South Staffordshire Council

Local Plan Review

Publication Plan

Renewable Energy Topic Paper

April 2024

Contents

1. Introduction

1.1 The Council declared a climate emergency in 2019 following a 2018 report by the Intergovernmental Panel on Climate Change (IPCC), which warned of the devastating consequences of a global temperature rise of more than 1.5 degrees Celsius above pre-industrial levels. The more recent February 2022 IPCC report[1] indicates that any more delay in action to reduce emissions "*will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future*". The IPCC indicates that this means crop failures, risks to water security, increased heat deaths and risks to people, economies and infrastructures due to coastal and inland flooding for the European continent.

1.2 To avoid the worst effects of climate change, the IPCC findings indicate that worldwide emissions must peak no later than 2025, with rapid and deep reductions in emissions required by 2030[2]. These conclusions represent the scientific consensus on climate change and its implications for policy makers, presenting the moderated conclusions of hundreds of leading climate scientists from around the world.

1.3 Recognising the need to secure a liveable and sustainable future for its residents, the Council has made climate change one of its key priorities in the Local Plan Review. This topic paper will summarise the Council's position on climate change mitigation and adaptation within the Local Plan Review. It will set out the existing local and national policy background to the Council's position, how the Local Plan Review to date has sought to address these issues and will set out policy responses to be included within the Local Plan Review Publication Plan (Reg 19) to address these points.

2. Existing Local Plan policies on climate change

2.1 Both the Council's existing 2012 Core Strategy DPD and 2018 Site Allocations DPD contain policies which seek to mitigate and adapt to the impacts of climate change. These are set out below:

Existing policy	**Summary of key requirements**
Core Strategy 2012 DPD	
Core Policy 3: Sustainable Development and Climate Change	The policy contains broad summaries of the Council's stance on a number of climate related matters, including previously developed land, sustainable transport, energy efficiency, flexible and adaptable building design, minimising and managing waste, protecting and enhancing natural assets, guiding development away from areas of flood risk, SuDS, pollution prevention and

[1] IPCC Climate Change 2022 – Impacts, Adaptation and Vulnerability: Summary for Policymakers, paragraph D.5.3

[2] IPCC Climate Change 2022 - Mitigation of Climate Change: Summary for Policymakers, paragraph C.1

	mineral resources. Specific policy standards were not set within the Core Policy for these matters.
Policy EQ5: Sustainable Resources and Energy Efficiency	This set minimum and maximum reductions in regulated carbon emissions for new build dwellings, aligning to then predicted changes in building regulations. Non-residential development is expected to achieve BREEAM 'Excellent' standard. Minimum proportions of low and zero carbon energy generation are to be delivered on new residential and non-residential buildings.
Policy EQ6: Renewable Energy	An overall target of delivering 9.6% of South Staffordshire's energy demand through renewable sources. Criteria-based policies were established for biomass and wind energy developments. This included suitable geographical areas of opportunity for wind development being set out, but with allowances for wind outside of these geographical areas where sites could demonstrate conformity with the criteria used to establish the wind areas of search in Policy EQ6.
Site Allocations 2018 DPD	
Policy SAD9: Key Development Requirements	This set out the District's requirements for Sustainable Drainage Systems (SuDS), including reference to the Lead Local Flood Authority's design requirements for such schemes.

2.2 These policies have been used to guide development management decisions in the District since the Core Strategy's adoption in 2012. However, subsequent changes to national policy have superseded certain elements of these existing policies.

2.3 Firstly, the Government issued a Written Ministerial Statement (WMS) in March 2014 responding to the Housing Standards Review consultation. The WMS proposed to wind down the Code for Sustainable Homes and consolidate many of the standards in the Building Regulations. This was followed by a further WMS supporting the Deregulation Act in March 2015, which made clear that the Government intended that planning authorities should only use national standards not locally derived standards. Accordingly, the elements of Policy EQ5 relating to residential energy efficiency were treated as desirable standards rather than strict policy requirements, with lesser standards being acceptable.

2.4 Whilst Policy EQ6 identified areas suitable for large-scale wind energy within the district and set a target of 20.8GWh of energy to be generated by wind by 2020, to date wind schemes in the District only generate 8.6GWh of energy[3]. There is only one operational large scale wind scheme within the district (at Rodbaston College), which pre-dated the adoption of the Core Strategy in 2012. Equally, since the Core Strategy's adoption no new large-scale wind schemes have been consented in the district.

[3] Table 4.3 of the Climate Change Adaptation & Mitigation – Baseline Report 2020

Recent academic research[4] suggests that at a national scale government funding cuts for onshore wind and additional planning policy restrictions introduced through a 2015 Written Ministerial Statement[5] led to a 97% fall in planning applications for onshore wind. Therefore, it is likely that these national policy changes, combined with the limited areas explicitly identified for wind in the district, have contributed to the failure to deliver the required amount of renewable energy generation from this source.

3. Considering climate change in the Local Plan Review process to date

3.1 Although the Council has only proposed full development management policies in the Regulation 19 Publication Plan, climate change has informed the previous consultation stages undertaken as part of the Local Plan Review. The relevant consultation stages, and key ways in which climate change mitigation and adaptation informed these stages, is set out below.

Issues and Options (2018)

3.2 The Issues and Options document was published for consultation in October 2018. It sought views on key strategic issues to be addressed in a local plan review for the period from 2018 – 2037, including evidence that may be required, potential policy options to be explored and levels of housing and employment growth that may be accommodated within the district. As part of this exercise, six broad development typologies for accommodating housing growth and five different housing growth targets were tested through the Sustainability Appraisal process. Summaries of key Sustainability Appraisal findings under these key areas are set out below.

Residential growth levels tested	
Growth option	*Sustainability Appraisal conclusions on climate change mitigation and adaptation*
Option A: 5,130 dwellings	**Major negative** effect predicted due to the growth scenario accommodating significant numbers of new persons who would cumulatively generate 105,165 tonnes CO2 annually.
Option B: 7,030 dwellings	**Major negative** effect predicted due to the growth scenario accommodating significant numbers of new persons who would cumulatively generate 144,115 tonnes CO2 annually.
Option C (Preferred approach): 9,130 dwellings	**Major negative** effect predicted due to the growth scenario accommodating significant numbers of new persons who would cumulatively generate 187,165 tonnes CO2 annually.

[4] Windemer, R. (2022). The impact of the 2015 onshore wind policy change for local planning authorities in England: Preliminary survey results. ESRC

[5] 1-DCLG-Planning.pdf (parliament.uk)

Option D: 17,130 dwellings	**Major negative** effect predicted due to the growth scenario accommodating significant numbers of new persons who would cumulatively generate 351,165 tonnes CO2 annually.
Option E: 25,130 dwellings	**Major negative** effect predicted due to the growth scenario accommodating significant numbers of new persons who would cumulatively generate 515,165 tonnes CO2 annually.

3.3 This indicated that all new residential growth was likely to have a significant negative impact on carbon emissions due to the carbon footprint of individual households, with this effect worsening the greater number of dwellings that were built in the district.

Residential growth typologies tested	
Growth option	*Sustainability Appraisal conclusions on climate change mitigation and adaptation*
Option A: Rural housing growth focused on the district's larger and better-connected villages	**Minor positive** impacts predicted under climate change mitigation due to growth option locating new residents near to public transport links, reducing car dependency and associated GHG emissions. **Minor negative** impacts predicted under climate change adaptation criteria due to flood risk issues in Penkridge and Great Wyrley.
Option B: Rural housing growth dispersed across all settlements with a basic level of service provision within the District	**Minor negative** impacts predicted under climate change mitigation due to greater proportion of residents being unable to access frequent public transport. **Minor negative** impacts predicted under climate change adaptation, whilst noting that greater number of smaller sites would allow more opportunities to direct development away from areas of flooding.
Option C: Small-scale urban extensions on the fringe of neighbouring urban areas	**Minor positive** impacts predicted under climate change mitigation due to growth option locating new residents near to public transport links, reducing car dependency and associated GHG emissions. **Minor positive** impacts predicted under climate change adaptation, as this spatial strategy would allow plan to direct development away from areas of flooding.
Option D: Larger urban extensions on the fringe of neighbouring urban areas	**Minor positive** impacts predicted under climate change mitigation due to growth option locating new residents near to public transport links, whilst noting that rail access is poorer in the south of the District. Most employment-led areas explored under this option (especially around i54) have good public transport links. **Minor positive** impacts predicted under climate change adaptation, as this spatial strategy would allow plan to direct development away from areas of flooding.
Option E: New freestanding settlements away from	**Minor negative** impacts predicted under climate change mitigation due to construction of an entirely new settlement at a previously undeveloped location would result in a net increase

the existing villages/urban areas	in carbon footprint in the local area in relation to current levels. **Minor positive** impacts predicted under climate change adaptation, as this the construction of a new settlement would allow flood risk to be managed in a comprehensive way with areas of green and blue infrastructure.

3.4 In summary, testing of these options suggested that better climate change mitigation outcomes could be realised by expanding the district's larger villages or by locating growth next to adjacent urban areas, due to the better public transport links in these locations. Climate change adaptation varied across the district, but the appraisal suggested that consideration would need to be given to flood risk in some larger villages if growth was to be located in these areas.

3.5 Consultation responses received to the consultation offered a variety of views on the level of housing growth proposed, with local residents and community groups broadly tending to support either Option A or B, whilst development industry representatives tended to favour increasing growth above the level proposed in Option C, although neither group tended to raise climate change as a key reason for either viewpoint. There was a general consensus within the development industry that the likely levels of housing growth required to be accommodated through the plan would need a combination of different residential growth typologies, rather than one single approach.

Spatial Housing Strategy and Infrastructure Delivery (2019)

3.6 The Spatial Housing Strategy and Infrastructure Delivery document was published for consultation in October 2019. Acknowledging that the level of growth preferred by the Council was unlikely to be delivered on one residential growth typology, this consultation sought views on different spatial strategy options for distributing the Council's preferred level of housing growth across a variety of locations within the district. As part of this, key positives and negatives of each option (including some relevant to climate issues) were assessed. Each spatial option was also subject to Sustainability Appraisal, which included consideration of climate change mitigation and adaptation.

3.7 Assessment of the different spatial included considering their alignment with the findings of the 2018 Sustainability Appraisal (including in relation to climate change) and the options access to employment via sustainable transport means. Key findings from this are set out below:

Spatial Housing Strategy Option	*Key positives and negatives relating to climate change*
A: Maximise Open Countryside release	- Does not align well to the 2018 Sustainability Appraisal, as growth is focused away from most Tier 1 and 2 villages, with large-scale growth made at a Tier 3 village instead (Wheaton Aston).
B: Prioritising Green Belt land release in areas of lesser Green Belt harm	- Delivers significant growth adjacent to Tier 1 settlements, which have greater levels of access to services and employment than other rural settlements - Aligns growth with areas well served by public transport (Tier 1 settlements and urban extensions adjacent to neighbouring towns and cities) - Does not reflect the 2018 Sustainability Appraisal in rural settlements, as growth is more evenly spread across Tier 1-4 settlements
C: Carry forward existing Core Strategy strategic approach to distribution	- Delivers significant growth adjacent to Tier 1 settlements, which have greater levels of access to services and employment than other rural settlements - Partially aligns growth with areas best served by public transport (Tier 1 settlements) - Does not align well with 2018 Sustainability Appraisal, as it prioritises significant levels of growth to Tier 3 settlements, whilst no growth is delivered in more sustainable urban extensions to neighbouring towns and cities.
D: Maximising sites in areas identified in the GBHMA Strategic Growth Study	- Closely aligns growth to areas of the district with greater levels of access to services and employment (north of the Black Country, Tier 1 settlements, the A449 corridor) - Aligns well with the 2018 Sustainability Appraisal, by focusing more additional growth in Tier 1 and 2 settlements and urban extensions - Aligns growth with areas best served by public transport (Tier 1 settlements and urban extensions)
E: Addressing local affordability issues and settlements with the greatest needs	- Delivers significant growth adjacent to the northern edge of the Black Country, which has greater levels of access to services and employment - Partially reflects the 2018 Sustainability Appraisal, by focusing more additional growth to urban extensions - Partially aligns growth with areas best served by public transport (urban extensions to neighbouring towns and cities)
F: Giving first consideration to Green Belt land which is previously developed or well-served by public transport	- Closely aligns growth to areas of the district with greater levels of access to services and employment (north of the Black Country, Tier 1 settlements, the A449 corridor) - Aligns well with the 2018 Sustainability Appraisal, by focusing more additional growth in Tier 1 and 2 settlements and urban extensions

	- Fully aligns growth with locations best served by public transport (Tier 1 settlements and extensions to adjacent towns and cities)
G (Preferred Option): Infrastructure-led development with a garden village area of search beyond the plan period	- Closely aligns growth to areas of the district with greater levels of access to services and employment (north of the Black Country, majority of Tier 1 settlements, the A449 corridor) - Aligns well with the 2018 Sustainability Appraisal, by focusing more additional growth in Tier 1 and 2 settlements, urban extensions and a potential new settlement area of search - Aligns growth with areas well served by public transport (Tier 1 settlements and urban extensions adjacent to neighbouring towns and cities)

3.8 The above shows that the spatial options which tended to focus greater levels of growth on Tier 1 & 2 settlements and areas adjacent to neighbouring urban towns and cities tend to have better access to services, facilities and sustainable transport. This is also reflected in better performing options aligning well with Sustainability Appraisal outcomes from the 2018 Issues and Options consultation. This means that Options D, F & G better align with opportunities to mitigate climate change through non-car based transport and better reflect the better performing options in the 2018 Sustainability Appraisal. These spatial distribution scenarios were also subject to their own Sustainability Appraisal in 2019, which concluded that all spatial options would result in major negative impacts on climate change mitigation and adaptation. This was for similar reasons for the major negatives identified against residential growth options in the 2018 Sustainability Appraisal, although Options D-G did have more positive impacts under the transport and accessibility criteria.

Preferred Options (2021)

3.9 Building on the previous two consultations, the Preferred Options consultation identified preferred site allocations to meet the district's housing, employment and gypsy and traveller growth needs. The document also included policy directions of travel for future development management policies.

3.10 The sustainability appraisal supporting the 2021 Preferred Options document concluded that climate change mitigation and GHG reduction measures was a cross-cutting theme across the document, noting the following policies specifically:

Policy DS3 sets out the spatial strategy for the district. By directing development towards Tier 1 settlements and the urban edge of existing larger towns outside the district, this policy would be likely to facilitate more sustainable communities, by locating residents in closer proximity to services, facilities and public transport,

including railway stations. The use of the private cars and associated fossil fuel consumption is identified as one of the district's larger contributors to carbon emissions.

Policy HC12 sets out parking standards and the requirement for new dwellings to deliver electric vehicle charging points and new commercial development to 20% of parking spaces with charging points.

Policy HC19 sets out wider green infrastructure principles to achieve multifunctional green infrastructure. Green infrastructure can serve to mitigate the effects of climate change through carbon sequestration in soils and vegetation and the shading/cooling effects of trees and vegetation.

Policy EC1 'Sustainable Economic Growth' sets out the broad requirements in relation to economic development. Part of this policy will be to promote active travel measures and the creation/enhancement of multifunctional green spaces and the enhancement of the Green Infrastructure Network.

Policies EC6 and EC7 seek to maintain the vitality of village centres in existing settlements and in doing so may reduce the need for residents to travel by car to access facilities.

Policy EC11 sets out the Council's approach to sustainable transport, through a wide range of measures including strengthening bus and rail services and their connections, encouraging walking and cycling, the Park and Ride initiative at Cross Green and improving availability of electric vehicle charging points.

Policy NB1 relates to protecting, enhancing and expanding natural assets. Vegetation provides several ecosystem services, including cardon storage as well as cooling/shading effects.

Policy NB5 will specifically address renewable and low carbon energy generation, including the policy provisions relating to solar, wind and biomass energy schemes.

Policy NB6 sets out energy and water efficiency in new developments including the requirement for all major residential development to achieve a 31% carbon reduction improvement upon the requirements within Building Regulations Part L and all major commercial development to achieve BREEM Excellent or Outstanding.

Publication Plan (i) (2022)

3.11 The Council undertook consultation on a Publication Plan (Regulation 19) in November 2022, intending that this would be the final draft Local Plan consulted on prior to submission to the Secretary of State. The Publication Plan incorporated the policies drafted in the Preferred Options consultation, with some minor amendments to the policy reference and background text.

3.12 However, significant proposed changes to national planning policy were published in December 2022, specifically in relation to Green Belt policy. This led the Council to

pause preparation of the Local Plan in January 2023 to await clarity on the Government's intentions which had been earmarked for Spring 2023.

Publication Plan (ii) (2024)

3.13 In September 2023 it was agreed that a further Publication Plan would be prepared for consultation in April 2024 and ultimately progressed to submission. Following the revised NPPF in December 2023, work on a Publication Plan for consultation was finalised that reflected changes to national policy, most notably relating to Green Belt.

3.14 The renewable and low carbon energy generation policy (NB5) remains largely unchanged from that proposed in the previous Publication Plan. However, following continued work, policy NB6 has been split into three policies within NB6 and addresses new build residential development, new build non-residential development, and embodied carbon.

Summary

3.15 The above demonstrates how the Council has considered climate change to date in preparing its local plan, primarily through considering the level growth provided, its spatial distribution throughout the district and wider holistic policy directions of travel set out at the Preferred Options stage. To date, efforts to limit the amount of new emissions generated over the plan period have primarily focused on limiting the amount of new development and focusing any development to areas well served by services and facilities, particularly public transport, in an effort to minimise trip distances and shift these towards more sustainable modes.

3.16 Despite efforts to date to locate development in sustainable locations, it is clear that the development of around 5,000 dwellings during the plan period will still generate around 100,000 tonnes of CO^2 each year based upon new household's annual energy use. It is therefore imperative that the Council creates development management policies that reduce and decarbonise the energy demands from new development as rapidly and effectively as possible. To address this the remainder of this topic paper focuses on evidence and policy justifications for the emerging renewable energy generation policies set out in the South Staffordshire Local Plan 2023 – 2041. The evidence and policy justifications for the emerging sustainable construction policies can be found in 'Sustainable Construction Policy NB6 Task A' and the addendum to this main report, drafted by Bioregional.

4. National policy and legislative context for sustainable construction and renewable energy

Climate Change Act 2008 and the Planning and Energy Act 2008

4.1 The UK government has a legally binding target to deliver a 100% reduction in UK emissions by 2050, relative to 1990 base levels for carbon dioxide emissions and other greenhouse gases. This is set out in the 2008 Climate Change Act (as amended in June 2019). This act also establishes powers to set interim carbon budgets and an independent body (the Committee of Climate Change) to give progress reports and advice to the government in connection with setting and achieving the carbon budgets necessary to achieve the overall net zero target. Where relevant to the local plan process, key findings from the Committee of Climate Change are set out later in this topic paper.

4.2 In addition to these wider legislative powers set out above, the Planning and Energy Act 2008 also provides local authorities with powers to set standards imposing reasonable requirements on new developments with regards to their use of renewable energy and energy efficiency standards which exceed the building regulations. In 2015 the government proposed amendments to this which would have removed the ability to set higher energy efficiency standards (through the Deregulation Act 2015). However, the relevant amendments to this legislation were never given Royal Assent and a recent government consultation response to the Future Homes Standard consultation in 2021 confirmed that these amendments would not be made.

4.3 Despite attempts in a 2015 Written Ministerial Statement to avoid standards being set which exceeded the Code for Sustainable Homes Level 4, the consultation response also acknowledged that authorities had continued to set policies which exceeded this requirement. The government's response recognised that all levels of government have a role to play in meeting the net zero target and that local authorities can drive local progress towards national climate change commitments that maximises the benefits to the communities they serve.

Government Carbon Budgets

4.4 The government is required to publish carbon budgets every 5 years under the provisions in the Climate Change Act 2008. These set out legally binding trajectories for emission reductions over time to meet the 2008 Climate Change Act's end goal of reducing greenhouse gas emissions by 100% by 2050 when compared to 1990 levels. Summaries of carbon budgets published to date are set out below. These budgets do not specify a specific reduction in carbon emissions required from the planning sector.

However, it is clear that drastic reductions in carbon emissions are required within the plan period proposed in the Local Plan (up to 2041).

UK Carbon Budget	**Reduction in GHG emissions below 1990 levels**
1st Carbon budget (2008-12)	25%
2nd Carbon budget (2013-17)	31%
3rd Carbon budget (2018-22)	37% by 2020
4th Carbon budget (2023-27)	51% by 2025
5th Carbon budget (2028-32)	57% by 2030
6th Carbon budget (2033-37)	78% by 2035

National Planning Policy Framework 2023 (NPPF)

4.5 Addressing climate change is a key priority for the planning system and is a key thread running throughout the NPPF.

4.6 For plan-making, the presumption in favour of sustainable development in paragraph 11 of the NPPF also requires (amongst other matters) that all plans should promote a sustainable pattern of development which aligns growth and infrastructure and mitigates climate change and adapts to its effects.

4.7 The core principles of the NPPF's approach to climate change are set out in paragraph 157-164, which states that the planning system should shape places in ways that:

- Contribute to radical reductions in GHG emissions
- Minimise vulnerability and improve resilience
- Encourage the reuse of existing resources, including the conversion of existing buildings
- Support renewable and low carbon energy and associated infrastructure

4.8 NPPF paragraph 158 also requires plans to take a proactive approach to both mitigating and adapting to climate change, requiring policies to support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts.

4.9 When planning for new development, paragraph 159(b) also requires that this is done in ways that can help to reduce greenhouse gas emissions, including through design,

whilst stating that local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards.

5. Key national evidence and strategies for sustainable construction and renewable energy

HM Government - Net Zero Strategy: Build Back Greener (October 2021)

5.1 The government's Net Zero Strategy draws together a number of policy directions which aim to deliver the government's net zero ambition by 2050.

5.2 For the power sector the strategy aims for all electricity to come from low carbon sources by 2035, offering incentives for wind and solar through the Contracts for Difference scheme and aiming to ensure the planning system can support the deployment of low carbon infrastructure. This included a stated target of 40GW of offshore wind power by 2030, alongside a sustained increased in the deployment of onshore wind and solar in the 2020s and beyond.

5.3 For heat and buildings, the strategy aims to phase out new and replacement gas boilers by 2035, restating the commitment to support 600,000 installations of heat pumps per year by 2028 and proposing potential EPC improvements for new homes and privately rented homes, as well as commercial and industrial buildings by set dates between 2028 and 2035. This included a commitment to introduce regulations from 2025 through the Future Homes Standard to improve energy efficiency and low carbon heating, with interim measures to be introduced from 2022 through building regulations.

5.4 For transport, the strategy restated the government ambition to end the sale of new petrol and diesel cars and vans from 2030, requiring all new cars and vans to be zero emission at the tailpipe from 2035. £2 billion investment in cycling and walking to support provision of segregated cycle lanes and low-traffic neighbourhoods are proposed, with an aim of half of all journeys in towns and cities being cycled or walked by 2030 and an overall increase in the share of journeys taken by public transport, cycling and walking.

5.5 Under natural resources, the strategy pledged to treble woodland creation within the current parliament whilst restating the commitment through the Environment Act to provide for Local Nature Recovery Strategies to map proposals for improving of creating habitat for nature and wider environmental benefits.

HM Government – British Energy Security Strategy April 2022

5.6 This recently released strategy set out the government's response to the spike in demand for energy in the wake of the COVID19 pandemic and the Russian invasion of

Ukraine. It included updated targets and future policy directions for the government on key energy sectors, including renewable energy provision.

5.7 For offshore wind the strategy increased the government's target for the sector to 50GW by 2030. The strategy recognised that onshore wind is one of the cheapest forms of renewable power but clarified that the government did not intend to introduce wholesale changes to planning regulations for onshore wind. However, the strategy did propose a consultation on developing local partnerships for a limited number of supportive communities who may wish to host onshore wind in return for benefits including reduced energy bills. For solar energy the strategy targeted a five-fold increase in deployment by 2035, alongside proposals to strengthen policy support for solar schemes on non-protected land. Support was also given for solar co-located with other uses, including agriculture, onshore wind and storage.

Climate Change Committee (CCC) - Progress in reducing emissions: 2021 Report to Parliament

5.8 The latest statutory progress report published by the CCC in 2021 examines the government's progress against its balanced net zero pathway. This concludes that in many cases, policy proposals have not caught up with the government's strategic ambitions to deliver decarbonisation.

5.9 The Climate Change Committee's (CCC) June 2021 report concludes that a variety of sectors relevant to planning are amongst those where policy implementation from government is at risk of falling behind. Specifically, the government's proposed policy approaches to surface transport and building standards are at significant risk of failing to meet the required net zero pathway. Key risks are summarised below.

Buildings

5.10 The report indicates that energy efficiency standards on new residential buildings are at significant risk due to legislation to implement the Future Homes Standard not being planned until 2024, despite heat pump uptake being needed to significantly increase from 2021 onwards. Similar risks were highlighted for non-residential buildings and behaviour change, noting limited coverage in government policy proposals and little evidence that government ambitions for these reductions translating into reduced energy demand at present.

5.11 Policy for implementing energy efficiency and low carbon heat in existing residential homes was also highlighted as clearly falling behind the required pathway targets, with number of stated heat pump installations (600,000 per year by 2028) and installations of loft and solid wall installations lagging far behind the rates needed. This finding is also supported by the findings of a recent cross-party House of

Commons Committee report[6]. This noted that previous CCC correspondence had advised the government to set a full definition of the Future Homes Standard in 2020 and introduce legislation before 2024. Whilst government strategies have been published since the CCC 2021 report's release, none have proposed measures to increase the rate of heat pump installations or bring forward the implementation of the Future Homes Standard, despite the risks set out in the CCC report.

Surface transport

5.12 The report indicates that the confirmation of a 2030 phase-out date for petrol and diesel sales in a welcome step, but that policy is still lacking for how to deliver it. Government focus on reducing the need to travel and increasing car occupancy is lacking, with substantial road-building investment continuing and car demand increasing.

Government response to the Climate Change Committee (CCC) Progress in Reducing Emissions - 2021 Report to Parliament

5.13 In response to the statutory progress report of the CCC the government published a response to the recommended actions and challenges in that work. The response included the following key points relevant to new building standards, energy generation and surface transport:

- A commitment to longer-term work to consider the future of energy efficient buildings beyond the Future Homes Standard and Future Buildings Standard, considering embodied carbon
- Commitments for growth in offshore wind, supported by similarly ambitious deployment of locally supported onshore wind and solar
- Re-highlighting commitments to continue progress on public transport through the Bus Back Better and Great British Railways: Williams-Shapps Plan for Rail strategies
- Re-highlighting support for active travel investment through the Transport Decarbonisation Plan and £2 billion investment in active travel through the Gear Change strategy

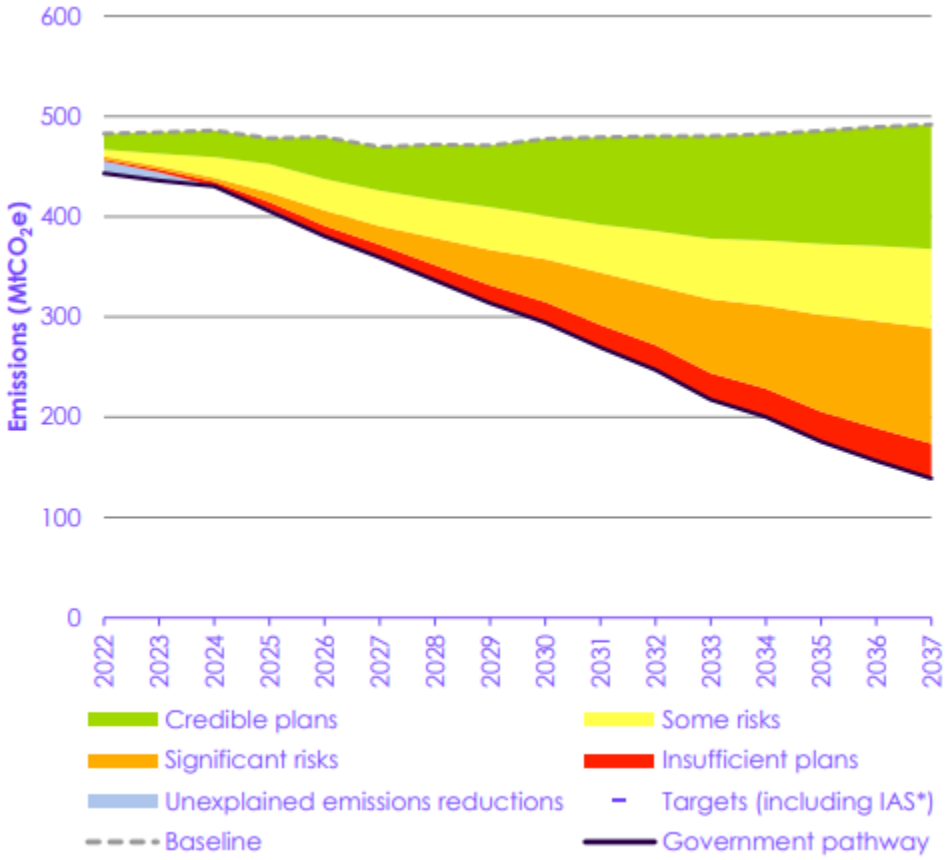
Climate Change Committee (CCC) - Progress in reducing emissions: 2022 Report to Parliament

5.14 The Climate Change Committee's (CCC) June 2022 report goes further than the previous 2021 report, highlighting that over half of the emissions required by the government's current policy measures either had delivery risks, significant risks of falling behind or were either completely missing or currently clearly inadequate for

[6] Building to net zero: costing carbon in construction - First Report of Session 2022–23: Environmental Audit Committee May 2022

the level of emissions reductions required. This situation is summarised in the figure below:

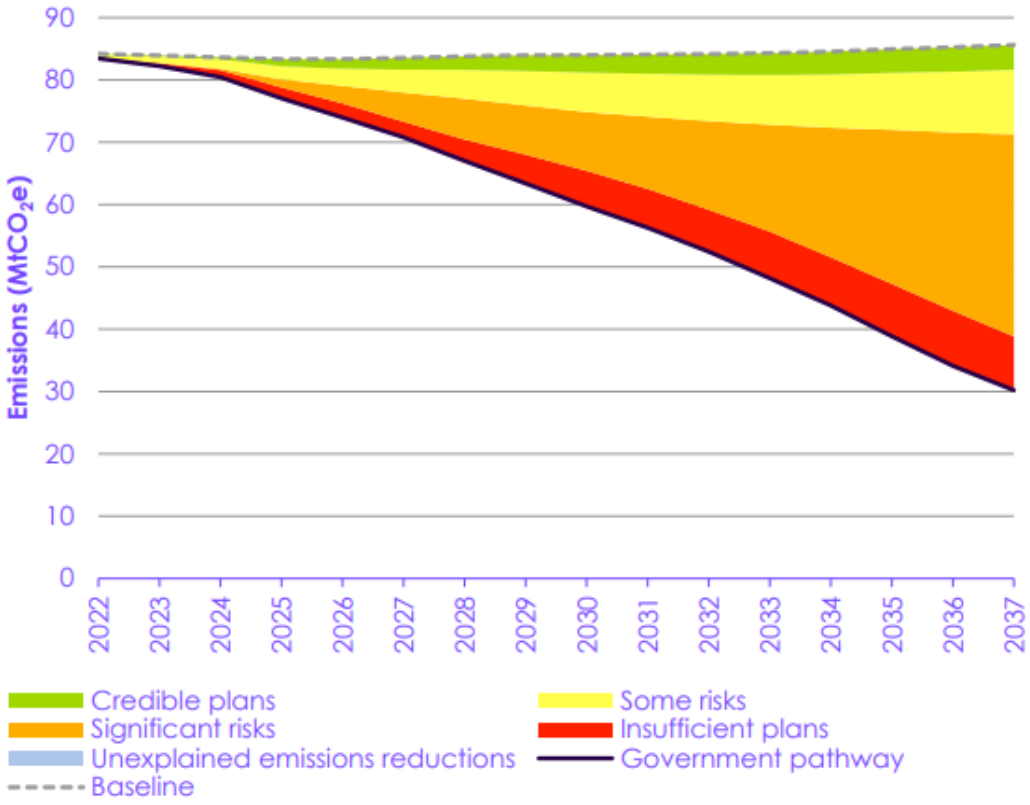
Figure 1: Assessment of current government policies and plans for carbon reduction



Source: Progress in reducing emissions - 2022 Report to Parliament (Climate Change Committee June 2022)

5.15 The June 2022 report was even more critical when looking at the predicted carbon reductions required from the government's building policies, indicating that only a tiny proportion of the government's policies for carbon reduction in buildings were supported by credible plans for delivery. This is shown in the figure below.

Figure 2: Assessment of current government policies and plans for carbon reduction in buildings



Source: Progress in reducing emissions - 2022 Report to Parliament (Climate Change Committee June 2022)

5.16 The June 2022 report indicated that ensuring new homes produce no direct emissions and are coupled with high levels of fabric efficiency would be an essential step that the government would have to take. However, it highlighted that despite this the UK continues to build new homes to standards which do not align with the Net Zero target. The report also raised doubts from the CCC that the interim building standards introduced in 2022 would drive sufficient change in the new build sector prior to 2025, as these standards could be met without low-carbon heat, adding to the stock of boilers which would need to be retrofitted in future.

Climate Change Committee (CCC) - Progress in reducing emissions: 2023 Report to Parliament

5.17 The Climate Change Committee's (CCC) 2023 notes a several key messages and recommendations to Government. A notable recommendation to Government proposes a review of the NPPF to ensure that Net Zero outcomes are consistently

prioritised through the planning system, making clear that these should work with, rather than being over-ridden by other outcomes such as development viability. This is reinforced within a key message stating that the "planning system must have an overarching requirement that all planning decisions must be taken giving full regard to the imperative of Net Zero".

A home for all within planetary boundaries: Pathways for meeting England's housing needs without transgressing national climate and biodiversity goals 2022[7]

5.18 Supporting the findings of the Climate Change Committee, recent academic research showed that the emissions of existing homes combined the government's 300,000 homes per year policy would, on their own, cause England's cumulative carbon budget to breach an amount consistent with limiting global warming to 1.5C by 2050. This assumed new housing is not fully decarbonised[8] until 2050 and retrofit rates succeed in halving operational emissions of the existing stock by 2050.

5.19 Whilst the majority of these emissions arise from operational emissions associated with existing properties, a significant proportion still results from the embodied and operational emissions of newbuild properties. A key recommendation of the paper is therefore that government should ensure that all new builds achieve net zero operational emissions and minimise embodied emissions as soon as possible. It notes that current government policy is only to achieve 'zero carbon ready' homes by 2025 and that similar goals had been previously set and scrapped by governments.

6. Local evidence for renewable energy

Renewable Energy

6.1 South Staffordshire currently has a total generation of 36,227 MWh/year from renewable and low carbon energy, with a total of 57.2 MW low or zero carbon electricity capacity installed as at the end of 2018. In terms of total generation, the two biggest sources of renewable and low carbon energy are solar photovoltaics (18,283 MWh/year), followed by onshore wind (8,659 MWh/year)[9]. Currently there is only one large scale wind turbine installation in South Staffordshire (Rodbaston College) and three large scale solar farms (Jaguar Land Rover, Barr Farm and Land East of Lawn Lane)[10].

6.2 Within the wider County, the level of current renewable energy generation is equivalent to only 10% of Staffordshire's electricity demand. Theoretically, meeting

[7] A home for all within planetary boundaries: Pathways for meeting England's housing needs without transgressing national climate and biodiversity goals - ScienceDirect
[8] Including lifecycle emissions
[9] Table 4.9 of Staffordshire Climate Change Adaptation & Mitigation - Baseline Report
[10] Table 4.4 of Staffordshire Climate Change Adaptation & Mitigation - Baseline Report

100% of Staffordshire's current electricity needs would require between 4,874ha and 20,000ha of land being given over to solar farms and/or wind turbines[11]. This evidences the significant gap between electricity demand and renewable energy infrastructure in the district, which is only set to get more acute as electric vehicle infrastructure and non-fossil fuel heating become more common and electricity demand increases. Reflecting this and the geographically constrained nature of some local authorities[12], the Final Report recommends that, when planning for large-scale renewables, Staffordshire local authorities should consider the need to meet energy demands within their own area as well as the energy demands of neighbouring areas[13].

6.3 Recognising the substantial shortfalls existing between supply and demand, the Final Report recommended that decentralised renewable energy generation and/or battery storage should be increased from all new developments[14]. It also recommended increasing support for low and zero carbon energy generation across the district and in particular increasing support for onshore wind generation[15], proposing a range of policy options that could be considered to deliver this:

1. Designate the entire area as being 'strategically suitable' for wind energy;
2. As above, but create exceptions for specific areas or sites;
3. Designate specific sites for wind energy development;
4. Do not designate specific sites, leaving this to the Neighbourhood Planning process; or
5. Do not designate specific sites and clarify that wind is not suitable.

6.4 The Final Report recommended that the whole area should be identified as strategically suitable for wind energy subject to acceptability criteria (i.e. Option 1), given the need for a significant step-change in renewable energy generation whilst also recognising the need for local criteria for acceptability. This recognised that there is no technical basis for the current levels of restriction on wind development in Staffordshire and that there is considerable wind resource across the County[16]. It also reflects the fact that previous climate change evidence base studies in the County had set an overly restrictive set of criteria limiting wind development to certain areas which were not reflective of the actual feasibility or suitability of specific areas for wind[17].

[11] 4.1.3.1 of Staffordshire Climate Change Adaptation & Mitigation - Final Report
[12] For example, there is relatively limited land in Cannock Chase and Tamworth as they are small and relatively built up areas
[13] 4.1.5.4 of Staffordshire Climate Change Adaptation & Mitigation - Final Report
[14] 4.1.5.1 of Staffordshire Climate Change Adaptation & Mitigation - Final Report
[15] 4.1.5.2 of Staffordshire Climate Change Adaptation & Mitigation - Final Report
[16] Page 5 of Staffordshire Climate Change Adaptation & Mitigation - Final Report
[17] 4.1.2.1 of Staffordshire Climate Change Adaptation & Mitigation - Final Report

6.5 Batteries are also acknowledged in the evidence base as a key component in supporting the transition to a zero-carbon grid. This is because of the intermittent nature of renewable supply and the need to ensure that sufficient supply is stored for peak periods, avoiding shortages of supply against demand. The Final Report anticipates that large-scale battery systems will become an essential part of energy generation infrastructure and that this should be noted by local authorities[18].

6.6 Biomass had been historically supported as a fuel source in Staffordshire's previous climate change evidence base. However, the Final Report reviewed this position in light of more recent national evidence and came to the conclusion that local support for biomass energy should be reviewed in light of concerns around sustainable sourcing and air quality impacts. Specifically, recommendations of the Climate Change Committee indicated that without improved governance, biomass could be worse for the climate than using fossil fuels[19]. Given this context, the Final Report recommended that biomass combustion technologies should not be adopted in a widespread manner in Staffordshire and that a more appropriate use of biomass may be as a carbon sink in construction. The Final Report indicated that the most appropriate source of biomass as fuel is likely to be where there is an existing source of waste biomass, but only where waste reduction measures are also in place. An example of this would be anaerobic digestion plants that are co-located with agricultural facilities that have a high energy demand[20].

Summary of key conclusions from local and national evidence

Renewable energy

- Government net zero and energy strategies require a sustained increased in the deployment of both onshore wind and solar in the 2020s and beyond, setting a target for a five-fold increase in the deployment of solar energy by 2035
- Local Staffordshire-wide evidence indicates that decarbonising Staffordshire's electricity grid would require at least a ten-fold increase in renewable energy generation, which would primarily be made up of increases in solar and wind technologies
- Local evidence recommends that in-principle support is given across all areas of Staffordshire for renewable energy schemes, including onshore wind, and that decentralised renewable energy supply should be sought from all new developments

[18] 4.1.4.2 of Staffordshire Climate Change Adaptation & Mitigation - Final Report
[19] Committee on Climate Change, 'Biomass in a Low Carbon Economy' (2018). Available at: https://www.theccc.org.uk/wpcontent/uploads/2018/11/Biomass-in-a-low-carbon-economy-CCC-2018.pdf
[20] 4.1.2.10 of Staffordshire Climate Change Adaptation & Mitigation - Final Report

7. Proposed policy approaches in the Local Plan Review Publication Plan

Renewable energy projects

7.1 Taking all national and local evidence together, there is a clear and compelling case for the Local Plan Review to review its renewable energy generation policies, particularly to encourage wind and solar where appropriate, to ensure they support a genuine step-change in supply within the wider Staffordshire area. The Council considers that a proportionate response is to revise the policy as follows:

Policy NB5 - Renewable and low carbon energy generation

The development of renewable or sustainable energy technologies and complementary infrastructure will be supported throughout the district, subject to conformity with other local plan policies. Such technologies include solar, wind, district heating, hydroelectricity, ground source heat and complementary battery storage schemes. In considering the impacts of a scheme the cumulative impact of the proposed development will be considered along with other planned, committed or completed development.

In addition to conformity with other local plan policies, solar energy proposals must also demonstrate that:

(a) That the use of agricultural land is necessary and no alternative available and suitable previously developed site within the district can accommodate a scheme of similar scale. The area of search considered should have regard to a viable connection (in distance) to the National Grid;
(b) If (a) is satisfied but the scheme is on Best and Most Versatile Agricultural Land, that there are no alternative sites on lower grade agricultural land that could accommodate the scheme; and
(c) That the proposal has considered opportunities for continued agricultural use (where feasible) and will maximise biodiversity benefits around arrays.

In the case of wind energy proposals, the whole of the district is designated as an area of search suitable in principle for wind energy development. In addition to conformity with other local plan policies, wind proposals must also demonstrate all of the following:

(a) The development does not create a potential hazard to the public, including users of highways, footpaths, bridleways or other public rights of way;
(b) The development does not interfere with telecommunication paths or air traffic services including those associated with the military;
(c) They do not have an overshadowing or overbearing effect on nearby residents;
(d) The development avoids or adequately mitigates shadow, flicker, noise and any other adverse impact on amenity; and
(e) Following consultation, it can be demonstrated that the planning impacts identified by affected local communities have been fully addressed.

Within the District's Green Belt, elements of many renewable energy schemes may comprise inappropriate development and in all such cases schemes must demonstrate very special circumstances in order to be granted permission. Benefits of schemes relevant in considering whether very special circumstances exist may include (but are not limited to) the wider environmental benefits associated with increased production of energy from renewable sources.

Development proposals should be consistent with other Local Plan policies.

7.2 Government strategies highlighted earlier in this paper set out the need for a rapid change in renewable energy supply, indicating that the grid will need to be decarbonised by 2035 and that significant growth in onshore wind and solar will be parts of the overall strategy necessary to achieve this. Equally, the Staffordshire Climate Change Study 2020 highlights the need to facilitate a rapid step-change in renewable supply, highlighting wind and solar as two key technologies that would be technically deliverable within the County to achieve this. With this background in mind the policy has been written to make it clear that the Council will encourage renewable energy schemes across the district where appropriate and has provided key criteria to direct the schemes with the greatest potential to reduce the district's grid emissions (i.e. wind and solar). This responds to the recommendations of the Staffordshire Climate Change Study 2020, specifically those regarding the area of search suitable for wind energy.

7.3 The criteria for solar proposals acknowledge that the majority of the district is classified as Best and Most Versatile Agricultural Land[21] and seek to encourage schemes towards either previously developed land or areas of lower agricultural land classification where possible. This responds to the significant land-take of solar schemes and the need to protect the district's agricultural land resource as far as possible. It also seeks to maximise biodiversity benefits on new solar sites, recognising that these schemes present unique opportunities to deliver higher levels of biodiversity enhancement. The criteria for wind proposals seek to mitigate the specific amenity and safety impacts raised by wind turbines, ensuring that schemes consider these specific impacts at an early stage. The policy also highlights the need to fully address the concerns of the local community in any proposed scheme, recognising the government's emphasis on the need to achieve community support for wind turbines.

[21] http://publications.naturalengland.org.uk/publication/130044?category=5954148537204736

Glossary

Climate Change Committee – An independent, statutory body established under the Climate Change Act 2008 whose purpose is to advise the UK and devolved governments on emissions targets and to report to Parliament on progress made in reducing greenhouse gas emissions and preparing for and adapting to the impacts of climate change.

Embodied carbon/lifecycle emissions – The carbon emissions associated with the extraction and processing of materials and the energy and water consumption used by the factory in producing products and constructing the building. It also includes the 'in-use' stage (maintenance, replacement, and emissions associated with refrigerant leakage) and 'end of life' stage (demolition, disassembly, and disposal of any parts of product or building) and any transportation relating to the above.

Fossil fuel - A natural fuel such as petroleum, coal or gas, formed in the geological past from the remains of living organisms. The burning of fossil fuels by humans is the largest source of emissions of carbon dioxide, which is one of the greenhouse gases that allows radiative forcing and contributes to global warming.

Offsetting - Offsetting is the process of compensating for the remaining carbon emissions balance by contributing, usually financially, towards solutions to reduce emissions elsewhere.

Performance gap - This term refers to the discrepancy between energy predictions at design stage, compared to in-use energy consumption of buildings.

Regulated carbon emissions – Emissions measured through the Building Regulations Standard Assessment Procedure, which are typically associated with a building's fixed installations for heating, hot water, cooling, ventilation, and lighting systems.

Renewable energy - Renewable energy technologies use natural energy sources to generate electricity and/or heating/cooling. Sources include solar, wind, wave, marine, hydro, etc..

Unregulated carbon emissions – Emissions generated by a building that are outside of the scope of Building Regulations, e.g. through use of energy associated with equipment such as fridges, washing machines, TVs, computers, lifts, and cooking.

Whole Life Carbon Assessment – A full assessment of the carbon emissions resulting from the materials, construction and the use of a building over its entire life, including its demolition and disposal.