Coventry City Council

Coventry Local Plan Review

Environmental Management Background Paper

November 2024

Coventry City Council

Contents

1. Introduction

Climate change and environmental management is one of the biggest challenges to the future of our planet and Local Planning Authorities have a pivotal role to play in the global response to this challenge. Coventry City Council's One Coventry Plan (2022-2030)[1] sets out a vision for the city which includes three delivery priorities, one of which is tackling the causes and consequences of climate change. This is supported by the Council's Climate Change Strategy[2], which details the Council's ambitious commitments to transition to net zero by 2050 and become a leading city for the green industrial revolution.

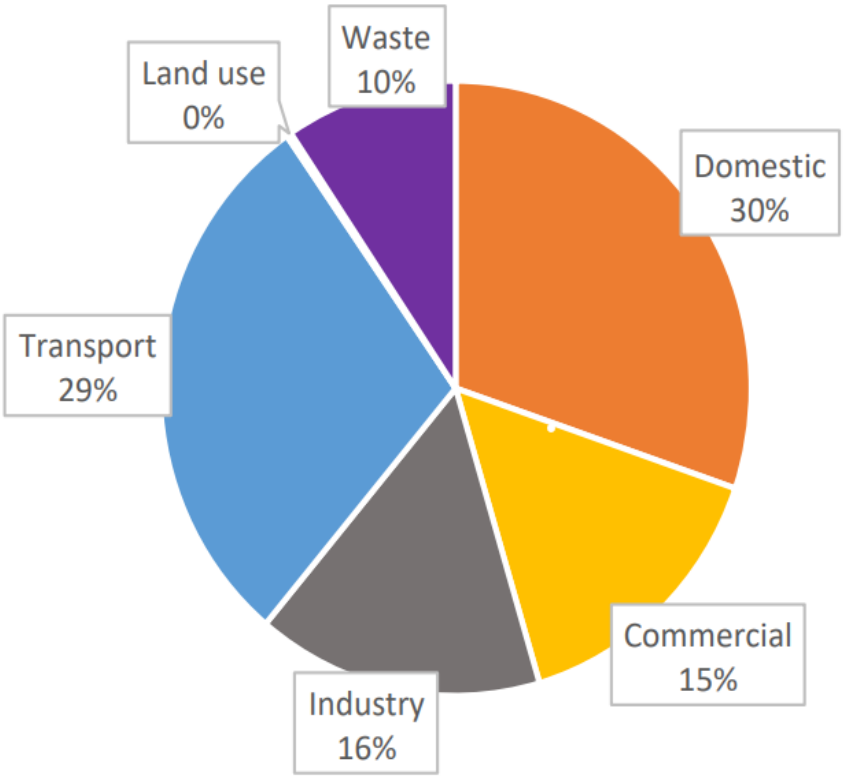
The Climate Change Act requires a Local Plan to be carbon audited and studies of Local Plans by the TCPA[3] and others have demonstrated that the actions identified fall well short of the mark to deliver the necessary carbon reduction level. The core message of this report is that the planning system is failing to deliver to its potential and has in fact abandoned many vital sustainable development outcomes and the wider endeavour of place-making. The Coventry Local Plan Review is the city's commitment to creating a planning policy framework that addresses all 17 of the UN's sustainable development goals. The importance of creating a framework to drive innovation in design and implementation measures to support sustainable development as critical for a city competing in a global market which is becoming increasingly focused on the development of a green zero carbon economy.

A Net Zero Routemap has been produced for Coventry by Professor Andy Gouldson, a lead Climate Advisor for the UK Infrastructure Bank. The Routemap sets out the results of analysis that assesses past, present and projected energy use and carbon emissions from the different sectors in Coventry (See Figure 1) and explores different options for achieving net zero in Coventry. Given that the domestic and commercial properties account for 45% of the city's total carbon emissions, it is critical that there is a step change in the city's approach to future development to support the transition towards net zero. It is therefore vital that the Coventry Local Plan Review supports this

[1] https://www.coventry.gov.uk/onecoventryplan
[2] https://www.coventry.gov.uk/climatechangestrategy
[3] https://www.tcpa.org.uk/wp-content/uploads/2021/11/CrisisOfPlace.pdf

scale of ambition and provides a policy framework to deliver more sustainable development.

Figure 1: Coventry's Carbon Footprint Sectoral Breakdown (Source Coventry Net Zero Routemap, 2023)



Further to the Council's ambitious vision to create a greener future, the Council has a legal duty to ensure that the new Local Plan Review addresses sustainability in its widest sense and includes policies that, taken as a whole, have been designed to secure positive action on sustainability and climate change given the Councils 5 pathway groups in its draft Climate Change Strategy. This is backed up through national policy which sets out that the planning system should help to: 'shape places in ways that contribute to radical reductions in greenhouse gas emissions, protect biodiversity, improve air quality, minimise waste and pollution and that Local Plans should take a proactive approach to mitigating climate change as well as ensuring the highest standards of adaptation and resilience.

In recognition of the need to take action on climate change, the Council acknowledged climate change as an issue to address in 2008 when it was a founding signatory to the Covenant of Mayors for Climate change. In terms of targets, the Climate Change Act requires the UK government to reduce emissions by at least 100% of 1990 levels (Net Zero) by 2050. The government has set the sixth carbon budget at 965 MtCO2e, in line with the level advised by the Committee on Climate Change. At a local level, this can be articulated in the Councils new draft Climate Change Strategy 2023-2030 and the zero carbon routemap sets out further details in respect of emission levels.

Alongside the transport network, the built environment is a primary contributor to Coventry's carbon dioxide emissions, a potent greenhouse gas which is causing global climate change. The power used to heat and light buildings as well as the resources used as part of the construction process all have a role in these emissions. In order to meet national and local commitments on mitigating climate change, it is essential that new development being built in the city is designed to be fit for a zero carbon future including aiming to achieve the highest standards in terms of construction and design such as BREEAM Excellent/Passivhaus, and that existing development is retro-fitted to reduce its carbon footprint.

This background paper sets out the context and key issues in relation to tackling climate change, flood risk management, minerals and waste and amenity issues (noise and air quality) which have been considered as part of the Local Plan Review. Linked to the draft Climate Change Strategy, there are some specific areas such as reducing carbon through transport and ensuring biodiversity and nature conservation are properly considered, and also to mitigate against risks of the impact of extreme/ adverse seasonal climate conditions such as heat stress, water shortages and flooding which is set out in greater detail through separate topic papers in line with the Adaptation and Resilience Plan.[4]

[4] https://www.sustainabilitywestmidlands.org.uk/resources/west-midlands-climate-change-adaptation-plan-2021-2026/

2. Policy Context

National Policy Context

National Planning Policy Framework

The context for assessing growth needs in plan-making is set out in the National Planning Policy Framework (NPPF) and accompanying Planning Practice Guidance (PPG). In compliance with the Planning and Compulsory Purchase Act 2004, plans must identify strategic policies and non-strategic policies, which deal with more detailed matters.

The first stage of the Local Plan Review process was undertaken in summer 2023 when the 'Regulation 18' ('Issues and Options') consultation was held between 18th July and 29th September. It should be noted that at this time the NPPF was the version published on 20th July 2021, and it was this version under which the consultation documents had been prepared.

Since then, further versions of the NPPF have been launched, in September and December 2023. The latter version is the one under which the Regulation 19 (Proposed Submission) Plan has been prepared and any implications for this are set out in this paper. It should also be noted that at the time of writing a new NPPF is anticipated having been consulted by Government in summer 2024. Whilst the plan has been prepared under the 2023 NPPF, regard has been had to any potential forthcoming changes which might have implications for plan-making and so this is also referenced in the narrative.

The NPPF sets out that the purpose of the planning system is to contribute to the achievement of sustainable development. At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs4. At a similarly high level, members of the United Nations – including the United Kingdom – have agreed to pursue the 17 Global Goals for Sustainable Development in the period to 2030. These address social progress, economic well-being and environmental protection. The City Council has adopted the International Council for

Local Environmental Initiatives' (I.C.L.E.I) 5 Pathways which address the 17 UN Goals. These include:

- Low Emission Development;
- Nature-based Development;
- Equitable and People-centred Development;
- Resilient Development; and
- Circular Economic Development.

Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):
a) an economic objective
b) a social objective
c) an environmental objective

These objectives should be delivered through the preparation and implementation of plans and the application of the policies in this Framework; they are not criteria against which every decision can or should be judged. Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area. So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development.

Flood Risk

The NPPF is clear that the sequential test should consider all sources of current and future flood risk. Strategic Flood Risk Assessments (SFRAs) should form the basis for the sequential test. The EA's guidance How to prepare a strategic flood risk assessment provides advice on how SFRAs should account for surface water flood risk. The guidance encourages Local planning authorities (LPAs) to include a ranking methodology in their SFRA which should enable the relative risk of different sites to be consistently compared.

Minerals and Waste

The NPPF recognises that it is important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs whilst ensuring that permitted mineral operations do not have unacceptable adverse effects on the natural and historic environment or human health. The NPPF also recognises that, since minerals are a finite natural resource and can only be worked where they are found, it is important to make best use of them and to secure their long-term conservation through the mechanism of mineral safeguarding.

National Planning Practice Guidance

The NPPG sets out the government's planning policies for England and how these are expected to be applied and features two key categories - Renewable and Low Carbon Energy and Climate Change. There are other related guidance notes that are applicable in respect of flood risk, air quality and minerals and waste planning[5].

The chapter for Renewable and Low Carbon Energy states that; "*Increasing the amount of energy from renewable and low carbon technologies will help to make sure the UK has a secure energy supply, reduce greenhouse gas emissions to slow down climate change and stimulate investment in new jobs and businesses. Planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable." (001).*

This is supported by the chapter for Climate Change which states that; "*taking planning decisions local planning authorities should pay particular attention to integrating adaptation and mitigation approaches and looking for 'win-win' solutions that will support sustainable development. This could be achieved in a variety of ways, for example:*

- *by maximising summer cooling through natural ventilation in buildings and avoiding solar gain;*
- *through district heating networks that include tri-generation (combined cooling, heat and power); or*

[5] https://www.gov.uk/government/collections/planning-practice-guidance

- *through the provision of multi-functional green infrastructure, which can reduce urban heat islands, manage flooding and help species adapt to climate change – as well as contributing to a pleasant environment which encourages people to walk and cycle.*" (*004*)

"*The impact of climate change needs to be taken into account in a realistic way. In doing so, local planning authorities will want to consider:*

- *identifying no or low-cost responses to climate risks that also deliver other benefits, such as green infrastructure that improves adaptation, biodiversity and amenity*
- *building in flexibility to allow future adaptation if it is needed, such as setting back new development from rivers so that it does not make it harder to improve flood defences in future*
- *the potential vulnerability of a development to climate change risk over its whole lifetime." (005).*

Future Homes Standard

The Future Homes Standard will come into effect in England in 2025 and ensure that new homes are futureproofed with low-carbon heating systems and high levels of energy efficiency. Existing homes will also be subject to higher standards, although homeowners will only be affected if they are planning on building an extension or making thermal upgrades, subject to local viability.

The Future Homes Standard was announced in the government's spring statement in 2019. Currently, a second government consultation has now been completed[6]. A full technical specification for the Future Homes Standard will be consulted on in 2023, with the necessary legislation introduced in 2024, ahead of implementation in 2025.

Building Regulations

Part L of Building Regulations (2022)[7] contains requirements relating to the conservation of fuel and power. Builds must meet these requirements to be compliant with Building Regulations. A number of local authorities in England have made their

[6] https://www.gov.uk/government/consultations/the-future-buildings-standard
[7] https://www.gov.uk/government/publications/conservation-of-fuel-and-power-approved-document-l

planning policies more ambitious by requiring a 19% improvement beyond Part L (based on the 2013 regulations) through their Development Plan Document (DPD) process. However, this cannot be achieved through a SPD as it involves the introduction of a specific policy approach and in accordance with the Planning & Energy Act (2008) the intention is to strengthen these planning policies beyond Part L of the building regulations requirements.

Achieving this level of energy efficiency can be done solely through either a fabric and design first approach (maximising solar gain through appropriate location and design, ecological footprint, enhanced insulation, glazing, airtightness and high efficiency heating and hot water heat recovery), a renewable energy approach (the use of solar photovoltaics (PV) or other renewables), or a combination of both.

The national mandatory standards for construction are set out in the building regulations. They cover all aspects of construction and set minimum Target Fabric Energy Efficiency (TFEE) rates as well as overall maximum carbon emissions rates for new buildings. The maximum carbon emissions rate for a building is referred to as the Target Emission Rate (TER). The TER differs for different types of buildings (e.g. flats, detached dwellings, offices) and is expressed in annual kilograms of carbon dioxide per square metre.

The emission rate of a proposed building is based on its design specification and is expressed as:

- Dwelling Emission Rate (DER) for self-contained dwellings and individual flats (excluding common areas). The DER is the annual carbon dioxide emissions of the proposed dwelling expressed in kilograms per square meter.
- Building Emission Rate (BER) for buildings other than dwellings. The BER is the annual carbon dioxide emissions of the proposed building expressed in kilograms per square metre.

Under current building regulations, the DER or BER for the proposed building must not exceed the TER[8]. The DER or BER of a proposed building is established through modelling. The approved national calculation methods used in the building control system are the Standard Assessment Procedure (SAP) for dwellings and the Simplified Building Energy Model (SBEM) for commercial buildings. Other models are sometimes used to give more detailed and accurate information. The models make assumptions about the embodied carbon in different energy sources like grid electricity and mains gas, referred to as emission factors.

The new building regulations aim to achieve zero CO2 emissions by 2050. They include lowering the maximum CO2 emissions by buildings and raising the bar for current overheating, fabric, and ventilation regulations. The new building regs are introduced to bring the U.K.'s carbon emissions down to zero by 2050 which will take effect in 2025. The updated rules are a bridge until the Future Homes Standard is implemented, which will bring about stricter adjustments to make buildings more energy efficient.

The New National Building Regulations came into effect in June 2022. The one year grace period meant that any project that received Building Regulations permission before June 15, 2022, the old requirements continued to apply. However, applicants had until June 15, 2023, to start the work before the approval expired. All newly constructed residences must reduce carbon emissions by at least 31% starting on June 15, 2022. All new non-residential structures must cut carbon emissions by at least 27%.

However, the building regulations will change in 2025 when the Future Homes Standard is implemented which will require all new homes to comply with a stricter standard. Among the requirements, there will be a stipulation that new homes must be "zero carbon ready". CO2 emissions will be 75-80% lower than those built to current standards.

8 https://www.designingbuildings.co.uk/wiki/Dwelling_emission_rate_DER#:~:text=The%20Dwelling%20emission%20rate%20(DER,must%20not%20exceed%20the%20TER.

***Emission factors**:*

When undertaking modelling, applicants are strongly encouraged to use the national guidance SAP10 emission factors (or any future replacement equivalent). The energy statement should state clearly which emission factors have been used.

The key impact of the introduction of SAP 10 emissions factors will be a dramatic reduction in the carbon emissions rate for grid electricity, which reflects the continuing decarbonisation of the national grid through the increasing use of renewable energy. The electricity emission factor is proposed to change from 0.519 kg of CO2 per kWh to 0.136 CO2 per kWh10. As a result, electric technologies, such as heat pumps, will be considered to perform far better on carbon emissions under SAP 10 than under SAP 2012 in the Building Control system.

In addition to Building Regulations, there are a number of voluntary standards that can also be adopted to ensure a more sustainable built environment. Table 1 summarises the main codes used in England and it is worth noting that many local authorities are now including Building Research Establishment Environmental Assessment Method (BREEAM) targets for non-residential developments in their planning policies. Passivhaus is also another standard accepted by local authorities especially for residential developments. The Future Homes Standard and Building Regulations are covered by a separate regulatory regime and the planning system should not seek to duplicate matters already addressed by separate regimes'[9].

Table 1 - Current codes and standards applicable in England

Code, standard or regulation	Description
BREEAM	BREEAM is a method of assessment developed by the Building Research Establishment (BRE) to determine the environmental performance of both new and existing

9 https://www.qub.ac.uk/directorates/EstatesDirectorate/Services/SustainabilityatQueens/SustainableConstruction/

	buildings. The standard applies to industrial, retail, offices and health.
Home Quality Mark (HQM)	Developed by BRE, HQM is a voluntary, national standard for new homes, which uses a simple 5-star rating on a new home's design, construction quality and running costs. HQM will enable housing developers to showcase the quality of their new homes and identify them as having the added benefits of being likely to need less maintenance, cheaper to run, better located, and more able to cope with the demands of a changing climate.
Passivhaus	A voluntary certification developed by the Passivhaus Institute in Germany, Passivhaus buildings are designed to be highly efficient in reducing energy use and carbon emissions as well as providing high levels of comfort.
Standard Assessment Procedure (SAP)	Developed by BRE, SAP is used to assess and compare the energy and environmental performance of dwellings and is a tool for delivering energy efficiency policies. SAP is measured on a scale of one to 120, with one being very poor and 120 being excellent. A typical SAP for an average house in England is 45, for a new build it should be around 80.
Well Standard	The WELL Building Standard ™ is an international assessment method that encourages healthy eating choices and active lifestyles, as well as promoting natural light and a high standard of air quality, based on seven years' of scientific, medical and architectural research.
Ska Rating	An environmental assessment method, benchmark and standard for non-domestic fit-outs, led and owned by RICS. SKA rating helps landlords and tenants assess fit-out projects against a set of sustainability good practice criteria.
Land use: Policies for a Net Zero UK	This aims to set out the changes that are intended to make it 'pay' for farmers to reduce emissions for the first time. Suggested policies identify and provide a coherent

	framework that recognises the essential role of farmers as stewards of the land and encourages real change.

Written Ministerial Statement (WMS) 2023

The Written Ministerial Statement (WMS) was made by Lee Rowley (Minister of State for Housing) together with Baroness Penn (Parliamentary Under Secretary of State for Levelling Up, Housing and Communities). Its stated topic is "Planning - Local Energy Efficiency Standards[10]".

It places new limitations on the exercise of existing powers held by local planning authorities to require improvements in the energy and carbon performance of proposed new buildings in their area. The WMS does not remove the ability to set improved local standards, but it limits them in this way:

- Local planning policies for energy efficiency must be expressed as percentage reductions on the Building Regulations Part L TER (Target Emissions Rate), using a specified version of SAP.
- Policies that go beyond national building regulations should be "applied flexibly to decisions … where the applicant can demonstrate that meeting the higher standards is not technically feasible, in relation to the availability of appropriate local energy infrastructure … and access to adequate supply chains." We presume that this still only applies to energy *efficiency* policies as per the Statement's title and the fact that the Statement does not mention other types of policy for the purpose of carbon reduction (e.g. renewable energy).

The WMS also states that proposed policies should be rejected at examination if they do not have "a well-reasoned and robustly costed rationale that ensures that development remains viable, and the impact on housing supply and affordability is considered in accordance with the National Planning Policy Framework". This last point is not entirely new but reinforces the existing need for justification that we would already expect to provide on rationale and cost.

[10] Written statements - Written questions, answers and statements - UK Parliament

Regional Context

Zero Carbon Homes Strategy (Draft 2021)

The West Midlands Combined Authority (WMCA) will set clear policies supporting the delivery of zero carbon homes within the region through the evolving Zero Carbon Homes Strategy. This will clarify the Net Zero Carbon targets for the region and will support low-carbon aspirations across various sectors.

An enabling policy environment is required to build certainty amongst partners, the industry and the supply chain. Clear policies will allow for improved monitoring processes, improving compliance and quality of delivery. WMCA will look to implement requirements that encourage a fabric-first approach and passive design, in line with recommendations from industry experts such as LETI[11] and RIBA[12].

WMCA will also promote circular design[13] and construction approaches, aiming to reduce embodied carbon and promote sustainable resource and waste management[14].In this regard, the Green Building Handbook is particularly relevant[15].

#WM2041- Actions to meet the climate crisis with inclusivity, prosperity and fairness: a discussion document

This document is a framework outlined in this paper is the storyboard: it outlines why we need to address climate breakdown and to adapt to climate change the opportunity it provides to create a highly productive, low carbon economy; it reflects on what we might need to do (and when we need to do it) it suggests who needs to take a lead, and how it must be done if we are do it in a way which is thoughtful and inclusive. It also suggests – based on the estimates in the July 2019 carbon budget – that an investment programme substantial enough to meet this challenge will be in the order of £40bn over 21 years (2020-2041). The actions proposed are things that individuals, communities, businesses and government at all levels can lead.

[11] 252d09_3b0f2acf2bb24c019f5ed9173fc5d9f4.pdf (filesusr.com)
[12] RIBA-2030-Climate-Challenge.pdf (architecture.com)
[13] https://governance.wmca.org.uk/documents/s5989/Appendix%202.pdfStrategy
[14] Building Green
[15] Green Building Handbook Volumes 1 and 2: Green... [PDF] (pdfroom.com)

WM2041 Five Year Plan 2021-2026[16]

In 2019 the West Midlands Combined Authority (WMCA) set the region a target to be net zero by 2041 and meet the ambitions set out by the Paris Agreement. This is the first Five Year Plan (FYP) to demonstrate how the region could deliver the 2041 target and it shows:

- Under a highly ambitious 'Accelerated' scenario, goals in domestic, commercial, industrial, transport and land use sectors could deliver a 33% reduction by 2026 (against 2016 baseline) and net zero by 2041. The "Accelerated" scenario is recommended to be used as the standard to set the delivery goal ambitions.
- When considering current efforts and actions and the scale and pace required, the region is currently not on target.
- The change in delivery pace required is huge and unprecedented. It requires collaboration and delivery across all sectors well beyond current efforts.
- Delivery of this FYP to move the region to a net zero carbon society will represent an investment in the region's future and create a better West Midlands.
- Although action and investment within the region and by WMCA is crucial, the goals will require devolution of powers, additional government investment and action by the public.
- Gross extra investment required under the 'Accelerated' scenario is £4.3bn by 2026. However, net investment will be much lower due to operational savings.
- 41% of delivery is related to technology, 16% requires behaviour changes and 43% is a combination of both. (Taken from Committee on Climate Change, Sixth Carbon Budget)
- Delivering the 'Accelerated' scenario could create 21,000 jobs by 2026 and 72,000 by 2041.

[16] https://www.wmca.org.uk/media/4870/wm-net-zero-fyp-tech-report.pdf

Local Policy Context

Coventry's draft Climate Change Strategy (2023-2030)[17]

Coventry City Council's draft Climate Change Strategy is currently undergoing public consultation. It lays the foundations and sets the priorities for policy change and actions for creating a more sustainable zero carbon city. The Strategy addresses the 5 pathways which deliver the UN's 17 sustainable development goals which the UK Government signed up to delivering at the Rio Earth Summit (1992)

The principal areas of activity the Strategy addresses are:

1. The dramatic reduction of carbon emissions to achieve carbon neutrality with a 100% reduction to 1990 levels by 2050 at the very latest;
2. Waste minimisation and the use of raw materials encouraging re-use and repair for the development of a circular economy;
3. The promotion of biodiversity, wildlife conservation, access to open space as well as promoting awareness and appreciation of our natural heritage;
4. Enhancing adaptation and resilience mitigating the effects of climate change and the risks of impacts from extreme weather events (e.g. flood & heat stress) upon the environment and citizens of Coventry; and
5. Addressing inequities caused by the adverse impacts of human activities upon the quality of the environment and its citizens such as air quality, food poverty, fuel poverty and subsequent adverse effects upon health.

The Strategy makes explicit reference to the need for a fundamental review of the Policies in the Local Plan in order to achieve the above outcomes

The Strategy highlights the Council's priorities to take it to the year 2030 when it hopes to achieve a 55% reduction in Carbon emissions to 1990 levels which it signed up to last year as part of the Commitment of the Covenant of Mayors. This is an interim target as the City Council and its partners work together to achieve a common goal set by the UK Government of achieving a 100% reduction of Carbon emissions to from 1990 levels and possible to achieve this target by 2041 as laid down by the West Midlands Combined Authority (WMCA) and 2050 at the latest as laid down by the Government. The settings of targets for cities are a critical step in making progress

[17] https://www.coventry.gov.uk/climate-change/coventry%E2%80%99s-climate-change-strategy

and from a practical point of view these targets are necessary for the Council to ever achieve an 'A' Rating from the highly prestigious CDP an international body which accredits and verifies the calculated emissions levels and Carbon savings against the targets. A summary document also complements the draft Climate Change Strategy which highlights five areas of work or pathways to address[18].

Coventry Local Plan (adopted 2017)

The following paragraphs summarise current adopted policy to help provide the context for their review in the following section.

Chapter 11 – Environmental Management

Key objectives of the Local Plan include creating an attractive cleaner and greener city, to provide housing that meets the needs of all people, and to improve the health and wellbeing of all residents. Linking these objectives together is Policy EM1 which amongst other objectives, the policy also fulfils other functions.

Policy EM1 – Planning for Climate Change Adaptation

- Policy requires all new development to have regard to environmental issues when being
  designed. This includes water efficiency, drainage, construction techniques and infrastructure. Non-compliance with the policy needs to be fully justified.

Policy EM2 – Building Standards

- Policy recognises that minimum building standards are continuously improving and requires development to achieve these as a minimum. It also encourages development to surpass existing minimum standards wherever possible.
- Policy also requires the production of a Sustainable Buildings Statement that will show how the scheme responds to matters of climate change, sustainable construction and where appropriate, mining legacy issues.

Policy EM3 – Renewable Energy Generation

- Policy covers the delivery of renewable energy across the city. Proposals will need to have regard to the impact on adjoining uses and properties and specific

[18] https://www.coventry.gov.uk/climate-change/tackling-climate-change

considerations linked to the types of renewable energy such as biofuels requiring locally sourced fuel. Wind turbines are largely not suitable across Coventry.

Policy EM4 – Flood Risk Management

- All major developments are to be assessed against their risk of flooding – having regard to the national sequential assessment and exceptions test.
- The policy will prevent inappropriate development taking place within designated flood plains.
- Additional flood risk infrastructure to reduce existing flood risk is encouraged

Policy EM5 – Sustainable Drainage Systems (SUDs)

- Policy requires the inclusion of SUDs within all schemes to ensure on site drainage is managed at source and is taken away from the site at an appropriate run off rate. This will help combat any risk of flooding both on and off site.
- Policy also requires suitable maintenance arrangements to be made for SUDs.
- All schemes should be agreed by the Lead Local Flood Authority (the Council) and the Environment Agency.

Policy EM6 – Redevelopment of Previously Developed Land

- Requires adequate waste water infrastructure to be provided on site and requires appropriate measures to be taken to ensure water resources and ground water on or below brownfield sites are not polluted. Greenfield sites are managed exclusively through EM4 and EM5.

Policy EM7 – Air Quality

- All development should take steps to design out adverse impacts on air quality. This should have regard to access to public and active transport options, improving energy efficiency and utilising renewable energy.
- Major developments will need to provide an air quality assessment at the application stage to show how the scheme will impact on air quality.

Policy EM8 – Waste Management

- The policy links to the main objectives of the Council's Waste Management Strategy. The policy promotes increased recycling and reduced consumption of raw materials.
- It also supports the expansion of existing waste management facilities in principle including the existing Energy from Waste plant. Where new facilities are proposed these will be considered against a set of criteria which consider the impact on surrounding uses, design, impact on pollutants, access to modes of transport and the wider environment.

Policy EM9 – Safeguarding Mineral Resources

- This policy identifies a range of Mineral Safeguarding Areas which reflect the city's mining legacy. These cover areas primarily around the Sowe Valley corridor and the North West quarter of the city.

Policy EM10 – Non-mineral Development in Mineral Safeguarding Areas

- Requires any development within these areas to have regard to mining legacy and the existence of any minerals that may exist below ground. New development should not sterilise access to mineral reserves if they exist. This policy does not apply to any site allocations (policy H2 or JE2) as they have already been considered through the consultation stages with stakeholders such as the Coal Authority.

Energy Supplementary Planning Document (SPD) 2022

The purpose of the SPD is to support the implementation of Policy EM2 – (Building Standards) of the Coventry Local Plan by providing technical guidance on energy standards and requirements to improve the environmental sustainability of new development in the city. Whilst the SPD cannot introduce new targets or standards, it adds value in a number of ways by:

- providing transparent guidance for applicants with more detail about specific policy requirements and expectations;
- requiring applicants to consistently submit information to demonstrate compliance with policy;

- helping officers and councillors assess the environmental credentials of developments to make decisions; and
- encouraging developers to go further than current policy to demonstrate excellence in sustainable development.

As a signatory to the Global Covenant of Mayors for Climate and Energy back in 2008, the Council has made its position clear that the highest standards of energy efficiency will need to be achieved.

3. Regulation 18 summary of responses

Policy EM1: Planning and Climate Change

As result of the Regulation 18 Issues and Options consultation, a variety of responses to question 92 were provided, responding to the question '*Do you have any comments on the proposed policy direction that Policy EM1 needs updating with the introduction of specific targets for mitigating and addressing the challenges of climate change and working towards achieving net zero in all new build developments?*

The development industry made it clear that any local standards should not repeat matters that are addressed through Building Regulations, moreover, the Council does not need to set any local energy efficiency standards. Conversely, local environmental groups and residents including key stakeholders such as Coventry University, Severn Trent Water and local businesses such as Jaguar Land Rover stated that the policy does need updating with specific targets for mitigating and addressing the challenges of climate change and working towards achieving net zero in all new build developments. Indeed, our Duty to Cooperate partners also agreed with the premise of the question

For non-domestic developments, retrofit, refurbishment and change of use schemes there is scope to achieve net zero for such proposals. The Council stated that they would be developing an Adaptation and Resilience Plan for the city but we believe the WMCA Climate Change Adaptation Plan should be considered to address this issue, including SuDS, reducing overheating risk by utilising green roofs/walls and natural shading and to reduce flood risk, alongside adopting renewable technologies to reduce reliance on grid electricity. The Council will also be seeking to encourage and support the development of net zero neighbourhoods and more liveable neighbourhoods designed in response to tackling the causes and consequences of climate change which could include community heat networks, provision for battery storage fed by renewable energy sources, infrastructure to support active travel modes and EV charging and green space, SuDS and trees to provide biodiversity, drainage and shade, alongside opportunities for community food growing.

In response to question 93, responses were provided to the question seeking views on non-domestic developments, retrofit, refurbishment and change of use schemes, considering that there is scope to achieve net zero for such proposals, in line with the WMCA Climate Change Adaptation Plan and Coventry City Council's emerging Adaptation and Resilience Plan. 8 respondents expressed support, others commented that the policy should be stepped in line with Government policy, that a timetable is needed, that different building forms and uses would be needed, that district heating should be referenced, and that the role of canals should be considered.

Policy EM2: Building Standards

The Council suggested that this policy should be deleted as it was out of date and should propose more challenging building standards as well as a suite of options in relation to biodiversity. In relation to question 94, there were a mix of responses with some expressing support and objection. A series of other comments were received, stating the policy should only refer to Building Regulations, some wanting more ambitious targets and enforcement action taken where standards have not been met. The need to consider coal mining legacy and land instability was also mentioned.

In respect of question 95, this question was aimed at establishing any local evidence and justification for exceeding existing Building Regulation standards, with a variety of responses received. No specific evidence was received from stakeholders. Comments were more general, stating that evidence would be needed, that this should include viability evidence, there should be a whole-life carbon emissions assessment approach and carbon offsetting should be explored further.

Policy EM3 Renewable Energy Generation

The consultation suggested that policy should be strengthened in line with the NPPF and local ambitions including the potential for requiring renewables in new build developments. Question 96 generated a general support from respondents and several objections and several general comments were made stating further evidence is needed.

Policy EM4 Flood Risk Management

The consultation proposed question 97 which asked for views on updating the policy to bring it in line with national and local policy and strategy with cross reference to Green Infrastructure and a potential new SPD. The question garnered a mix of responses with general support with some respondents expressing views about not allowing development in areas of flood risk, others felt there was some duplication with other policy areas (e.g. biodiversity).

Policy EM5 Sustainable Drainage Systems (SuDS)

Responses to question 98 which posed, *'Do you have any comments on our suggestion that Policy EM5 needs updating as described above with further technical amendments to help strengthen the policy further?'* resulted in several responses. There was general support for this approach and a question regarding SuDS maintenance and the need for evidence to support the policy approach.

Policy EM6 Redevelopment of Previously Developed Land

The consultation proposed that this policy needed a minor technical update in terms of specific reference Water Environment Regulations. There were a mixture of responses with support for policy updates as proposed and comments around the need for policy to reflect the NPPF.

Policy EM7 Air Quality

The policy was generally considered to be up to date although it was suggested through question 100 that a minor update to the policy could include a specific reference to the Ministerial Direction for nitrogen dioxide alongside the AQMA to give the policy more weight. There were a variety of responses with support for the proposals and no objections. It was commented that the policy must address air quality on designated sites, that it should be updated in line with the Air Quality SPD, and that cumulative effects of vehicular traffic to the north of the city needs to be considered.

Policy EM8 Waste Management

Question 101 sought views on whether the policy remains up to date in line with the Councils position which garnered a few responses with support and objection and several general comments were received. It was commented that there needs to be a

more general approach to waste management and that it needs to be considered in terms of the circular economy, that it should be considered alongside net zero policy and NO2 emissions and more detail is needed on MRF volume capacities.

Policy EM9 Safeguarding Mineral Resources

This policy relates to mineral resources such as aggregates and recycled and secondary materials and the safeguarding of these with a response agreeing that the policy was up to date.

Policy EM10 Non Mineral Development in Mineral Safeguarding Areas

This policy cites a balanced approach to protecting minerals against the need to attract investment and regeneration in a mainly built-up urban area. No responses were received.

Sustainability Appraisal (SA)

During the progression of technical studies and early development of issues and options (Reg18) for plan-making, certain strategic options were identified for initial testing through SA in respect of climate change standards for Building Regulations.

The SA made suggestions for mitigating likely negative effects and for enhancing any likely positive effects to inform the plan-making. It should be noted that there can be much uncertainty of the significance of effects at the strategic level, particularly for issues associated with climate change.

At the early stages of the plan review, it was considered that there were possibilities for requiring standards for buildings and homes higher than is likely to be required nationally to better support the ambitions of the Coventry Climate Change Strategy. Therefore, the initial SA investigated through high level assessment two scenarios, as follows:

(i) Planning policy requirements in line with national Future Homes Standard[19] & Future Buildings Standard[20] covering energy efficiency, ventilation and overheating through Building Regulations; and

[19] For example, please see: https://www.futurehomes.org.uk/delivery-at-scale
[20] https://www.gov.uk/government/consultations/the-future-buildings-standard

(ii) Planning policy requirements that are over and above proposed Building Regulations to better progress Coventry's aspirational ambitions for addressing climate change effects.

Strategic options for progressing Coventry's Climate Change Strategy through the SA process found there were no refinements or further options identified. The SA findings from the Regulation 18 stage informed the ongoing plan-making process in progression to the Reg 19 stage.

Reasons for the selection and rejection of options for climate change and building regulations standards were twofold

(i) Option 1: National Future Homes & Buildings Standards

Key reasons for selection rejection:

- Viability and land values can support national standards
- Can help support investment and development in the city that would otherwise be located in areas outside the city
- Option will be progressed through mandatory requirements to meet national net zero ambitions

(ii) Option 2: Over and above proposed Building Regulations

Key reasons for selection rejection:

- Can help Coventry meet its local and national net zero ambitions
- Preferred Option if no adverse effects on viability and land values that might deter developers investing/building in the city

4. Evidence

There have been various sources of evidence that have been used to help review and update the Environmental Management chapter. However, the principal suite of evidence that has been used is set out below.

Coventry Climate Change Strategy (2024)

The Coventry Climate Change Strategy 2024-2030 sets out how the Council plans to tackle the causes and consequences of climate change, which is central to delivery of the One Coventry Plan. The Strategy sets out the challenges and opportunities to creating a more sustainable city through five key pathways (or themes):

1. Adaptation and resilience – how we adapt to weather changes caused by climate change and create more resilience in our infrastructure, services and systems.
2. Route to net zero – how we decarbonise our city including buildings, transport and industry and create a green economy.
3. A circular economy – how we use resources more efficiently.
4. Fairer green future – how we tackle inequalities and deliver a just transition.
5. Nature – how we address the ecological emergency, reverse the decline in nature and create a greener city.

Carbon Policy Support Report (2024)

Bioregional was appointed to provide the Council with an assessment of options available within the local planning system to address climate change in Coventry to inform Local Plan policy. In particular, this evidence report has directly informed how new policies EM11-EM14 have been developed. Local planning authorities (LPAs) have a legal duty to mitigate climate change (deliver carbon reductions) through the planning process, and government planning policy confirms that these reductions should be in line with the Climate Change Act.

The Climate Change Act includes both the 2050 goal for a net zero carbon UK, and sharply declining five-yearly carbon budgets between today and 2050. The report entitled ‘Carbon Policy Support, Evidence base and policy recommendations’ comprised the following points in how the Council have addressed the review to existing Local Plan policy:

- there are two ways that an operational carbon reduction policy could be designed:
    - Using Building Regulations metrics for operational energy and carbon – which would utilise the national calculation methods 'SAP/SBEM' (see glossary), which are inaccurate and exclude all energy used by plug-in appliances (potentially half of the total energy use in the building)
    - Using alternative metrics for operational energy, such as PHPP or TM54 (see glossary), which in turn would more effectively address carbon emissions, because these alternative metrics use calculation methods that fully and more accurately predict the energy use of the building.
- Additionally, within each of the two routes described above, the targets for energy efficiency and renewable energy can be made looser (for a less ambitious policy that would be easier for developers to achieve but less effective for carbon purposes) or tighter (which may require greater effort from developers but would be more effective for carbon and also for occupants' energy bill savings).
- However, the Written Ministerial Statement 2023 purports to restrict local energy efficiency policies to be expressed using Building Regulations metrics specifically to use the 'Target Emission Rate (TER)' metric which is in fact a carbon emissions metric, not truly an energy efficiency metric.
- Whichever of the above approaches is chosen and whatever level of ambition is pursued, it was advised to structure the policy according to the Energy Hierarchy in order to make the policy most effective in the long term and protect occupants from avoidably excessive energy bills. The energy hierarchy is as follows, in order of steps to take in the building design and mitigation:
    - Energy efficiency (reduce energy demand)
    - Generate and use renewable energy
    - Offset any operational energy/carbon that cannot feasibly be dealt with on site.
- The energy hierarchy means these steps should be fully prioritised in the order they appear. In addition to these guidelines on operational energy and the carbon impact of that, a policy to address the fuller picture of a building's carbon impact and climate suitability would also include:
    - Embodied carbon (the carbon emitted up to the point of completing the building – therefore material extraction, manufacturing, materials transport, construction process etc)

- Overheating risk mitigation (because the UK is expecting hotter summers in coming decades with climate change, and if the building is not designed to stay cool via passive designs, future occupiers may add active cooling systems such as air conditioning which would raise the energy use, which may make it no longer zero carbon)

- ‘Passive’ means ‘without using energy’. Passive overheating mitigation includes, for example, shading. Embodied carbon is not part of the energy hierarchy. Nor is overheating, albeit passive overheating mitigation would contribute towards the ‘energy efficiency’ step.
- In light of the restrictions that the WMS2023 purported to impose on local energy efficiency policies, three options for ‘net zero’ policy configuration were identified below

Policy element (structured by energy hierarchy)	Option 1: Safely compliant with WMS2023	Option 2: Compliant with WMS2023, but testing boundaries	Option 3: Diverge from WMS2023 (non-national metrics)
Energy efficiency improvement target	Set a % reduction on Part L TER (Target Emission Rate)	Set a % reduction on Part L TER (Target Emission Rate)	Set targets for total Energy Use Intensity and space heat demand
Renewable energy generation target	Fossil fuel free on site, AND Renewable generation on site to reduce regulated carbon to zero	Fossil fuel free on site AND Renewable generation on site equal to 100% of total energy use	Fossil fuel free on site AND Renewable generation on site equal to 100% of total energy use
Offsetting (where renewable target not met)	£/tonne of regulated carbon emissions	£ / kWh of energy use not met by renewables	£ / kWh of energy use not met by renewables

- The ambitiousness (and climate-protecting effectiveness) increases from left to right. Option 1 is the least effective/ambitious, while Option 3 is the most effective but also the riskiest in terms of planning acceptability, in that it would need a stronger argument to convince the Planning Inspector to permit a divergence from the WMS2023.
- Option 3 diverges from the WMS only by using more effective, accurate metrics that are not the national metrics used in Building Regulations. Option 2 sticks to the letter of the WMS (which affects *energy efficiency* only), but the renewable energy target is raised to cover *total* operational energy, not just the share that is

covered by building regulations. This can still use national calculation methods and stays within the local plan's legal powers.

- Also, three levels of potential ambition for embodied carbon were identified:

Policy element	Option 1	Option 2	Option 3
Embodied carbon	Major development to report embodied carbon.	Major development to report embodied carbon. Large-scale to hit cost-neutral targets (kg carbon/m² floorspace)	Major development to report embodied carbon. Large-scale to hit industry best practice targets (kg carbon/m² floorspace)

- Because embodied carbon is separate from operational energy/carbon, any of the embodied carbon options were combined with any of the operational energy/carbon options described above. They were expressed in three levels only to differentiate the range of ambition that could be pursued.
- In light of the balance of merits in terms of climate effectiveness and planning risks, the Council chose to pursue Option 2.

Water Cycle Study 2024

In 2023, JBA Consulting were commissioned by Nuneaton and Bedworth Borough Council to undertake a Water Cycle Study (WCS) to inform the Local Plans of six Local Planning Authorities (LPAs) referred to in this report as the "sub-region" and including:

- Nuneaton and Bedworth Borough Council (NBBC)
- Coventry City Council (CCC)
- Rugby Borough Council (RBC)
- Warwick District Council (WDC)
- North Warwickshire Borough Council (NWBC)
- Stratford-on-Avon District Council (SADC)

This study assesses the potential issues relating to future development within the whole of the sub-region and the impacts on water supply, wastewater collection and treatment and water quality. The Water Cycle Study is required to assess the constraints and requirements that will arise from potential growth on the water infrastructure.

West Midlands Local Aggregate Assessment

Aggregate minerals are deposits which are used to support the construction industry and comprises sand, sand and gravel, and crushed rock, consequently they are important for our prosperity and quality of life.

The Local Aggregates Assessment (LAA) for the West Midlands Metropolitan Area (WMMA), comprises seven unitary authorities:

- Birmingham City Council
- Coventry City Council
- Dudley Borough Council
- Sandwell Borough Council
- Solihull Borough Council
- Walsall Borough Council
- City of Wolverhampton Council

Each Metropolitan Area local authority is a mineral planning authority, however, unlike County Councils, they do not prepare specific Minerals Local Plans, instead local plan policies address mineral planning matters. Work is underway to update the previous document published in 2016 and will be published in due course.

Due to its built-up nature, workable sand and gravel deposits are limited in the West Midlands Metropolitan Area and are mainly restricted to Solihull MBC, there are currently no workable crushed rock deposits.

5. Policy Changes

Policy EM1 Planning for Climate Change Adaptation (Retained and updated)

This policy update aims to ensure there is a hook to the Climate Change Strategy and Adaptation and Resilience Strategy within the explanatory text. Further additional policy updates have been introduced to strengthen the strategic approach and incorporate the policy approaches set out in the supporting evidence base.

There are also references to Heat Network Zoning aligning to requirements for all development types to make connections available in areas which are identified as heat network zones.

Policy EM2: Building Standards and Policy EM3: Renewable Energy Generation (Deleted)

Policies EM2 and EM3 add no local added purpose. Both policies are to be replaced with new policies. Policy EM2 has been replaced with new policies (see EM11, EM12, EM13 and EM14 which all incorporate building standard requirements for different development typologies). Policy EM3 has been replaced with new policies (see EM11 and EM12 which both incorporate integrated renewable energy requirements).

Policy EM4 Flood Risk Management (Retained and updated)

This policy has been updated to bring it into line with national legislation and policy and also to reflect the local context. In terms of the addition relating to ground-floor sleeping accommodation, this can often put those on the ground floor at the highest risk of flooding (see HMO DPD Policy HM04). Criteria 10 requires applicants to demonstrate how any identified potential flood risk would be addressed. This may include the incorporation of appropriate site-specific mitigation such as raising floor levels, flood resistant construction and the preparation of a Water Exclusion Strategy.

Policy EM5 Sustainable Drainage Systems (SuDS) and Policy EM6 Redevelopment of Previously Developed Land (Retained and updated)

The policies have been updated in accordance with national legislation and policy.

Policy EM7: Air Quality (Retained and updated)

Minor update to the policy with additions to the commitment to produce a SPD which has been deleted as that has now been adopted and a link to the SPD has been added.

Policy EM8: Waste Management, Policy EM9: Safeguarding Mineral Resources and Policy EM10: Non-Mineral Development in Mineral Safeguarding Areas (Retained)

All three of the policies have been retained with no changes necessary at the current time as they remain up-to-date and in accordance with the NPPF and associated planning practice guidance.

Policy EM11: Energy Infrastructure (new policy)

This new policy addresses operational carbon to ensure the provision of residential buildings are fit for the future, both in terms of reduced energy consumption and holistic integration of design decisions that address climate adaptation through Building Regulations and its metrics. Target Emissions Rate (TER) used for Building Regulations has been used which represents the annual carbon emissions from a building.

Policy EM12 Reducing operational carbon in new build non-residential development (new policy)

This new policy addresses operational carbon to ensure the provision of non-residential buildings are fit for the future, both in terms of reduced energy consumption and holistic integration of design decisions that address climate adaptation through Building Regulations and its metrics. Target Emissions Rate (TER) used for Building Regulations has been used which represents the annual carbon emissions from a building.

Policy EM13 Overheating in new buildings (new policy)

This new policy makes provision for addressing overheating in new buildings. New buildings that meet ambitious space heating demand requirements will be at increased risk of overheating due to the ability of the building to retain heat well. Clearly, throughout winter this is a key comfort benefit, yet during summer this can result in the

opposite effect if not otherwise mitigated with measures to enhance ventilation and avoid excess solar gain, in warmer months. This policy aims to ensure that overheating risk is sufficiently assessed and integrated into decisions throughout design stages to ensure high fabric efficiency standards are not achieved at the detriment of internal comfort and temperature levels.

In addition to addressing overheating with building-related measures, overheating mitigation measures can also be integrated alongside blue and green infrastructure policies. Benefits here are further intertwined, whereby overheating risks can be mitigated whilst also improving the biodiversity of a site. For example, green roofs, walls and trees are effective at reducing surface temperatures through natural shading and evapotranspiration.

Policy EM14 Embodied carbon and waste (new policy)

As operational energy and carbon are reduced, the proportion of embodied carbon becomes larger than ever as a share of the building's lifetime carbon emissions. This means that reductions to embodied carbon will require increased attention. This policy addresses aims to ensure that in working towards a wholly net zero carbon building, this policy addresses embodied carbon with equal weight, if not more, than operational energy/carbon policy.

Policy EM15 Noise (new policy)

This new policy aims to address noise issues associated with new development which had been missing in the Coventry context from the adopted 2017 Local Plan.

In terms of noise mitigation and in assessing such schemes for noise mitigation for either a noise-generating or noise sensitive development, account should be taken of:

- The location, design and layout of the proposed development
- Land levels and existing topographical features
- Existing levels of background noise;
- Hours of operation and servicing (where relevant);
- Potential for cumulative impact with nearby noise-generating uses;
- Measures to reduce noise within the development to acceptable levels, including external areas where possible; and

- The need to maintain adequate levels of natural light and natural ventilation to habitable areas of the development.
- The need to ensure that where ventilation is required in areas of poor air quality, measures do not impact the amenity of end users where open windows may be inappropriate.
- The need to ensure mitigation schemes can be satisfactorily verified and adequately maintained for the life of the development.

6. Conclusions

Through review of the Environmental Management chapter several requirements for updates have been identified. The plan review proposes to remove areas of repetition to core plan policies in order that the policy requirements are clearly defined, whilst additional clarity has been required in several areas detailed in the previous sections.

There is also a clear need to introduce new policies to address the challenges of climatic changes and improve the amenity of all communities particularly in respect of noise mitigation, evidenced by the feedback raised during the regulation 18 consultation and the suite of evidence that has been developed.

Environmental Management policies remain an important role in the planning policy landscape across a number of different areas from climate change and renewable energy through to amenity and minerals and waste. The need to bring forward new and updated policies that address climate change in the Coventry context shows resilience and will help future proof all development in the city throughout the plan period.

If you need this information in another format or language please contact us

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