being recycled. There is, however, still a lot to more we can all do as 70% of what we currently throw out as rubbish could be recycled. We can help to reduce carbon emissions and reduce the waste we create if we buy less, reuse more and recycle more - including food and garden waste.

Food production also impacts our climate. Before our food reaches our plate, it is produced, processed, packaged, stored, transported, prepared and served. Each stage releases greenhouse gases into the atmosphere. In particular, farming releases large amounts of methane and nitrous oxide – two greenhouse gases.

Globally, food production is responsible for a quarter of all greenhouse gas emissions, contributing to global warming, according to a 2018 University of Oxford study. A third of the world's food is also lost before it ever reaches our plate. Waste and spoilage in harvesting, storage, transport and shops account for an estimated 1.3 billion tonnes of food a year. The estimate value of wasted food is £777bn each year.

In the UK, agriculture is responsible for approximately 9% of the UK's greenhouse gas emissions and just under half of the food consumed comes from the UK. Meat and dairy production in particular has a huge environmental impact. Some estimates show that without meat and dairy consumption, global farmland use could be reduced by more than 75% – an area equivalent to the US, China, European Union and Australia combined – and still feed the world. Loss of wild areas to agriculture is the leading cause of the current mass extinction of wildlife. While meat and dairy provide just a fifth of our calories and just over a third of protein it uses 83% of farmland and produces 60% of agriculture's greenhouse gas emissions.

Our consumption is not just about physical goods or food that we buy. The types of services we use have a carbon cost. Money that we invest through our pensions, or the banks we use is often invested in companies who are may be serious polluters. The choices we make about where we eat, what we buy, where we invest and what we consume all has an environmental impact.

### **A Carbon Neutral Southwark**

A carbon neutral Southwark is one where we have reduced what we consume, and when we have consumed thought about and acted to limit the impact of that waste. It is a borough

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where we strive for a more circular economy, keeping our resources in use as long as possible and recovering and regenerating what we can at the end of a products life.

A carbon neutral Southwark uses green delivery vehicles like cargo bikes for businesses and uses delivery hubs to minimise necessary journeys. It encourages sharing of resources within the local community through projects such as community fridges, community kitchens and tool libraries. Local supply chains and local business are put at the heart of trade in the borough.

A carbon neutral Southwark means that our relationship with food changes. Diet changes with less meat and a more plant based diet, with non-sustainable palm oil from our food and greater awareness of where our food is from to drive consumer behaviour changes. Allotments and other local food growing spaces are developed and help feed local people.

Our objectives are:

- For Southwark to have a more circular economy, that reduces consumption, and keeps resources in use for as long as possible.
- To drive behaviour change about what we consume and what we eat so that we are more sustainable consumers.
- To support local supply chains and local businesses to be more sustainable.
- To shift the approach of **large businesses** away from carbon heavy methods of delivery and production
- To encourage more plant based diets with more sustainable choices and less waste

Commented [167]: Like which? Should set out specific targets

### Delivering our objectives

To achieve a carbon neutral Southwark there are a range of initiatives, policies and actions we can take as individuals, as a borough and a city, and which we need national government action to take forward.

#### Individual Actions

This strategy supports promoting individual actions that people can take to limit their personal consumption. This includes supporting individual actions, as well as campaigns and organisations that promote change. We support encouraging education so that individuals can make positive choices and better understand what actions can be taken to limit consumption. Individual actions that we will promote include:

- Shop less and use second hand products where possible
- Remove single use plastic from your purchases by using sustainable businesses such as plastic free food shops and demand businesses reduce their plastic use
- Research and enact habits that do not require carbon heavy consumption such as outdoor exercise
- Shop local and use businesses that use local supply chains

Commented [168]: I think each of these should also have a 'Southwark business actions' - not only residents and government operating in the borough

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- Practise DIY on furniture and household items rather than buying new ones
- Follow the waste hierarchy of reduce, reuse and recycle.
- Compost food and garden waste.
- Eat a plant rich, low meat diet.

### Borough and Regional Actions

This strategy promotes actions to ensure that decisions are made at both Southwark and London level to help consumers choose eco-friendly options when buying and consuming goods. Actions at this level include:

- Increase support and promotion of markets using local supply chains and suppliers
- Run 'Meat Free Mondays' campaign with support of local organisations
- Reduce Council non-recyclable waste to zero by 2030
- Reduce food waste on Southwark estates through on-site composting
- Create a Green Levy on businesses that use a disproportionate amount of carbon in product development or in product use
- Promote and develop the skills and craft base within the borough
- Expand and protect existing community kitchens set up during the COVID-19 pandemic as sustainable and local food sources
- Become the first borough to only serve vegetarian food in primary schools by 2030
- Remove and ban single use plastic from all public buildings
- Impose sustainability requirements on takeaways and restaurants through licensing framework
- Identify land that can be used for food production encouraging residents to engage with how their food is produced. Establish orchards within parks and other suitable places across the borough and plant fruit trees in green spaces on council estates.
- Southwark is divesting its pension fund from fossil fuels, but should do the same with its wider investment portfolio and encourage other organisations to do the same.
- Review the council's procurement strategies and introduce criteria on carbon emissions in supply chains, and work with others to do the same.
- Work with the borough's supermarkets to shift them to net-zero in their supply chains and operations.
- Track 'food deserts' where areas do not have good access to fresh produce

**Commented [169]:** Establish orchards within parks and other suitable places across the borough and plant fruit trees in green spaces on council estates.

### National Action

Many actions that can be taken at an individual, borough and city level require national government action. This can include financial support and top level policy changes such as increase regulation. Actions at this level include:

- Develop a green industrial strategy that puts sustainability at the heart of economic growth.
- Develop a national partnership between businesses, researchers and the community to promote eco-smart consumption

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- Develop the national curriculum to emphasise the impact of consumption and alternatives
- Fund and map a national 'sharing economy' as part of the national budget
- Enforce improved labelling on all products to capture carbon use through its production
- Promote the circular economy in industry, making it as easy as possible to reuse goods through industry trade
- Promote vegan and vegetarian diets in national food plan
- Provide clearer, more accessible national guidance on which goods are recyclable
- Increase national recycling targets for 2035

## Developing and Delivering an Action Plan

This strategy sets out our ambition to be carbon neutral by 2030. It sets out the case for manmade climate change, and the impact that this will have on Southwark. We have outlined our approach and our principles to take this work forward and articulated our ambition across different areas of policy and ideas about policies which would help us to achieve carbon neutrality.

The action plan will set out the detail of what needs to be done to deliver the strategy. It will set out a timetable, how we will resource the work, changes in how the council works, ongoing engagement with our residents and how we will ensure effective oversight of the delivery.

**Commented [170]:** When will this be published? Has to be before community engagement so people have some idea what impact it will have on their lives

### Resourcing

This strategy sets out ideas about what needs to be done. It does not identify the resources necessary either within the council or externally. The action plan process will review the ideas in the strategy, as well as further ideas that come forward through the public engagement process and assess the cost and possible sources of money to deliver them.

The council should be open to all opportunities to increase investment into initiatives that promote climate neutrality. For example, it should explore ideas like municipal community investment bonds, introducing work place parking levies and partnering with the GLA and others to cost-share to reduce capital costs on financing innovative green solutions to challenges we face. The council will also review its carbon off-set fund to ensure it is used effectively to deliver reductions in carbon.

**Commented [171]:** Will this idea exploration be part of the action plan? When will decisions be taken on this?

The council has appointed a Climate Change Director and initially set aside £2m to ensure that there is money available to invest in climate reduction programmes. However, as a major priority for the council going forward, the council will need to increase human resource to properly lead this work for the council. This work is underway, but will need to be reviewed over the ten years of delivery to ensure that there is appropriate human resource to deliver the council's objectives.

**Commented [172]:** What does this look like mapped out? Assume it depends on fit with New Southwark Plan but an ideal org chart would be helpful

**Commented [173]:** Climate Change is not 300,000 people in a place called Southwark with £2 million from a purse that has nothing in it at all. As part of Europe maybe we had a starting point. The rhetoric through these 60 pages provokes tears of frustration

The coronavirus pandemic has had a severe impact on the council's finances. As this strategy is being developed it is not yet clear what the long lasting impact will be. It is clear that government will not fill the gap left by the pandemic and councils will need to make difficult decisions about their finances going forward. This will need to be considered as we develop the action plan. There will be a financial gap between what we want to deliver and what we are able to deliver. The council will be transparent about what this is and work with the community to find ways to fill this gap. Much of this will need to be from government. We will therefore lobby government for the resources necessary to deliver the solutions necessary for the climate emergency.

**Commented [174]:** This is slightly negated by the last sentence in this paragraph...

**Commented [175]:** What is the investment total required to transition Southwark to net-zero by 2050? How big is the gap?

**Commented [176]:** Will this be in partnership with other boroughs pushing for the same? How will you position for the upcoming GLA election to make sure this happens?

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**Governance**

As the action plan is developed and we move to a delivery phase, there needs to be appropriate governance in place. The climate change work currently has a number of governance systems in place:

1. Cabinet Member – the cabinet member has responsibility for the climate change strategy and its delivery. They speak for the administering on these issues and provide political direction for the council on its climate change work. Directors in the council are responsible to the cabinet member to deliver this work.
2. Scrutiny – the council has established processes to scrutinise decision making and activity as set out in the council’s constitution. This includes the Overview and Scrutiny Committee and its sub-committees.
3. Officer Steering Group – a group of senior officers across the council’s different departments who will advise on the implementation of the strategy across the council’s different services.
4. Partnership Steering Group – a group of local residents, partners, interest groups and others with an interest and expertise in this area to provide advice to the Cabinet Member and the Council.
5. Members Working Group – a cross party group of councillors who will provide advice to the cabinet member as representatives of the community across Southwark.

Commented [177]: We are local residents, but are volunteers - there should be expert review built into this process. Who will that be?

Commented [178]: Can we have lists of everyone in these groups?

As we move to the delivery of the action plan, we propose that the existing groups remain in place, but in addition we introduce climate change juries. Each jury will be made up of a representative mix of residents from across the borough and will scrutinise the progress of the climate strategy. Each jury will work on a different theme and report on progress through the year.

Commented [179]: Interesting idea, when will these be introduced?

**Reporting**

A central principle in this strategy is transparency. As such the council will report on progress towards meeting its objectives. We will publish an annual climate change progress report which sets out work that has taken place and the impact this has had on meeting our climate commitments.

We will hold an annual climate change conference where this report is available, and which brings together different community groups, residents and partners to openly discuss progress, the challenges and find solutions to overcome them together. The action plan will include targets, including interim targets for years between now and 2030. We will publish progress on these targets annually.

## Climate Engagement

Southwark must embark on a climate conversation. Throughout the process of developing a strategy, through to developing an action plan and then implementing change, we will only achieve the objectives in this strategy if everyone with an interest is fully engaged.

As well as work that the council must do, there is individual action, action for other institutions and organisations and for those who do business in the borough. Everyone with a stake in the borough must be part of this conversation. That is why alongside policies to reduce carbon we will commit to lead a climate conversation with the borough. This enables us to engage, educate and empower the borough, but also to learn and evolve as new ideas are developed and we try out ideas that we may then need to modify and change. By actively engaging with each other and keeping the conversation going, we will ensure that we can all play our part in tackling the climate emergency together in Southwark.

### Engagement, Education and Empowerment

Engagement of the whole of Southwark's community is vital to the success of the borough to achieve carbon neutrality by 2030.

Engagement – the council will host an ongoing climate conversation, where we develop forums to ensure that people's voices are heard and that we have an ongoing and open conversation with our residents about climate change and what needs to happen. As well as the formal structures outlined above, the council will promote climate the climate emergency through its communications work, it will engage with local groups and individuals.

Education – too many people are still not aware of the climate emergency, and the fringe views of a few climate change deniers have a larger impact on the public discourse than they should. We will support and implement education programmes about the climate emergency to help the community to understand the impact of climate change. We will work with schools, colleges and universities to bring learning out of the classroom into the community.

Empowerment – as well as engaging with our residents we want them to be empowered to take action in their own lives, and to demand action of others. Our residents will be equipped with the information they need to make positive decisions about how they live and what they expect from the companies, and organisations they work with. Our transparency and reporting to the community will be matched with events and other opportunities in the borough for people to take action. Our action plan will include measures to measure engagement and empowerment in the community including individual actions that people take to reduce their carbon emissions.

**Commented [180]:** Details and timelines need including here, as well as what you're promoting and seeking engagement on

**Commented [181R180]:** Specifically with relation to the annual reports - in an ongoing conversation presumably there are proposals that will be developed and gain ground with the potential to effect material change: will Southwark commit to an annual review by residents - either in the form of a Citizens' Assembly or some comparable mechanism - by which it can be held to account and the policy updated and progress tracked?

**Commented [182]:** What programmes and on what scale?

**Commented [183]:** Individuals are not the problem - which businesses and polluters are you targeting? This strategy focuses more on individual actions than private sector responsibility. The balance is wrong

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**Hearing diverse voices**

Southwark is proud to be home to a diverse and vibrant population, but it is only if every part of that community is heard and is part of the conversation, that we will make the change we need together. As well as engaging with existing groups and community networks, we will particularly focus on these that are harder to reach. These groups include:

Young People – Southwark is a young borough, and we need to ensure that young voices are heard in the process. We will work with young people and seek their advice on how to best engage so that our engagement is relevant and impactful with our young residents. We will ensure that young people’s voices are always part of the debate.

BAME Communities – Southwark is home to a racially diverse population. We will work with groups that represent our different BAME communities, but also identify where communities are not represented, and reach out directly to them. This includes communities where English is not the primary language.

Vulnerable Communities – we will ensure that we hear the voice of those who are more vulnerable, such as people living in food poverty, homeless or those with no recourse to public funds.

Our community is tied to communities across the world. As set out in this strategy, our residents will know people in parts of the world who are feeling the negative effects of climate change more acutely than we are in the UK, and they will know the impact of our action here on those they love in other parts of the world. Just as they are linked to the effects of climate change, they also bring to Southwark a wealth of perspectives and understanding from countries around the world. Many are from countries who produces far less carbon than the UK and where their ways of living are more sustainable. In engaging with our diverse communities we need to listen and understand and learn from these global experiences and perspectives. We will be open and encouraging of solutions from the global south being adapted to work in Southwark.

**Partnership Working**

We will be a partner in the borough, and work with all organisations to develop shared values and a shared approach to becoming carbon neutral.

Public Institutions – Southwark is home to major hospitals, universities and public institutions like theatres and museums. We will work with them to reduce their carbon in Southwark but also look for partnership opportunities to expand this influence beyond the borough boundaries. For example, working with major galleries to promote awareness of the climate emergency, or with university academics to try out innovative solutions to reduce carbon.

Global Businesses – Southwark is home to organisations with significant global reach. We have international companies with UK offices in the borough as well as branches of global

**Commented [184]:** How, when and how many?  
**Commented [185]:** Once again, does this specifically mean adopting the firewall with the Home Office as a definite policy long-term? Who has oversight on how vulnerable communities are heard and what are the mechanisms by which Southwark can be held to account?

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high street retail and major outlets for supermarkets and other large UK retail. Working with the Southwark face of these national and global companies means we will seek to have influence beyond our borough's boundaries. We will look for local solutions that we can encourage companies to take up nationally or internationally.

**Commented [186]:** Will this include aggressive promotion of Living Wage campaigns to empower individual employees to make greener choices day to day?

Small and Medium Size Businesses – working directly, and through bodies like the Southwark Business Forum we will work with our small businesses to support them taking measures to reduce waste and carbon emissions. This could include waste management, improvements to energy efficiency or changes to the public realm to encourage walking and cycling.

**Commented [187]:** Do we have links to a list of these that you'll focus on specifically? Who are our largest emitters?

Page 41: [1] Commented [96] Myrtle Bruce-Mitford 31/07/2020 00:40:00

Whenever possible, repurposing, renovating and refitting existing buildings in order to keep carbon emissions to a minimum should always be preferred over demolishing and rebuilding.

Page 41: [2] Commented [98] Eloise Waldon-Day 21/07/2020 11:17:00

I know these are early ideas, but this strategy has to start having some costings, targets, examples, timelines and clarity - residents can't respond or engage critically with it otherwise.

Page 41: [3] Commented [99] Fossil Free Southwark 25/07/2020 10:25:00

Would also need to ensure that approved building materials reflect the emergency and need for more sustainable construction/regen as my understanding is they currently don't. Then there's the issue of upskilling workers to use these materials and preventing constructions becoming 'unviable' mainly because everyone involved in the process aren't skilled or experienced in working with them.

Page 41: [4] Commented [100] Eloise Waldon-Day 21/07/2020 11:25:00

Or net negative - all development applications should provide a whole life cycle carbon assessment (including embodied carbon) to satisfy that it is net-zero or net-negative

Page 41: [5] Commented [103] Eloise Waldon-Day 21/07/2020 11:48:00

Where directly running on renewable energy is not possible, the Council should promote utility contracts offering electricity 100% from renewables

Page 41: [6] Commented [104] Fossil Free Southwark 25/07/2020 10:14:00

This seems quite weak in ambition. If we want to treat the emergency as an emergency, retrofitting/repurposing must be the absolute norm in Southwark, and demolition and major rebuilds should be the absolute exceptions. Can planning policy be shaped to reflect this?

Page 41: [7] Commented [105] Myrtle Bruce-Mitford 31/07/2020 00:46:00

Repurposing should go at the top of the list, to emphasise its importance. 'Encourage' is too weak, though.

Page 41: [8] Commented [106] Eloise Waldon-Day 21/07/2020 11:23:00

Can you give some examples of where you think this would be achievable? This should be the default - most carbon reduction potential in building comes from avoiding unnecessary construction and instead optimising existing buildings

Page 41: [9] Commented [108] grace lally 06/08/2020 21:04:00

Council must proactively ensure there are alternatives by leading a renewable energy generation strategy for the borough

Page 41: [10] Commented [110] Eloise Waldon-Day 21/07/2020 11:45:00

Not just residents - all sites under the Council's operation (for example, schools) and private companies should be supported to use renewable energy to power 100% of their needs

Page 41: [11] Commented [112] Myrtle Bruce-Mitford 31/07/2020 00:53:00

Within the next year make it mandatory through building regulations and planning conditions for all new council homes to be built to Passivhaus standards.