

# Sustainability Checklist - Minor and Major Development

## Introduction

On 8th March 2019, Herefordshire Council unanimously passed a motion declaring a Climate Emergency. This signalled a commitment to ensuring that the council considers tackling Climate Change in its future work and decisions taken. With this resolution came a county-wide aspiration to be zero carbon by 2030. From a planning perspective, it is therefore imperative that the council needs to demonstrate explicitly how the policies relating to Climate in the adopted Core Strategy, SS7 and SD1, are being fully taken into account in the decision making process.

Policy SS7 sets out how the plan will seek to address the impact that new development in Herefordshire has on climate change. It outlines how development proposals will be required to include measures which will mitigate their impact on climate change, at both a strategic level and through requiring such measures in design criteria.

Policy SD1 and its supporting text set out how new development will have to incorporate sustainability measures, and give consideration to climate change impacts through design. Alongside other aspects of sustainable design, in terms of climate change impacts, development proposals should incorporate the following requirements:

- utilise physical sustainability measures that include, in particular, orientation of buildings, the provision of water conservation measures, storage for bicycles and waste including provision for recycling, and enabling renewable energy and energy conservation infrastructure;
- where possible, on-site renewable energy generation should also be incorporated;

The policy's supporting paragraphs 5.3.31-5.3.33 elaborate on how this will be applied:

**5.3.31:** All developments must demonstrate how they have been designed and how they have incorporated measures to make them resilient to climate change in respect of carbon reduction, water efficiency and flood risk. Carbon reduction should influence design from the outset by ensuring the fabric of the building is as energy efficient as possible, for example, attaining thermal efficiencies through construction that achieves low U values and fuel efficiencies through the use of services such as efficient boilers. Good site planning can also aid greater energy efficiency in new development, for example, by seeking to maximise solar gain.

**5.3.32:** Revisions to the Building Regulations are introducing progressive increases in the energy efficiency requirements for new buildings. In terms of energy conservation, developments in sustainable locations that achieve accredited standards of energy conservation which cover a range of sustainability criteria will be supported, particularly where the level achieved materially exceeds the relevant Building Regulations and other relevant standards in place at the time.

**5.3.33:** Large-scale developments should demonstrate how opportunities for on-site renewable energy generation and sustainable waste management have also been considered and addressed within the design of the scheme. Such details should include an appraisal of all suitable renewable energy technology. Other developments will also be encouraged to consider whether on-site renewable energy opportunities might be available. Alongside this, the council supports the provision of renewable and low carbon technologies within existing developments, subject to such proposals according with other policies of the Core Strategy.

This checklist has been prepared in order for applicants to demonstrate to decision makers that the policies have been complied with, in that sustainability measures have been incorporated in development proposals where possible. It should be submitted by the applicant as supporting evidence of compliance with the climate change mitigation criteria of policy SD1, supporting the objectives of policy SS7. In the event of non-compliance, sufficient justification would need to be provided as to why this is necessary. In the absence of this, the application will be refused on the grounds of being contrary to policy SD1.

All applications for all new build development (or at Reserved Matters stage if applicable) will need to submit information in the below table(s).

For clarification, the definitions of different development types are listed below:

- Minor scale housing development  
= 1-9 dwellings.
- Minor non-residential development  
= under 1000sqm.
- Major scale housing proposals  
= over 10+ dwellings.
- Large scale non-residential development  
= 1000sqm and above floor space.

Environmental Building Standards. Sustainability elements considered.	Tick where incorporated	Further details required
<b>Building performance</b>		
<p><b>Site Context, topography and existing built and natural environment.</b>                      Has the scheme considered the context of area from an energy perspective? Considered the shadowing from topography and existing buildings. Has there been analysis of prevailing winds, light quality, sun paths and locate climate, to create pleasant spaces between buildings?</p>		
<p>Has the scheme considered <b>optimising the massing of the building</b>, to ensure an efficient building design and placement. Has the scheme utilised the <b>form factor calculator</b> to assess the efficiency of development form?</p>		
<p><b>Orientation of scheme/solar gains.</b> Has the scheme been located and orientated to maximise natural shading and solar gains? <i>Room design, position on site, window placement/design should be considered.</i></p>		
<p>Has careful consideration been given to the <b>window design</b>, including placement, window frames and openings, proportion and specification to maximise solar gains/ daylight but minimise overheating?</p>		
<p>Has the scheme considered measures to <b>minimise overheating</b>, through use of thermal mass, shading mechanisms and window design? Has there been a review for the risk of overheating?</p>		
<p>Does the scheme include <b>mechanical ventilation with heat recovery</b>?</p>		
<p>Does the scheme include <b>natural ventilation</b> to all rooms?</p>		
<p>Has the scheme considered a <b>Fabric First approach</b> in its design and construction?</p>		
<p><b>Insulation.</b> Does the development use <b>thermally efficient materials</b>?</p>		
<p>Has the development been designed to ensure <b>continuous insulation</b> can be installed externally, to minimise thermal loss? <b>&amp; will it be detailed to minimise draughts</b>?</p>		
<p>Has the scheme considered <b>airtightness</b> in its design/construction? Has an airtightness target been set? If so what is this?</p>		

Environmental Building Standards. Sustainability elements considered.	Tick where incorporated	Further details required
Will the scheme carry out an <b>air test</b> during and once the development is constructed?		
Has the development considered <b>using natural materials, finishes and fibres in its internal finishes and construction</b> ?		
Has the scheme prioritised the <b>refurbishment and retrofit</b> of buildings where possible?		
Has consideration been given to the sustainability of building materials and their impact on the environment and <b>embodied carbon</b> ?		
Has the embodied carbon in the scheme been assessed or will it be assessed, by using the <b>RICS whole life carbon assessment</b> ?		
Does the scheme aim to meet the standards set out in the <b>RIBA 2030 climate change metrics</b> for buildings?		
Does the scheme aim to meet any other standards? If so, please detail.		
Will the scheme carry out a post occupancy evaluation and in use monitoring to assess the <b>buildings real life performance</b> ?		
<b>Energy Use</b>		
Does the scheme include onsite combustion of fossil fuels, If so please explain why.		
Does the development include <b>efficient services</b> - does the scheme include energy efficient mechanical and electrical systems including LED lights, fittings and appliances?		
<b>Renewable energy.</b> Has the scheme included <b>solar PV or wind generation</b> ?		
<b>Heating.</b> Are heat recovery systems included in the scheme? If so please explain.		
<b>Renewable energy.</b> Has the scheme included <b>solar thermal panels</b> ?		
<b>Renewable energy.</b> Has the scheme included <b>heat pumps</b> ? If so, which type? And does this meet all heating and hot water requirements?		

Environmental Building Standards. Sustainability elements considered.	Tick where incorporated	Further details required
<b>Renewable energy.</b> Has the scheme included <b>Biomass</b> ?		
Has the scheme included <b>alternative low carbon heating systems such as hydrogen cells</b> ?		
Does the scheme maximise <b>renewable energy through decentralised sources</b> - on site generation, community led initiatives and low and zero carbon technologies?		
What percentage of total site energy demand is produced from <b>on-site renewables</b> , in order to reduce dependence on carbon emitting sources?		
Has the scheme carried out <b>whole life cycle carbon and cost assessments</b> , assessing embodied carbon and operational carbon?		
What measures has the scheme used to <b>reduce the development's need for operational energy</b> above those mentioned in earlier sections?		
What other measures has the scheme used to improve the <b>energy efficiency</b> of the development that should be mentioned?		
<b>External Environment</b>		
<b>Landscaping.</b> Does the scheme consider landscaping to encourage new and enhance existing habitat/ biodiversity? i.e. wildflower meadows/wetlands/ bat boxes/marshes/local tree planting, establishing green corridors, integration of sustainable drainage systems.		
Has the scheme set out measures to achieve <b>Biodiversity Net Gain across the development</b> ?		
Has provision been made to <b>minimise any impact on landscape</b> i.e. tree and hedgerow protection.		
Has <b>multifunctional green and blue infrastructure</b> been included in the scheme? If so, please explain.		
Does the scheme have a <b>living roof or wall</b> ?		
Does the scheme include measures to reduce surface water runoff? Is <b>sustainable drainage</b> a part of the water management strategy?		

Environmental Building Standards. Sustainability elements considered.	Tick where incorporated	Further details required
Has the scheme included <b>rainwater harvesting</b> systems? i.e. water butts		
Does the scheme have provision for <b>greywater recycling</b> ?		
Has the building been designed to include measures to <b>reduce water consumption</b> ? i.e. low flush WC's		
Does the scheme have <b>provision for recycling / waste storage / composting</b> ?		
Does the scheme include measures to <b>minimise light, water, noise, air pollution</b> during its use?		
<b>Accessibility</b>		
Does the scheme have provision for <b>secure bicycle parking/storage</b> ?		
Does the scheme have provision for <b>EV charging onsite</b> ? What percentage of parking spaces have EV charging?		
Does the scheme have access nearby to <b>public EV charge points</b> ?		
Does the scheme have access nearby to <b>bicycle hire (i.e Beryl bikes)</b> ?		
Does the scheme have access nearby to a <b>car share</b> ?		
Does the scheme have access nearby to <b>public transport</b> ?		
Does the scheme have access nearby to <b>community car share/ bike hire</b> ?		
Is the scheme <b>accessible</b> by all?		
<b>Construction</b>		
How does the scheme intend to <b>minimise construction waste</b> ?		
Will the scheme <b>reuse building materials (where possible) during the construction process</b> ?		
Will <b>locally sourced materials</b> be used in the development?		
Does the scheme <b>calculate life cycle carbon emissions</b> ?		
Will the scheme include a <b>site waste management plan, to minimise environmental impact from construction activities</b> ?		