Coventry City Council

Public report
Cabinet

Cabinet 15th March 2022

Name of Cabinet Member:
Cabinet Member for Housing and Communities – Councillor D Welsh

Director Approving Submission of the report:
Director of Streetscene and Regulatory Services

Ward(s) affected:
All

Title:
Energy Supplementary Planning Document - Adoption

Is this a key decision?

Yes – The proposals in the report will significantly affect residents and businesses in all wards of the city

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Executive Summary:

This report seeks to adopt the Energy Supplementary Planning Document (SPD) following public consultation which was undertaken between 30th November 2021 and 18th January 2022.

SPDs add further detail to the policies in the development plan but cannot introduce new policy. SPDs provide additional guidance for development and are capable of being a material consideration when making decisions on planning applications.

Providing further guidance on building standards as they relate to carbon reduction and climate change over the Plan period to 2031 is a key commitment set out in Policy EM2 (Building Standards) of the adopted Coventry Local Plan. The aim of this SPD is to provide technical guidance on energy standards and requirements to improve the environmental sustainability of new development in the city.

The additional guidance provided within the SPD aims to provide clear information for applicants about policy requirements and expectations, clearly set out what detail the council expects developers to provide to assist the decision – making process and to encourage developers to promote excellence and best practice in sustainable development.

Responses to the consultation have been analysed and taken account of when amending the SPD. The proposed final version is attached at Appendix 1 to the report, and a summary of representations along with responses and proposed amendments can be seen at Appendix 2 to the report.

Once adopted, this SPD will replace the Delivering a More Sustainable City SPD which was adopted in January 2009.

Recommendations:

Cabinet is recommended to:

1) Adopt the Energy Supplementary Planning Document (SPD).

2) Delegate to the Strategic Lead (Planning), following consultation with the Cabinet Member for Housing and Communities, any necessary further non-substantive (minor) changes to the document.

List of Appendices included:

Appendix 1 - Energy Supplementary Planning Document.
Appendix 2 - Consultation: summary of representations and responses
Appendix 3 - Strategic Environmental Assessment Screening Report
Appendix 4 - Equalities Impact Assessment

Background papers:

None

Other useful documents:

Local Plan: adopted December 2017
National Planning Policy Framework July 2021

Has it been or will it be considered by Scrutiny?

No, however the draft SPD was considered by the Communities and Neighbourhoods Scrutiny Board (4) on 15th December 2021 as part of the consultation process.

Has it been or will it be considered by any other Council Committee, Advisory Panel or other body?

No

Will this report go to Council?

No

Report title: Energy Supplementary Planning Document

1. Context (or background)

1.1 The National Planning Policy Framework (NPPF) defines Supplementary Planning Documents (SPDs) as '*documents which add further detail to the policies in the development plan. They can be used to provide further guidance for development on specific sites, or on particular issues….Supplementary Planning Documents are capable of being a material consideration in planning decisions but are not part of the development plan*'.

1.2 Providing further guidance on building standards as they relate to carbon reduction and climate change over the Plan period to 2031 is a key commitment set out in Policy EM2 (Building Standards) of the adopted Coventry Local Plan. The aim of this SPD is to provide technical guidance on energy standards and requirements to improve the environmental sustainability of new development in the city.

1.3 The additional guidance provided within the SPD aims to provide clear information for applicants about policy requirements and expectations, clearly set out what detail the council expects developers to provide to assist the decision – making process and to encourage developers to promote excellence and best practice in sustainable development.

1.4 Regulations 11 to 16 of the Town and Country Planning (Local Planning) (England) Regulations 2012 set out the requirements for producing SPDs. This includes a minimum statutory public consultation period of four weeks: the Council's recently adopted Statement of Community Involvement however sets out a local standard that SPDs should be consulted on for six weeks. Because of the Christmas period consultation was undertaken over seven weeks between 30th November 2021 and 18th December 2022. Further detail is set out in section 3 of this report.

1.5 It is also a legal requirement, as set out in the Environmental Assessment of Plans and Programmes Regulations 2004 (SEA Regulations), to consider whether or not Strategic Environmental Assessment (SEA) of the SPD should be undertaken. The process for determining whether or not an SEA is required is called screening. This is to determine whether a plan will have significant environmental effects. The screening opinion undertaken is attached at Appendix 3 to the report. This concludes that no SEA is needed as the SPD elaborates on existing policy. This screening report must be consulted on so that three statutory bodies (Historic England, Natural England and the Environment Agency) can respond. The screening report was made publicly available for comment at the same time as the SPD was being consulted on.

1.6 Finally, an Equalities Impact Assessment (EIA) been undertaken, this is attached at Appendix 4 and was publicly consulted on.

1.7 Responses have been analysed and the SPD amended accordingly. In line with the legislation, this Cabinet report will include a statement setting out the details of the consultation, a summary of the main issues raised and how they have been addressed. This is contained at section 3 and Appendix 2 to the report

2. Options considered and recommended proposal

2.1 Cabinet may wish for the Council to rely upon the current Local Plan policies along with the National Planning Policy Framework and the 2009 Supplementary Planning Document. However, this would not honour the commitment of the adopted Local Plan

to replace the outdated guidance and would mean the council is primarily reliant upon Local Plan and national policy without any further clarification which also reflects the local context. Therefore, this option is not recommended

2.2 The recommendation is to adopt a new Energy SPD, as per Appendix 1 to the report, this approach is recommended in order to respond to the commitment in the adopted Local Plan to replace the outdated 2009 Supplementary Planning Document on Delivering a More Sustainable City with an up to date Supplementary Planning Document on Energy. This will accurately reflect the adopted Local Plan and subsequent changes to national policy and ensure delivery in accordance with local need.

3 Results of consultation undertaken

3.1 Public consultation was undertaken between 30th November 2021 and 18th January 2022. The minimum statutory period for SPD consultations is four weeks, the council's Statement of Community Involvement recommends six weeks however in this instance a seven-week consultation period was undertaken to allow for the Christmas holidays.

3.2 The council made all consultation documentation available on its website and in hard copy at the Council House and all libraries. A notification email was sent to all consultees on the planning policy consultation database, statutory consultees and Duty to Co-operate bodies (as set out in the regulations) which provided background to the SPD consultation and explained where people could view the documents and the various ways in which they could provide comments. The council also used its social media platforms and local press to publicise the consultation.

3.3 Regulation 12 of the Local Planning Town and Country Planning (Local Planning) (England) Regulations 2012 states that, before a local planning authority can adopt an SPD it must first prepare a statement setting out the persons consulted during the preparation of the document, with a summary of the main issues raised and how they have been addressed in the SPD. This report addresses these requirements, and details of the comments submitted, the officer response and changes made to the SPD as a result can be viewed at Appendix 2 to the report.

3.4 The Communities and Neighbourhoods Scrutiny Board (4) considered the draft SPD and supporting documents on 15 December 2021 as part of the consultation process. There was a discussion around encouraging good design and incorporating energy efficiency measures. The Scrutiny Board agreed with the content of the draft SPD's in principle.

3.5 Alongside the SPD, the SEA screening opinion and Equality Impact Assessment were made available for public comment as set out in section 1 of this report. In terms of the SEA screening, the statutory consultation bodies Natural England and Historic England concurred with the council's view that Strategic Environmental Assessment is not required. The Environment Agency did not respond. The screening assessment at Appendix 3 to the report has been updated to reflect this conclusion. The Equality Impact Assessment at Appendix 4 to the report has been updated as a result of internal guidance although no external responses were received on the matter.

4 Timetable for implementing this decision

4.1 The SPD can be adopted immediately.

5 Comments from the Chief Operating Officer (Section 151 Officer) and the Director of Law and Governance

5.1 Financial implications

There are no financial implications associated with this report.

5.2 Legal implications

There are no direct implications as a result of this report. Regulations 11 to 16 of The Town and Country Planning (Local Planning) (England) Regulations 2012 set out the requirements for producing SPDs. The Environmental Assessment of Plans and Programmes Regulations 2004 (SEA Regulations) also require the Council to consider whether or not Strategic Environmental Assessment (SEA) of the SPD should be undertaken.

6 Other implications

6.1 **How will this contribute to achievement of the Council's Plan?**

Planning policy documents and planning applications help deliver the aims and objectives of the One Coventry Corporate Plan by determining the type and quantum of development needed, where this should be located, areas which should be protected, enhanced or improved and the infrastructure which should be provided. In line with the Corporate Plan, this document focuses upon supporting local communities creating an attractive, clearer and greener city.

6.2 **How is risk being managed?**

There are no risks associated with this report.

6.3 **What is the impact on the organisation?**

No direct impact.

6.4 **Equalities Impact Assessment/EIA**

A full Equality and Impact Assessment (EIA) was undertaken as part of developing the Local Plan. As part of that analysis, the Council had due regard to its public sector equality duty under section 149 of the Equality Act (2010). The Supplementary Planning Document elaborates on Local Plan policy and so a further EIA has been undertaken (Appendix 4 to the report)

6.5 **Implications for (or impact on) climate change and the environment**

This is an elaboration of Local Plan policy relating to the delivery of sustainable development and, whilst it does not introduce new policy it will assist in ensuring that developers have due regard to climate change and energy matters through their planning applications.

6.6 **Implications for partner organisations?**

The Supplementary Planning Document will provide further detail to the adopted Local Plan policy which will assist those organisations involved in the delivery of sustainable development

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Coventry City Council

Energy

Supplementary Planning Document (SPD)

March 2022

Coventry City Council

Contents

1 Glossary

BER	Building Emission Rate - the CO2 emission rate of a non-residential building based on its design specification. The BER is a metric used to assess compliance with the Building Regulations.
BREEAM	The Building Research Establishment Environmental Assessment Method for assessing, rating and certifying the sustainability of buildings the highest standards of which are 'Outstanding' (≥85% score) and 'Excellent' (≥70% score)
CCHP	Combined Cooling Heating and Power: A power plant that generates electricity and useful heating and cooling simultaneously for distribution through a network providing power and heat to buildings. The lack of energy lost means the system is highly efficient. CCHP plants and distribution networks can work at a number of scales and can be powered by fossil fuels, like oil and gas, or renewable fuels, like wood pellets. CCHP is often referred to as trigeneration and CCHP networks that serve multiple buildings may be referred to as district heating and cooling networks.
CHP	Combined Heating and Power - A power plant that generates electricity and useful heat simultaneously for distribution through a network providing power and heat to buildings. The lack of energy lost as heat results in high efficiency. CHP plants and distribution networks can work at a number of scales and can be powered by carbon-based fuels, like oil and gas, or renewable fuels, like wood pellets. CHP is often referred to as cogeneration and CHP networks that serve multiple buildings may be referred to as district heating networks.
Climate Change Adaptation	Adaptations to buildings, places or environments that make them more resilient to, and potentially benefit from, expected changes in climate and weather patterns.
Climate Change Mitigation	Action to reduce the impact of human activity on the climate system, mainly through reducing greenhouse gas emissions.
DER	Dwelling Emission Rate - the CO2 emission rate of a dwelling based on its design specification. The DER is a metric used to assess compliance with the Building Regulations.
Direct carbon emissions	The direct or operational carbon emissions are emissions that result from the use of a building (e.g. space and water heating, lighting, mechanical ventilation)
District heating	See heat network.
Embodied carbon	The carbon footprint of a material or building that results from the embodied energy used to create it.
Embodied energy	The energy consumed by all of the processes associated with the production of a material or building including mining and processing of natural resources, manufacturing, transport and product delivery.
EPC	Energy Performance Certificate is a report that assesses the energy efficiency of a property with recommendations of the requirements
EV	Electric vehicle - a vehicle powered by electricity.

Fabric First	Maximising the performance of the components and materials that make up the building fabric itself, before considering the use of mechanical or electrical building services systems.
FSC	Forest Stewardship Council - a body that promotes responsible management of the world's forests. It provides sustainability certification for timber products by setting specific standards that timber supplier must meet.
Heat Distribution Network	See heat network.
Heat Network	A system of insulated pipes which transports heat from a source (or multiple sources) to more than one end user.
Heat Pump	A heating system that absorbs heat from the air, ground or water and uses it to heat a building. Some heat pumps can also cool buildings by transporting heat outside for both residential and commercial development. There are wide variety of technologies and further information can be found here: www.renewableenergyhub.co.uk/main/heat-pumps-information/
MMC	Modern Methods of Construction - methods of construction that are typically quicker, cheaper and more sustainable than traditional construction methods. MMC include offsite prefabrication, modular construction, precast panels and insulated concrete forms.
Offsite construction	The construction of buildings or building elements away from a development site.
Modular construction/modular buildings	Modular buildings are assembled on site from components manufactured in factories.
Operational carbon emissions	See direct carbon emissions.
PEFC	Programme for the Endorsement of Forest Certification - an umbrella brand incorporating national timber certification schemes (see FSC).
SuDS	Sustainable Drainage Systems (previously known as Sustainable Urban Drainage Systems) - drainage systems designed to reduce surface water flooding impacts from development through the use of natural systems e.g. by creating ponds and swales and using permeable materials for hard surfaces.
Sun tunnel/sun tube	A pipe or tube that transports sunlight from the exterior to the interior of a building, reducing the need for electric lighting in areas where windows would not provide enough natural light.
TER	Target Emission Rate - the target CO2 emission rate for a new building set by the Building Regulations. The TER differs depending on the detail of the building.

2 Executive Summary

What is a SPD?

2.1 A Supplementary Planning Document (SPD) is a document which contains additional detail on how the Council will interpret and apply specific policies in its Local Plan. A SPD cannot include any new policies that do not currently form part of the Local Plan and a SPD also does not form part of the Local Plan. SPDs are an important material consideration in the determination of planning applications and applicants are advised to refer to the contents of a SPD, as this will provide guidance on how the Council will carry out its decision making functions.

Aims and Objectives

2.2 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 will add 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.**

Applying the SPD

2.3 The requirements for this SPD apply to developments that require planning permission within Coventry. Homeowners are strongly encouraged to use the SPD to help consider what measures could be taken to improve the energy efficiency measures for their property even where planning permission is not required.

2.4 Although planning permission may not be required for certain developments, Building Regulations apply to most new buildings and many alterations to existing buildings, whether domestic, commercial or industrial. It is therefore recommended that applicants for planning permission seek early advice and guidance on Building Regulations, and opportunities to reduce carbon emissions from the Council.

2.5 The Government and other bodies are expected to prepare or amend their policies, advice and guidance in a number of areas referred to or relevant to this SPD. Where this occurs, new or changed documents could also be material planning considerations which may need to be considered alongside this SPD.

3 Introduction

3.1 The purpose of this Supplementary Planning Document (SPD) is to provide guidance for the application and implementation of Policy EM2: Building Standards, as set out in the Coventry Local Plan[1]. This SPD:

- summarises the policy within the Local Plan that is relevant, along with key aspects of national policy;
- sets out the information that should be included within energy statements and sustainability statements for major developments;
- sets out the information that should be included within energy and sustainability information for non-major development;
- provides a questionnaire that non-major developments can use instead of drafting energy and sustainability information; and
- provides guidance on good practice in sustainable design, construction and energy and climate change adaptation.

3.2 This SPD is intended principally for applicants for planning permission and their agents, and for planning decision makers. It has been produced to ensure that applicants provide the right information so that planning decision makers can assess whether development proposals comply with Local Plan policy EM2 – Building Standards.

3.3 This SPD is a material consideration in planning decisions and decision makers will use it to help determine planning applications. This SPD supersedes the 2009 Delivering a More Sustainable City Supplementary Planning Document.

Structure

Section 4 sets out the national, regional and local policy context for climate change and sustainable design, construction and low energy. It also summarises the requirements set out in the relevant policies and identifies the information that consequently must be submitted by applicants.

Section 5 applies to major developments and sets out the information that must be included in energy statements and sustainability statements submitted for major developments. It also

[1] www.coventry.gov.uk/localplan

provides general guidance on sustainable design and construction that should be referred to by developments of all scales.

Section 6 sets out the energy and sustainability information that must be submitted by non-major developments (minor and householder applications).

Appendix 1 contains a questionnaire that can be submitted for non-major development as an alternative to preparing sustainability and energy information.

4 Policy Context

National Policy Context

National Planning Policy Framework

4.1 The NPPF, revised in 2021, sets out the Government's planning policies for England and how these should be applied. Its main purpose is to protect the environment, promote healthy communities and sustainable growth.

4.2 Chapter 14 of the NPPF is dedicated to meeting the challenge of climate change and states that; "*The planning system should support the transition to a low carbon future in a changing climate*", and "*should help to shape places in ways that contribute to radical reductions in greenhouse gas emissions*", and "*support renewable and low carbon energy and associated infrastructure*." (152).

4.3 The policy ambitions are reinforced in paragraph 155; "*To help increase the use and supply of renewable and low carbon energy and heat, plans should: a) provide a positive strategy for energy from these sources..*," Furthermore, paragraph157 states that; "*In determining planning applications, local planning authorities should expect new development to: a) comply with any development plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable"*

National Planning Practice Guidance (NPPG)

4.4 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.

4.5 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).*

4.6 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*
- *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

4.7 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.

4.8 The Future Homes Standard was announced in the government's spring statement in 2019. Currently, a second government consultation into the standard is underway, so the full details of the standard are yet to be mapped out. A full technical specification for the Future Homes Standard will be consulted in 2023, with the necessary legislation introduced in 2024, ahead of implementation in 2025.

Building Regulations

4.9 Part L of Building Regulations (2018) contains requirements relating to the conservation of fuel and power. Builds must meet these requirements to be compliant with Building Regulations. The majority of local authorities in England have made their planning policies more ambitious by requiring a 19% improvement beyond Part L 2013 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.

4.10 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, 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.

4.11 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 buildings (e.g. flats, detached dwellings, offices) and is expressed in annual kilograms of carbon dioxide per square metre.

4.12 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.

4.13 Under current building regulations, the DER or BER for the proposed building must not exceed the TER. 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.

***Emission factors**:*

4.14 When undertaking modelling, applicants are strongly encouraged to use the national guidance SAP 2012 emission factors (or any future replacement equivalent). The energy statement should state clearly which emission factors have been used.

4.15 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.

4.16 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. 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'.

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 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.

Regional Policy Context

Zero Carbon Homes Strategy (Draft 2021)

4.17 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.

4.18 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[2] and RIBA[3].

4.19 WMCA will also promote circular design and construction approaches, aiming to reduce embodied carbon and promote sustainable resource and waste management[4].In this regard, the Green Building Handbook produced by ACTAC and Queens University Belfast is particularly relevant[5].

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

[2] 252d09_3b0f2acf2bb24c019f5ed9173fc5d9f4.pdf (filesusr.com)
[3] RIBA-2030-Climate-Challenge.pdf (architecture.com)
[4] BuildingGreen
[5] Green Building Handbook Volumes 1 and 2: Green... [PDF] (pdfroom.com)

4.20 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.

WM2041 Five Year Plan 2021-2026

4.21 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.

Local Policy Context

4.20 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 EM2 which refers to the need to achieve the highest possible standards of design and construction in new developments by creating high quality developments that are economically cheaper to operate, minimise their environmental impact, contribute to the local economy and community and provide healthy living and working conditions. Policy EM2 (see figure 1) crucially provides the statutory mandate for producing this SPD. 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

Figure 1: Coventry Local Plan, Policy EM2

Policy EM2: Building Standards

1. New development should be designed and constructed to meet the relevant Building Regulations, as a minimum, with a view to:
- Maximising energy efficiency and the use of low carbon energy;
- Conserving water and minimising flood risk including flood resilient construction;
- Considering the type and source of the materials used;
- Minimising waste and maximising recycling during construction and operation;
- Being flexible and adaptable to future occupier needs; and
- Incorporating measures to enhance biodiversity value.

2. In meeting the carbon reduction targets set out in Building Regulations, the Council will expect development to be designed in accordance with the following energy hierarchy:
    a) Reduce energy demand through energy efficiency measures.
    b) Supply energy through efficient means (i.e. low carbon technologies).
    c) Utilise renewable energy generation.

3. A Sustainable Buildings Statement should demonstrate how the requirements of Climate Change policies in this Plan and any other relevant local climate change strategies have been met and consider any potential coal mining legacy issues including land stability.

4. A comprehensive update of the Delivering a More Sustainable City SPD incorporating the approach to Building Sustainability Standards will be developed.

5 Energy requirements in Coventry

5.1 This section sets out the information that applicants must provide in order for planning decision makers to assess whether the requirements of policy EM2 have been considered and, where applicable, met. The requirements as set out in this section have been informed by existing local requirements and independent evidence to help clarify and expand how policy EM2 should be implemented. The Council will expect new development to be planned in ways that mitigates and adapts to climate change thus helping to reduce greenhouse gas emissions through location orientation and design.

Energy Statements

5.2 Energy statements must be provided for **major developments** in accordance with the Councils approved local validation requirements - www.coventry.gov.uk/downloads/file/34970/validation_checklist_version_4_-_7_january_2021

5.3 When preparing and submitting proposals, applicants must show:

- how reductions in carbon emissions will be achieved;
- quantify how each action/proposal will contribute to the total reduction in carbon emissions target per dwelling;
- the approach to energy complies with the energy hierarchy, and that any energy measures proposed are appropriate and will be effective;
- the name and position/job title of the person producing the statement should be included within the submission;
- large-scale residential developments details and calculations will be provided for each proposed house type rather than on a per dwelling basis; and
- the Statement structure will not be suitable for outline applications as these proposals are high-level in nature and set out an overall energy strategy for the site with further details, such as carbon reduction calculations by house type, to be provided at detailed approval stage (usually reserved matters).

5.4 **Non-major developments** do not need to submit an energy statement but are instead required to submit “adequate information” that shows the energy requirements of policy EM2 have been met – see section 6 for more information about non-major development and appendix 1.

5.5 Applicants are expected to consider the following information when preparing their energy statement in order for decision makers to assess whether proposals are compliant with Local Plan policy:

- A non-technical summary;
- Heat networks and/or Combined Cooling Heating and Power (C)CHP appraisal or connection strategy, where appropriate;
- An appraisal of energy technologies (if the scheme does not propose the provision of low or zero carbon energy); and
- A carbon reduction calculation for each building or type of building supported by modelling outputs.

The Non-technical Summary

5.6 A non-technical summary should be included at the front of the energy statement to provide key information for planning decision makers. The summary must include the following information.

1. A description of the scheme including:
    - the number of each different type of residential unit (i.e. number of flats, number of terraced houses, number of detached houses etc. and number of bedrooms in each unit or type),
    - a summary of the floor area (m_2) proposed for each type of non-residential use.
2. A summary of the heat network appraisal (see below) or connection strategy; and
3. A summary of the low and zero carbon energy appraisal (if the scheme proposes provision of low or zero carbon energy).

Heat networks and Combined Cooling Heating and Power ((C)CHP) appraisal

5.7 Policy EM2 and supporting text encourages new development to connect to existing decentralised energy networks including (C)CHP distribution networks which is strongly supported and encouraged.

5.8 Policy EM2 was developed during a period when heat networks specifically powered by (C)CHP enjoyed strong support through national policy and energy strategies produced by the then Department of Energy and Climate Change (DECC). In recent years, national policy and guidance has broadened that support to include low carbon heat networks in general. The use of renewable energy technologies to power heat networks has become more

common and, at the same time, the decarbonisation of the national electricity grid means that the carbon savings that result from using electrically powered heat-producing technologies, such as heat pumps, have increased dramatically while the carbon savings that result from the use of highly efficient gas CHP engines remain largely the same. The government is proposing to change the emission factors that are applied to mains gas and grid electricity for Building Regulations purposes, which will mean that the reality of the decarbonising electricity grid and the benefit of electric technologies will be reflected in the technical assessments that are used to assess different forms of energy in the Building Control process.

5.9 Policy support for (C)CHP heat networks should be interpreted as support for low carbon heat networks in general. The heat networks that result in the lowest carbon emissions will receive the strongest support in line with this principle, whether driven by (C)CHP or other low or zero carbon technologies.

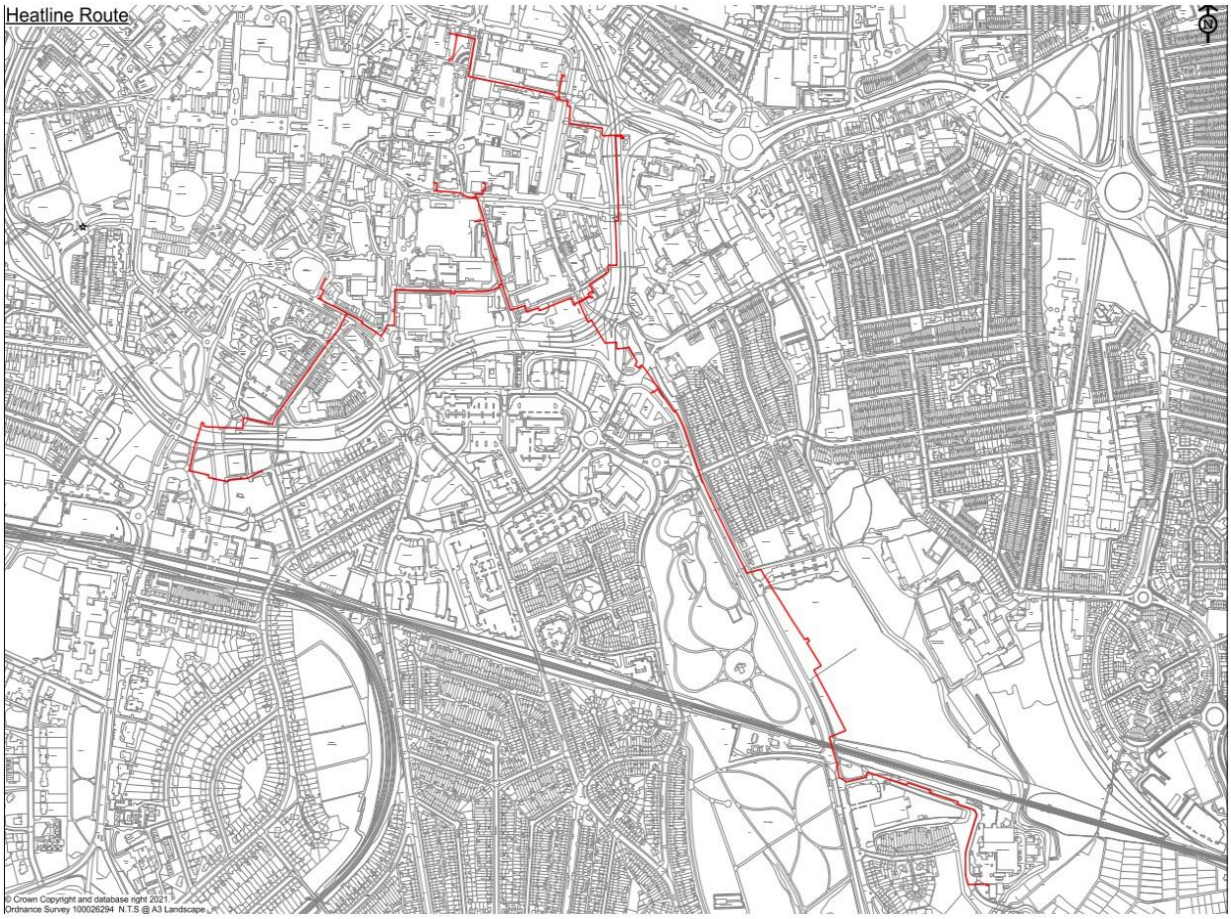
5.10 In order to show that the requirements of policy EM2 have been met, the energy statement should include an appraisal of the feasibility of provision or connection to low carbon heat networks. The content of the appraisal depends on the characteristics of the development and/or where it is located, as set out below.

Figure 2: Coventry's combined heat and power network infrastructure

Developments within the vicinity of existing heat networks

5.11 Local Plan policies EM2 and EM3 both encourage all new developments to connect to Coventry's existing decentralised heat network (see figure 3 below), wherever practicably possible, or demonstrate how the objectives of the policies have been met through alternative equivalent carbon solution in the Sustainable Buildings Statement.

Figure 3: Coventry's existing heatline network



5.12 The energy statement must set out the actions taken in order to investigate whether heat networks exist within the vicinity of the site and document the results. The investigation of opportunities should cover all scales and should not be limited to district heating systems[6].

5.13 Where such networks exist and developments propose to connect to them, the energy statement should set out details showing how connection will occur (a connection strategy). Where such networks exist, and developments do not propose to connect to them, the energy statement must set out clear reasons as to why the connection is not feasible, or why

[6] It is expected such matters to be determined by the applicants in discussion with the Council on a case by case basis.

an alternative source of energy would be more sustainable.

5.14 Where a development proposes not to connect to an existing network that is within the vicinity, it must still be connection-ready and the energy statement must set out how this is could be achieved[7].

5.15 Developments will be considered to be connection-ready if they use a centralised communal wet heating system and comply with the minimum requirements outlined in the Chartered Institute of Building Services Engineers (CIBSE) Heat Networks Code of Practice, and this should be reflected in the evidence provided in the energy statement.

Scale and design of heat networks – CHP/(C) CHP networks:

5.16 For CHP based heat networks, such as the example in Coventry's city centre based heat infrastructure network, carbon and financial savings will only be generated when it is running so it will be more energy efficient and cost-effective the more it runs. As a result, a new CHP system will likely only be appropriate where there is a high and constant demand for heat.

5.17 A recommendation of at least 4,500 – 5,000 hours per year, depending on the application. The scale of the system should be determined by the heat load and demand profile. If there is a high demand for cooling then (C)CHP, which also provides cooling, may also be environmentally and economically viable. (C)CHP systems should be designed and operated to be energy efficient, with the selection of optimum operating temperatures and measures to minimise heat losses. The energy statement should set out consideration of these issues in order to demonstrate that the scaling and operation maximises carbon reduction.

5.18 In order to facilitate connection from other developments, new heat networks, including building level systems, should be designed to be able to expand to connect with future systems. The energy statement should set out how this will be facilitated. New heat networks should be smart, incorporating data collection, monitoring and performance management into the design. Proposals for new heat networks should show that the chosen technology, or mix of technologies, will deliver the greatest carbon saving.

[7] It is expected such matters to be determined by the applicants in discussion with the Council on a case by case basis.

5.19 CHP engines can be powered by a number of fuels. When a CHP engine is powered by natural gas, it can be considered a low carbon technology because it operates at very high efficiency resulting in low carbon heat and power. The efficiency is increased if the system also provides cooling (CCHP). National emission factors are likely to be updated in 2021 and this change will mean that gas technologies will compare less favourably with electric technologies than at present, and consequently the benefits of gas CHP in the assessment will reduce. This change should be taken into account when selecting a CHP technology alongside the continuing decarbonisation of grid electricity.

5.20 Zero carbon fuels should be favoured, taking into account potential impacts on air quality. Where gas engines are proposed, the distribution network should be designed to facilitate the replacement of the gas engine with a zero-carbon alternative once the gas engine reaches the end of its life[8]. Where biomass engines are proposed, the Council will take into account the short to medium term impact on carbon emissions that results from burning wood.

5.21 It can be expensive and difficult to convert high temperature heat networks powered by gas boilers or gas (C)CHP engines to low carbon/renewable sources such as heat pumps and waste heat because heat networks that use these sources typically operate at lower temperatures than those fuelled by gas. Therefore, in order to facilitate a future shift to zero carbon energy, the system should be designed to be able to operate at lower temperatures suitable to very low carbon heat sources (fifth generation networks run at a temperature close to ambient ground temperature). This should not compromise the ability of the system to run at the optimal temperature for the energy source used at the outset.

5.22 Heat networks based on natural gas CHP systems should be supplemented by heat from renewable sources wherever feasible, and consideration must be given to future heat source(s) when natural gas is no longer an option without carbon capture. Integrating heat pumps into district heating can deliver large CO2 emissions reductions[9]. CHP heat networks run at higher temperatures than heat networks powered by renewable heat technologies and can present an overheating risk for the building in which it is installed. Industry and regulation is fast moving to accept that heat pumps will be the source of low temperature heat for buildings, including the Climate Change Committee. Most pertinently, from 2025 the

[8] Zero carbon fuels for CHP include biomass, biomethane and, in the longer term, hydrogen.
[9] www.gov.uk/government/publications/heat-pumps-in-district-heating

UK government has already confirmed that fossil fuels will not be allowed for new buildings. Given this, the promotion of suitable low carbon technologies, such as ground source heat pumps, air source heat pumps and increased thermal storage will be encouraged wherever possible. Overheating is a key consideration in climate change adaptation. Heat networks should be designed to prevent overheating, including through the choice of heat technology.

Low and zero carbon energy appraisal

5.23 There are several low and zero carbon energy technologies available on the market that can supply electricity and/or heat to residential and commercial buildings. These include (but are not limited to):

- ground, air and water source heat pumps,
- solar photovoltaic (electricity),
- solar thermal (heat),
- biomass power and heat,
- small scale hydro power,
- geothermal energy,
- ground source heat pumps
- micro CHP, and
- Combined Heat and Power (CHP) systems.

5.24 Where new development is designed and constructed to meet the relevant Building Regulations in accordance with policy EM2, the sustainable buildings statement should demonstrate that the most effective technology or mix of technologies has been selected. The energy statement should quantify the carbon reduction that will be achieved, supporting the figure with calculations.

5.25 In order to be sure that proposed energy technologies will be effective, decision makers will need to be sure that the building occupants will use them to meet all or most of their energy needs. As a result, technologies that may be used sporadically (including fireplaces and log burners) will not be accepted as low carbon energy technologies.

5.26 This is not the case for biomass heating technologies, which are usually primary sources of heat and/or power for the building in which they are installed. The appraisal should consider all reasonable options for renewable and low carbon energy, assessing the

feasibility and benefits of each in turn. Decision makers will need this information in order to confirm that the most effective and appropriate energy technology has been selected.

5.27 The appraisal should reflect current costs and up-to-date technology specifications alongside local factors. In particular, where the Energy Statement assesses the carbon saving potential of energy technologies, it should use real-world performance and take into account the future decarbonisation of the national grid, rather than relying on the emission factors used in the Building Control system which are updated infrequently.

5.28 Where schemes propose a mix of renewable energy technologies, it will be important to demonstrate how they will work in tandem and, where applicable, how they will be integrated into a heat network (for heat generating technologies) and, again where applicable, also how they will integrate with a cooling system/strategy.

Heat pumps*:*

5.29 The government envisages heat pumps (alongside heat distribution networks) will be the principal means of providing heat for buildings once the new "Future Homes" standard is fully implemented[10], and expects the supply chain for these technologies to develop rapidly in the next few years, subject to local viability. When appraising heat pump technologies, at least two heat sources (from air, water and ground) should be considered and a separate appraisal of each presented.

5.30 Appraisals of heat pumps should take account of the high efficiencies (expressed as the Coefficient of Performance, or COP) at which heat pumps provide useful heat when calculating the carbon emissions, they would produce when running on grid electricity. The carbon intensity per kWh of energy output should be the prime concern, as opposed to the carbon intensity of the energy input which, although important, is not the decisive factor in energy appraisals. The reason for this is that while gas has a lower carbon intensity than electricity under SAP 2012 emission factors[11], domestic heat pumps are typically over three times more efficient than gas boilers (e.g. a COP of around 300% or higher), so the projected amount of carbon per unit of heat produced will be lower than with a domestic gas boiler that has an efficiency of c.90%, even if SAP 2012 emission factors for grid electricity and mains gas are used. The calculated carbon emissions for heat pumps running on grid

[10] www.gov.uk/government/consultations/the-future-homes-standard-changes-to-part-l-and-part-f-of-the-building-regulations-for-new-dwellings

[11] The SAP 2012 carbon emission factors are 519g CO_2 per kWh for grid electricity and 216 for mains gas.

electricity will be considerably lower than gas boilers if up-to-date emission factors are used[12].

5.31 Heat pumps work best when producing heat at a lower temperature than traditional boilers. As a result, it is essential that buildings that rely on heat pumps are built to high levels of energy efficiency (well insulated and draught-proof) in order for the heating system to be efficient, both in terms of cost and energy use. They generally perform better with underfloor heating systems, but if radiators are used, they should be larger than with traditional gas-fed or electric systems to increase the area of heat emitting surfaces. There is an expectation that heating systems need to operate at lower flow temperatures, no higher than 55 degrees to help ensure an improved heat pump performance, as it is recognised the need to improve the thermal performance of building stock and adapting passive measures for energy reduction.

Biomass*:*

5.32 Energy and heating systems that are powered by biomass (such as wood chips, wood pellets and organically derived fuels like biomethane) are usually considered to be zero carbon in operation in the long term because while burning the biomass (or digesting it in the case of biomethane) releases carbon dioxide, this carbon dioxide was originally extracted from the atmosphere when the energy crop grew, and will be removed again when the crop is replaced, adding no new carbon to the carbon cycle. This analysis does not take into account the energy required to harvest/extract, process and transport the fuel, as well as carbon that may be released from the soil in the process of planting.

5.33 Additionally, biomass sourced from forestry results in a negative impact on the climate in the short and medium term because burning wood releases carbon quickly but growing trees to a size at which they can be harvested can take several decades. As a result, burning wood results in a sharp spike in atmospheric carbon that takes decades to fall. This is not the case for quick-growing energy crops; for example, any carbon released when burning annual crops like straw will be removed from the atmosphere within a year as the next crop grows. Additionally, wood chips and wood pellets are often sourced abroad and imported over long distances resulting in large transport emissions. Where wood fuelled energy systems are proposed, the energy statement should take into account both the impact of burning on atmospheric carbon levels in the short to medium term and the

[12] The proposed changes to SAP emission factors (SAP 10.1) would reduce emissions from grid electricity to 136g CO2 per kWh and mains gas to 210g CO2 per kWh.

potential embodied carbon emissions that result from harvesting, extraction, processing transport of the fuel.

5.34 Biomass energy can have negative impacts on local air quality which should also be taken into account – please refer to the Councils adopted Air Quality SPD[13].

[13] www.coventry.gov.uk/downloads/file/30877/air_quality_supplementary_planning_document_spd

Sustainability Statements

5.35 Policy EM2 sets out the requirement for a sustainable buildings statement together with the Councils approved local validation requirements: www.coventry.gov.uk/downloads/file/34970/validation_checklist_version_4_-_7_january_2021

This section provides guidance on those matters and sets out the information that **major developments**[14] should submit so that decision makers can assess whether development proposals comply with Local Plan policy. This section does not cover compliance with the carbon emission and low and zero carbon energy requirements as compliance with these requirements is established through energy statements. In line with usual practice, the name and position/job title of the person producing the statement should be included within the submissions.

5.36 **Non-major developments**[15] do not need to submit a sustainability statement, but instead should submit sustainability information that is proportionate to the size of the development – see section 6. This requirement can be met by submitting a completed Climate Change, Energy and Sustainable Development questionnaire (see Appendix 1). The guidance provided in the 'sustainable design and construction guide' later in this section should still be used to guide non-major development proposals and applicants should refer to it when drafting sustainability information or completing the questionnaire.

What do sustainability statements need to cover?

5.37 It is expected that developers of major developments will have access to either in-house or external expertise in sustainable development. These experts will be able to guide emerging schemes to ensure that they comply with the sustainability requirements of the Local Plan, and will be able to draft a sustainability statement setting out how compliance has been achieved.

5.38 This section sets out guidance on sustainable design and construction and climate change adaptation, but it is not intended to be exhaustive or to replace the large amount of

[14] more than 10 residential dwellings or site area of more than 0.5ha/ more than 1000 sq.m of commercial floorspace or site are over 1 ha.

[15] up to 10 dwellings or site area of less than 0.5ha)/ change of use to residential or less than 1000 sq.m of floor space or site area of less than 1ha)/ change of use.

guidance that is available elsewhere. However, the sustainability statement is expected to consider the following matters in order to demonstrate that the proposals comply with Local Plan policy and other Coventry City Council adopted SPDs such as Green Spaces and SuDS technical guidance:

1. Natural resources:
   a. Efficient use of mineral resources and incorporation of a proportion of recycled and/or secondary aggregates.
   b. Minimisation of waste and reuse of excavation and demolition waste.
2. Sustainable design:
   c. The Council's strong support for zero carbon development.
   d. Reduction of energy demand in line with the energy hierarchy, including through landform, layout, orientation, massing and landscaping, with regard to the efficient use of natural resources and to maximise the use of the sun's energy for heating and cooling.
   e. Performing positively against Building for Life guidance.
   f. Incorporation of measures that enable sustainable lifestyles for building occupants.
   g. Compliance with the highest national standards of water efficiency, which for residential developments of one or more gross units means achieving a water efficiency standard of a maximum of 110 litres per occupant per day.
3. Climate change adaptation:
   h. Adaptation that provides resilience and reduces vulnerability to a changing climate and changing weather patterns and the full range of expected impacts.
   i. Prioritisation of SuDS to manage surface water drainage
   j. Mitigation measures to reduce overheating/urban heat island effect.
   k. the use of the Good Homes Alliance's Overheating tool as a simple way to assess risk for new residential development
4. Heritage assets:
   l. can be a valuable aid to achieving sustainable development, in both climate change mitigation and adaptation, rather than a constraint. Further information can be found through the following link: https://historicengland.org.uk/

5.39 Information and guidance on these matters are set out in the following 'sustainable design and construction guide. This SPD is a material consideration in planning decisions and the guidance in the guide will help decision makers to decide whether schemes comply with the sustainability requirements set out in Local Plan policy.

Sustainable design and construction

5.40 This section highlights the key sustainable design and construction and climate change adaptation principles and matters that development proposals should take into account (alongside good design, place-making and other considerations). The guidance should not be considered exhaustive; bodies such as the Building Research Establishment and the UK Green Building Council provide extensive guidance covering a range of matters and issues related to sustainable development. The guidance that follows sets out approaches that are generally considered to be good practice. However, there may be instances where local circumstances mean that a greater sustainability benefit can be achieved by taking a different approach.

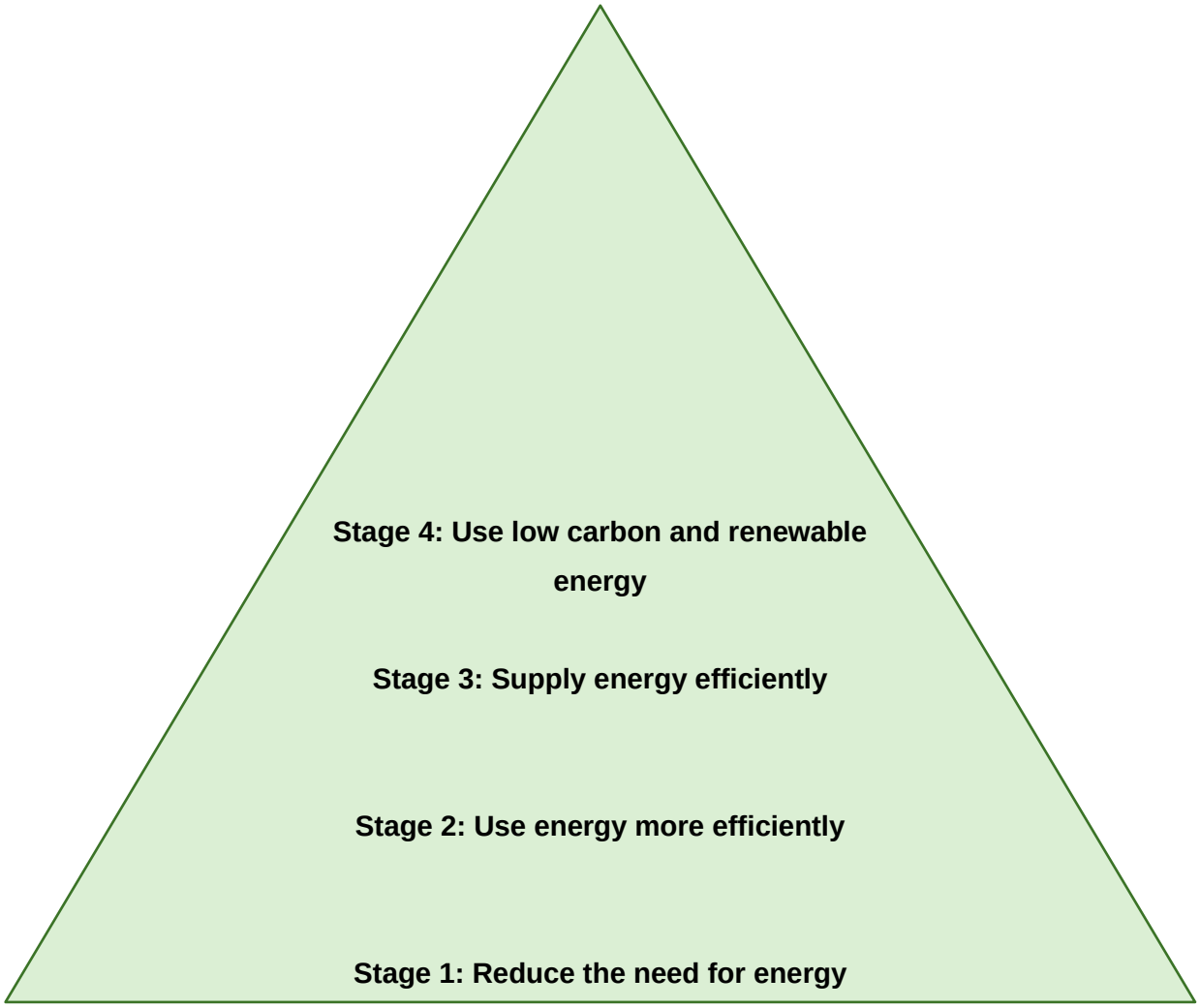
The energy hierarchy

5.41 The energy hierarchy (see Figure 4 below) is a fundamental principle of sustainable development. It shows the sequence of steps that should be taken in order to reduce operational carbon emissions from new developments. Energy demand should be eliminated in the first instance wherever possible. Where energy demand cannot be eliminated, energy use should be reduced as much as possible through efficiency. After these steps, the remaining energy demand should be met from renewable and low carbon energy sources. This approach is often summarised as "**be lean, be clean, be green**".

5.42 The Council fully supports the development industry term "**fabric first**". This means that energy demand should be reduced by maximising the performance of the components and materials that make up the building fabric and designing the building to make best use of the surrounding environment, before improving efficiency further through the use of efficient building services or lowering carbon emissions further through low carbon energy.

5.43 The Council does not, in general, support carbon offsetting as a means to deliver zero carbon projects. However, if all other emissions have been minimised and there is no technological means (or this can be proven to be cost prohibitive to the development going ahead, by means of a specialist/recognised third-party assessment) to achieve zero carbon on a development, relevant Council officers can discuss options that may be available to assist.

Figure 4: The energy hierarchy



Zero carbon development

5.44 Proposals for zero carbon development are strongly encouraged wherever possible. Zero carbon means that emissions from all regulated energy use are eliminated or offset[16] [17].

5.45 Regulated energy refers to energy from building systems (e.g. heating, lighting, hot water) as opposed to unregulated emissions that refers to energy from other sources, like appliances. Fully zero carbon and carbon negative developments, that eliminate emissions from all regulated and unregulated sources, are also strongly encouraged.

[16] www.leti.london/
[17] www.ukgbc.org/

5.46 Where schemes have been designed to achieve zero carbon, the information submitted with the application should show the measures employed and the stages at which carbon reductions have been achieved (e.g. demand reduction, low and zero carbon energy and offsetting). This information must be consistent with the submitted energy calculations.

Site layout, landscaping and urban form

5.47 To maximise solar receipts and reduce shading, taller buildings in a development should be located to the north of the site. Locating parking and garages to the north of a building will allow solar receipts to be maximised in southerly orientated living spaces. Pitched roofs are a common feature in the local vernacular and care should be taken to ensure that roof heights do not overshadow neighbouring buildings unnecessarily.

Figure 5: maximising site layout, landscaping and urban form

5.48 The relationship between buildings and open spaces is important to create a quality public realm and a comfortable microclimate for people using outdoor spaces. Placing buildings too close to each other can result in excessive shadowing and little solar gain on external surfaces – (see figure 5). Well positioned buildings will create spaces that maximise receipts of natural light and heat. Some building designs have inherently different energy requirements to others. For example, flats and terraces are generally more energy efficient

than detached or semi-detached dwellings because they have fewer external walls relative to living space from which heat can escape.

5.49 All placed deciduous trees can increase the shading and natural cooling of buildings and spaces during the summer months and allow more natural light and heat to be received during the winter months after the leaves have fallen and when demand for heating and lighting is highest. Tree planting can also be used to shelter buildings from the wind and minimise unwanted cooling (see figure 6 below).

5.50 The slope or topography of a site should be considered. Partially or fully building into a slope or setting a building into the ground will enhance thermal buffering. A compact urban form is generally more energy efficient as there is less opportunity for heat to escape. However, this needs to be balanced with the need to avoid the Urban Heat Island effect (see ‘Climate change adaptation’ later in this section). A compact form can sometimes lead to deeper floor plans which then can lead to poor natural lighting and ventilation: where this is the case it can be offset by including central atriums or sun tunnels.

5.51 Planting can be used to create a more favourable microclimate and help to manage flood risk; strategically sited tree belts can provide shelter from prevailing winds and shade in the summer without blocking light in the winter. Use of native, non-invasive plant species are often most valuable to local wildlife and have the further benefit of being able to thrive and sustain the local soil and climate conditions.

Figure 6: Strategic planting

5.52 The prevailing wind should be a consideration in site design as exposure to cold winds will increase heat loss and energy use. Conversely in the summer, gentle breezes can be used positively within design to enhance natural ventilation improving comfort levels and reducing energy use on mechanical cooling systems. Shelter belts (wind breaks) may be used to protect buildings from excessive winds. Shelter belts should be set out in a convex layout against the prevailing wind direction, rather than concave, to deflect the wind instead of blocking it. They should be dense enough to reduce wind speeds by allowing some wind to pass through but not block the wind in its entirety as this can result in an airflow accelerating over the top of the trees and descending in a turbulent fashion on the building.

Building design

Flexibility and adaptation

5.53 Where possible, buildings should be designed from the outset to be flexible to accommodate changing needs (including family size, home working, old age and disability). This will reduce the need for refurbishment and extensions and will prolong the life of the building. This is particularly the case where buildings are designed to occupy a specific niche, such as student housing. Alongside this, buildings built today will need to become zero carbon in the future. Buildings should be designed to enable, and not impede, future retrofit measures that improve energy efficiency or allow the use of zero carbon energy.

Figure 7: flexibility and adaptation

Passive solar gain, passive cooling and overheating

5.54 Passive solar gain refers to the process whereby a building is heated by the sun, either directly from sunlight passing through a window and heating the inside of the building, or indirectly as sunlight warms the external fabric of the building and the heat travels to the interior. The level of passive solar gain can significantly impact upon the quality of a building, how it is used and the energy needed for it to be inhabited comfortably. Passive solar gain can reduce the need for mechanical heating, which in turn reduces energy use and carbon emissions.

5.55 Key factors that influence passive solar gain include the physical characteristics of the site, immediate surroundings, orientation of buildings, external design, internal layout and the construction materials used. Whilst passive solar gain can reduce the carbon emissions associated with heating, if used incorrectly it can lead to overheating, which in turn can lead to the installation of mechanical cooling equipment (e.g. air conditioning). Mechanical cooling increases energy consumption and requires maintenance, resulting in costs and carbon emissions. Mechanical cooling units also produce heat that requires dissipation. The need for mechanical cooling can be avoided or lessened by designing-in passive ventilation and passive cooling measures.

Figure 8: Solar gain

5.56 Developments should not incorporate mechanical cooling unless passive measures have been fully explored and appraised and proposals that include mechanical cooling should clearly demonstrate that passive measures would not be adequate. The following list includes some of the key considerations in the design of new schemes:

- Orientation and layout of habitable rooms, and window size and orientation, should be carefully considered in relation to the path of the sun.
- Rooms that are most frequently occupied should benefit from a southerly aspect, but with appropriate measures to avoid overheating.
- Rooms that include a concentration of heat generating appliances (e.g. kitchens) or are less frequently occupied (e.g. bathrooms) should be located in the cooler part of the building, generally the northern side.
- Conservatories and atria can be used to assist natural ventilation in the summer by drawing warm air upward to roof vents, and to collect heat during the spring and autumn.
- Deep projections that overshadow windows should be avoided, particularly on south facing elevations. Projections should be sized appropriately so that they provide shading from the sun during the hottest part of the year but allow solar gain in the colder months.

- Where there is a chance that overheating can occur (e.g. due to large expanses of glazing on roofs and south facing elevations), design measures such as roof overhangs, external shuttering, photochromatic and thermochromic glass and a lighter colour palette can help.
- Zonal heating and ventilation systems and controls can be used allowing areas subject to high solar gain to occupy their own temperature control zone. Dynamic controls reduce energy waste.
- Use of materials to build in thermal mass to absorb excess heat during warmer periods and release it slowly during cooler periods (e.g. day/night, summer/winter).
- Buildings should be designed for passive ventilation, where possible:
  o cross ventilation with windows located on opposite walls and/or roof mounted turbines or wind cowls that assist with circulation of air by drawing air through windows or top floor openings and
  o passive stack ventilation (PSV) that uses pressure differences to draw in fresh air from outside to replace rising warm air which is released from the top of the building. A heat exchanger can be placed where the air escapes the building to reduce heat loss.

Natural light

5.57 Natural lighting reduces the energy used for artificial lighting and creates a healthier internal environment. Issues to consider include how much of the sky is visible through a window (the more, the better), the dimensions of the interior living/working space and distance from the window, and the proportion of glazed surfaces. The depth of the room is an important factor in determining the amount of natural light received. Naturally dark rooms may be lit naturally through measures such as sun tubes which ‘pipe’ sunlight from sunny areas to internal areas (see figure 9 below).

5.58 Non-residential buildings should be designed to best meet their intended use. Natural light is beneficial to a good working environment, but care is needed to avoid creating spaces with excessive heat gain. This could occur if solar gain is combined with the heat associated with internal lighting, high occupancy and operating equipment such as machinery and computers.

Figure 9: Natural light

5.59 A higher proportion of glazing on north facing surfaces can increase natural lighting without significantly increasing solar gain, thereby minimising excessive heat gain. Glare created by natural or artificial light can be uncomfortable for people both inside and outside a building. This can be minimised if considered early in the design process through building layout (e.g. low eaves height) or building design. If considered together with a lighting strategy this can reduce energy consumption.

Energy demand reduction

5.60 Where dwellings or commercial units are sold or leased fully fitted/furnished, low energy appliances should be provided in order to reduce the energy used by building occupants, where possible. An energy calculation showing the consequent reduction in unregulated carbon emissions should be included to quantify the improvement. However, this should not form part of the carbon reduction calculation included in the energy statement as that calculation should only address regulated emissions.

5.61 Buildings can be designed to remove the need for appliances. For example, by providing space to dry clothes naturally, the need for a dryer is removed. Adequately sized and well-located windows reduce the need for artificial lighting during the day and daylight systems (e.g. sun tunnels, fibre optics) can deliver natural light to areas that are too deep

within a building for windows to be effective. Self-regulating smart meters and smart controls on heating, lighting and appliances can reduce energy waste. These devices measure, control and optimise the use of energy, delivering benefits including:

- maximising consumption of locally generated energy,
- reduce energy costs by responding to time-of-use tariffs,
- enable and optimise the use of smart energy grids by providing demand response services to grid and network operators, and
- provide useful feedback to the building occupant that helps them to improve efficiency.

Figure 10: Optimising smart energy grids

Building for a healthy life

5.62 Building for a healthy life sets out design guidance for new housing developments and includes criteria that relate to environmental and social sustainability, as well as promoting design that generally creates good places. The most recent version of the standard is Building for a healthy life (2020), sets out questions to assess how well proposals provide attractive, functional and sustainable places. The questions are designed to help structure discussions between local communities, the local planning authority, the developer of a

proposed scheme and other stakeholders.

5.63 Applicants for planning permission should include a checklist against the questions set out in the latest Building for a healthy Life guidance. The Council will engage positively with applicants to assist in achieving 'Built for life' status.

5.64 Policy EM2, via Building Regulations, encourages new development to perform positively against the recommendations in Building for a healthy Life guidance. What this means in practice is that each of the recommendations should be followed, unless there are genuine reasons for not doing so, which should be explained in the submitted sustainability information. The Building for a healthy Life guidance can be found here:

www.udg.org.uk/publications/othermanuals/building-healthy-life

The performance gap

5.65 It is generally accepted that the carbon and energy performance of buildings as-built falls short of the performance anticipated at the design stage. Studies have shown that this 'performance gap' can be extreme, with some new buildings emitting many times more carbon than expected from both regulated and unregulated sources[18]. Most new homes do not achieve the levels of energy efficiency predicted by their SAP assessments.

5.66 The Building Control system does not require new buildings to be tested against their design specifications after construction. The exception to this is airtightness, which is tested after construction and where buildings generally perform much better than Building Regulation standards. The Government may change the method for assessing the performance of new buildings through a change to Building Regulations (see the 'Future Homes' consultation for details of the proposed changes)[19].

5.67 One of the reasons for the performance gap may be a lack of post-construction testing and post-occupancy monitoring and feedback, which means that problems in construction are not identified, occupant behaviour is not corrected, and future projects do not benefit from changes that correct problems in the construction process. The Council strongly

[18] www.gov.uk/government/publications/low-carbon-buildings-bestpractices-and-what-to-avoid and www.gov.uk/government/publications/low-carbon-homes-best-strategies-and-pitfalls

[19] www.gov.uk/government/consultations/the-future-homes-standard-changes-to-part-l-and-part-f-of-the-buildingregulations-for-new-dwellings

supports the use of measures that would act to close the performance gap. Where such measures will be employed, the Sustainability Statement should provide details. Such information could include:

- detailed information setting out the site developer's robust internal processes and quality controls,
- the implementation of a third-party process or system that focuses on ensuring that standards are met during construction e.g. the BEPIT Better Building Tool Kit or NEF's Assured Performance Toolkit, and
- the use of a post construction testing regime for the proposed development and/or for previous developments undertaken by the same developer, with details of the outcome on previous developments.

Smart Energy

5.68 Many organisations across the city are currently electrifying their transport and heat requirements. This is happening in parallel with an electrical supply system increasingly dependent on intermittent or inflexible wind, solar and nuclear power. This has made the flexible use of electricity crucial in our transition to a zero-carbon country. By switching demands, such as chillers, hot water and EV charging, on and off a building can reduce CO2 emissions, peak demand and energy bills, whilst allowing more renewable energy to be deployed and less fossil fuel power. Energy storage is an important part of this, in the form of hot water, building fabric and electro-chemical storage. These examples of smart energy practices are encouraged to be considered, wherever possible.

Electric Vehicles

5.69 As vehicles electrify they will increasingly play a role in building energy systems. This is because the charging infrastructure often comes from the buildings, but also vehicle to grid and vehicle to building technology will mean that they will act as large energy storage devices, reducing energy bills and balancing supply and demand on the network. This approach to electrification is encouraged to be considered, wherever possible.

6 Non-major development requirements

6.1 Policy EM2 stipulates that new development should be designed and constructed to meet the relevant Building Regulations, as a minimum. This section sets out the approach to **non-major developments** and in this regard, proposals must provide the following information:

- “adequate information” showing how the energy and carbon requirements have been met, and
- “information proportionate to the size of the development” covering the other sustainability matters set out in the policy.

6.2 Applicants for non- major development may also submit energy and sustainability information statements instead of a completed questionnaire. If this route is taken, applicants must ensure that the submitted information complies with the requirements of Local Plan policy, and that energy information complies with the carbon reduction calculation methodology set out later in this section. Sustainability information should refer to the Sustainable Design and Construction Guide in section 4.

6.3 The questionnaire or statements should be produced at an early stage in the initial design work as they should inform the scheme as it emerges. Where schemes are not subject to a full plans application, a partially completed questionnaire or partial information statements may be submitted at the outline stage covering the matters covered by the outline application. A fully completed questionnaire or final information statements may then be provided at a later stage.

6.4 The remainder of this section sets out guidance on how to complete the questionnaire. Additionally, there are signposts throughout the questionnaire back to the sections of this SPD that provide relevant guidance on sustainability matters.

Questionnaire Part 1: Sustainable design and construction

6.5 Part 1 of the questionnaire deals with sustainable design and construction matters and asks a series of questions that link to specific requirements in Local Plan policy. The matters it covers are:

- minerals and waste,

- low energy site and building design,
- water efficiency,
- measures that enable sustainable lifestyles, and
- climate change adaptation.

6.6 There is a large amount of guidance covering sustainable design and construction available nationally and some guidance on the key points is provided in the sustainable design and construction guide in section 5 of this SPD.

Self-build and custom-build homes

6.7 Self-build and custom-build homes are types of housing (defined nationally)[20] for people who want to play a role in developing their own homes, either by directly organising the design and construction (self-build) or by hiring a specialist to deliver the home (custom-build).

6.8 In order to qualify as self-build or custom-build, the owner of the home must have primary input into its final design and layout, which means that the end user of the home is able to balance the benefits of building an energy efficient and climate adapted home against the long-term costs that result from energy bills and adaptative retrofitting.

6.9 Self and custom housebuilders are encouraged to exceed the minimum requirements of Policy EM2 and achieve very high levels of sustainability. Small projects such as custom and self-build are likely to be suitable for offsite and modular construction methods (small schemes do not benefit from the traditional build economies of scale that volume housebuilders enjoy), which can offer a range of benefits.

6.10 Many modular and pre-fabrication systems use timber in place of other materials and in doing so sequester carbon that is removed from the air during the growth of the trees from which the timber is sourced. This benefit will be recognised during the planning process.

Questionnaire Part 2: Energy

6.11 Part 2a of the questionnaire deals with low and zero carbon energy provision. It covers Combined (Cooling) Heating and Power ((C)CHP) and other low and zero carbon energy

[20] www.gov.uk/guidance/self-build-and-custom-housebuilding

technologies.

(C)CHP Distribution Networks

6.12 When completing question 7, the reference to (C)CHP distribution networks should be taken to cover a broad range of scales from small scale systems that distribute cooling and/or heating to a number of dwellings or units within one building up to district scale systems that serve entire neighbourhoods (district heating systems). It should also be interpreted as a reference to all types of heat network and not just CHP based systems (see paragraphs 5.7 -5.10 for more information).

6.13 In order to answer the questions, applicants will need to have undertaken investigation work to establish whether such systems exist in the vicinity of the proposed development, taking account of this broad definition.

Low and zero carbon energy technologies

6.14 Question 8 asks for details of any proposed low and zero carbon energy technologies. There are a number of low and zero carbon energy technologies available on the market that can supply electricity and/or heat to residential and commercial buildings. These include (but are not limited to):

- solar photovoltaic (electricity),
- solar thermal (heat),
- ground, air and water source heat pumps,
- biomass power and heat,
- small scale hydro power, geothermal energy,
- micro CHP, and
- Combined Heat and Power (CHP) systems.

6.15 In order to be sure that proposed energy technologies will be effective, decision makers will need to be sure that the building occupants will use them to meet a significant portion of their energy needs. As a result, heat sources such as log burners, which may be used sporadically, will not be accepted as low carbon energy technologies. The section “Low and zero carbon energy appraisal” in section 5 sets out information about low and zero carbon energy technologies.

Building regulations and emission rates

6.16 The national mandatory standards for construction are set out in the Building Regulations 2010 (as amended). 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, referred to as the Target Emission Rate (TER). The TER differs for different types buildings (e.g. flats, detached dwellings, offices) and is expressed in annual kilograms of carbon dioxide per square metre.

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

- Dwelling Emission Rate (DER) for self-contained dwellings and individual flats (excluding common areas). This is the annual carbon dioxide emissions of the proposed dwelling expressed in kilograms per square meter.
- Building Emission Rate (BER) for building types other than dwellings. This is the annual CO2 emissions of the proposed building expressed in kilograms per square metre.

6.18 Under the building regulations, the DER or BER for the proposed building must not exceed the TER. 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 carbon emissions from different energy sources (like electricity and gas), referred to as emission factors (see ‘Emission factors’ in section 5 for more information).

Appendix 1 – Climate Change and Energy Questionnaire

When should this questionnaire be used?

This questionnaire is for minor developments (developments from one to nine residential units and one to 1000 square meters of non-residential floor space) and householder developments. Developments of a scale above these thresholds (major developments) should not use the questionnaire, but should instead submit a Sustainability Statement and an Energy Statement as detailed in this SPD.

What is the purpose of this questionnaire?

Policy EM2 requires developments to be designed and constructed to meet the relevant Building Regulations. These requirements for information will be deemed to have been met if a correctly completed questionnaire is submitted.

The questions in the questionnaire are based on requirements set out in Local Plan policies and you should refer to these to make full use of the questionnaire. The Energy SPD sets out guidance on the matters covered within the questionnaire. The questionnaire is not an exhaustive list of sustainability matters and additions to the questionnaire are welcome.

The questionnaire is intended to guide development towards sustainable outcomes through compliance with Local Plan policy, from the initial proposal and site layout through to detailed design proposals, the construction process and finally the operation of the completed building. As a result, it is important that the questionnaire is first considered at the outset of planning and at the earliest stage of design. It should be updated as plans evolve. If planning permission is granted, a condition will be applied requiring work to be carried out in accordance with the information provided in the questionnaire. It is important that the questionnaire is completed in good faith and any works identified within it are deliverable.

Applicant's name:	
Agent's name:	
Site Address:	
Application reference (if known):	
Description of proposal: (e.g. total and types of units/floorspace)	
Questionnaire prepared by: (name and qualification/job title)	
Energy information prepared by: (name and qualification/job title):	

Please note: If the answer is 'no' to any of the following questions, please provide justification.

Part 1: Sustainable design, construction and climate change adaptation

1. Efficient use of minerals, use of secondary aggregates, waste minimisation and reuse of material from excavation and demolition.

1.a Will the use of primary minerals be minimised through e.g. the use of renewable materials, recycled and secondary aggregates, and other recycled and reused materials? Please provide details.

1b. Will demolition/excavation material from the proposed works be reused on site? Please provide details of where material will be derived and where it will be used.

1c. Will unused mineral waste be sent for reuse or recycling? Please provide details.

1d. Will non-mineral construction waste (e.g. packaging, timber, plastics) be minimised? Please provide details.

1e. Will locally sourced materials be used? Please provide details.

1f. Will materials be sustainably sourced (e.g. FSC certified timber)? Please provide details.

2. Low energy design: landform, layout, building orientation, massing and landscaping (Policy EM2). See 'Site layout, landscaping and urban form' and 'Building design' in the sustainable design and construction guide in section 5 of the SPD.
2a. Will operational energy demand be minimised through low energy design and the use of energy efficient fabric? Please provide details. This information should align with the energy data provided in parts 2a and 2b of this questionnaire.

2b. Has the layout of the site, landscaping and orientation of buildings taken account of solar receipts and other environmental factors to reduce the need for mechanical heating and artificial lighting in the development? Please provide details.

2c. Will the internal layout of buildings make best use of solar gain and natural light? Please provide details.

2d. Will passive cooling/ventilation measures be incorporated into the scheme? Please provide details.

2e. Will the scheme include mechanical cooling (e.g. air conditioning)? If so, explain why passive measures would not be adequate.

3. Water efficiency (Policy EM2). See 'Water efficiency' in the sustainable design and construction guide in section 5 of the SPD.

3a. If the scheme includes new dwellings, will these be designed to the national optional building regulation water efficiency standard of 110 litres per person per day (regulation 36(2b))? The relevant Water Efficiency Calculation(s) (Part G) for the new dwellings should be submitted to the Council prior to occupation.

3b. For all developments, will water efficiency measures be incorporated into the scheme to reduce the demand for water? Please provide details.

3c. For all developments, will water harvesting measures be incorporated into the scheme? Please provide details.

4. Measures that enable sustainable lifestyles for building occupants (Policy EM2).

4a. Will measures that enable sustainable lifestyles for building occupants be incorporated into the scheme? Please provide details.

5. Climate change adaptation.

5a. Will the scheme incorporate adaptations for the full range of expected climate impacts including: hotter/drier summers, warmer/wetter winters, more frequent and severe heatwaves and overheating, and more frequent and severe heavy rainfall events and flooding? Please provide details.

5b. Will the use of soft landscaping and permeable surfaces be maximised (as opposed to hard surfacing)? Please provide details.

5c. Will surface water be managed by Sustainable Drainage Systems (SuDS)? Please provide details.

6. Any further information

6a. Please provide information about any other sustainable design, construction and climate change measures that will be incorporated into the scheme.

Part 2: Energy

7. Combined (Cooling) Heating and Power ((C)CHP) networks (Policy EM2).

7a. Will the development fall within the vicinity of a (C)CHP/heat distribution network (of any scale from single building to district heat)? If so, please list the identified networks.

7b. If the development will fall within the vicinity of a (C)CHP/heat distribution network, will the proposed development connect to it or be connection-ready? If not, please set out a clear justification.

7c. Is the development within a Heat Priority Area? If so, is a (C)CHP or heat distribution network proposed as the primary source of energy for the development? If not, please set out a clear justification.

7d. If a new (C)CHP or heat distribution network is proposed, is it designed in accordance with the CIBSE Heat Networks Code of Practice? If not, please provide a clear justification.

8. Low and zero carbon energy
8a. If the scheme includes the provision of low and zero carbon technologies, provide details of the proposed energy systems here including: type of technology, location of installation and predicted energy yield.

9. New buildings: Carbon reduction calculation
9a. Will the proposed scheme deliver any new buildings (net or gross)?

9b. If the answer to 9a is yes, please complete the following carbon reduction calculation template in part 2b.

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

Telephone: (024) 7683 1109

e-mail: planningpolicy@coventry.gov.uk

Comment reference	Respondent / agent	Page / para reference	Consultation response (summary)	Officer response	Proposed change to SPD
	Barratt West Midlands - Savills		At numerous points within the SPD, the document makes reference to the Government's emerging Future Homes Standards. However, as the standards have not been implemented, the document does not require future developments to accord with the proposed standards that have previously been consulted on. Barratt support this and request that where the SPD makes reference to developments complying with the Future Homes Standard in the future, this will be subject to viability.	Agreed.	Where references have been made to developments complying with the Future Homes Standard in the future, insert the words 'subject to viability'.
	Barratt West Midlands - Savills	Para 4.9	This para sets out that new builds must meet the requirements of Building Regulations Part L. The paragraph goes on to state that "*the majority of local authorities in England have made their planning policies more ambitious by requiring a 19% improvement beyond Part L 2013*". These requirements are considered to be over and above the requirements of the Planning Practice Guidance ('PPG') which states that Local Plans "*can set energy performance standards for new housing or the adaptation of buildings to provide dwellings, that are higher than the building regulations, but only up to the equivalent of Level 4 of the Code for Sustainable Homes*" (Reference ID: 6-012-20190315). The PPG also states that if a Council is "*considering policies on local requirements for the sustainability of other buildings, local planning authorities will wish to consider if there are nationally described standards and the impact on viability of development*" (Reference ID: 6- 009-20150327)	The figures quoted in this para are known facts and it is for individual LPAs to pursue an appropriate policy approach. The references merely illustrate that policy options exist and this para sets the context for what can be achieved through DPDs.	Insert the following words at the end of last sentence to para 4.9 to read: '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'.
	Barratt West Midlands - Savills	Para 4.10	Paragraph 4.10 goes on to state estimated costs for a 'fabric first approach' to energy efficiency. No viability	The figures quoted in this para are suggested	Delete the second sentence from para 4.10.

			appraisal is being consulted on to support the proposed SPD requirements or figures stated in paragraph 4.10. The PPG states that SPDs should build upon policies in a local plan but "*they should not add unnecessarily to financial burdens on development*" (Reference ID: 61-008-20190315). The SPD has not provided justification as to why the standards above national requirements are being sought and its impact on the viability of sites.	approximate costs based on the figures quoted by the UKGBC. They are not SPD requirements, however, it is recognised that these figures are not up-to-date.	
	Barratt West Midlands - Savills	Para 4.14	Paragraph 4.14 states that when undertaking modelling, applicants are strongly encouraged to use the SAP 10 emission factors as these reflect current, real-world emissions much more closely than the SAP 2012 emission factors. The SAP 10 have not be adopted nationally as of yet. We therefore consider that the national guidance should be followed to ensure consistency across sites.	Agreed.	Reword para 4.14 as follows: 'When undertaking modelling, applicants are strongly encouraged to use the national guidance SAP 2012 emission factors (or any future replacement equivalent). The energy statement should state clearly which emission factors have been used.
	Barratt West Midlands - Savills	Para's 4.17-4.21	Paragraphs 4.17 – 4.21 sets out the West Midlands Combined Authority ('WMCA') support for zero carbon homes and their objectives to assist in meeting their target for the region to be net zero by 2041. The SPD does not state that future development needs to accord with this standard. However, it is considered that the SPD should specifically state that the WMCA's objectives are not planning policy so no weight will be given to them in the decision-making process.	These para's merely aim to provide a regional policy context through the work of the WMCA. It is not the aim of the SPD to express a view regarding the way in which said policy documents can be given weight or otherwise.	No change.
	Barratt West Midlands - Savills	Para's 5.53 – 5.60	There are a few paragraphs within the SPD where Barratt consider that 'where possible' should be added in order to provide further flexibility for developers. The	Agreed.	Paragraph 5.53 – insert the words "*Where possible'' before the first sentence.*

			paragraphs and proposed additions (underlined) are as follows: - Paragraph 5.53 (first sentence) – "*Where possible, buildings should be deigned from the outset to be flexible to accommodate changing needs".* - Paragraph 5.56 (9th bullet point) – "*Buildings should be designed for passive ventilation where possible…".* - Paragraph 5.60 (first sentence) – "*Where dwellings or commercial units are sold or leased fully fitted/furnished, where possible, low energy appliances should be provided in order to reduce the energy used by building occupants*".		Paragraph 5.56 - insert the words ''*where possible''* at the end of *the* 9th bullet point. Paragraph 5.60 – insert the words 'where possible' at the end of the first sentence.
	Barratt West Midlands - Savills	Para's 5.12 and 5.14	Paragraphs 5.12 and 5.14 reference development sites being within 'the vicinity' of an existing heat network. Further clarity is requested on how the Council will determine 'the vicinity'. It may be beneficial to provide a plan in the SPD to show areas which the Council consider are within 'the vicinity' of a heat network.	It is expected such matters to be determined by prospective applicants in discussion with the Council on a case by case basis rather than the SPD providing an arbitrary distance threshold as it is considered this would represent a more pragmatic, flexible and reasonable approach for all parties.	Add a new footnote in para's 5.12 and 5.14 after the word 'vicinity' to read 'It is expected such matters to be determined by the applicants in discussion with the Council on a case by case basis'.
	Barratt West Midlands - Savills	Para 5.44	Paragraph 5.44 states that the Council has an aspiration for zero carbon development and this will be 'strongly encouraged'. Barratt is committed towards reducing carbon emissions and it is their position that all of their new homes will be zero carbon from 2030. We therefore	Noted.	No change.

			support the Council's aspiration to encourage zero carbon development where possible.		
	Barratt West Midlands - Savills	Para 5.67	Paragraph 5.67 of the SPD sets out the measures Sustainability Statements should provide details on where there is a 'performance gap' in the carbon and energy performance of buildings when built compared to anticipated at the design stage. Barratt consider that the below should only be met where possible i.e. third party processes may not be used and post construction testing on a specific development will not necessarily be undertaken unless required by legislation or planning conditions/obligations. Equally previous developments should not affect the processing/determination of current applications.	Comments noted, but the para does make clear that such suggestions and not mandatory requirements with the operative word being 'could' not 'should'.	No change.
	Barratt West Midlands - Savills	Figures 7, 8 and 9	It is considered that any figures within the SPD should represent the average house being / expected to be delivered in Coventry. Figures 7, 8 and 9 are not considered to be representative.	The Council takes an ambitious and innovative forward thinking approach to tackling energy challenges through planning and figures 7, 8 and 9 are entirely deliverable in the Coventry context.	No change.
	Historic England		Heritage assets can be a valuable aid to achieving sustainable development, in both climate change mitigation and adaptation, rather than a constraint, and we consider that the SPD should reference the retention and re-use of buildings, as at present the SPD only relates to new development. We consider that the document should recognise sustainability over the long-term. Historic	Agreed.	Insert a new numeric point after the third point in para 5.38 to read: 'Heritage assets: assets can be a valuable aid to achieving sustainable development, in both climate change mitigation and

			buildings represent a significant investment of expended energy and demolishing and replacing them requires a major reinvestment of embodied energy and other resources. The SPD should therefore encourage and recognise the benefits of sympathetic restoration, retention, refurbishment and retrofitting of historic buildings. Furthermore, we consider that policies and guidance should adopt a 'whole building' approach; looking firstly at a building's current environmental performance, then considering non-invasive measures and lastly physical interventions. Explicit reference should be made to the distinction between historic and modern fabric, as these cannot be treated in the same way; standardised methods are often inappropriate and will not only adversely affect the character and appearance of historic buildings and areas, but can easily reduce the performance of those buildings, and result in maladaptation (using more carbon to install and operate the measures than they can save). Such measures can have other unintended consequences for building use, such as poor indoor air quality, and "rebound" effects, which can make buildings less thermally efficient.		adaptation, rather than a constraint. Further information can be found through the following link: https://historicengland.org.uk/
	National Highways		Having reviewed the SPD with regards to the interests of National Highways, our network and assets, we can advise that we are supportive of the guidance and have no further comments to make.	Noted.	No change.
	Persimmon Homes – Pegasus Group	Para 2.1	The introductory paragraph (2.1) helpfully confirms that an SPD cannot include any new policies that do not currently form part of the Local Plan and that an SPD itself does not form part of the Local Plan. The paragraph continues that SPDs are a *'key'* consideration in the determination of	Agreed.	Delete the words 'However, it is a key consideration' from the second sentence of para 2.1 and replace with the following:

			planning applications. This should be amended to confirm they are another '*material*' consideration.		'SPDs are an important material consideration…….'
	Persimmon Homes – Pegasus Group	Para 2.2	Under 'aims and objectives' it is reiterates that the SPD cannot introduce new targets or standards beyond those already set out in the adopted Local Plan. The final bullet point states that the SPD may *'encourage'* developers to go further than current policy to demonstrate excellence in sustainable development. It should be made explicitly clear that this is not a requirement.	The fact that the final bullet point starts with the word 'encouraging' infers that it is not a requirement.	No change.
	Persimmon Homes – Pegasus Group	Section 4	Section 4 of the document sets out the policy context for the SPD, considering national, regional and local policy. The national policy context makes reference to the Future Homes Standard and Building Regulations. It should be clarified that these are covered by a separate regulatory regime and the planning system should not seek to duplicate matters already addressed by separate regimes.	Agreed.	Insert a new para after 4.16 to read: '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'.
	Persimmon Homes – Pegasus Group	Table 1	Table 1 sets out current codes and standards applicable in England (BREEAM, Home Quality Mark, Passivhaus and Standard Assessment Procedure). The preceding paragraph confirms these are voluntary standard and can only be required through specific Local Plan policies rather than SPDs. Therefore, planning applications should not be assessed against these standards unless adopted policy requires it. In terms of the regional policy context, it is important that the SPD acknowledge that the West Midlands Combined Authority does not have planning powers. The documents referenced may set out aspirations and targets but in terms of delivery and how this is achieved through the planning system will be left to local councils to set out in Local Plans.	Comments noted. The said table at no point infers that these codes and standards will be applied to planning applications in Coventry. It is included to show the breadth and depth of the national context.	No change.

	Persimmon Homes – Pegasus Group	Section 5	Section five addresses energy requirements in Coventry. In terms of Energy Statements, this comes through the local validation checklist rather than the Local Plan which requires a Sustainability Statement. In practice there is likely to be a high degree of overlap between these documents, and other application documents such as Design and Access Statement. The SPD should recognise the need for flexibility in the format of these documents and that in some cases these will be best addressed by a single document.	The approach set out is to allow a consistency of approach in respect of the local validation requirements in order to ensure there is a joined up approach to the way in which local requirements and SPD standards are considered through the planning process.	No change.
	Persimmon Homes – Pegasus Group	Para 5.3	This sets out that Energy Statements should show how reductions in carbon emissions will be achieved, how each action/proposal will contribute to the total reduction in carbon emissions per dwellings, the approach to the energy hierarchy and the name and position of the person producing the Statement. Persimmon Homes' construction specification is tailored to meet customer expectations for energy efficient homes with low operating costs and user-friendly technologies. On previous schemes in the City, Persimmon Homes has provided details of energy efficiency measures and energy efficiency calculations to demonstrate that calculated fabric energy efficiency exceeds the requirements of the target fabric energy efficiency. It should be acknowledged by the SPD that on large-scale residential developments details and calculations will be provided for each proposed house type rather than on a per dwelling basis. It should also be acknowledged that the Statement structure suggested by the SPD will not be suitable for outline applications.	Agreed.	Add the following bullet points to para 5.3 to read: - large-scale residential developments details and calculations will be provided for each proposed house type rather than on a per dwelling basis. - the Statement structure will not be suitable for outline applications as these proposals are high-level in nature and set out an overall energy strategy for the site with further details, such as carbon reduction calculations by house type, to be provided at detailed approval stage (usually reserved matters).

			Statements for outline applications will by necessity be high-level in nature and set out an overall energy strategy for the site with further details, such as carbon reduction calculations by house type, to be provided at detailed approval stage (usually reserved matters).		
	Persimmon Homes – Pegasus Group	Para 5.5	This sets out a structure for Energy Statements. This includes consideration of heat networks and/or Combined Cooling Heating and Power, appraisal of energy technologies and carbon reduction calculations. This is not supported by the Local Plan policy EM2 and goes beyond the requirements of the Local Plan. Policy EM2 clearly states that new development should meet relevant Building Regulations as a minimum. Compliance with the Building Regulations is therefore the benchmark against which development proposals should be assessed. Where it is demonstrated that proposals can comply with these requirements through energy efficient specifications then there is no policy requirement to carry out an appraisal of energy technologies or heat networks. Indeed, the adopted Plan only makes reference to heat and power generation in supporting text (not policy) and only in relation to identified strategic sites. The SPD seeks to go beyond the adopted policy and the requirements, for example that developments within the area of an existing network must be connection-ready as a minimum. These additional points could have significant implications for the viability of proposed development and this should therefore be considered, evidenced and viability-tested through a Local Plan and not an SPD. This should be deleted from the SPD. Figure 3 sets out the existing heatline network in Coventry. The network is currently	The approach in para 5.5 makes it clear it is a 'suggested' approach for energy statements. The proceeding paragraphs of the SPD then set out what is expected to be considered against the 'suggested' structure. Importantly, the 'suggested' structure clarifies and amplifies Local Plan policy EM2 by specifically addressing point 2 of the policy by providing further detail as to what the Council would expect from developments and to be designed in accordance with the specified energy hierarchy in meeting the carbon reduction targets set out in Building	Delete the words 'must consider' and replace with 'are expected to consider' in para 5.5.

			limited in extent and the majority of proposals within the City will not be able to connect to this. It would assist if this Figure were kept up-to-date and were continuously updated if the network is expanded. In terms of low and zero carbon energy, as set out above Policy EM2 is benchmarked against Building Regulations and encourages the use of energy efficiency and low carbon energy to achieve this, along with other methods such as conserving water, materials and recycling. It does not have any specific requirements regarding low carbon energy nor does it express a preference for one method over any others. It does not require that development proposals should demonstrate that the most effective technology or mix of technologies has been selected or that all methods should be considered. Requiring an appraisal of each low carbon technology is unnecessarily onerous and goes beyond demonstrating compliance with adopted policy. The SPD should not be introducing these requirements as, if a proposal can demonstrate compliance with the relevant policy, than under the plan-led system it is acceptable. This should be removed from the SPD.	Regulations. Therefore, it is suggested that it is for individual planning application submissions to show they meet the requirements of Policy EM2 informed by the details set out in this section of the SPD.	
	Persimmon Homes – Pegasus Group	Para 5.27	This para seeks for Energy Statements to assess the carbon saving potential of energy technologies using real-world performance and take into account the future decarbonisation of the national grid rather than relying on the emission factors used in the Building Control system. It is not clear that this information is available to applicants and the SPD should clarify where and how this can be obtained. This approach is not supported, and it is not clear how schemes would be assessed on a consistent	Para 5.27 has been included because the reliance on the emission factors used in the Building Control system are understood to be updated infrequently. The SPD can not and should not provide all the answers for	No change.

			basis, as is possible when using the emission factors from the Building Control system.	prospective applicants as it is considered this could stifle innovation. Moreover, it is considered that it is for applicants to provide the necessary appraisal and each case will be considered on a case by case basis.	
		Para 5.28	This para states that where schemes propose a mix of renewable energy technologies they will need to demonstrate how they will work in tandem and, where applicable, how they will be integrated into a heat network or cooling system. The SPD should be careful not to place additional requirements on schemes proposing multiple forms of renewable energy technologies at the risk of inadvertently discouraging this approach. In terms of Sustainability Statements, this is included in Policy EM2. As set out above, this Statement will have a high degree of overlap with other submitted documents including, but not limited to the Energy Statement, Design and Access Statement and drainage information. If a separate document it to be submitted it would likely include a significant amount of cross-referencing to these other documents rather than repeating the same information. For example, the sections concerned with site layout, landscaping and urban form (paragraphs 5.47 – 5.52), building design (5.53 – 5.61) and Building for Life (5.62 – 5.64) are all likely to be addressed in a Design and Access Statement.	It is considered appropriate and reasonable for prospective applications to include all necessary information in whatever document applicants consider is appropriative. It is considered that it is not the role of an SPD to specify what type of information is included in a particular document that would be required as part of a planning application submission, rather this para provides further detail as to what could	No change.

				be considered a reasonable approach.	
	Persimmon Homes – Pegasus Group	Para 5.44	This section states that zero carbon developments are strongly encouraged wherever possible. There is no reference in the adopted Local Plan to achieving zero carbon development, there is no policy requirement to support this and this would need to be carefully viability tested through the Local Plan process. The SPD should be clear that proposals cannot be assessed against zero carbon standards as this is not a policy requirement.	The SPD makes it clear in this para that zero carbon developments are 'encouraged' so by its very inclusion, the reader should acknowledge it is not a requirement. The SPD therefore aims to clarify and provide further detail as to the policy approach set out in Policy EM2 by using terminology that is now universally accepted as part of the narrative surrounding building standards.	No change.
	Persimmon Homes – Pegasus Group	Para 5.65	The section regarding the 'performance gap' is speculative on what may cause this. Should the Building Regulations be amended to require new buildings to be tested against their design specification after construction this will be done through Building Regulations rather than the planning system which should not duplicate requirements of other regulatory systems. There is no policy requirement for measures to addresses the performance gap and as such the SPD cannot require this or assess applications against this. Any information submitted on this should be treated as exceeding policy.	This is a general point that can reasonably be made in the context of this part of the SPD given it is qualified by a third party source and so it is considered relevant and appropriate to make the point as context for the proceeding paragraph.	No change.

	Richborough Estates – Marrons Planning	Para 5.7	This para states there is a requirement for developments to connect to CHP networks where they exist, although that requirement does not appear in Policy EM2.	The approach in para 5.7 makes it clear that Local Plan policy EM2 specifically addresses the way in which heat networks can be considered as part of point 2 of the policy by providing further detail as to what the Council would expect from developments and to be designed in accordance with the specified energy hierarchy in meeting the carbon reduction targets set out in Building Regulations. Therefore, it is suggested that it is for individual planning application submissions to show they meet the requirements of Policy EM2 informed by the details set out in this section of the SPD. It is already acknowledged that there is no policy requirement to connect to existing or planned	Delete the second sentence of para 5.7.

				decentralised energy networks.	
	Richborough Estates – Marrons Planning	Para 5.11	This para states that all new developments must demonstrate how the objectives of policies (EM2 and EM3) have been met through alternative equivalent carbon solution in the Sustainable Buildings Statement. That requirement does not appear in Policy EM2.	The SPD provides further detail and amplifies how policy EM2 and the supporting text should be interpreted. Given this, both policy EM2 and supporting text both specifically address sustainable building statements and encouragement to connect to existing and planned decentralised energy networks.	No change.
	Richborough Estates – Marrons Planning	Para 5.38	This para sets out a list of matters that the Sustainability Statement must address in order to demonstrate the proposals comply with the Local Plan, and other SPDS. However, this list sets requirements for development which go beyond Policy EM2 in so far as: • incorporation of a proportion of recycled and/or secondary aggregates; • the Council's strong support for zero carbon development; • performing positively against Building for Life guidance; • compliance with the highest national standards of water efficiency, which for residential developments of one or more gross units means achieving a water efficiency standard of a maximum of 110 litres per occupant per day.	It is considered this para provides a relevant and up-to-date approach to what a sustainability statement should consider based on policy EM2 and the Councils local validation requirements in order to provide a robust approach. Given that sustainability statements do not cover compliance with the	Delete the words 'must address' and replace with 'is expected to consider' from the second sentence of para 5.38.

			It is not clear whether the above list taken from paragraph 5.38 is seeking to set standards for new development, or whether these are aspirations which developers are encouraged to achieve. This SPD cannot be used to update the Local Plan policies, and it is requested that paragraphs 5.7, 5.11 and 5.38 of the Draft SPD are amended before it is adopted to clarify these are not requirements on new development.	carbon emission and low and zero carbon energy requirements as compliance with these requirements is established through energy statements, it is considered this para provides the necessary guidance and steer as to what is encouraged in the Coventry context.	
	Severn Trent Water	Para 5.38	We are supportive of your plan in particular paragraph 5.38 on 'What do sustainability statements need to cover?'. We are supportive of section 2g relating to water efficiency measures and section 3 relating to SuDS.	Noted.	No change.
	University of Warwick	Para 5.9	We support the change from support for CHP led heat networks to low carbon networks in general, and recognise that heat networks are a central part of the UK governments net zero strategy. We would go further to support low carbon development whether on a network or not. As heating transitions to heat pump technology we are developing flexible strategies and solutions to optimise their impact.	Noted.	No change.
		Para 5.19	There is an assertion that low carbon CHP engines are still "low carbon". This contradicts BEIS' recent work and industry standards. The new Building Regulations will show that a gas CHP, (even excluding network losses) is higher carbon than a gas-fired boiler and mains electricity. The university is committed to decommissioning its CHP plant as set out in the Net Zero Carbon strategy. There is an	Comments noted.	No change.

			assertion that as CHP engine also provides cooling the efficiency increases. A CHP engine can normally only provide cooling if heat is fed to an absorption chiller. These normally have a co-efficient of performance (CoP) of 1.2 to 1.4. This compares to an electric chiller that would typically provide cooling at a CoP of 3 to 6. Therefore, although it may be able to show that CCHP is more efficient than CHP alone, it is far more efficient to use electric chillers or heat pumps. (You suggest this in 5.30.) The university will be decommissioning its absorption chiller plant aligned with the CHP strategy, and develop low carbon technologies for cooling.		
	University of Warwick	Para 5.20	Biomass CHP is very rare, but if it is used we support the council's concerns around air pollution. We are aiming to reduce all air pollution on our campus and support wider efforts by others. The air pollution from gas and biomass CHP engines is very high compared to gas boilers. The university will continue to 'horizon scan' the opportunities for biofuels and their potential as part of its 'energy mix	Comments noted.	No change.
	University of Warwick	Para's 5.11-5.22	We suggest that the focus on CHP and heat networks is adjusted. Industry and regulation is fast moving to accept that heat pumps will be the source of low temperature heat for buildings, including the Climate Change Committee. Most pertinently, from 2025 the UK government has already confirmed that fossil fuels will not be allowed for new buildings. The university strategy set out in the Net Zero Carbon Pathway document sets out a transition path which removes the reliance on fossil fuel and promotes low carbon technologies, such as ground source heat pumps, air source heat pumps and increased	It is maintained that decentralised heat networks contribute to the mix of technologies that can provide sustainable energy going forward, particularly in the Coventry context. However, it is accepted that other sources of	Add a new para after 5.22 to read: 'Industry and regulation is fast moving to accept that heat pumps will be the source of low temperature heat for buildings, including the Climate Change Committee. Most pertinently, from 2025 the UK government has already confirmed that fossil fuels will not be allowed for new buildings. Given this, the promotion of suitable low carbon

			thermal storage. Our Environmental Sustainability and Energy Strategy gives more details.	sustainable energy can contribute to the mix.	technologies, such as ground source heat pumps, air source heat pumps and increased thermal storage will be encouraged wherever possible'.
	University of Warwick	Para 5.27	We support the requirement to consider the real-world performance of technologies and decarbonisation of the grid.	Noted.	No change.
	University of Warwick	Para 5.31	We support your point around heating systems with heat pumps operating better at lower flow temperatures. You suggest using underfloor heating or larger radiators to enable this. It would be beneficial to be explicit that you expect heating systems to operate at lower flow temperatures, no higher than 55 degrees, improving heat pump performance. The university recognises the need to improve the thermal performance of building stock, adapting passive measure for energy reduction. Improved thermal performance will improve the efficiency and suitability of low temperature, and low carbon heating technologies such as heat pumps.	Agreed.	Add new sentence at the end of para 5.31 to read: 'There is an expectation that heating systems need to operate at lower flow temperatures, no higher than 55 degrees to help ensure an improved heat pump performance, as it is recognised the need to improve the thermal performance of building stock and adapting passive measures for energy reduction'.
	University of Warwick	Para 5.38	Climate Change Adaptation – Referring to resilience to climate change, we suggest requesting the use of the Good Homes Alliance's Overheating tool as a simple way to assess risk for new residential development.	Agreed.	Add a new point after 3 j) to read: 'k. the use of the Good Homes Alliance's Overheating tool as a simple way to assess risk for new residential development'.
	University of Warwick	Para 5.43	On the offsetting subject, many local authorities are setting up funds that developers pay. The benefit of this is that it ensures activity is happening within the council area. It would also open up the opportunity for local providers to offer solutions. In regard to the creation of a local authority fund it is crucial that there is transparency as to	Comments noted. This will be explored further through the Local Plan review process as SPD can't introduce new	No change.

			the projects funded and that the results show a demonstrable carbon saving. There should also be options available for the developer to offset onsite/offsite or via a local authority fund. A mechanism could be put in place to ensure the fund demonstrates the carbon offsetting results within 3 years and in the case that this is not achieved the funds revert to the developer to use for carbon reduction projects on or off site.	policy approaches and mechanisms.	
	University of Warwick	Para 5.44	You state a preference for zero carbon development. It would be helpful to refer to standards and documents from organisations such as LETI and UKGBC.	Agreed.	Add a new footnote to the end of the second sentence of para 5.44 to the relevant website links for LETI and UKGBC.
	University of Warwick	Para 5.52	It is positive to see discussion of tree planting and microclimate principles.	Noted.	No change.
	University of Warwick	Para 5.53	We support the need for buildings to be flexible and adaptable, especially student accommodation, recognising the changing nature of our towns and cities with technology and the impact of Covid-19.	Noted.	No change.
	University of Warwick	Para 5.62	Building for Life 12 has been replaced by Building for a Healthy Life (2020 Edition). It is suggested this reference is updated.	Agreed.	Insert the words 'a healthy' after the word 'life' in the subtitle and all proceeding references in para 5.62.
	University of Warwick	Para 5.67	The performance gap is a significant issue, and we support aims to reduce it. Setting up a voluntary reporting structure for in-use performance would enable collection of data to identify the gap and how to close it.	Noted.	No change.
	University of Warwick	Comments on areas not contained in the SPD	**Smart Energy** - One area not addressed greatly in the SPD is that of smart energy management. We are increasingly electrifying transport and heat. This is happening in parallel with an electrical supply system increasingly dependent on intermittent or inflexible wind, solar and nuclear power.	Agreed.	Insert two new para's after para 5.67 to read: Smart Energy

			This has made the flexible use of electricity crucial in our transition to a zero carbon country. By switching demands, such as chillers, hot water and EV charging, on and off a building can reduce CO2 emissions, peak demand and energy bills, whilst allowing more renewable energy to be deployed and less fossil fuel power. Energy storage is an important part of this, in the form of hot water, building fabric and electro-chemical storage. We recommend the SPD makes a specific requirement to employ measures to support smart energy management, beyond smart meters. The university recognises the need to transition towards a Smart Local Energy System, developing a fully integrated and multi-vectoral energy system. This strategy is currently in development at a campus level. The 'Smart Campus' will be controlled and managed to provide dynamic and real-time optimisation of its power, heating, cooling, transport, renewable energy and storage systems. This will be fully integrated into associated energy management and maintenance operational activities. **Electric Vehicles** - On a similar note, as vehicles electrify they will increasingly play a role in building energy systems. This is because the charging infrastructure often comes from the buildings, but also vehicle to grid and vehicle to building technology will mean that they will act as large energy storage devices, reducing energy bills and balancing supply and demand on the network. We recommend the SPD addresses this specifically.		5.68 Many organisations across the city are currently electrifying their transport and heat requirements. This is happening in parallel with an electrical supply system increasingly dependent on intermittent or inflexible wind, solar and nuclear power. This has made the flexible use of electricity crucial in our transition to a zero carbon country. By switching demands, such as chillers, hot water and EV charging, on and off a building can reduce CO2 emissions, peak demand and energy bills, whilst allowing more renewable energy to be deployed and less fossil fuel power. Energy storage is an important part of this, in the form of hot water, building fabric and electro-chemical storage. These examples of smart energy practices are encouraged to be considered, wherever possible. Electric Vehicles 5.69 as vehicles electrify they will increasingly play a role in building energy systems. This is because the charging infrastructure often

					comes from the buildings, but also vehicle to grid and vehicle to building technology will mean that they will act as large energy storage devices, reducing energy bills and balancing supply and demand on the network. This approach to electrification is encouraged to be considered, wherever possible.
	Birmingham Airport Ltd.	General point	Aerodrome Safeguarding Considerations: Birmingham Airport is an officially safeguarded aerodrome and therefore afforded safeguarding protection by UK Government (*Department for Transport*) to ensure its operation and development is not inhibited by proposed development and development plans. Aerodrome safeguarding covers but is not limited to: • Protecting the airspace around an aerodrome to ensure no buildings or structures cause danger to aircraft, either in the air or on the ground. This is achieved through both the 'Obstacle Limitation Surfaces' (OLS) and the 'Instrument Flight Procedure' (IFP) protected surfaces. • Protecting the integrity of Safety Critical Equipment used for Air Traffic Management, this is done by carrying out Physical and Spectrum Safeguarding of: radio equipment, communication and working practices including the use of portable management radio sets, Radar, instrument landing systems and other electronic aids to navigation (*technical safeguarding).*	Comments noted.	No change.

			• Preventing confusion of lights with Aeronautical Lighting, such as approach and runway lighting. • Minimising bird activity which poses a serious threat to flight safety and any increased wildlife strike risk. • Continued safe aerodrome operation from interference by any planned construction or construction processes (*e.g. dust/smoke, temporary lighting or construction equipment etc*.). • All use of cranes or any other tall construction equipment. • Protecting aircraft from the risk of collision with obstacles. • Any potential to distract pilots and air traffic controllers e.g. lighting, pyrotechnics, lasers etc. that can be seen by pilots on take-off and landing or in view of the Air Traffic Control tower. • Impact of installation of solar farms and wind turbines. Birmingham Airport should be consulted on any planned development that may impact aerodrome safeguarding.		
	Coventry Society	General point	The policy associated with this SPD is particularly weak, requiring nothing more than compliance with the Building Regs "as a minimum". As developments are required to meet the Building Regs anyway, it is clear that the policy lacks ambition. Having said that, the Society feels that the SPD makes a positive contribution to the aim of creating sustainable development in the city. The SPD sets out the requirement for meeting both the requirements of the policy but also, perhaps more importantly, other legislation and Government policy and it includes a very comprehensive description of current standards,	The policy to which this SPD is based may be subject to the Local Plan Review process.	No change.

			certifications etc. The Society welcomes and supports this draft Supplementary Planning Document.		
	Ministry of Defence	General Point	Where development falls outside designated safeguarding zones the MOD may also have an interest, particularly where the development is of a type likely to have an impact on operational capability. Examples of this type of development are the installation of renewable energy generation systems and their associated infrastructure. The MOD has, in principle, no issue or objection to renewable energy development though some methods of renewable energy generation, for example wind turbine generators or solar photo voltaic panels can, by virtue of their physical dimensions and properties, impact upon military aviation activities, cause obstruction to protected critical airspace encompassing military aerodromes, and impede the operation of safeguarded defence technical installations. Where turbines are erected in line of sight to defence radars and other types of defence technical installations, the rotating motion of their blades can degrade and cause interference to the effective operation of these types of installations with associated impacts upon aviation safety and operational capability. Planning Practice Guidance published on the Gov.uk website acknowledges the potential effect of wind turbine generators and directs developers and Local Planning Authorities to consult the MOD where a proposed turbine has a tip height of or exceeding 11m or has a rotor diameter of 2m or more. In summary, the MOD have no concerns or suggested amendments to the current draft of Coventry City Council's Energy Supplementary Planning	Comments noted.	No change.

			Document that forms the subject of the current consultation.		

SEA Screening Opinion responses

Comment reference	Respondent / agent	Page / para reference	Consultation response (summary)	Officer response	Proposed change to SPD
	Historic England	SEA Screening Opinion	With regard to the Energy SPD SEA Screening Opinion, in terms of Historic England's area of interest, given the nature of the SPD, we would concur with your assessment that the document is unlikely to result in any significant environmental effects and will simply provide additional guidance on existing Policies contained within the adopted Coventry City Council Local Plan which has already been subject to a Sustainability Appraisal/SEA. As a result, we would endorse the Authority's conclusions that it is not necessary to undertake a Strategic Environmental Assessment of this particular SPD. However, the views of the other three statutory consultation bodies should be taken into account before the overall decision on the need for a SEA is made.	Agreed.	No change.

	Natural England	SEA Screening Opinion	It is our advice, on the basis of the material supplied with the consultations, that, in so far as our strategic environmental interests (including but not limited to statutory designated sites, landscapes and protected species, geology and soils) are concerned, that there are unlikely to be significant environmental effects from the proposed plans. Natural England therefore agrees with your conclusions that an SEA is not required for the separate SPD's.	Agreed.	No change.

APPENDIX 3

Strategic Environmental Assessment of the Energy Supplementary Planning Document

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Coventry City Council

Strategic Environmental Assessment Screening Assessment

February 2022

1. Introduction

1.1 This screening report has been produced to consider whether the Energy Supplementary Planning Document (SPD) prepared by Coventry City Council should be subject to a Strategic Environmental Assessment (SEA) in accordance with the Environmental Assessment of Plans and Programmes Regulations 2004, as amended by The Environmental Assessments and Miscellaneous Planning (Amendment) (EU Exit) Regulations.

1.2 Paragraph: 008 of the Planning Guidance [1] states that supplementary planning documents may in exceptional circumstances require SEA if they are likely to have significant environmental effects that have not already been assessed during the preparation of the relevant strategic policies. This screening statement considers whether there are any impacts which have not already been assessed within the Coventry Local Plan which was adopted on 6th December 2017[2], and determines whether or not SEA is needed for this SPD.

2. The Energy SPD: Context

2.1 The Draft Energy SPD sets out further detail on existing policies contained within the Coventry City Council Local Plan. The Local Plan is the City Council's statutory planning framework which sets out how and where new homes, jobs, services and infrastructure will be delivered and the type of places and environments that will be created, enhanced and protected.

2.2 Providing further guidance on building standards as they relate to carbon reduction and climate change over the Plan period to 2031 is a key commitment set out in Policy EM2 (Building Standards) of the adopted Coventry Local Plan. The aim of this SPD is to provide technical guidance on energy standards and requirements to improve the environmental sustainability of new development in the city.

2.3 The additional guidance provided within the SPD aims to provide clear information for applicants about policy requirements and expectations, clearly set out what detail the council expects developers to provide to assist the decision – making process and to encourage developers to promote excellence and best practice in sustainable development.

3. The Screening Process

3.1 The screening assessment is undertaken in two parts: the first will assess whether the SPD requires screening for SEA and the second part of the assessment will consider

[1] Reference ID: 11-008-20140306
[2] https://www.coventry.gov.uk/localplan

whether the SPD is likely to have a significant effect on the environment, using criteria drawn from Schedule 1 of the SEA Regulations.

Table 1: Is SEA screening required?

Environmental Regulations Paragraph detail	Comments
2.(1) In these Regulations- [...] "plans and programmes" means plans and programmes, including those co-financed by the European Community, as well as any modifications to them, which— (a) are subject to preparation and adoption by an authority at national, regional or local level; (b) are prepared by an authority for adoption, through a legislative procedure by Parliament or Government; and, in either case, (c) are required by legislative, regulatory or administrative provisions	Yes, this applies. The SPD is subject to preparation and adoption at local level. Whilst the SPD is not a requirement and is optional under the provisions of the Town and Country Planning Act it will, if adopted, supplement the development plan and be a material consideration in the assessment of planning applications.
<u>Environmental assessment for plans and programmes; first formal preparatory act on or after 21st July 2004</u> 5.(2) The description is a plan or programme which— (a)is prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use, and (b)sets the framework for future development consent of projects listed in Annex I or II Directive 2011/92/EU(4) of the European Parliament and of the Council on the assessment of the effects of certain public and private projects on the environment.	Yes, this applies. The SPD is prepared for town and country planning purposes. It supplements the planning policy framework of the Coventry City Local Plan, by providing detailed guidance as to how these policies are interpreted for future consent of projects listed in Schedule II of Directive 2011/92/EU(4).
3) The description is a plan or programme which, in view of the likely effect on sites, has been determined to	No this does not apply. The SPD is not likely to affect sites and has been determined not to require an

require an assessment pursuant to Article 6 or 7 of the Habitats Directive.	assessment pursuant to any law that implemented Article 6 or 7 of the Habitats Directive. Habitat Regulations Assessment is not required. The Habitat Regulation Assessment undertaken in 2016 for the Coventry City Local Plan concluded that the plan would not cause a negative effect alone or in combination with other plans. The SPD does not provide any guidance which alters the impact of the policy on designated sites.
6) An environmental assessment need not be carried out— (a)for a plan or programme of the description set out in paragraph (2) or (3) which determines the use of a small area at local level, or (b)for a minor modification to a plan or programme of the description set out in either of those paragraphs,	Yes, this applies. The SPD provides further detail on the implementation of energy policy within the adopted Local Plan. This applies to the whole administrative area of Coventry City Council.
<u>Determinations of the responsible authority</u>[3] 9.—(1) The responsible authority shall determine whether or not a plan, programme or modification of a description referred to in— (a)paragraph (4)(a) and (b) of regulation 5; (b)paragraph (6)(a) of that regulation; or (c)paragraph (6)(b) of that regulation, is likely to have significant environmental effects. (2) Before making a determination under paragraph (1) the responsible authority shall— (a)take into account the criteria specified in Schedule 1 to these Regulations; and (b)consult the consultation bodies.	This screening opinion has been prepared using the criteria specified in Schedule 1 as presented in Table 2. The statutory bodies (Natural England, Historic England and the Environment Agency) are to be consulted as required.

[3] "Responsible authority", in relation to a plan or programme, means the authority by which or on whose behalf it is prepared (Regulation 2(1)(a))

Table 2: will the SPD have a significant effect on the environment[4]

SEA requirement	Comments
1: The characteristics of plans and programmes, having regard, in particular, to	
(a) the degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources;	The SPD has a minor role in setting the framework for projects. While the SPD forms a material consideration in decisions on planning applications, it has no influence on the location or volume of projects nor does it allocate resources.
(b) the degree to which the plan or programme influences other plans and programmes including those in a hierarchy;	The SPD does not create new policies but will support the policies in the adopted Local Plan. Other plans and programmes may outlive the SPD and during their preparation will be steered by national legislation and policy.
(c) the relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development;	The purpose of the SPD is to provide guidance to support the affordable housing policy of the adopted Local Plan. The Local Plan SA/SEA assessed this. The purpose of the SPD is to ensure these beneficial impacts of that policy are delivered and maintained which contributes to promoting sustainable development.
(d) environmental problems relevant to the plan or programme; and	There are no environmental problems relevant to this SPD: it elaborates adopted Local Plan policy.
(e) the relevance of the plan or programme for the implementation of retained EU law on the environment (for example, plans and programmes linked to waste management or water protection).	The SPD has no relevance to the implementation of retained EU law.
2. Characteristics of the effects and of the area likely to be affected, having regard, in particular, to—	
(a) the probability, duration, frequency and reversibility of the effects;	The SPD is not allocating sites for development. The SPD is to provide guidance for the application and implementation of the policies in

[4] As set out in Schedule 1 of the Environmental Assessment of Plans and Programmes Regulations 2004

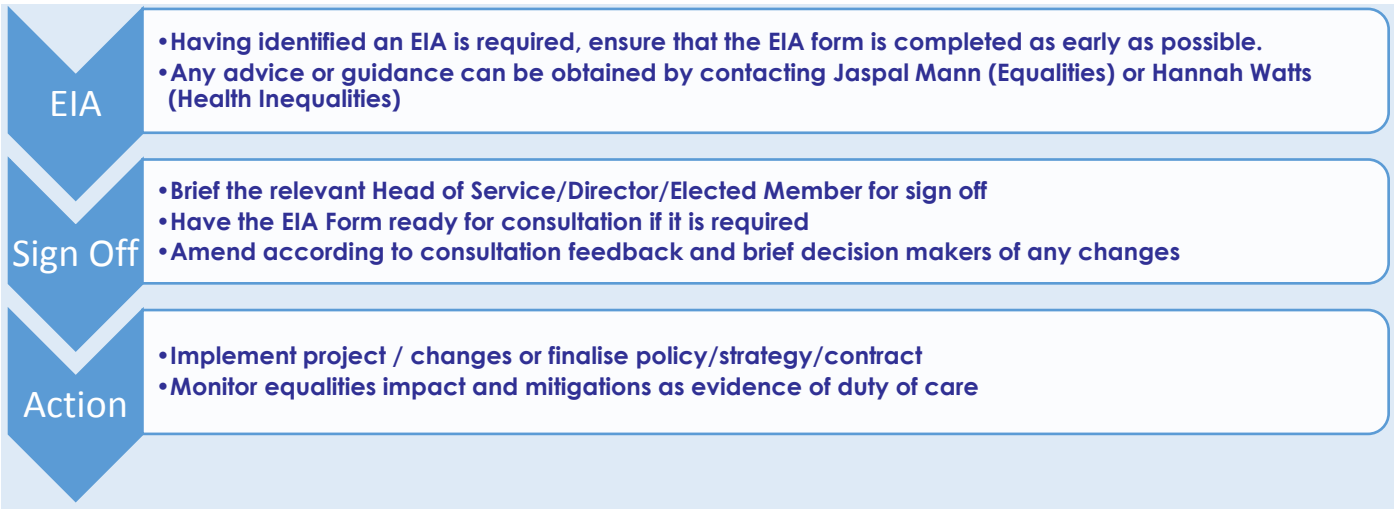
	the adopted Local Plan and is not expected to give rise to any significant environmental effects.
(b) the cumulative nature of the effects;	The SPD is not considered to have any significant cumulative effects. As the document provides further guidance to adopted local plan policies, but does not set policies itself, it cannot contribute to cumulative impacts in combination with the Local Plan.
(c) the transboundary nature of the effects;	There are no transboundary effects as this SPD relates to the Coventry City Council area only. Any potential significant transboundary environmental effects have already been assessed as part of the local plan's sustainability appraisal, the Habitat Regulations Assessment and the plan's examination process.
d) the risks to human health or the environment (for example, due to accidents);	The SPD poses no risk to human health.
(e)the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected);	The SPD relates to Coventry City Council's administrative area only.
(f)the value and vulnerability of the area likely to be affected due to— (i)special natural characteristics or cultural heritage; (ii)exceeded environmental quality standards or limit values; or (iii)intensive land-use;	The SPD relates to the Coventry City Council area only; as no development is proposed via the SPD, which elaborates on existing policy, none of these are likely to be affected by the SPD. Any site-specific matters would be addressed through a planning application specific to an individual proposal.
(g)the effects on areas or landscapes which have a recognised national, Community or international protection status.	The SPD relates to the Coventry City Council area only; as no development is proposed via the SPD, which elaborates on existing policy, none of these matters are likely to be affected by the SPD. Any site-specific matters would be addressed through a planning application specific to an individual proposal.

4. Conclusion and Screening Recommendation

4.1 This screening assessment identifies that the SPD will provide guidance to support the Policy EM2 (building standards) of the Coventry City Council adopted Local Plan. It is concluded that the SPD is unlikely to have significant environmental effects and therefore that Strategic Environmental Assessment is not required. The three statutory bodies (Natural England, Historic England and the Environment Agency) were consulted between 30th November 2021 and 18th January 2022. Natural England and Historic England confirmed that SEA is not required. No response was received from the Environment Agency.

EQUALITY IMPACT ASSESSMENT (EIA) APPENDIX 4

+Title of EIA		**EIA Energy SPD**
EIA Author	Name	**Clare Eggington**
	Position	**Principal Town Planner (Planning Policy)**
	Date of completion	**04/02/2022**
Head of Service	Name	**David Butler**
	Position	**Head of Planning Policy and Environment**
Cabinet Member	Name	**Councillor David Welsh**
	Portfolio	**Housing and Communities**



PLEASE REFER TO EIA GUIDANCE FOR ADVICE ON COMPLETING THIS FORM

SECTION 1 – Context & Background

1.1 Please tick one of the following options:

This EIA is being carried out on:

☐New policy / strategy
☐New service
☐Review of policy / strategy
☐Review of service
☐Commissioning
☒Other project *(please give details)Supplementary Planning Document for Energy*

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1.2 In summary, what is the background to this EIA?

The Energy Supplementary Planning Document (SPD) adds further details to the Local Plan which was adopted on 6th December 2017 and for which EIA was undertaken. SPDs do not introduce new policy, but provide further detail and guidance to enable the delivery of adopted policies.

Providing further guidance on building standards as they relate to carbon reduction and climate change over the Plan period to 2031 is a key commitment set out in Policy EM2 (Building Standards) of the adopted Coventry Local Plan. The aim of this SPD is to provide technical guidance on energy standards and requirements to improve the environmental sustainability of new development in the city.

The additional guidance provided within the SPD aims to provide clear information for applicants about policy requirements and expectations, clearly set out what detail the council expects developers to provide to assist the decision – making process and to encourage developers to promote excellence and best practice in sustainable development.

1.3 Who are the main stakeholders involved? Who will be affected?

Developers of proposed schemes which require planning applications, local communities including people who will live or work in the proposed developments, other stakeholders including those developing technologies to address climate change and those organisation involved in dealing with matters of climate change and sustainability.

1.4 Who will be responsible for implementing the findings of this EIA?

Coventry City Council Planning Policy Service

SECTION 2 – Consideration of Impact

Refer to guidance note for more detailed advice on completing this section.

In order to ensure that we do not discriminate in the way our activities are designed, developed and delivered, we must look at our duty to:

- Eliminate discrimination, harassment, victimisation and any other conflict that is prohibited by the Equality Act 2010
- Advance equality of opportunity between two persons who share a relevant protected characteristic and those who do not

Coventry City Council

- Foster good relations between persons who share a relevant protected characteristic and those who do not

2.1 Baseline data and information

Please include a summary of data analysis below, using both your own service level management information and also drawing comparisons with local data where necessary (go to https://www.coventry.gov.uk/factsaboutcoventry)

The Local Plan was formulated using detailed evidence and information including the Building Regulations and Building for Life standards. The Local Plan was independently examined by a Planning Inspector to ensure that its policies were robust and formulated using appropriate evidence before it could be found sound and capable of adoption. Further detail on the Local Plan and the evidence base can be found here https://www.coventry.gov.uk/localplan The additional guidance provided within the SPD aims to provide clear information for applicants about policy requirements and expectations, clearly set out what detail the council expects developers to provide to assist the decision – making process and to encourage developers to promote excellence and best practice in sustainable development

2.2 On the basis of evidence, complete the table below to show what the potential impact is for each of the protected groups.

- Positive impact (P),
- Negative impact (N)
- Both positive and negative impacts (PN)
- No impact (NI)
- Insufficient data (ID)

Any impact on the Council workforce should be included under question 2.6 – **not below*

Protected Characteristic	**Impact type** P, N, PN, NI or ID	**Nature of impact and any mitigations required**
Age 0-18	**P**	More efficient use of energy contributes to reduction in carbon emissions and addressing the impacts of climate change. The SPD is legally only allowed to provide further guidance to adopted policy, and is only able to encourage developers to follow its recommmendations in terms of good practice so it is not possible to quality what the direct impact will be on this group. 19.5% of Coventry City Council residents are aged 15 and under and children and young people stand to gain the most benefit from the policies dealing with the implementation of sustainable energy practices over the long term.

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Age 19-64	**P**	More efficient use of energy contributes to reduction in carbon emissions and addressing the impacts of climate change. The SPD is legally only allowed to provide further guidance to adopted policy, and is only able to encourage developers to follow its recommmendations in terms of good practice so it is not possible to quality what the direct impact will be on this group. Coventry has a higher than average number of residents of working age (67% compared to 61.7% for the West Midlands and 62.4% for England) however so it stands to reason that a significant portion of the population will positively benefit from the implementation of policies which encourage sustainable energy practices. This is especially pertinent for those households currently identified as being in fuel poverty: 2019 figures show that at 18.8% overall this is significantly above the regional average of 17.5 % and 13.4% for England.
Age 65+	**P**	13.5% of Coventry's population are aged 65+ (compared to 18.6% and 18.4% for the West Midlands and England respectively). As above, all sectors of the population will benefit from more sustainable energy practices although because of the scope of the SPD it is not possible to quantify this. See above regarding comments on fuel poverty which also applies here.
Disability	**ID**	Whilst individuals and households are likely to benefit from more sustainable energy practices the scope of the SPD is limited and it is not possible to quantify direct impacts with regard to this protected characteristic.
Gender reassignment	**ID**	Whilst individuals and households are likely to benefit from more sustainable energy practices the scope of the SPD is limited and it is not possible to quantify direct impacts with regard to this protected characteristic.
Marriage and Civil Partnership	**ID**	Whilst individuals and households are likely to benefit from more sustainable energy practices the scope of the SPD is limited and it is not possible to quantify direct impacts with regard to this protected characteristic.
Pregnancy and maternity	**ID**	Whilst individuals and households are likely to benefit from more sustainable energy practices the scope of the SPD is limited and it is not possible to quantify direct impacts with regard to this protected characteristic.
Race (Including: colour, nationality, citizenship ethnic or national origins)	**ID**	Whilst individuals and households are likely to benefit from more sustainable energy practices the scope of the SPD is limited and it is not possible to quantify direct impacts with regard to this protected characteristic.

Religion and belief	**ID**	Whilst individuals and households are likely to benefit from more sustainable energy practices the scope of the SPD is limited and it is not possible to quantify direct impacts with regard to this protected characteristic.
Sex	**ID**	Whilst individuals and households are likely to benefit from more sustainable energy practices the scope of the SPD is limited and it is not possible to quantify direct impacts with regard to this protected characteristic.
Sexual orientation	**ID**	Whilst individuals and households are likely to benefit from more sustainable energy practices the scope of the SPD is limited and it is not possible to quantify direct impacts with regard to this protected characteristic.

HEALTH INEQUALITIES

2.3	Health inequalities (HI) are unjust differences in health and wellbeing between different groups of people which arise because of the conditions in which we are born, grow, live, work and age. These conditions influence our opportunities for good health, and result in stark differences in how long we live and how many years we live in good health. Many issues can have an impact: income, unemployment, work conditions, education and skills, our living situation, individual characteristics and experiences, such as age, gender, disability and ethnicity A wide range of services can make a difference to reducing health inequalities. Whether you work with children and young people, design roads or infrastructure, support people into employment or deal with welfare benefits – policy decisions and strategies can help to reduce health inequalities **Please answer the questions below to help identify if the area of work will have any impact on health inequalities, positive or negative.** **If you need assistance in completing this section please contact: Hannah Watts** (hannah.watts@coventry.gov.uk) **in Public Health for more information. More details and worked examples can be found at** https://coventrycc.sharepoint.com/Info/Pages/What-is-an-Equality-Impact-Assessment-(EIA).aspx

Question	Issues to consider	
2.3a What HIs exist in relation to your work / plan / strategy	• Explore existing data sources on the distribution of health across different population groups *(examples of where to find data to be included in support materials)*	

	• Consider protected characteristics and different dimensions of HI such as socio-economic status or geographical deprivation
	Response: The Energy SPD supplements the policies of the adopted Local Plan which was subject to Health Impact Assessment. The Health and Wellbeing chapter of the plan, which includes Policy HW1, requires Health Impact Assessments for particular types and scale of development where there could be significant impacts. See https://www.coventry.gov.uk/localplan This was supplemented by a Health Impact Assessment SPD which provided further detail and guidance including that in relation to climate change. See https://www.coventry.gov.uk/downloads/file/28900/health_impact_assessment_spd
2.3b How might your work affect HI (positively or negatively). How might your work address the needs of different groups that share protected characteristics	**Consider and answer below:** • Think about whether outcomes vary across groups and who benefits the most and least, for example, the outcome for a woman on a low income may be different to the outcome for a woman a high income • Consider what the unintended consequences of your work might be
	Response: a. Potential outcomes including impact based on socio-economic status or geographical deprivation The Health Impact Assessment SPD referred to above states (pages 18 / 19): 'There is a clear link between climate change and health. Coventry is a Marmot City and the Marmot Review is clear that local areas should prioritise policies and interventions that 'reduce health inequalities and mitigate climate change' because of the likelihood that people with the poorest health would be hit hardest by the impacts of climate change. The planning system is at the forefront of both trying to reduce carbon emissions and to adapt urban environments to cope with higher temperatures, more uncertain rainfall, and more extreme weather events and their impacts such as flooding. Poorly

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designed homes can lead to fuel poverty in winter and overheating in summer, contributing to excess winter and summer deaths. Developments that take advantage of sunlight, tree planting and accessible green/brown roofs have the potential to contribute towards the mental wellbeing of residents, as well as their physical wellbeing. Proposed developments can exacerbate the impacts of climate change by failing to consider relevant influences such as location, materials, designs or technologies that could help to reduce energy consumption or reduce the environmental impact of energy generation. Proposed developments can help to reduce greenhouse gas emissions by requiring lower energy use in buildings and transport, and by encouraging renewable energy sources'. The Energy SPD provides further guidance on how to practically address these matters.
b. Potential outcomes impact on specific socially excluded or vulnerable groups eg. people experiencing homelessness, prison leavers, young people leaving care, members of the armed forces community. Please see above: the environmental impact of energy generation affects all groups.

2.4 Next steps - What specific actions will you take to address the potential equality impacts and health inequalities identified above?

This was considered through the Local Plan (the 'parent document'), this document provides the detail to ensure the Local Plan policies can be delivered effectively

2.5 How will you monitor and evaluate the effect of this work?

The Local Plan already includes monitoring indicators.

2.6 Will there be any potential impacts on Council staff from protected groups?

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No

You should only include the following data if this area of work will potentially have an impact on Council staff. This can be obtained from: lucille.buckley@coventry.gov.uk

Headcount:

Sex:

Female	
Male	

Age:

16-24	
25-34	
35-44	
45-54	
55-64	
65+	

Disability:

Disabled	
Not Disabled	
Prefer not to state	
Unknown	

Ethnicity:

White	
Black, Asian, Minority Ethnic	
Prefer not to state	
Unknown	

Religion:

Any other	
Buddhist	
Christian	
Hindu	
Jewish	
Muslim	
No religion	
Sikh	
Prefer not to state	
Unknown	

Sexual Orientation:

Heterosexual	
LGBT+	
Prefer not to state	
Unknown	

3.0 Completion Statement

As the appropriate Head of Service for this area, I confirm that the potential equality impact is as follows:

No impact has been identified for one or more protected groups ☒

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Positive impact has been identified for one or more protected groups ☐
Negative impact has been identified for one or more protected groups ☐
Both positive and negative impact has been identified for one or more protected groups ☐

4.0 Approval

Signed: Head of Service: **David Butler**	**Date: 02/09/2021**
Name of Director: **Andrew Walster**	**Date sent to Director: 02/09/2021**
Name of Lead Elected Member: **Councillor David Welsh**	**Date sent to Councillor: 02/09/2021**

Email completed EIA to equality@coventry.gov.uk