

Climate Change and Sustainable Building Supplementary Planning Document



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Contact Details

Peak District National Park Authority Aldern House
 Baslow Road
 Bakewell
 Derbyshire
 DE45 1AE

Tel: (01629) 816 200
 Text: (01629) 816 319
 Fax: (01629) 816 310
 E-mail: aldern@peakdistrict.gov.uk
 Website: www.peakdistrict.gov.uk

This and other Local Development Plan documents can be made available in large copy print, audio cassette, Braille or languages other than English. If you require the document in one of these formats please contact: Brian Taylor, Policy Planning Manager, PeakDistrict National Park at the address above, Tel: 01629 816303, or email brian.taylor@peakdistrict.gov.uk.

1. Introduction

1.1 Climate Change and Sustainable Building

- 1.1.1 This Supplementary Planning Document for Climate Change and Sustainable Building promotes the positive role that sustainable buildings, and low carbon and renewable energy can play in reducing greenhouse gas emissions. It provides guidance on adapting to and mitigating the impacts of climate change in ways that are appropriate to the statutorily protected landscapes of the Peak District National Park.
- 1.1.2 Over the coming decades climate change is likely to pose new challenges for communities, landscapes and wildlife. To help slow the rate of climate change we need to reduce the emission of greenhouse gases. In the Peak District the National Park Authority is reducing the greenhouse gases it is responsible for. We have a Carbon Management Plan to reduce our carbon footprint by 30% by 2015 (based on a 2010/11 baseline). Example actions include:
- ensuring that, wherever possible, our buildings are well insulated, draught free and that heating systems are properly controlled
 - using video conferencing to reduce travel to meetings,
 - installing renewable energy where appropriate – including a biomass boiler at our Head Office.
- 1.1.3 Residents too are reducing greenhouse gas emissions, by better insulating their homes, reusing materials, using energy efficient lighting, turning off unnecessary appliances and installing low carbon and renewable technologies.
- 1.1.4 This Supplementary Planning Document (SPD) gives guidance on development appropriate to the protected National Park landscape, directing it to the most sustainable locations, conserving water, minimising waste and avoiding the risk of flooding. Sustainability standards for new housing and non-residential buildings offer a positive platform towards zero carbon development in the National Park. Developers are encouraged to make development as sustainable as possible through the planning and construction phase, since retrospective energy improvements are more difficult and costly to achieve.
- 1.1.5 We want sustainable building and low carbon and renewable energy installations to be the norm. The SPD provides positive guidance on the application of the policies of the [Core Strategy Development Plan Document](#) (adopted October 2011) and promotes the use of the energy hierarchy to ensure that the quickest and most cost-effective methods of carbon reduction are used first. It also promotes an increased consideration of landscape character - how landscape has evolved and how individual buildings, roads and settlements contribute to this character. This will help to ensure that new development proposals meet the National Park's primary purpose to conserve and enhance the natural beauty, wildlife and cultural heritage, whilst at the same time contributing to a reduced environmental footprint and a sustainable future for communities and businesses.

1.1.6 This SPD replaces the Supplementary Planning Guidance for Energy, Renewables and Conservation which was adopted in October 2003. It provides:

- Information to help make applications in accordance with the development plan.
- Guidance on sustainable building and means of reducing carbon emissions using the energy hierarchy
- Examples of low carbon and renewable energy installations and ways of minimising visual impact
- Guidance on best practice sustainability measures for historic buildings
- Guidance on landscape character and valued characteristics, understanding the sensitivity of landscape in order to put forward appropriate development proposals
- Guidance on assessing the impact of development
- Guidance on the policy requirement for buildings to achieve sustainability standards such as the Code for Sustainable Homes.
- Guidance on the requirement for new build non-domestic buildings over 1,000 m² to achieve a Building Emissions Rate 10% lower than the Target Emissions Rate
- Brief descriptions and links to the information needed to submit a planning application
- Guidance on water conservation, flood risk and the use of sustainable drainage
- Links to other sources of technical information and advice

1.1.7 Whilst the main focus of the document is on climate change, there are a wide range of mitigation measures that can be taken to adapt to expected changes in climate. Chapter 5 provides guidance on sustainability requirements for all forms of development. Chapter 10 provides detailed guidance on water management measures.

2. How to use this document

2.1 General

2.1.1 This document will be used by the National Park Authority to help guide planning decisions. It explains how the Core Strategy policies for Climate Change and Sustainable Building are applied and how to reflect these policies when you take a proposal through the planning process.

2.1.2 This chapter introduces:

- **The special context of the National Park**
- **Our strategic planning principles for climate change**
- **Improving the sustainability of buildings**
- **Using the relevant guidance in the document**

2.1.3 Section 2.5 guides you to the chapters of the document most relevant to particular projects. However, applicants are advised to read Chapters 3-5 and Chapter 8 first before the specific guidance for their proposed development. Chapters 3-5 advise on the national and local planning context and overarching sustainability principles.

2.2 The special context of the National Park

2.2.1 Chapter 3 provides a summary of the legal framework that we work to in the Peak District National Park and sets out other key considerations such as Government policy on the management of National Parks and the relationship to the National Planning Policy Framework.

2.3 Our strategic planning principle for climate change

2.3.1 The starting point for decision making for a local planning authority is the adopted development plan. [Appendix A](#) summarises this National Park's most relevant policies in relation to climate change and sustainable buildings, and we encourage you to familiarise yourself with them. The fundamental principle established by the climate change policies in the adopted [Core Strategy](#) is that all new development must be built to high sustainability standards. **Policy CC1** sets out a list of headline matters that need to be addressed in all development.

2.3.2 This is a significant change from the previous Supplementary Planning Guidance published in 2003 which focussed primarily on renewable energy production. While this remains a key means of our move towards a low carbon, self-sufficient and sustainable society, we now want to raise the profile of the energy hierarchy and its essential principles for reducing our energy needs and making our buildings more sustainable.

2.4 Improving the sustainability of buildings

2.4.1 It is our aim that not only will this SPD be used to guide planning decisions but also to raise standards in sustainable building. Chapter 4 explains the principles of the Energy Hierarchy and how it can help to:

- reduce the need for energy
- use energy more efficiently
- supply energy efficiently
- use low carbon and renewable energy

Chapter 4 also covers the principles of:

- making the most efficient and sustainable use of land, buildings and natural resources
- water conservation
- waste minimisation

2.4.2 Chapter 5 focuses on sustainable approaches for traditional and historic buildings and shows that great opportunities can be found to improve the sustainability of our most valued buildings and historic environments.

2.5 Using the relevant guidance in the document for your proposed development

2.5.1 Against the background of chapters 1-5 we encourage you to contact the Authority to discuss the planning of your project. When you are preparing your plans and applications, we will advise you on the adopted Development Plan for the National Park, our adopted guidance such as this SPD, and our adopted strategies and other documents including the Landscape Strategy and Action Plan, Biodiversity Action Plan and Conservation Area Appraisals).

2.5.2 Specific requirements are explained for:

- Historic buildings – Chapter 6
- New-build housing – Chapter 7 section 7.2
- New-build non-residential buildings – Chapter 7 section 7.3
- Assessing the impact of development – Chapter 8
- Low carbon and renewable energy – Chapter 9
- Flood risk and sustainable drainage – Chapter 10

3. National significance of the Peak District National Park

3.1 National Park Legislation

3.1.1 The approach to development within the National Park and affecting the National Park is governed by the legal requirements (the statutory purposes) as set out in the [National Parks and Access to the Countryside Act 1949](#), as amended by the [Environment Act 1995](#):

- **to conserve and enhance the natural beauty, wildlife and cultural heritage; and**
- **to promote opportunities for the understanding and enjoyment of the special qualities by the public.**

3.1.2 The purpose of the planning system is to determine planning applications in the public interest. National Park Authorities are required, above all other planning considerations, to work in the national public interest to conserve and enhance the natural beauty, wildlife and cultural heritage of the National Park. Where there is an irreconcilable conflict between the two statutory purposes the conservation and enhancement of the National Park must be given priority. This is known as the Sandford Principle.¹

3.1.3 In pursuing the statutory purposes, National Park Authorities also have a duty to seek to foster the economic and social well-being of local communities. The Authority must not approve development that fosters the economic and social well-being of local communities where the purposes are not met.

3.1.4 This chapter summarises the most relevant parts of:

- the Government's National Planning Policy Framework
- the Government's Vision and Circular for National Parks and the Broads 2010
- Peak District National Park Planning Policy

3.2 National Planning Policy Framework (NPPF)

3.2.1 The [National Planning Policy Framework](#) (NPPF) sets out the Government's planning policies for England and highlights the statutory status of the development plan as the starting point for decision-making.²

3.2.2 The NPPF emphasises the key role that planning plays in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability in providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure which is central to the economic, social and environmental dimensions of sustainable development. It requires local planning authorities to support the move to a low carbon future by:

- In planning for new development in locations and ways which reduce greenhouse gas emissions,
- actively supporting energy efficiency improvements to existing buildings; and

¹ National Parks Policy Review Committee 1974, principle enshrined in National Parks and Access to Countryside Act 1949 (as amended) section 11A(2)

² (Ref Section 38(6) of the Planning and Compulsory Purchase Act 2004 and section 70(2) of the Town and Country Planning Act 1990)

- when setting any local requirement for a building's sustainability, do so in a way consistent with the Government's zero carbon buildings policy, adopting nationally described standards'.

3.2.3 National Park planning policy requires that new build housing match the Code for Sustainable Homes Level as required by Government of Registered Social Landlords. This will secure long term reductions in carbon emissions throughout the lifetime of the building.

3.2.4 In order to help increase the use and supply of renewable and low carbon energy the NPPF requires local authorities to:

- have a positive strategy to promote energy from renewable and low carbon sources.
- design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily including cumulative landscape and visual impacts.
- support community initiatives for low carbon and renewable energy.

3.2.5 The NPPF is clear that the normal presumption in favour of sustainable development does not apply where 'specific policies in this framework indicate development should be restricted' (NPPF paragraph 14). The list of examples where development should be restricted includes land within a National Park.

3.2.6 This recognition that development should be restricted within National Parks is consistent with the fact that National Park Authorities must give primacy to National Park purposes (see above). The NPPF therefore ensures that there is no conflict between the primary legislation of the National Parks and Access to the Countryside Act 1949 (as amended by the Environment Act 1995), and national planning guidance. In other words, where development fails to conserve and enhance natural beauty, wildlife and cultural heritage it will not be approved, irrespective of other material considerations – applicants therefore need to ensure that development is consistent with National Park purposes. This is a significant difference between National Park Authority planning practice and the planning practice in other local authorities.

3.2.7 Paragraph 115 of the NPPF states that great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty. The conservation of wildlife and cultural heritage are important considerations in all these areas. The NPPF points to the [English National Parks and the Broads: UK Government Vision and Circular 2010](#) as providing further guidance and information about their statutory purposes, management and other matters (see section 3.3).

3.2.8 NPPF paragraphs 11 and 12 explain the requirement in planning law that applications for planning permission must be determined in accordance with the development plan and states that 'Proposed development that accords with an up-to-date Local Plan should be approved, and proposed development that conflicts should be refused unless other material considerations indicate otherwise'. In a National Park context other material considerations must not outweigh the statutory purposes of the National Park, unless by order of the Secretary of State, for example for development in the national interest not able to be provided elsewhere.

3.2.9 What is and is not a material planning consideration can be a difficult concept. To assist, a link is provided to [Planning Aid's explanation of Material Planning Considerations](#).³

³ <http://www.rtpi.org.uk/media/686895/Material-Planning-Considerations.pdf>

3.3 English National Parks and the Broads: UK Government Vision and Circular 2010

3.3.1 The [Vision and Circular 2010](#) (referred to in the NPPF paragraph 115) provides policy guidance on the English National Parks and further guidance and information about the statutory purposes of National Parks, their management and other matters.

3.3.2 The Vision and Circular sets out the principles of sustainable development in a National Park context.

The principles of sustainable development include living within environmental limits, achieving a sustainable economy and ensuring a strong, healthy and just society. There are wide ranging demands and needs within the Parks, including for example, conservation, public access, local employment and affordable housing. The Authorities' primary responsibility is to deliver their statutory purposes. In doing so, they should ensure they are exemplars in achieving sustainable development, helping rural communities in particular to thrive. Such models can offer wider application to other areas beyond the Park boundaries, and Authorities are encouraged to disseminate their experience to other rural authorities. For example, through the use of resources such as the Sustainable Development Fund, the Authorities have piloted initiatives which have tested new approaches and, in doing so, they have become examples of best practice.

Sustainable development is about ensuring a better quality of life for everyone, both now and for generations to come. Within the Parks conserving and enhancing the landscape, biodiversity, cultural heritage, dark skies and natural resources, and promoting public understanding and enjoyment of these should lie at the very heart of developing a strong economy and sustaining thriving local communities.

3.3.3 In accordance with the Vision and Circular the National Park Authority is playing a key role on its estates as an exemplar of sustainable land management to prevent further carbon loss from its peat soils and to encourage carbon storage. This SPD encourages everyone to tackle climate change by minimising carbon emissions and water usage in development and by seeking opportunities for low carbon renewable energy installations appropriate to the national value of the landscape.

3.4 Peak District National Park Planning Policy

3.4.1 The Peak District National Park [Core Strategy](#) (adopted 2011) sets out policy principles to achieve the statutory purposes of the National Park for the plan period up to 2026, while seeking to contribute to greenhouse gas reduction targets established by the United Kingdom in ways that are consistent with the legislation for National Parks (refer to the [National Park Management Plan](#) for more detail) This SPD supplements various aspects of adopted policy where this helps to explain the intent behind the policy principles. Key Core Strategy policies that are relevant are set out in Appendix A to this SPD and can be summarised as follows.

3.4.2 **GSP1 Securing National Park Purposes and Sustainable Development.** This sets out the policy link to the statutory legislation and reveals the commitment to the sustainable development of the area in the context of National Park designation;

3.4.3 Policies directly related to the first statutory purpose:

- **L1 – Landscape character and valued characteristics**
- **L2 – Sites of biodiversity or geodiversity importance**

- **L3 – Cultural heritage assets of archaeological, architectural, artistic or historic significance**

The key message of these policies is that development must conserve and enhance natural beauty and valued landscape character, designated sites, protected species, Biodiversity Action Plan habitats and species, and cultural heritage assets. Chapter 8 of this SPD provides further guidance on considering the impact of development on these and other valued characteristics.

3.4.4 Climate Change Policies:

- **CC1 – Climate change mitigation and adaption**
- **CC2 – Low carbon and renewable energy development**
- **CC3 – Waste management**
- **CC4 – On-farm anaerobic digestion of agricultural manure and slurry**
- **CC5 – Flood risk and water conservation**

Guidance on how to apply these policies is set out in detail in chapters 5 to 10.

4. Do you need planning permission?

4.1 How to find out if you need planning permission for your development

- 4.1.1 You may normally carry out a number of minor changes to your house without the need to apply for planning permission. This is known as "**permitted development**". Permitted development rights are set by Parliament. Information about the relevant regulations can be found on the [Planning Portal](#).
- 4.1.2 In **National Parks**, permitted development rights are more restricted. Similarly **Conservation Areas** are designated for their special architectural and historic interest and permitted development rights are restricted. Even where planning consent is not required for a **Listed Building** you should contact the Authority to check whether there is a requirement for separate Listed Building Consent. You will need to consider the consent requirements for the building itself, its setting and its curtilage.
- 4.1.3 In some cases permitted development rights only exist provided that certain criteria (including design criteria) can be met. Solar panels for example, can be classed as permitted development but only where criteria can be met. To qualify as permitted development the effect on the external appearance of the building or the amenity of the area has to be minimised so far as is practicable. The advice in this document can help you minimise harmful effects so that your development can benefit from permitted development rights. Where planning consent is required the guidance in this document will help you put forward development proposals that are more likely to be approved.
- 4.1.4 Please check the history of your property before carrying out any works in case your permitted development rights have previously been removed by the National Park Authority either by condition or by issuing an Article 4 direction. This would mean that you would have to submit a planning application for work which normally would not need one.
- 4.1.5 Please discuss your proposal with the Authority before carrying out work in case it needs planning permission. Ask for guidance including whether the proposal can be classed as 'permitted development' and whether or not you need to apply for planning permission for all or part of the work.
- 4.1.6 The [Town and Country Planning \(General Permitted Development\) Order 1995](#) is the principal order for permitted development which has been subject to a number of subsequent amendments.
- 4.1.7 The Order sets out classes of development for which a grant of planning permission is automatically given, provided that no restrictive condition is attached or that the development is exempt from the permitted development rights. Designated areas including the National Park are referred to as Article 1(5) or Article 1(6) land in the legislation.

Peak District National Park Authority Contact Details

Aldern House
Baslow Road
Bakewell
Derbyshire
DE45 1AE

Tel: (01629) 816 200
Text: (01629) 816 319
Fax: (01629) 816 310
E-mail: aldern@peakdistrict.gov.uk
Website: www.peakdistrict.gov.uk

5. Sustainability requirements for all forms of development (Policy CC1)

5.1 General

- 5.1.1 Spatial planning is of fundamental importance in delivering sustainable development and has a pivotal role to play in climate change mitigation and adaptation. The Peak District National Park Authority seeks to make a strong positive contribution within the protected landscape of the National Park through the promotion of sustainable building, the energy hierarchy, energy, water and waste efficiency measures and low carbon and renewable energy solutions that do not compromise landscape, heritage and biodiversity.
- 5.1.2 The key principles for climate change mitigation and adaptation are set out in Policy CC1

CC1: Climate change mitigation and adaptation

In order to build in resilience to and mitigate the causes of climate change all development must:

- A. Make the most efficient and sustainable use of land, buildings and natural resources.
- B. Take account of the energy hierarchy by:
 - I. reducing the need for energy;
 - II. using energy more efficiently;
 - III. supplying energy efficiently; and
 - IV. using low carbon and renewable energy.
- C. Be directed away from flood risk areas, and seek to reduce overall risk from flooding within the National Park and areas outside it, upstream and downstream.
- D. Achieve the highest possible standards of carbon reductions.
- E. Achieve the highest possible standards of water efficiency.

In all new and replacement housing, other than affordable housing of less than 3 units, a minimum sustainability standard, equivalent to that required by the government of affordable housing, shall be achieved unless the applicant provides evidence to demonstrate that it is not viable for a particular development.

Non-residential major development above 1000m² floorspace must achieve a Buildings Emissions Rate at least 10% less than the Target Emissions Rate.

5.2 Location of development

- 5.2.1 The Core Strategy policy DS1 (Development Strategy) directs development to the most sustainable locations based on a range of criteria. The settlement matrix in Appendix 3 of the Core Strategy sets out the potential to develop without causing harm to valued landscape characteristics of settlements. 5.2.2 New developments should use land efficiently and integrate well with the old to maintain the character of towns and villages. Other key considerations are amenity, safety and inclusive access. See [Design Guide](#) paragraphs 5.2-5.17

- 5.2.3 The retention and reuse of heritage assets is encouraged, both to conserve and enhance them and to avoid the material and energy costs of new development. See [Chapter 8](#) on conversions in the Design Guide. Chapters [4](#) and [10](#) of the Design Guide give useful guidance on choice of materials and other details. In all development, the impacts on climate change of all parts of the construction process should be taken into consideration (including the energy/resource use in the making of the construction materials and the transport of goods etc). In this way, the 'whole life' environmental cost of the development can be understood. This concept is explained by the [Building Research Establishment](#).

5.3 The Energy Hierarchy

- 5.3.1 The principles of first minimising heat loss from a building, then using energy more efficiently and then using low carbon and renewable energy are key ways of reducing carbon emissions and the costs of energy use.
- 5.3.2 This sequence is known as the energy hierarchy and is shown below as an inverted pyramid, with the first actions to take shown as Level 1.

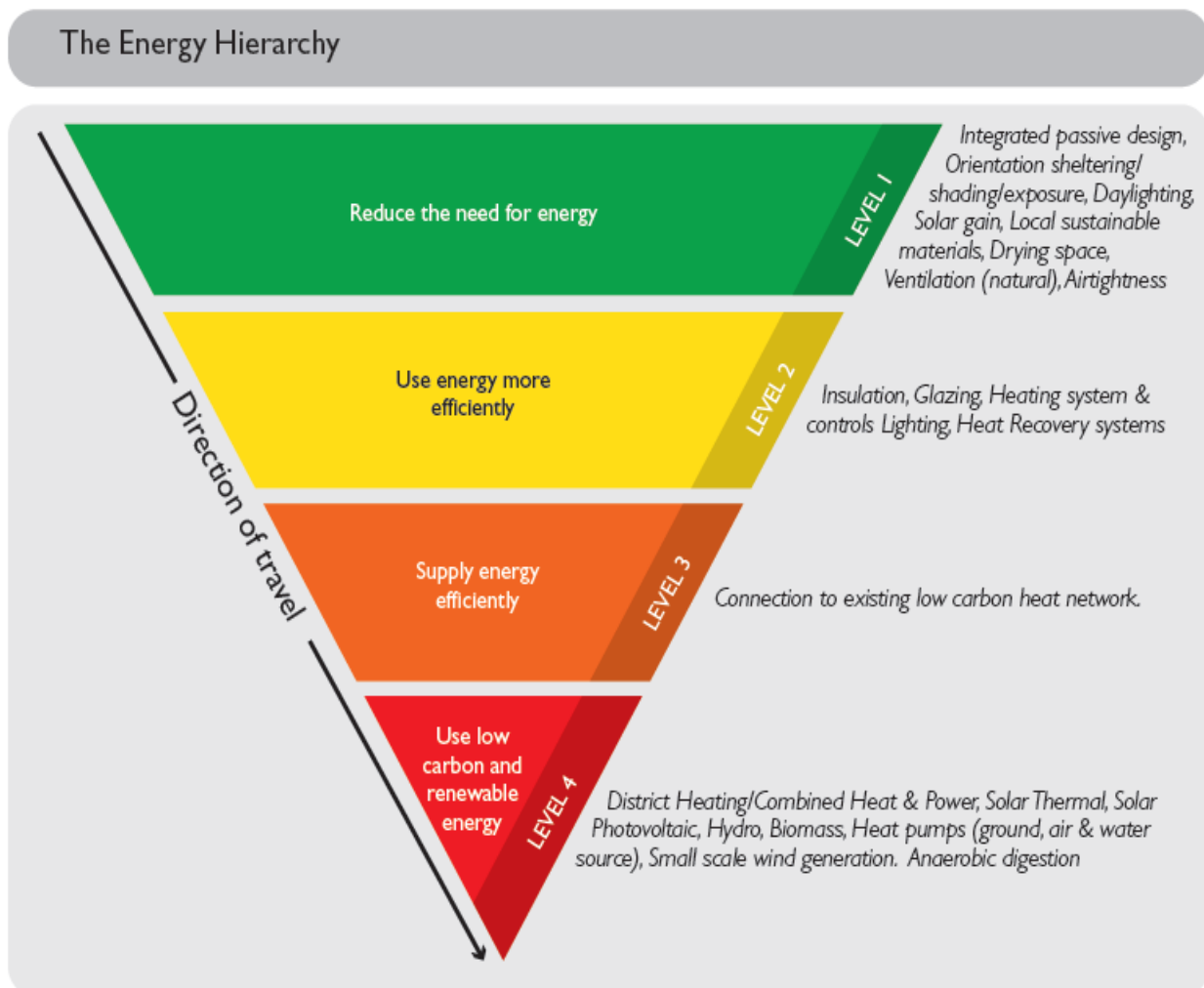


Figure 6. Energy hierarchy

Examples of possible action at each level are given below.

Level 1 - Reduce the need for energy

- 5.3.3 Integrated Passive Design is a way of using design principles to reduce carbon emissions. Policy CC1 B requires that all developments take account of the energy hierarchy. Integrated passive design is a low cost way of building sustainably.

Key methods for considering integrated passive design

- Orientation: making best use of high summer sun angles and low winter sun angles on southern exposures while minimising excessive solar gain on east and specifically west exposures from low year-round sun angles.
- Glazing: sizing, positioning and detailing windows to get the most benefit from the sun while avoiding overheating in summer and heat loss in winter.
- Thermal mass: providing sufficiently exposed thermal mass to store heat from the sun in the winter and act as a heat sink for cooling in the summer. Benefits of thermal mass are often lost through excessive wall, ceiling and floor covering.
- Insulation: specifying high levels of insulation to reduce unwanted heat loss or heat gains through the roof, walls, doors windows and floors.
- Natural ventilation: designing clear and robustly controlled flows through buildings for daytime and night time cooling. Building air-tightness forms a critical component for achieving effective natural ventilation.
- Zoning: providing carefully considered zoning to allow different thermal requirements to be compartmentalised. Substantial savings can be achieved.

- 5.3.4 Exemplary sustainable buildings do not have to cost more provided that good passive design features are fully integrated into the design process from the earliest stages rather than retrofitting expensive features at a later stage . Any additional costs of sustainable design are often recouped very quickly by much smaller energy bills.

Level 2 - Use energy more efficiently

- 5.3.5 The benefits of using energy more efficiently can be significant in saving households and businesses money on fuel bills and reducing carbon emissions cost effectively. The [Energy Saving Trust](#) provides detailed information on home improvements, insulation, heating and hot water and electricals.
- 5.3.6 See also Chapter 6 (Sustainability principles for traditional and historic buildings) and Chapter 7 (Sustainability requirements for new buildings) in this SPD.

Level 3 - Supply energy efficiently

- 5.3.7 Connection to or development of a mini district heating network can be a carbon efficient means of energy supply. District heating is the supply of heat to a number of buildings or homes from a central heat source through a network of pipes carrying hot water or steam. This is a more efficient way of generating and delivering heat than the use of individual heating systems in every building. District heating pipes can connect to a range of sources of heat supply including CHP, biomass or ground source heat pumps.
- 5.3.8 A district heating system typically comprises an energy centre, a network of insulated pipes and a series of heat exchangers with heat meters in the individual buildings which

are being supplied with heat. The energy centre may generate heat only, or it may be a combined heat and power (CHP) plant. Some district heating systems also include cooling.

- 5.3.9 District heating is of most benefit in areas with accessible waste heat, high demand or electrically heated dwellings and is best suited to the following three groups: new development, local authorities/housing associations/public buildings, large commercial buildings. The National Park has examples of mini district heating connected to a central biomass boiler at Chatsworth and at Beechenhill Farm.
- 5.3.10 The Heat Mapping study for Local Authorities, East Midlands (Chapter 5 and Appendix 5.1) provides useful technical detail.⁴

Level 4 - Use Low Carbon and Renewable Energy

- 5.3.11 Once the energy needs of a new building have been minimised through the design, then consider how the remaining energy needs can be met. This is important for heating and cooling as well as electricity generation. There are opportunities in all types of development to use low impact energy sources, however the type of installation will be affected by the physical nature of the building and by site characteristics, its historic, archaeological and biodiversity interest and its landscape sensitivity. See more details in Chapter 6 (Assessing the impact of development) and Chapter 9 (Low carbon and renewable energy) in this SPD.

Saving carbon emissions through energy efficiency and micro renewables




Figure 7. Saving carbon emissions through energy efficiency and micro renewables


Key to Figure 2.


⁴ Low Carbon Energy Opportunities and Heat Mapping for Local Planning Areas Across the East Midlands: Final Report March 2011 Prepared for East Midlands Councils By Land Use Consultants, Centre for Sustainable Energy and SQW <http://www.emcouncils.gov.uk/Renewable-Energy-Study>


DIAGRAM 1: SAVING CARBON EMISSIONS THROUGH ENERGY EFFICIENCY AND RENEWABLES

KEY

 = Measures which are the first things you should consider actioning

 = Measures listed which may require planning permission


























 = Measures which may have an impact on bats or other ecology.

 = Measures which could be eligible for funding under the Green Deal (www.decc.gov.uk/greendeal)















Don't forget! If your building is listed you may require listed building consent for any planned additions or alterations.

Please check the above in advance by contacting the Peak District National Park Authority Customer Service Team
T: 01629 816 200 E: customer.service@peakdistrict.gov.uk

Potential energy efficiency measures

No.	MEASURE	SEE KEY			
1	Draught strips on doors, windows & letter boxes				
2	Double / triple glazing units				
3	Internal secondary glazing				
4	Internal shutters / blinds / thick curtains				
5	Chimney balloons				
6	Internal solid wall insulation				
7	Loft / roof insulation				
8	Cavity wall insulation				
9	Zoned low energy lighting				
10	Energy monitor / smart meter				
11	Heat exchanger				
12	Under floor insulation				
13	Hot water cylinder insulation				
14	Replacement doors				
15	Electric programmable boiler controls / zoning				
16	A+++ white goods				
17	High efficiency condensing boiler				
18	Presence sensors				
19	Sun pipe				

Potential low carbon / renewable efficiency measures

No.	MEASURE	SEE KEY			
20	Wood burning stove / biomass boiler				
21	Heat pumps				
22	Solar thermal / hot water panels				
23	Solar photovoltaic / electric panels				
24	Hydro power (rarely applicable to an individual house)				
25	Wind turbine (rarely applicable to an individual house)				
26	Anaerobic digestion (rarely applicable to an individual house)				

The Environmental Management Check List

- 5.3.12 The Environmental Management Check List in Appendix D of this Supplementary Planning Document can help when considering any development. Its aims are to ensure the sustainability of the development and to help in completing a Design and Access Statement where applicable, or to show that Core Strategy Climate Change Sustainable Building policies have been taken into consideration in other applications.

Energy Performance Certificates and feed in tariffs

- 5.3.13 There is an important relationship between feed-in tariffs for low carbon and renewable energy and energy performance certificates.
- 5.3.14 The government has stated that reducing demand for energy, as one of the most cost-effective ways of reducing carbon emissions, should be prioritised before installing low carbon and renewable energy technologies such as solar photovoltaics. This principle is set out in National Park Core Strategy Policy CC1 D which states 'all development must achieve the highest possible standards of carbon reductions'.
- 5.3.15 The Energy Performance Certificate indicates the energy efficiency of the building fabric and heating, ventilation, cooling and lighting systems. The rating is compared to two benchmarks for the type of building: one appropriate for new buildings and one appropriate for existing buildings.
- 5.3.16 New rules on the payment of feed in tariffs for solar photovoltaic installations came into force in April 2012. An energy performance certificate showing that the property has achieved a band D or better is required at the time of application to get the standard rate of feed in tariff rather than the lower rate.

5.4 Water efficiency

- 5.4.1 Due to climate change, summer rainfall is expected to decrease and the frequency of exceptionally dry summers is expected to increase. However, demand for water is predicted to rise as a result of hotter summers and growth in the number of households. The strain on water supplies is also increased by the pollution and depletion of existing water resources.
- 5.4.2 To cope with this increased demand for water and the reduced, less predictable summer rainfall patterns, developments should achieve the highest possible standards of water efficiency.
- 5.4.3 Incorporating facilities to minimise the use of water, as part of development proposals, reduces the amount of waste water produced and the infrastructure to deal with it, as well as reducing carbon emissions since there is an energy cost in treating and supplying water. A significant proportion of energy used in the home is for heating water, therefore any reduction in water use will also provide a direct reduction in energy consumption and emissions of greenhouse gases. A key benefit is the reduction in metered water and energy bills.

5.4.4 Water conservation can be achieved by incorporating water-saving devices, using alternative water sources and careful design of landscaping and garden areas.

Water conservation methods

- Install a water meter to help detect leaks and discourage waste.
- Provide water butts.
- Specify low-water use fittings and appliances.
- Provide guidance to householders on how to conserve water.
- Ensure that the design of buildings and their surrounding landscape maximises water efficiency and minimises water wastage.
- Provide a rainwater harvesting system as part of the development.
- Design surface water drainage systems to take into account future changes in rainfall.
- Identify opportunities to use water more efficiently during the construction and operation of any development.
- Incorporate products and systems that detect leaking and burst pipes and either shut off the system or sound an alarm.
- Refurbish broken or leaking meres in agricultural fields.

5.4.5 Further advice on water efficiency measures can be obtained from the [Environment Agency's Water Demand Management Team](#) including advice on water-saving technologies.


5.4.6 Issues regarding sustainable drainage and flood risk are dealt with in Chapter 10 of this SPD.


Adapting to the expected changes in the climate



Figure 8. Adapting to the expected changes in climate

DIAGRAM 2: ADAPTING TO THE EXPECTED CHANGES IN THE CLIMATE**KEY**

 = Measures which are the first things you should consider actioning

















 = Measures listed which may require planning permission

Don't forget! If your building is listed you may require listed building consent for any planned additions or alterations.

Please check the above in advance by contacting the Peak District National Park Authority Customer Service Team

T: 01629 816 200 E: customer.service@peakdistrict.gov.uk

Potential adaptation measures

No.	MEASURE	SEE KEY	
RESILIENCE TO FLOODING			
1	Door flood guards		
2	Sustainable drainage installed – e.g. permeable paving		
3	Air brick covers		
4	Water metering / leakage detection systems		
5	Flood sacks		
6	Increased gutter, downpipe & drain size		
7	Waxed window frames & doors		
8	Re-landscape areas to divert water away from your property		
9	Non-return valves to drains & water inlet pipes		
10	Raised power points & consumer unit		
11	Ceramic tiles or rugs rather than carpets		
12	Expensive or irreplaceable items put on high mounted shelves.		
13	Water resistant skirting boards		
14	Know how to turn off your gas, electricity & water mains supplies.		
15	Water pump in cellar		
RESILIENCE TO HOT WEATHER & DROUGHT			
16	Internal shutters (provide additional shading)		
17	Insulation (reduces overheating of properties)		
18	Spray or 'clutch' type taps		
19	Water efficient 'A' rated appliances		
20	Water efficient showers & smaller baths		
21	Dual & low flush toilets		
22	Sign up for Floodline Warnings Direct online at www.environmentagency.gov.uk or call Floodline on 0845 988 1188.		
23	Water butts		
24	Rain water / grey water recycling		
25	Garden design – including trees for more shading		
26	Plant selection – more drought resilient species		

Key to Figure 3.

5.5 Waste Management

- 5.5.1 The responsibility for protecting the National Park from the detrimental impact of waste management development lies with the National Park Authority. The Authority is the waste planning authority for the area and Core Strategy policy CC3 sets out the close working relationship between the National Park Authority and its constituent authorities in terms of waste management.
- 5.5.2 As part of the planning process, consideration is given to waste generated as a result of development, which adds to existing waste that must be managed. The minimisation of waste, for environmental protection, needs to be considered:
- During demolition and site clearance
 - During construction
 - When development is finally occupied
- 5.5.3 Whenever possible, waste deriving from site preparation and demolition should be used on site as part of the new development or otherwise recycled. Recycled construction materials should be used, and the use of construction materials monitored to avoid over-ordering.
- 5.5.4 Waste minimisation is a priority as part of the development process in order to conserve resources and reduce carbon emissions.

Waste minimisation measures
<p>General</p> <ul style="list-style-type: none"> • Work with collection and disposal authorities to promote the waste hierarchy - prevention, minimisation, reuse, recycling, energy recovery, disposal (the least favoured option) - whilst adhering to the National Park statutory purposes. <p>Design</p> <ul style="list-style-type: none"> • Ensure that waste collection is considered in building designs to maximise recycling opportunities • Ensure building designs provide adequate interior and exterior space for storage and segregation of waste • Consider the choice of building materials with respect to repair, maintenance and eventual decommissioning of the building, and consider incorporating recycled/recyclable material wherever possible • Consider "in-house" systems for segregation (and collection) of materials, and how these could be successfully integrated with local authority waste collection arrangement • Ensure adequate provision of on-site sustainable waste management facilities, where appropriate <p>Construction and demolition</p> <ul style="list-style-type: none"> • Obtain the appropriate permit and/or exemption from the Environment Agency if any waste is to be re-used and/or treated on site • Ensure a registered waste carrier is used to convey any waste material off site to a suitable authorised facility • The developer has a duty of care to ensure all waste materials removed go to an appropriate licensed disposal site and/or relevant documentation is completed and kept in line with regulations

- Comply with the legal requirement to have a site waste management plan for all new construction projects worth more than £300,000

Post-construction

- provide guidance prior to occupation to householders about composting, local refuse and recycling arrangements
- Provide home composting units for new residential units that have private gardens

5.6 Design Considerations

- 5.6.1 Core Strategy policy GSP3 gives the strategic base for considering high quality design in the National Park that respects both the character of the area and seeks high levels of sustainability. The National Park Authority's [Design Guide](#) sets out the principles of good design and designing in harmony with the local building tradition. In [Chapter 3](#) it addresses New Development and there are chapters on Sustainable Design principles in New Homes ([Chapter 6](#)) and Materials ([Chapter 4](#)). The Design Guide is a material planning consideration in all planning applications and is a useful document for reference in pre-application discussions about design issues.

GSP3: Development management principles

All development must conform to the following principles:

Development must respect, conserve and enhance all valued characteristics of the site and buildings that are subject to the development proposal. Particular attention will be paid to:

- A. impact on the character and setting of buildings
- B. scale of development appropriate to the character and appearance of the National Park
- C. siting, landscaping and building materials
- D. design in accordance with the National Park Authority Design Guide
- E. form and intensity of proposed use or activity
- F. impact on living conditions of communities
- G. impact on access and traffic levels
- H. use of sustainable modes of transport
- I. use of sustainable building techniques
- J. ground conditions including any land instability from former mining, quarrying or industrial uses
- K. adapting to and mitigating the impact of climate change, particularly in respect of carbon emissions, energy and water demand

6. Sustainability principles for traditional and historic buildings (Policy CC1)

6.1 General

- 6.1.1 With historic buildings and those of traditional local vernacular, reducing energy needs should be achieved in a manner that minimises any negative impact on their character. Please discuss your proposals with the Authority at the outset to avoid the risk of taking inappropriate action that you might be asked to undo.
- 6.1.2 Where there may be an impact on Biodiversity (for example bats) please refer to section 8.4 of this SPD.
- 6.1.3 English Heritage has provided useful guidance for owners of traditional buildings on the [refurbishment of traditional windows](#), including draught exclusion. This can provide a cost-effective and more sustainable means of both conserving the traditional appearance of a building and reducing energy loss. The National Park Authority has also produced guidance on the best approach to [managing sustainability issues for historic buildings](#).

6.2 Insulation and draught proofing

- 6.2.1 Traditional and historic buildings need to breathe: their fabric must be able to absorb and release moisture. Impervious wall coverings, renders, modern plasters and insulation materials are unsuitable because they can trap moisture inside the building's fabric, increasing the risk of damp and timber decay. Natural insulation materials such as sheep's wool and hemp fibre are breathable and usually suitable for use in historic buildings. They have good thermal properties, enable the movement of moisture and prevent condensation. It may be best to consult an expert where there are existing damp problems.



Figure 9. Sheep wool insulation

- 6.2.2 Insulation and draught proofing is one of the best and least intrusive ways of reducing heat loss, with little or no change to the property's appearance. In historic buildings, the main sources of draughts can be tackled as follows:
- Suspended timber ground floors – insulation can be installed beneath these (avoid insulation on top of timber floors, which can lead to rot).
 - Open chimneys – these can be blocked using chimney balloons, leaving a small gap to ventilate the flue.

- Gaps around windows and external doors – draughts can be reduced or eliminated by adding draught stripping.
- 6.2.3 Adding insulation externally to solid external walls, for example rendering, requires planning permission in a National Park. It can cause problems for stone buildings and must therefore be done with care. External render is seldom part of the Peak District building tradition and rarely appropriate on traditional and historic buildings.
- 6.2.4 On the internal face of solid external walls, insulated lime plaster is currently the only wall treatment that can be recommended unreservedly. Modern insulated linings should be considered with caution to avoid damp and rot and to ensure that the character of the rooms is not altered because of the regular uniformity of the insulation and its impact on internal features such as fireplaces, architraves and skirting. Case studies available on the National Park Authority website give examples of use of high levels of insulation.
- 6.2.5 Roof insulation is the most cost-effective action, the outlay being recouped by savings in heating bills in as little as three years. Adequate ventilation must be provided above the insulation layer to protect the roof structure from damp and rot. There is a potential for the insulation of the roofs of buildings to damage or block bat roosts.
- 6.2.6 Existing historic windows should be repaired and draught-proofed wherever possible. The character of buildings can be harmed by inappropriate, modern windows and fittings, which are not always cost-effective. More appropriate options for improving the thermal efficiency of historic windows may include:
- Blinds or heavy curtains – these almost halve heat loss.
 - Internal shutters – these reduce heat loss slightly more.
 - Secondary glazing – this improves thermal efficiency (and sound insulation). A secondary glazed window can also be double-glazed, effectively providing triple glazing to the opening as a whole.



Figure 10. Window shutters

6.3 Low carbon and renewable energy

6.3.1 Low carbon and renewable energy installations can work successfully with historic buildings where the significance of the building and its setting is protected - - see Chapters 8 and 9 in this SPD. Consult the Authority to check what approvals are needed and for advice on the possibilities and impacts having regard to all the environmental issues (landscape, cultural heritage and wildlife). Solutions which potentially have the least visual impact for historic buildings include:

- Heat pumps (ground, air and water)
- Water turbines
- Wood fuel heating and biomass

6.3.2 Those that can have greater impact include:

- Wind turbines
- Solar thermal panels and photo-voltaic panels

6.3.3 From a cultural heritage perspective it is preferable to incorporate solar panels while a building is being re-roofed because this enables them to be much less obtrusive (see the [Design Guide](#) for advice). At the same time take wildlife issues into account (such as the potential for harming bat roosts).

Sources of further information

[Energy Heritage: A Guide to Improving Energy Efficiency in Traditional and Historic Homes](#), by Changeworks for Historic Scotland

[Improving the Thermal Performance of Traditional Windows](#), Glasgow Caledonia University, for Historic Scotland

[English Heritage](#) publications:

- Energy Conservation in Traditional Buildings
- Research into the Thermal Performance of Traditional Windows: Timber Sash Windows
- Draught proofing and secondary glazing
- Microgeneration in the historic environment
- <http://www.english-heritage.org.uk/professional/advice/hpg/> A guide to heritage protection in England
- [Climate Change and Your Home](#)

Energy Saving Trust:

- [Free Home Energy Check](#)
- Adapting to climate change: guidance for adaptation extras

Check the efficiency of your current boiler on the [Boiler Efficiency Database](#)

[The Code for Sustainable Homes](#)

Royal Institute of British Architects: [Principles of Low Carbon Design](#)

[Green Book Live](#)

[Building Research Establishment](#)

[Lifetimes Homes Standard](#)

[Building Conservation Website](#)

Friends of the Peak District: Peak Power: [Developing Micro Hydro Power in the Peak District](#)

Planning Portal: [Common Projects – Insulation](#)

Planning Portal: [Common Projects – External Walls](#)

Planning Portal: [Common Projects – Ceilings and Floors](#)

For further advice on these issues or on the need for approvals, or to discuss any specific proposal you may have, contact the Authority

7. Sustainability Requirements for New Buildings (Policy CC1)

7.1 General

7.1.1 The National Park Authority is actively encouraging sustainable building and the use of the energy hierarchy in all development. It is promoting sustainability standards to new build housing and new non-residential buildings.

7.1.2 For all forms of development, Core Strategy Policy CC1 has the following sustainability requirements:

- Making efficient and sustainable use of land, buildings and natural resources
- Taking account of the energy hierarchy
- Be directed away from flood risk areas and seeking to reduce overall risk from flooding
- Achieving the highest possible standards of carbon reductions
- Achieving the highest possible standards of water efficiency

7.1.3 Policy CC1 also sets out minimum requirements for new buildings.

7.2 New-build housing

7.2.1 Government mechanisms for sustainability measures may change but at all times new-build housing within the National Park must match the sustainability standard required by the government for affordable housing by registered social landlords. This is currently the Code for Sustainable Homes Level 3. The only exception to this requirement is for affordable housing schemes of one or two units justified under the affordable housing criteria and built by an individual or family.⁵

7.2.2 The policy wording for new build housing is as follows:

CC1:

In all new and replacement housing, other than affordable housing of less than 3 units, a minimum sustainability standard, equivalent to that required by the government of affordable housing, shall be achieved unless the applicant provides evidence to demonstrate that it is not viable for a particular development.

7.2.3 Applicants are encouraged to recognise the long term benefits of going beyond minimum standards particularly in terms of energy efficiency, carbon reduction and water efficiency, and use the [Code for Sustainable Homes Technical Guide](#) as a useful resource.

7.2.4 The Code for Sustainable Homes is based on a set of sustainable design principles. It encourages use of the energy hierarchy (see section 5.3) and design to reduce water use and the need for heating.

7.2.5 It gives new homes a star rating from 0 to 6, based on their performance in a variety of categories including: energy, construction materials, waste, water and ecology. Star ratings are allocated using minimum standards plus points awarded for additional

⁵ Please refer to the Supplementary Planning Guidance '[Meeting the local need for affordable housing in the Peak District National Park](#)'.

sustainable design features. The sustainability of a new home is judged independently by accredited assessors. There is a design stage assessment and then a post completion check to verify the rating.

- 7.2.6 Your architect may have experience of working under the Code for Sustainable Homes and may either be a Code assessor or choose to work with one. For those who are building a house under the code for the first time, detailed guidance is given in CLG (2010), [Code for Sustainable Homes, Technical Guide](#). Registered social landlords are already very familiar with the Code for Sustainable Homes assessments and procedures. Energy Performance Certificates are also used when homes are built, sold, or let.



Figure 11. New-build affordable housing, Bamford

- 7.2.7 The Code measures the sustainability of a home against design categories, rating the 'whole home' as a complete package. The design categories included within the Code are:

Energy and carbon dioxide emissions	ENE 1	Dwelling emission rate
	ENE 2	Fabric energy efficiency
	ENE3	Energy display devices
	ENE4	Drying space
	ENE5	Energy labelled white goods
	EN6	External lighting
	EN7	Low and zero carbon technologies
	EN8	Cycle storage
	EN 9	Home office
Water	WAT1	Indoor water use
	WAT 2	External water use
Materials	MAT1	Environmental impact of materials
	MAT 2	Responsible sourcing of materials – basic building elements
	MAT 3	Responsible sourcing of materials – finishing elements
Surface water run-off	SUR 1	Management of surface water run-off from developments
	SUR 2	Flood risk
Waste	WAS1	Storage of non-recyclable waste and recyclable household waste
	WAS2	Construction site waste management
	WAS 3	Composting

Pollution	POL 1	Global warming potential of insulants
	POL 2	NOx Emissions
Health and well-being	HEA 1	Daylighting (making good use of natural light)
	HEA 2	Sound insulation
	HEA 3	Private space
Management	MAN 1	Home user guide
	MAN 2	Considerate constructors scheme
	MAN 3	Construction site impacts
	MAN 4	Security
Ecology	ECO 1	Land of low ecological value
	ECO 2	Ecological enhancement
	ECO 3	Protection of ecological features
	ECO 4	Change in ecological value of site

7.2.8 Mandatory minimum performance standards are set for some issues. In all the Code level ratings there is a single mandatory requirement for:

- Environmental impact of materials;
- Management of surface water run-off from developments;
- Storage of non-recyclable waste and recyclable household waste.

7.2.9 In recognition of their importance to the sustainability of any home, two issues with increasing mandatory minimum standards through the Code levels are:

- Dwelling emission rate (the amount of CO₂ calculated to be emitted by the proposed dwelling over a year in Kg/m²);
- Indoor water use.

7.2.10 The National Park Authority's policies encourage you to go beyond the current minimum government standard for affordable housing, Code Level 3, and in all development you should aim for the lowest possible Dwelling Emission Rate and the lowest water use in order to reduce carbon emissions, save water and reduce expenditure on fuel bills over the lifetime of the building.

7.2.11 In determining whether new housing meets the requirements of the Code for Sustainable Homes, Code assessors conduct initial design stage assessments, recommend a sustainability rating, and issue an interim Code certificate. They will perform a post-completion check to verify the rating before a final Code certificate of compliance is issued.

What does this mean in practice?

7.2.12 When proposing a new housing development or a replacement dwelling, consider the sustainability of the design by reference to the Code for Sustainable Homes, Passivhaus techniques and Building for Life (see paragraphs 7.2.18 and 7.2.19). Other important sustainable building considerations are set out in Chapter 6.

7.2.13 Early consultation with the Authority will help guide you through the application process and explain the criteria for new build housing in the National Park, which are different from those of other local planning authorities.

7.2.14 Before work commences on site for all new-build housing developments (other than new build affordable housing of one or two units by private individuals), the Authority will require:

- evidence that the development is registered with a Code for Sustainable Homes Certification Body; and
- a pre-assessment report (or design stage certificate with interim rating) indicating that the development can achieve the required Code for Sustainable Homes Level (or any successor scheme).

7.2.15 Any housing scheme granted consent by the National Park Authority will include the following planning conditions or similar:

- the development hereby permitted shall be built to a minimum of the Government's Code Level for Sustainable Homes Level (or its successor) required of Registered Social Landlords at the time of commencement of the building works
- no development shall take place until a Design Stage assessment (under the Code for Sustainable Homes or its successor) has been carried out and a copy of the summary score sheet and Interim Code Certificate indicating that the development can achieve the stipulated final Code Level (or any such national mechanism that replaces this) have been submitted to and approved in writing by the Local Planning Authority
- prior to the first occupation of the dwelling, a copy of the summary score sheet and Post Construction Review Certificate (under the Code for Sustainable Homes or its successor) shall be submitted to the Authority verifying that the agreed standards have been met.

7.2.16 Where any criteria to gain credits under the Code for Sustainable Homes conflict with the policies aimed at protecting the National Park, the conservation and enhancement of the National Park will take precedence and applicants should consider different and more appropriate design solutions. For example the opportunity to experience dark skies is recognised as one of the valued characteristics of the National Park which must be conserved and enhanced. External lighting and security lighting under category EN6 will require careful consideration and in some instances may not be appropriate.

7.2.17 Similarly the ecological value of the National Park is an important material consideration in planning decisions. Applicants should seek guidance from the National Park Authority and follow the procedures set out in the Authority's Validation Criteria (which provides further information on ecological impacts and survey requirements) before deciding whether criteria under the Code for Sustainable Homes, Ecology section, can be met.

Other useful sustainability standards for new build housing

7.2.18 [Passivhaus](#) techniques are increasingly being used by the Building Research Establishment to provide a cost effective approach to achieving higher levels of the Code for Sustainable Homes in new buildings. Passivhaus certification is a separate sustainability standard which can be helpful as guidance but is not a requirement in the National Park.

Passivhaus

A Passivhaus is a building for which thermal comfort can be achieved solely by post-heating or post cooling of the fresh air mass, which is required to achieve sufficient indoor air quality condition without the need for additional recirculation of air.

..... Meaning the heating requirement in a Passivhaus is reduced to the point where a traditional heating system is no longer considered essential.

An important factor of a Passivhaus is that they do not conform to any one design style, therefore a Passivhaus can either be of traditional or more contemporary design.

- 7.2.19 Another useful resource when considering sustainable development is [Building for Life](#), which is used for larger schemes built by Registered Social Landlords.
- 7.2.20 [Planning Application Validation Guidance](#) (see section 8.6) explains the requirements for a Design and Access statement, the Environmental Management Checklist (also found in Appendix C of this SPD), and also gives guidance in Appendix 1 on Section 106 agreements. For affordable housing you should also refer to the Supplementary Planning Guidance '[meeting the local need for affordable housing in the Peak District National Park](#)'.

Sources of further information

[Code for Sustainable Homes](#): setting the standard in sustainability for new homes

[Royal Institute of British Architects: Principles of Low Carbon Design](#)

[Green Book Live](#)

[Building Research Establishment](#)

Passivhaus primer: introduction. An aid to understanding the key principles of the Passivhaus standard. www.passivhaus.org.uk

[Building for Life](#)

7.3 New Build Non-Residential Buildings

- 7.3.1 Commercial properties and public buildings account for around 25% of the UK's carbon emissions.
- 7.3.2 Policy CC1 specifies a minimum requirement for a certain scale of new build non-residential buildings. Whilst the requirement is for buildings above 1,000m² floorspace, the key principle is to achieve the lowest building emission rate possible in any building that is covered by Building Regulations.⁶ This will reduce the energy use of the building, reducing costs and carbon emissions.

Building Emission Rates for non-domestic development

- 7.3.3 The lower the Building Emission Rate, the more carbon and energy efficient the building will be.
- 7.3.4 Policy CC1 for non-residential buildings is as follows:

CC1:

“Non-residential major development above 1000 m² floorspace must achieve a Buildings Emissions Rate at least 10% less than the Target Emissions Rate.”

- 7.3.5 Case studies show that low building emission rates can also be achieved in much smaller buildings, demonstrating the benefits of a high thermally-efficiency in terms of energy and carbon savings. Figure 7 shows a replacement village hall in Over Haddon that integrates

⁶ Part C Building Regulations national calculation methodology (NCM).

well with the village setting. It was designed to use the principles of passive design and incorporating an air source heat pump, rainwater harvesting and solar photovoltaic panels.

- 7.3.6 By using the National Calculation Methodology (NCM) in accordance with Part L2 of the UK Building Regulations, developers calculate the Building Emission Rate of $\text{Kg CO}_2 / \text{m}^2$ per annum compared to a Target Emission rate for a standard building of that type. These calculations form the basis of the Energy Performance Certificate rating.



Figure 12. New-build village hall, Over Haddon

7.4 Other types of development

- 7.4.1 For other types of development such as extensions, renovations, and new portal frame farm buildings, there is no requirement in the Core Strategy to go beyond Building Regulations in terms of sustainability standards. However, energy costs are rising, and water supply cannot be guaranteed in drought conditions. Therefore, consider how to reduce the need for energy, to conserve water wherever possible, and to increase the capacity for energy generation where it does not compromise the valued characteristics of the National Park.

8. Preparing a planning application

8.1 Understanding landscape character and valued characteristics

8.1.1 Government policy and legislation seek to maintain the integrity and quality of the landscapes within National Parks and also those landscapes that provide a setting to the National Parks. The Peak District National Park [Landscape Strategy and Action Plan](#) is key to an understanding of what needs to be conserved and enhanced. It sets out the overall strategy for each Landscape Character Area and provides guidelines for each Landscape Character Type. This chapter gives detailed advice on the capacity of the landscape to integrate development whilst conserving and enhancing the valued character of the area.

8.1.2 Core Strategy Policy L1 sets out the policy principles:

L1: Landscape character and valued characteristics
<p>A. Development must conserve and enhance valued landscape character, as identified in the Landscape Strategy and Action Plan, and other valued characteristics.</p> <p>B. Other than in exceptional circumstances, proposals for development in the Natural Zone will not be permitted.</p>

8.1.3 Paragraph 9.15 of the Core Strategy, the background information to Landscapes and Conservation policies, states ‘applicants are advised to familiarise themselves with the full Landscape Strategy as an aid to making an application for planning permission which has landscape implications.’

8.1.4 The Natural Zone is defined as areas which substantially include:

- a quality of wilderness;
- relatively natural vegetation which is largely self sown;
- few obvious signs of human influence such as field boundaries;
- ‘open country’ which has particular importance for certain types of recreation associated with adventure and contact with nature;
- high wildlife value; comprising habitats falling within the statutory Section 3 Map (or limestone dale) definition⁷
- natural beauty, which in the opinion of the National Park Authority, is particularly important to conserve

8.1.5 The criteria for the exceptional circumstances for development in the Natural Zone are set out in Saved Local Plan Policy LC1(see Appendix A of this document).

8.1.6 The valued characteristics of the National Park include:

- natural beauty, natural heritage, landscape character and diversity of landscapes
- wildness and remoteness

⁷ The type of land eligible for inclusion on the Section 3 Map is statutorily defined (Wildlife and Countryside (Amendment) Act, 1995) as “areas of mountain, moor, heath, woodland, down, cliff or foreshore whose natural beauty it is, in the opinion of the Authority, particularly important to conserve.”

- clean earth, air and water
- importance of wildlife in the area's unique biodiversity
- thousands of years of human influence which can be traced through the landscape
- distinctive character of hamlets, villages and towns
- trees, woodlands, hedgerows, stone walls, field barns and other landscape features
- significant geological features,
- wealth of historic buildings and registered parks and gardens
- opportunities to experience tranquillity and quiet enjoyment
- opportunities to experience dark skies
- opportunities for outdoor recreation adventure
- opportunities to improve physical and emotional well-being
- easy accessibility for villages from surrounding areas
- vibrancy and sense of community
- cultural heritage of history, archaeology, customs, traditions, legends, arts and literary associations
- environmentally friendly methods of farming and working the land
- craft and cottage industries
- special value attached to the National Park by surrounding urban communities
- the flow of landscape character across and beyond the National Park boundary, providing continuity of landscape and valued setting for the National Park
- any other feature or attribute which make up its special quality and sense of place

8.1.7 It is fundamental to the proper consideration of the Development Plan that the statutory purposes of the National Park are given priority in decision making. Policies must be read in combination, and in the hierarchy of policy the flow is as follows:

- General Spatial Policies – statutory purposes of National Park designation;
- The Development Strategy – guiding the broad distribution of development;
- Policies relating to the core purposes – Landscapes and Conservation and Recreation and Tourism;
- Other thematic policies e.g. for Housing, Economy or Climate Change.

8.2 Using the Landscape Strategy and Action Plan

8.2.1 The landscapes of the Peak District National Park have been mapped with eight landscape character areas representing broad areas of landscape which share a common identity.

See Figure 8. Landscape Character Areas below:

Landscape Character Areas

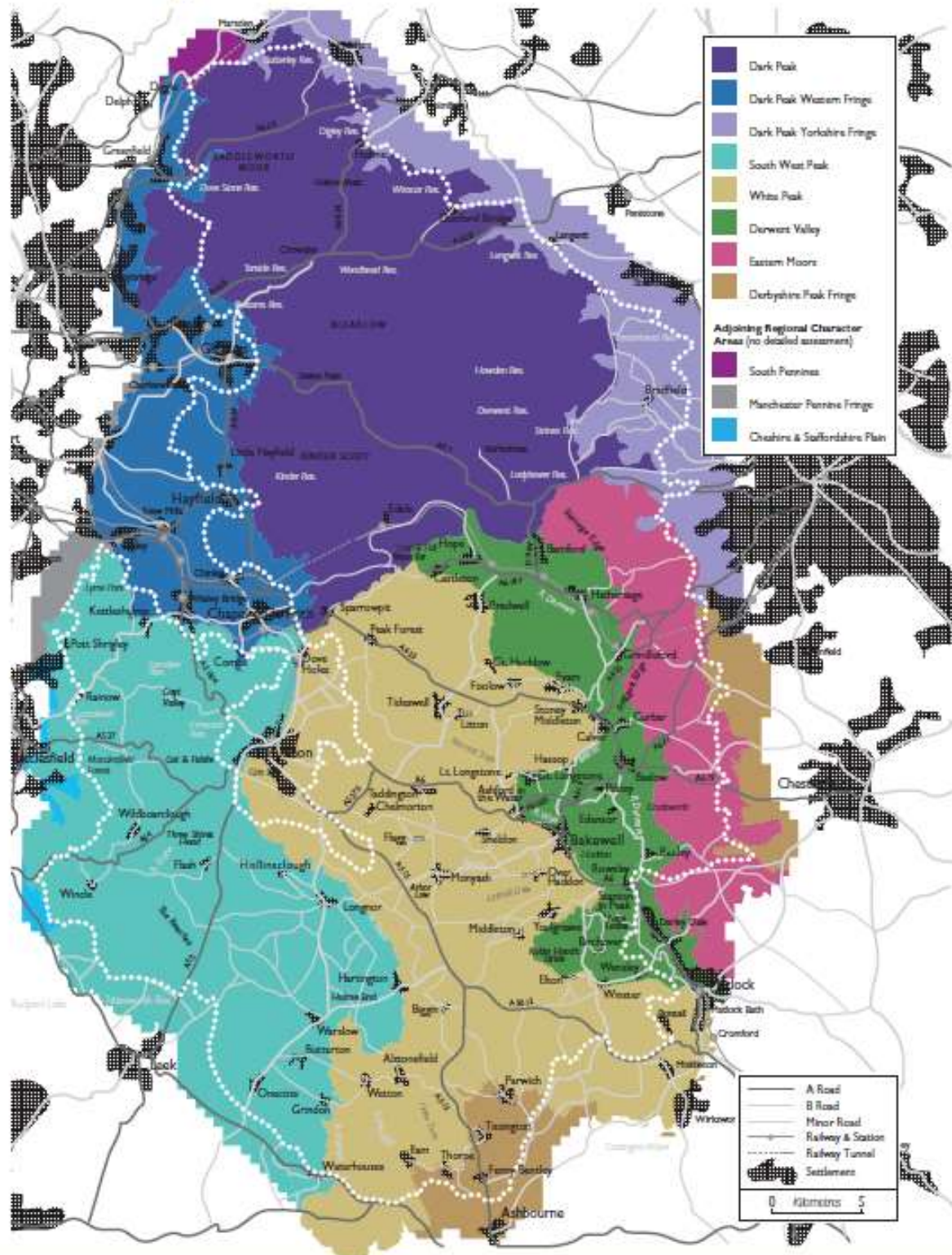


Figure 13. Landscape Character Areas

8.2.2 Within each area a number of landscape character types have been defined.

See Figure 9. Landscape Character Types below.

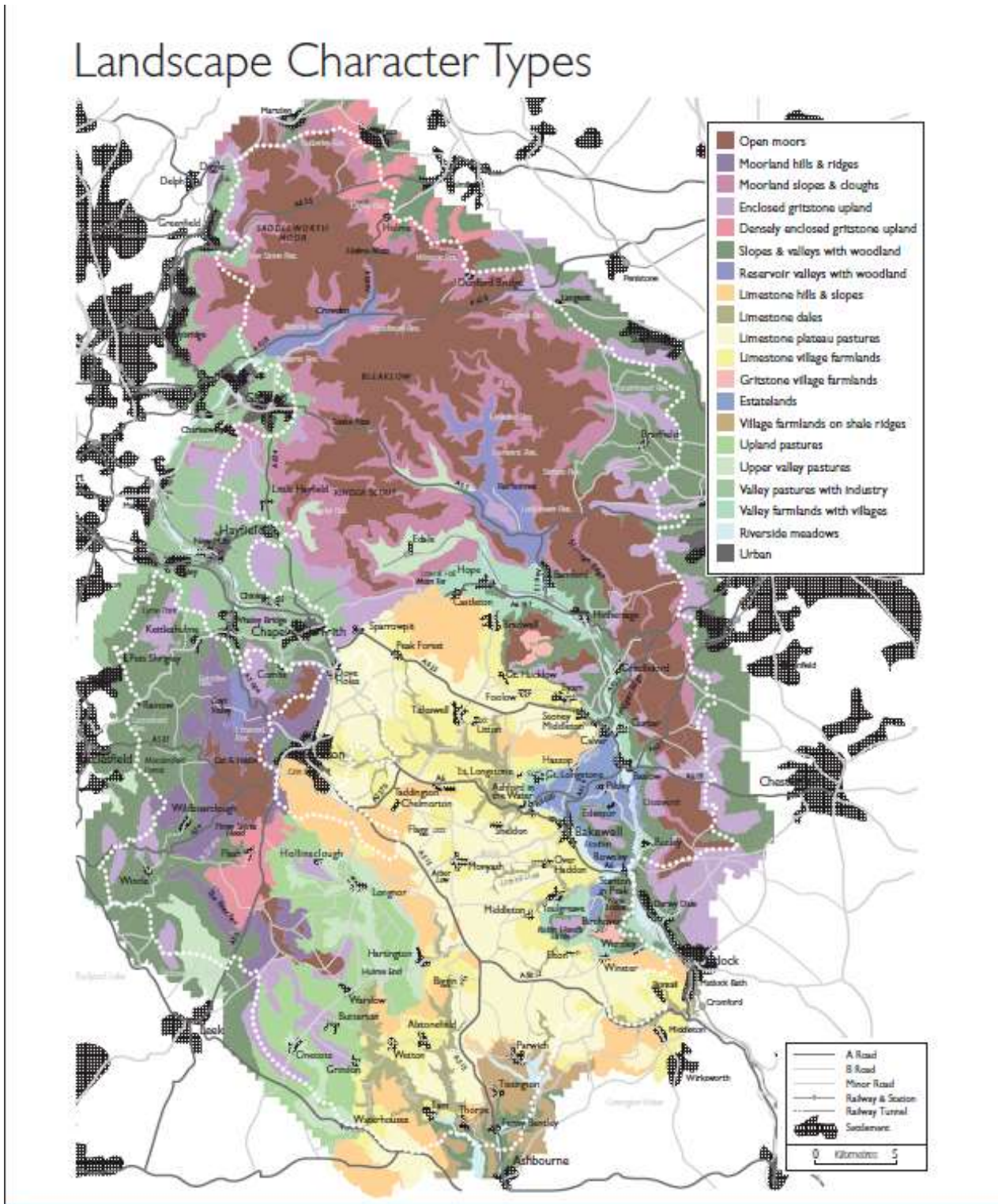


Figure 14. Landscape Character Types

- 8.2.3 The Landscape Strategy and Action Plan demonstrates how the obligations of the European Landscape Convention will be fulfilled within the Peak District National Park. It provides a context and direction for actions to conserve and enhance natural beauty, wildlife and cultural heritage, and for managing landscape change in a sustainable manner to reinforce character and local identity.
- 8.2.4 Consideration of landscape implications is a key starting point for any development proposal. Adopting a 'Landscape First' approach will help developers to assess whether or not the landscape character area and type has, in general, capacity for development.

How to use the Landscape Strategy and Action Plan for a planning application with landscape impacts

General Guidance

1. Identify the 'Landscape Character Area' and 'Landscape Character Type' of the development site using the Landscape Strategy and Action Plan interactive map <http://resources.peakdistrict.gov.uk/landscapestrategy/lcamap/>
2. Identify the key characteristics of this 'Landscape Character Type' from the 'Landscape Strategy and Action Plan'.
3. Note general comments from the 'Issues of Change' section for your development. For low carbon and renewable energy projects note comments from the 'Energy and Infrastructure' section.
4. From the 'Landscape Guidelines' including the 'Plan' section in the overall strategy for each landscape type, identify whether or not there is capacity for the particular type of development in this landscape character type.
5. Assess the effect that the proposal will have on the landscape and, if necessary, modify it to ensure a positive contribution to landscape character and sense of place.

Any application with a landscape impact must show how this guidance has been taken into account.

8.3 Using Landscape Sensitivity Assessment for wind turbine development

- 8.3.1 In addition to the Landscape Strategy and Action Plan, a Landscape Sensitivity Assessment was carried out for wind turbine development within the Peak District National Park and the area surrounding it. This is as required by the Department of Energy and Climate Change and Natural England to provide guidance on how to integrate renewable/low carbon energy without compromising the purposes/integrity of designated areas such as National Parks.⁸ The Sensitivity Assessment forms part of the ['Low carbon energy opportunities and heat mapping for local planning areas across the East Midlands, March 2011'](#).
- 8.3.2 The Landscape Sensitivity Assessment for Renewables in the Peak Sub-Region was carried out (as part of the Peak Sub-Region Climate Change Study) by Land Use Consultants and forms part of the evidence base for the Core Strategy. It can assist developers in assessing the scope for development and provides general guidance on the

⁸ DECC Renewable and Low carbon Energy capacity methodology, January 2010, chapter 3

scale of wind turbines which may be accommodated within a particular landscape type. The assessment takes into consideration that legislation confers on the National Park the highest national level of protection in respect of the landscape and natural beauty. The study can be accessed at the following [link](#).

8.3.3 Landscape sensitivity guidance is provided on three scales of wind turbine:

Small Scale – up to 15m to blade tip
 Medium Scale – 15m - 65m to blade tip
 Large Scale – over 65m to blade tip

8.3.4 The assessment uses a sensitivity score applicable to the whole of the UK, with National Parks at the top end of the sensitivity.

8.3.5 Criteria for determining landscape sensitivity to wind turbines are based on attributes of the landscape most likely to be affected by their development:

- landform
- land cover/land-use
- landscape pattern
- sense of enclosure
- sense of naturalness
- inter-visibility
- sensitive/rare landscape features

8.3.6 To assist applicants, a summary of the sensitivity of each landscape character area to each scale of turbine has been produced as Annex 1 ([link](#)) of this document. It sets out the study findings, including the analysis of landscape sensitivity for each landscape character type and guidance on where and how wind turbine developments can be accommodated.

How to use the Landscape Sensitivity Assessment and Guidance for wind turbine applications

Step 1

First follow steps 1-5 of How to use the [Landscape Strategy and Action Plan](#) - refer to general guidance from the Landscape Strategy and Action Plan in your planning application.

Step 2

Find the landscape sensitivity assessment guidance for the particular landscape character type for the development proposal from the contents list in Annex 1 by following this [Link xxx](#). Make reference to key sensitivities and guidance in the application, and show how they have been taken into account.

Below is an example of one of the landscape sensitivity summaries which shows moderate – high sensitivity to turbines up to 15m to blade tip (small scale), suggesting there may be some potential for this scale of wind turbine in this landscape type depending on the characteristics and topography of the individual site, any cumulative impacts and any other material considerations.

Example - Landscape Type: Moorland slopes and cloughs (PD)

Constituent character areas: Eastern Moors, Dark Peak, Dark Peak Western Fringe

Overview – Although the presence of woodland and a sloping topography could indicate the potential to incorporate wind turbines, this landscape’s exposed undeveloped nature, lack of enclosure, panoramic views, highvalue for recreation, inaccessibility, valued moorland habitats and important industrial heritage all pose severe constraints to wind turbines.

	Low	Low - moderate	Moderate	Moderate - high	High
Large turbines					
Medium turbines					
Small turbines					

(High sensitivity to large and medium scales of wind turbine, moderate-high sensitivity to small turbines)

Key sensitivities:

The landscape attributes that would be particularly sensitive to wind turbines are:

- Its characteristic gritstone landform and famous edges.
- Wild, open moorland expanses.
- High levels of tranquillity and remoteness.
- Panoramic views across lower ground.
- Biodiversity-rich moorland and clough-side habitats, including scree slopes
- Important features relating to the landscape’s industrial heritage.

Guidance:

- This landscape would not be suitable for large or medium scale wind turbines because of its open character and long views.
- Single small-scale turbines are likely to be most appropriate. These should be located close to existing built and infrastructure elements (e.g. roads) to minimise visual impacts.
- The location of single turbines should take into account their potential inter-visibility with other turbine locations to minimise the impacts of cumulative development.
- Utilise the screening effects of the area’s undulating topography to integrate development into the landscape.
- Ensure that features related to past industrial activity are protected.
- Locate any wind energy developments away from the most prominent rural skylines, and consider the impact of tracks and ancillary buildings.
- Protect areas of semi-natural moorland and scree slopes from the impacts of development.
- Maintain key views across the landscape and beyond.

8.3.7 The areas bordering the National Park also have a greater degree of sensitivity to development when compared to other landscapes. This is because of their role in providing a setting to the National Park.

- 8.3.8 The Landscape Sensitivity Assessment and Guidance for wind turbine applications for the different Landscape Character types of the Peak District National Park is found at: http://www.peakdistrict.gov.uk/_data/assets/pdf_file/0007/314674/Annex1-Landscape-Sensitivity-Asessment-and-Wind-Turbine-Guidance.pdf.

8.4 Planning Application Validation Guidance

- 8.4.1 Please refer to Planning Application Validation Guidance ([non-householder](#) and [householder](#)) for details of impact assessments and other general requirements in support of your application, including:
- Noise Impact Assessment
 - Developments affecting Ecological or Geological feature
 - Applications within or adjacent to a Conservation Area
 - Applications involving disturbance of ground within an area of Archaeological Potential
 - Applications related to or impacting on the setting of heritage assets
 - Photographs and Photomontages (as part of a visual impact assessment)
- 8.4.2 Where planning consent is required you should also contact the National Park Authority .
- 8.4.3 The [Planning Portal](#) is also a useful source of information

8.5 Biodiversity protection and enhancement

General

- 8.5.1 The Peak District National Park area is legally protected to conserve and enhance species and habitats under the National Parks and Access to the Countryside Act 1949 (as amended). Development outside the National Park boundary can also have an impact on protected species and Biodiversity Action Plan species associated with the National Park. The Authority can advise on potential impacts on biodiversity.).
- 8.5.2 Policy L2 of the Core Strategy – Sites of biodiversity or geodiversity importance - sets out the National Park strategic policy for these statutory considerations.

Building work in roof spaces, cavity wall insulation, removal and pointing of external walls

Bat roosts

- 8.5.3 All bats and their roosts are protected by the Wildlife and Countryside Act (as amended) 1981 and by the Conservation of Habitats and Species Regulations 2010. Advice must be sought from [Natural England](#) before anything is done that could affect bats or their roosts. Bats return to the same places every year and a bat roost is protected even if there are no bats there.
- 8.5.4 Bats often use the wall infill of properties as bat roosts and therefore any potential access points should be thoroughly checked prior to commissioning cavity wall insulation, pointing of external walls or removal of external walls.
- 8.5.5 Similarly, prior to any building work in roof spaces, including insulation work and installation of solar photovoltaics or solar thermal systems, you should establish whether or not bats or their roosts are present.

- 8.5.6 Access points to the roost could be in a range of locations. The Bat Conservation Trust has provided useful information for householders checking for bat roosts in their properties and how to avoid impacting on roosts:

http://www.bats.org.uk/publications_download.php/1135/Bats_and_Buildings_2012_web.pdf

Bird nests

- 8.5.7 All bird nests are legally protected from damage, destruction or interference while in use or being built. Advice must be sought from [Natural England](#) before anything is done that could affect nesting birds. If works are completed during the bird breeding period (March to September inclusive) a quick check for nesting birds should be carried out. If nesting birds are found to be present, these areas should be left undisturbed until the young have fledged.

Enhancing biodiversity in the built environment

- 8.5.8 There can be opportunities to enhance biodiversity at the time of development, for example by:
- creating features suitable for bats within the building e.g. access points along the ridge
 - providing bird boxes
 - providing bat boxes
- 8.5.9 Further advice can be found in the National Park Authority's leaflet '[wildlife and buildings](#)' and the Bat Conservation leaflet referred to above.

8.6 Impact of development on Heritage Assets

- 8.6.1 Heritage assets are those parts of the historic environment that have significance to this and future generations because of their historic, archaeological, architectural or artistic interest. They can include:
- Scheduled Monuments
 - Listed Buildings and their setting
 - Registered Parks and gardens
 - Conservation Areas
 - Non-designated heritage assets, such as historic buildings of local significance archaeological earthwork sites (e.g. Roman and medieval settlement remains), ridge and furrow ploughing, lead rakes, field wall patterns, isolated field barns and limekilns.
 - Archaeology
- 8.6.2 Policy L3 of the Authority's Core Strategy sets out the strategic policy for these statutory considerations.
- 8.6.3 References to List Descriptions, Conservation Area Appraisals (where available) and Historic Environment Records (HERS) are key considerations.
- 8.6.4 The whole of the National Park has been designated as a nationally significant area for its natural beauty, wildlife and cultural heritage. The National Park Authority is required by a different statute to designate Conservation Areas where groups of buildings (and the lanes, plants, trees and open spaces between and around them) create places of special architectural or historic interest. The fact that Conservation Areas have been designated within the National Park does not undermine the status of the rest of the area.

- 8.6.5 Within the context of National Park designation Conservation Area Appraisals help in understanding the architectural and historic significance of an area and what is special about it. They help shape future development as well as giving an idea of what enhancements could be made.
- 8.6.6 Conservation Area Appraisals provide, for example, detail on the importance of open spaces within a settlement's layout, the setting of a building or views into or out of an area. The consultation and adoption process for the appraisals gives them additional weight when considering planning decisions, and at appeal.
- 8.6.7 The National Park has designated 109 Conservation Areas. Conservation Area Appraisals are based on [English Heritage's guidance](#). [Cressbrook and Ravensdale's Conservation Area Appraisal](#), for example, was carried out in September 2011.

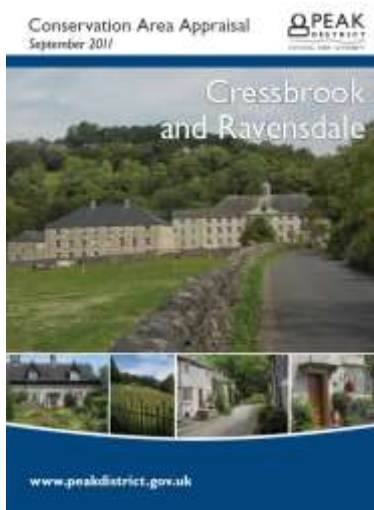


Figure 15. Cressbrook and Ravensdale Conservation Area Appraisal

- 8.6.8 Some of the appraisals are on the Authority's website. Others are in hard copy and can be accessed by contacting the Authority.

8.7 The Environmental Management checklist

- 8.7.1 The Environmental Management Checklist (Appendix C) works through the general policy on Climate Change (CC1) and is a useful way for applicants to make sure that all aspects of sustainable building have been considered before submitting an application.
- 8.7.2 The Environmental Management Checklist should be submitted as part of the Design and Access statement, or as part of the planning application, to show that the Core Strategy policies on Climate Change and Sustainable Building have been taken into consideration. It is a means of demonstrating that policy requirements have been met, for example that the development has taken account of the energy hierarchy and that the highest possible standards of carbon reductions and water efficiency standards have been achieved.
- 8.7.3 For new-build housing (see Section 7.2) and new-build non-residential building (over 1,000 m²) (Section 7.3) applicants must meet sustainability requirements or provide written evidence, including costings as to why they are not viable for a particular development.

8.8 Will an Environmental Impact Assessment be required?

- 8.8.1 National Parks are classed as sensitive areas under the [Environmental Impact Regulations](#) (part 1, 2.1) and there is no threshold for the scale of development which may require an environmental impact assessment. The Authority is required to assess whether an Environmental Impact Assessment is required for all development types listed in schedule 2 of the regulations. You can request a screening opinion to determine whether EIA is required before submitting a planning application for your scheme. Your request should be accompanied by enough information to enable a judgment to be made. Normally, this will require a plan showing the proposed location, a brief description of the nature, purpose and size of the scheme, and an indication of its possible environmental effects. Where a full EIA is not required, the Authority may still ask for further information about potential environmental impacts.

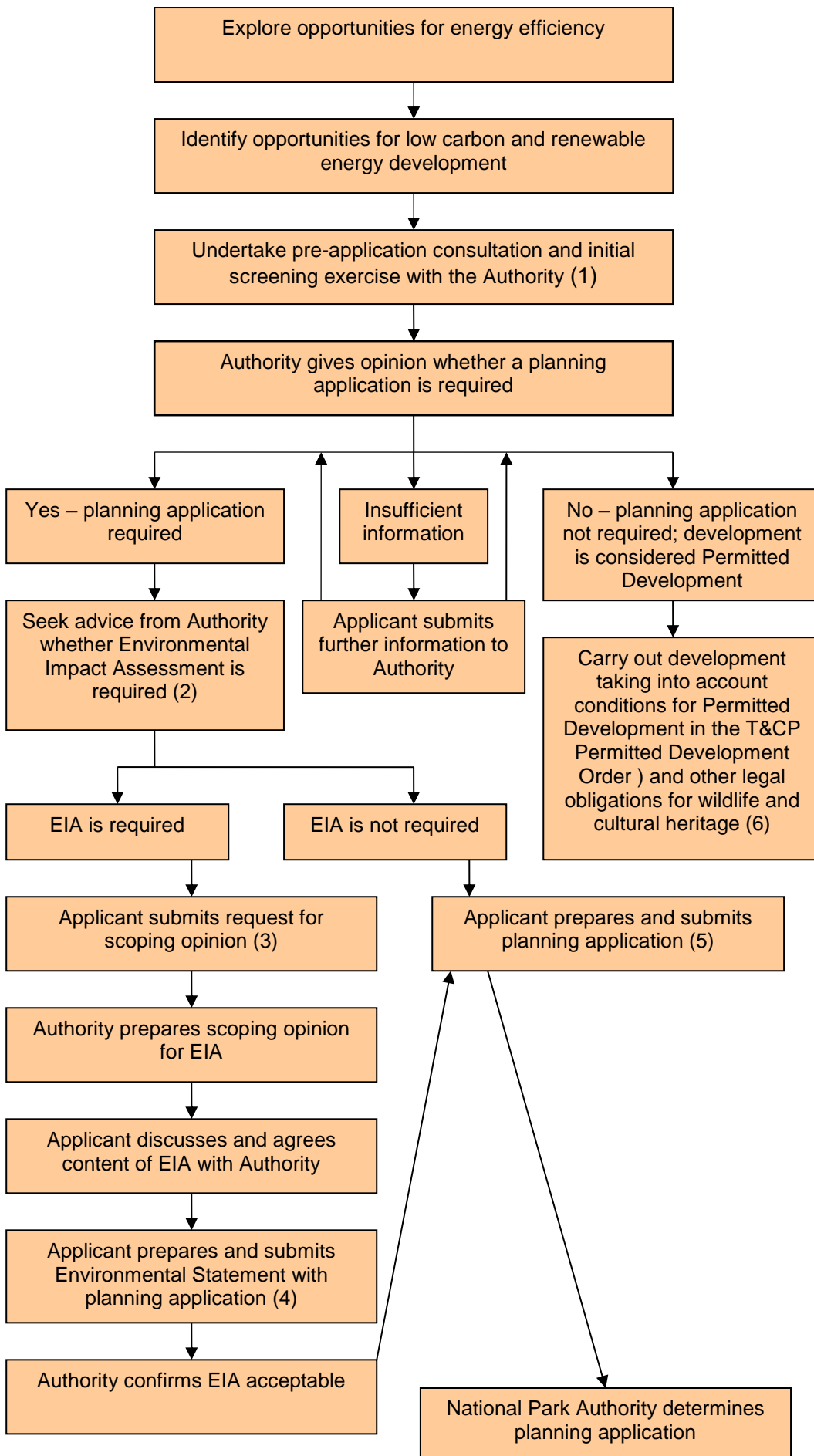


Figure 16. Planning and Environmental Impact Assessment Flowchart

Notes Figure 11.

1. Discuss your proposal with the Authority; provide details of the proposal for an informal view.
2. Submit Environmental Impact Assessment (EIA) screening request to Authority in accordance with The Town and Country Planning (Environmental Impact Assessment) Regulations 2011. For proposals within a designated environmental area such as the National Park, thresholds for Schedule 2 development do not apply due to the sensitivity of the landscape. Wind turbine, hydro and anaerobic digester developments in particular may require an EIA.
3. Based on the Authority's EIA screening opinion, submit request for a scoping opinion for the content of the EIA. Note that environmental information may still be required/requested without formally entering into EIA procedure.
4. Undertake the necessary studies and survey work to identify the potential environmental effects and proposed mitigation strategy. This could include studies of landscape/visual impact, ecology, noise, odour, and traffic impact for example.
5. Prepare planning application in line with the National Park Authority's planning policies as set out in the Core Strategy, and use the validation check list and the Environmental Management Checklist. It is helpful to agree the validation check list prior to submitting an application, so that the Authority can tell you if further information is required before it is registered. Outside settlements it is important to use the Landscape Strategy and Action Plan to gain an understanding of the landscape character of the area and the likely impacts of your proposal. For wind turbine development you should also refer to the Landscape Sensitivity Assessment. If you register an application with insufficient information this can be a ground for refusal.
6. Even if planning consent is not required for your particular development, ancillary development associated with permitted development may still require separate planning consent. For example a chimney or flue for a biomass boiler, or installation of pipe work for a ground source heat pump in a field adjacent to the house rather than within its curtilage, may require a planning application in its own right. Therefore it is important to discuss all aspects of your proposed development with the Authority.

8.9 Other Consents

- 8.9.1 Check whether other consents are required for the development. Constituent local authorities, for example, are responsible for Building Regulations

Peak District National Park Authority Contact Details

Aldern House
 Baslow Road
 Bakewell
 Derbyshire
 DE45 1AE

Tel: (01629) 816 200
 Text: (01629) 816 319
 Fax: (01629) 816 310
 E-mail: aldern@peakdistrict.gov.uk
 Website: www.peakdistrict.gov.uk

9. Low Carbon and Renewable Energy (Policy CC2)

9.1 General

9.1.1 The fourth stage in the energy hierarchy is to consider small scale low carbon and renewable energy technologies to further reduce energy costs and carbon emissions.

9.1.2 Over the last decade the National Park Authority has used sustainable development grants, business advice, the Environmental Quality Mark and the planning process to help secure low carbon and renewable energy solutions. The Authority encourages the uptake of low carbon and renewable energy where this does not compromise the statutory purposes of the National Park (see Chapter 3). The key principle is that development proposals should respect the National Park context and demonstrate a clear understanding of landscape sensitivity and biodiversity and cultural heritage impacts (see Chapter 8), looking for an appropriate solution through the pre-application and feasibility stage.

9.1.3 This chapter sets out the key planning considerations for:

- solar technologies
- heat pumps
- wood fuelled heating and biomass boilers
- hydropower
- anaerobic digestion
- wind turbines

9.1.4 Policy CC2 of the Core Strategy is constructed to enable low carbon and renewable energy development that conserves and enhances the nationally significant area of the National Park (Parts A and B) whilst recognising the importance of carbon reduction and the desire of individuals to increase sustainability and reduce long-term energy costs (Part C).

CC2: Low carbon and renewable energy development

A. Proposals for low carbon and renewable energy development will be encouraged provided they can be accommodated without adversely affecting landscape character cultural heritage assets, other valued characteristics, or other established uses of the area;

B. Cumulative impacts of low carbon and renewable energy development within the National Park and visible beyond its boundary must be taken into account;

C. Where proposals do not compromise the valued characteristics of the National Park the Authority will also take into account the economic, social and wider environmental benefits of renewable and low carbon development.

9.1.5 The statutory purposes require the National Park Authority to ensure schemes do not cause harm to the National Park's valued characteristics, including landscape character, whether it be locally, in the wider landscape or cumulatively. The Authority must not allow the promotion of opportunities for understanding and enjoyment (its other purpose), the economic and social well-being of local communities (the attendant duty), or wider environmental considerations to outweigh its statutory purpose to conserve and enhance the National Park (see Core Strategies GSP1, GSP3, L1 and CC2). The NPPF (paragraph 14) states that the normal presumption in favour of sustainable development does not apply where 'specific policies in this framework indicate development should be restricted'. This statement includes land within a National Park.

- 9.1.6 The 'landscape first' approach ensures that the landscape has the capacity for the development without compromising the valued characteristics of the site and buildings that are subject to the development proposal (Core Strategy Policy GSP3) and without adversely affecting the landscape character, cultural heritage assets, other valued characteristics or other established uses of the area (Core Strategy Policy CC2). Development proposals which can achieve this are therefore more likely to be approved.
- 9.1.7 Core Strategy Policy CC1 requires schemes to achieve the highest possible standards of carbon reductions. For this reason energy audits are not required as part of the planning application process, since where there is landscape capacity for development the maximum achievable savings in CO₂ is the best possible outcome.
- 9.1.8 The National Park Authority's Landscape Strategy and Action Plan and the Peak Sub Region Climate Change Study provide useful guidance on the scale and type of development that may be acceptable in a particular landscape type. See Chapter 8.
- 9.1.9 Where development would be detrimental to its context the developer can consider altering the scale or type of development. A mix of technology types can be a useful way of maximising carbon reductions and reducing energy costs whilst respecting the natural beauty of the National Park - see Figure 12 below.
- 9.1.10 CC2 B states that 'Cumulative impacts of low carbon and renewable energy development within the National Park and visible beyond its boundary must be taken into account'. The following types of project should be included (subject to the availability of information) in any assessment of the cumulative and 'in combination effects' of development:
- 'in combination effects' of applications for multiple structures
 - existing completed projects
 - approved but uncompleted projects
 - plans or projects for which an application has been made and which are under consideration for consent by the Authority or neighbouring authorities which would impact on the setting of the National Park.
 - plans and projects which are reasonably foreseeable
- 9.1.11 Some areas of the National Park known as the Natural Zone are considered so sensitive to development that no form of development requiring planning consent, other than for stated exceptional circumstances, is permitted there (See Policy L1 and Saved Local Plan Policy LC1).

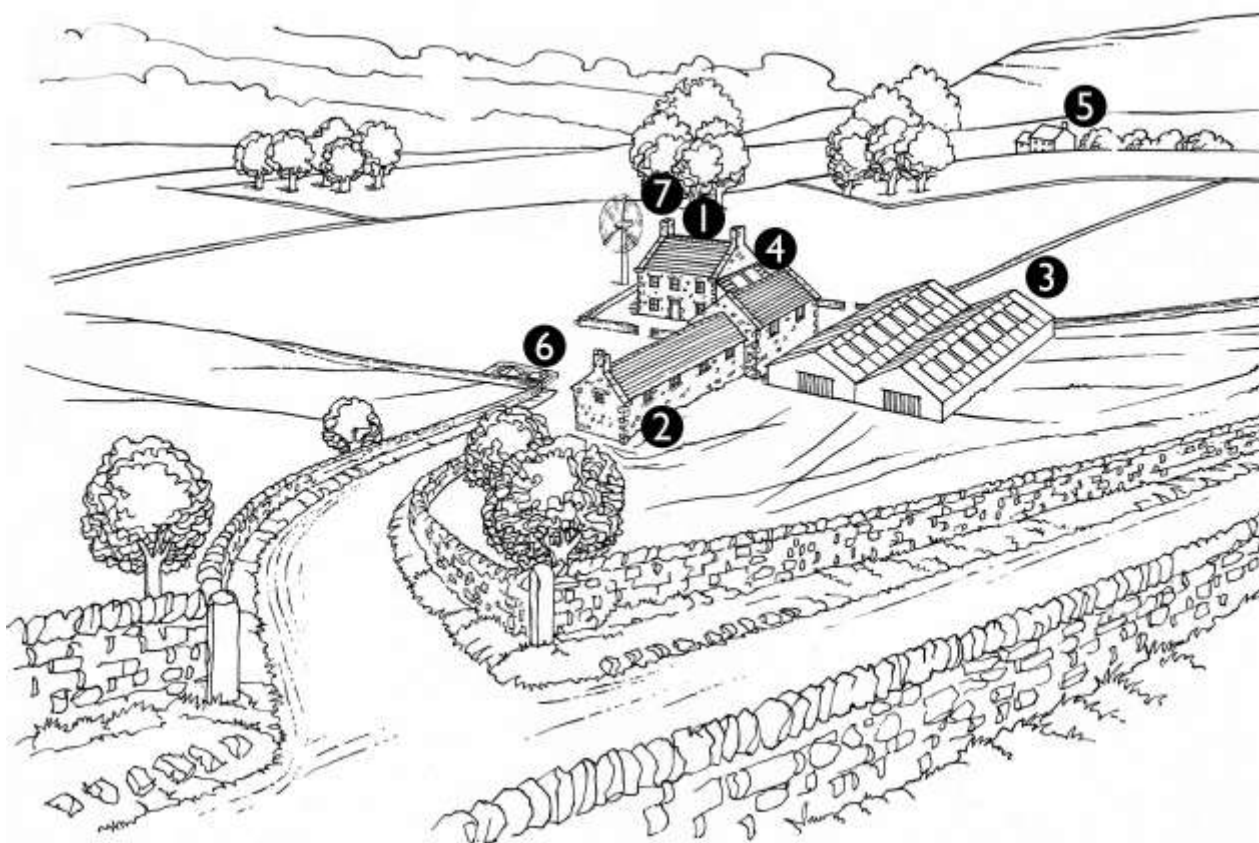


Figure 17. Using the energy hierarchy to achieve the highest possible standards of carbon reductions, a more sustainable National Park could look something like this...

Key to Figure 12.

1. Energy efficiency improvements to the farmhouse; biomass boiler or ground (or air) source heat pump.
2. Converted traditional building taking an energy efficiency approach; also considering ground or air source heat pumps. Photovoltaic solar slates on south facing roof that have the appearance of traditional slates.
3. Solar panels on south facing roofs of portal framed farm buildings. These should be dark in colour, with a dark frame.
4. Solar panels (photovoltaic or water heaters) on south-facing roof of lean-to extension of farm house.
5. Small-scale hydro power scheme in a converted mill building.
6. Small-scale anaerobic digester dealing with 'on farm' generated slurry. Can be sited in an existing yard area, with the apparatus being generally underground so that the exposed parts are no higher than the existing walls. Screen with a drystone wall to match the existing.
7. Wind turbine in a Landscape Type that has capacity for wind turbine development and in scale with the group of buildings, located as near to them as turbine performance allows and taking account of topple distance. Protected species issues will need to be taken into consideration.

9.2 Solar technologies

Overview

- 9.2.1 The two most common types of technology are solar photovoltaics (PV) and solar thermal. Both solar PV and solar thermal units have great potential to be used throughout the National Park on dwellings and agricultural, industrial and community buildings, provided care is taken to minimise their visual impact. Both technologies can be retrofitted on existing buildings or integrated into the design of new buildings.

Solar Photovoltaics (PV)

- 9.2.2 Solar photovoltaics produce electricity from the light of the sun. PV can be either roof mounted or freestanding in modular form, or integrated into the roof or facades of buildings through the use of solar shingles, solar slates, solar glass laminates and solar building design solutions. There is considerable variation in appearance, and care should be taken to choose those with the least visual impact. The electricity produced can either be used on site, stored in batteries or the excess fed into the grid via the mains supply. For further information see [Energy Saving Trust](#).



Figure 18. Solar Photovoltaics, Shallow Grange Farm

Solar Thermal

- 9.2.3 Solar water heating is deployed primarily as a building mounted technology serving the needs of the building with which it is associated. It involves collecting heat from the sun via heat absorbent collectors. Two main types are common in the UK: flat plate collectors and evacuated tube collectors. In both types, radiation from the sun is collected by an absorbing plate in the collector, and is transferred to the hot water system using a heat exchanger. These systems are a long established renewable technology. They are generally easy to install and can heat water throughout the year. They work best alongside existing water heating systems which can help top up the heating system in winter months when solar energy is less abundant. For further information see [Energy Saving Trust](#).

Practical Considerations

- 9.2.4 Modern industrial and agricultural buildings often cover a relatively large area. They offer the greatest potential for renewable energy generation in the National Park without compromising the valued characteristics of the surrounding area. The use of dark panels

and dark coloured frames in simple configurations such as horizontal bands or covering the entire roof are the best ways of minimising impact. Other large modern buildings such as village halls can offer potential to supply electricity to the building itself or to provide a wider community benefit. The structural capability of the building should be considered. When considering solar panels it is important to minimise cast shadow, for example from trees or chimneys.

9.2.5 To assist in improving the energy performance of a building refer to Chapters 5, 6 and 7.

Planning Considerations

9.2.6 See Chapter 8, Preparing a planning application.

9.2.7 Under certain circumstances solar PV or solar thermal are classed as permitted development under the Town and Country Planning (General Permitted Development) Order 1995 (as amended). All parts of the regulations that apply to your particular development must be met.⁹

9.2.8 If you are considering solar technology installations for your home, business or community building, the Authority will be able to advise you about current permitted development rights, the planning application process, the information needed to support your particular proposal and any additional consents required (e.g. listed building, protected species).

9.2.9 Large scale ground mounted solar arrays are not appropriate. To meet National Park policies, ground mounted solar arrays outside the curtilage of a building should be avoided, and in any case are likely to require an application for change of use.

9.2.10 As well as the standard restrictions within the relevant classes of permitted development which must be complied with, there are also conditions that require a planning judgment to be made about the siting of the solar technology to determine whether the development is classed as permitted development or not. These conditions are set out below. Solar PV or solar thermal equipment:

- shall, so far as practicable, be sited so as to minimise the effect on the external appearance of the building
- shall, so far as practicable, be sited so as to minimise its effect on the amenity of the area
- when no longer needed for micro-generation shall be removed as soon as reasonably practicable.

9.2.11 Before commissioning an installation it is advisable to check with the Authority that the siting of the installation will minimise the effect on the appearance of the building and amenity of the area. In cases where harmful effects of solar panels have not been minimised the Authority may take action to remove the installation.

⁹ Note that legislation referred to may be further amended. At the time of writing this SPD, consult in particular amendments under:

Statutory Instrument 2011 (number 2056) which includes permitted development (part 40) installation of domestic microgeneration equipment.

Statutory Instrument 2012 (number 748) which includes permitted development (part 43) installation of non- domestic microgeneration equipment.

9.2.12 Installation of solar technologies can cause harm to bats and bat roosts. For example solar energy may directly impact on the roost through disturbance or damage or indirectly through changes in temperature which could cause roost abandonment. Roof spaces of buildings, roof slates/tiles and walls should always be checked for bat use before carrying out any works. If roosts are found to be present advice should be sought from Natural England. See Section 8.5 - Biodiversity protection and enhancement.

9.2.13 For **Listed Buildings** you will need listed building consent to fix panels to either the main building or any pre-1948 outbuilding within the curtilage.

Ways to minimise impact

9.2.14 There are four key factors in minimising the impact of solar panel on National Park values:

- A. Choose the least obtrusive location
- B. Choose the least obtrusive type of panel
- C. Decide if reroofing is required
- D. Select the simplest configuration of panels

A. Choosing the least obtrusive location

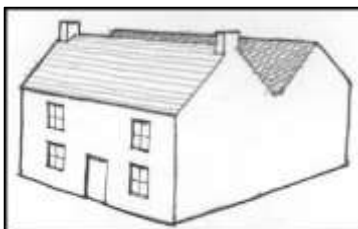
Ground mounted arrays – For historic buildings in particular, including listed buildings, the best solution is to avoid roofs entirely and use a ground mounted array in an area of the garden or curtilage least harmful to the setting of the building. Although this involves more cabling, it avoids the problem of additional roof load and drilling through roof coverings to fix the panels into position. When panels are subsequently removed from roofs, making good the fixing holes is a considerable problem. A ground mounted array also allows easier maintenance and renewal of the panels.



Figure 19. Solar panels

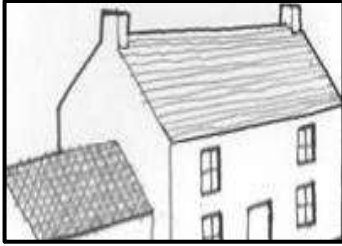
When a ground location is impossible and panels have to go on a roof, simplicity of arrangement is the key. It is easy to spoil a building by adding roof panels in an insensitive way, ignoring the building's character and appearance and the balanced nature of its elevational features.

Double roof with a central valley gutter – use one of the hidden inner slopes to screen the panels.



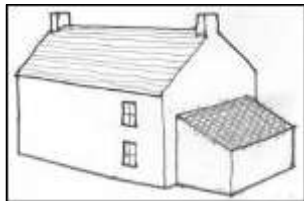
Parapet roof – the parapet may enable the panels to be hidden.

Attached conservatory, garage or modern extension – siting the panels on a subsidiary extension leaves the main part of the property unaltered. This is particularly important when the main roof is open to view.



Flat roofed element – it may be possible to locate solar panels on the flat roof on an angled frame.

Rear or side elevation – depending on the property's orientation it may be possible to minimise visual impact by siting panels on the roof of the rear or side elevation. Possibly problematic with a listed building.



Gable wall – it may be possible to fix solar panels on an angled frame to a wall which is not too prominent in the street scene. Possibly problematic with a listed building.

Front roof slope – only as a last resort consider fixing solar panels on the front roof slope. This option however will certainly be resisted in the case of a listed building, where the effect on the building's character and appearance is likely to be too damaging to be acceptable.



Figure 20. Illustrative guidance for locating solar technologies in a traditional village scene

Key to Figure 15.

A key principle illustrated here is the use of subsidiary elements of the village scene, rather than the main buildings (particularly if they are listed).

1. A conservatory to a listed building is used: acceptable because it is a modern addition and set back from the main building. Where the curtilage character is particularly sensitive it may also be possible to apply solar strips to the inside of conservatory glass or semi-transparent materials, although these would be less efficient.
2. A modern garage extension. This might consist of a blue slate roof integrating panels or solar slates in a band at the top or bottom. For panels the preferred location would normally be at the bottom, but in areas of shadow a band at the top may be acceptable.
3. This example shows how it is sometimes better to apply materials to the entire slope. The result is a simpler, less fussy appearance which works well here alongside simple architectural styles.
4. This example shows how a walkway or linking section between buildings can be used effectively to accommodate panels.
5. Freestanding ground array of panels, preferably out of public view.
6. House extension. This might consist of a blue slate roof integrating panels or solar slates in a band at the top or bottom. For panels the preferred location would normally be at the bottom, but in areas of shadow a band at the top may be acceptable.
7. Rear garden outbuilding. Panels in a band along whole length can be used effectively.



Figure 21. Traditional roofscape in Bakewell, requires careful consideration to integrate panels without harming its character

B. Choosing the least obtrusive type of panel

Plain, dark, neutral panels are the least obtrusive. In particular avoid PV panels with obvious star patterns.

Choose a panel with a black background.

Choose a panel with black framing – avoid panels with bright aluminium edging which emphasise the panel module compared to roofing slates or tiles.

PV panels that are the size of modern tiles or traditional slates are the least obtrusive form of PV panel. They are more suitable for properties being reroofed.

Flat panel solar thermals are simpler in design and less obtrusive than evacuated tube panels.



Figure 22. Photovoltaic panels on patent glazed roof

C. Decide if reroofing is required

The neatest option is to remove part of the existing roof covering, installing the panels flush with the existing covering. This is certainly worth considering if the roof does not retain its original slates or tiles and is in need of repair or renewal.

Placing panels on top of existing slates or tiles is a cheaper option but they will be well above the roof surface and obtrusive. There are also the issues of extra loading and damage to roof coverings which should be taken into consideration.

D. Select the simplest configuration of panels



Figure 23. Retrofitted photovoltaics, Over Haddon

Photovoltaics

Cover the whole area of subsidiary roof with panels – this will look simpler and neater than covering half the main roof. It is best to leave a complete, horizontal strip of roofing visible at the eaves, or at the ridge.

Use simple arrangements on larger roofs – either a horizontal line of panels at eaves level or alternatively immediately below the ridge (see photo 12)



Figure 24. New build replacement dwelling, Curbar with simple arrangement of solar panels below the ridge

Arrange panels in landscape rather than portrait format to reflect the horizontal proportions of traditional buildings.



Figure 25. Flush fitted photovoltaic tiles



Figure 26. Over Haddon Village Hall

Solar thermal

Often need fewer panels than photovoltaics.

Specify a panel with the same module size and finish as a roof light or as a PV panel so they can all form part of the same simple linear arrangement.

Sources of further information

Planning Portal: [Solar Thermal \(Water Heating\)](#)

[Planning Portal: Solar Electricity \(Photovoltaics\)](#)

[Planning Portal: Common Projects – Solar Panels – Householder](#)

[Planning Portal: Common Projects – Solar Panels – Non domestic](#)

9.3 Heat Pumps

- 9.3.1 Heat pumps can be particularly well suited to new build development and to the conversion of traditional buildings within the Peak District National Park.
- 9.3.2 A heat pump is a device for transferring energy in the form of useful heat from one place to another. Ground Source Heat Pumps provide a valuable resource by using the earth as a heat sink to store heat or as a source of heat. Heat can be stored or obtained from shallow ground, about 2 m depth, or by deeper bore-holes. Most ground source heat pumps use closed loop pipes, buried in the ground horizontally or vertically. Alternatively, heat pumps can be laid in the bottom of a pond or reservoir. The heat extracted is delivered via the heat pump for space or water heating.
- 9.3.3 It is possible to use a communal ground array linked to heat pumps installed within each building as a district heating system. This method is increasingly being used by social housing providers. A source of power is required for the heat pump.



Figure 27. Ground source heat pump excavation

- 9.3.4 Bore hole systems may be best in more built up areas where space is more limited, whereas good opportunities for loop systems can be found on farms where large surface areas are normally available.



Figure 28. Dove Valley, minimal impact on the landscape through use of a ground source heat pump

- 9.3.5 Air source heat pumps have a heat exchanger installed on the outside of a building. With a similar appearance to an air conditioning unit, they might not be appropriate on front elevations or on listed buildings. Screening can help to reduce visual impact but needs to avoid interfering with the unit's operation. Careful siting is required to avoid the impact of noise on neighbours. An acoustic housing can help to reduce noise impact. Some air source heat pumps can also be installed within a building with vents for an air supply/discharge.



Figure 29. Air source heat pumps at Over Haddon Village Hall and on a new affordable home in Calver

Practical considerations

- 9.3.6 Check that:

- your building is well insulated, at least up to current building regulations;
- your heating system is appropriate to use with a heat pump;
- you have enough outdoor space to install the ground or air collector and for any necessary digging equipment to access the site;

- you have space to house the heat pump unit either indoors or outdoors;
- you have space for a hot water cylinder if the heat pump is for domestic hot water.

Planning considerations

9.3.7 See Chapter 8, Preparing a planning application. The following guidance specific to heat pumps should be considered:

- In principle, ground source heat pumps can be fitted anywhere subject to ecological and archaeological and groundwater concerns, although the site must be returned to its original state after installation.
- Outside the curtilage of a dwelling or in the curtilage of a non-domestic building, for example on agricultural land, a ground source heat pump will require planning consent.
- Always ask your installer to consult the Authority and explain the precise location of the proposed pipework, to check that it will not disturb important archaeological features or an important natural habitat.
- Environmental surveys may be required to support a planning application e.g. a wildlife survey to ensure that ecological or environmental impacts are taken into consideration. Examples include where a ground source heat pump would be sited on an area of flower-rich grasslands or an area used by protected species such as great crested newts.
- In some circumstances installation of a ground source heat pump may be inappropriate due to archaeological concerns connected with digging the trench for the coils.
- The installation of a ground source heat pump could affect the local water table. Permits may be required from the Environment Agency, who should be contacted at the outset.
- Land Drainage Consent may be required from the Consenting Authority under the Land Drainage Act 1991 if any works are to be undertaken on or near an ordinary watercourse.
- Wherever possible the pump should be housed in an existing building. If this is not possible ask your installer to check whether planning permission is required for the housing.
- Consider noise impact of air source heat pump on your property and on neighbouring properties.
- Ensure that the cumulative noise impact of the heat pump with other existing or proposed heat pumps has been considered.
- Consider the design and colour finish of visible equipment to help to reduce its impact.
- Within the curtilage of a listed building the installation of any heat pump will require an application for listed building consent.
- Environmental Risk Assessment and Method Statements for ground source heat pumps construction and operation may be required.

Sources of further information

Energy Saving Trust: [Heat Pumps](#)

Planning Portal: [Common Projects – Domestic Heat Pumps](#)

Planning Portal: [Common Projects – Heat Pumps – Non domestic](#)

A practical handbook on ground source heat pumps for social housing providers
<http://www.reading.gov.uk/documents/adviceandemergencies/Funding-Service/24186/20121218GeopowerPracticalHandbook.pdf>

9.4 Wood fuelled heating and biomass boilers

- 9.4.1 Wood burning stoves and biomass boilers are particularly well suited to properties where there is adequate space for the plant and storage for fuel.
- 9.4.2 In many National Park properties, particularly the more remote properties, biomass can provide an alternative, sustainable fuel source for heating systems. Many such properties will have outbuildings attached to the property which can provide opportunities to house biomass boilers and fuel stores. Existing chimneys can also be used for the biomass system's flue (these may need upgrading for example by relining).
- 9.4.3 Mini district heat mains are a useful way of providing a sustainable fuel source to a number of properties. These systems use a central woodchip or wood pellet boiler for hot water to supply a number of buildings on the same site, in which heat is regulated by a heat exchanger.



Figure 30. Wood fuel store for biomass stove

Practical considerations

- 9.4.4 A key consideration for wood fuelled biomass heating is the type of fuel to be used. Options include woodchip, logs and wood pellets.. The storage of fuel is an essential consideration in biomass systems and one that needs much greater thought than gas or oil fired systems. Whatever type of biomass fuel is used there needs to be sufficient access to the fuel store for appropriate delivery vehicles, particularly in the case of pellets and chip.
- 9.4.5 The works involved in installing a biomass system, particularly works to a roof, chimney or outbuilding have the potential to disturb bats, which are a protected species, so before proceeding, the property should be checked for the presence of bats. If these are found then works should not commence and [Natural England](#) should be contacted for advice. Where planning permission is required a protected species survey may be required to accompany such an application.
- 9.4.6 Address the risk of dust explosions when storing and using some kinds of biomass materials through the design of the system.



Figure 31. Mini district heating system at Beechenhill Farm

Planning considerations

- 9.4.7 See Chapter 8, Preparing a planning application.
- 9.4.8 Installing a domestic biomass fuel stove, burner or boiler does not usually require planning permission, although external alterations including a new flue, chimney or a new outbuilding (for example for a fuel store or boiler house) may do - check with the Authority. If the building is listed, listed building consent may be required for internal and external works. For listed buildings it is always worth talking through your ideas with the Authority's staff at an early stage.
- 9.4.9 When the Authority grants permission for conversion of a traditional building to another use, 'permitted development rights' may sometimes be removed to conserve the character of the original building (see paragraph 4.1.4)
- 9.4.10 The addition of a chimney, new flue or outbuilding has the potential to detract from the character of a converted building and its setting, and where this is the case, it is unlikely that planning permission would be granted. Flues that run up an external wall are unlikely to conserve the character of a building. Instead the flue should remain internal up to roof height, and be sited on roof slopes that are hidden from public view. The external finish of a flue should be matt black. Chapter 8 on conversions in the Authority's [Design Guide](#) provides further explanation.
- 9.4.11 Any new buildings should generally be constructed of materials to match the existing (see the [Design Guide](#) for more details). Alternatively it may be possible to install a fuel hopper underground. Advice should be sought from the Building Regulations section of your Council to understand the requirements, which you would also need to incorporate into the design of your scheme. Alternatively a HETAS certified installer may be able to self-certify the installation of a boiler thereby covering building regulations requirements.
- 9.4.12 Larger biomass fuel installations that involve the development of new buildings or plant will require planning permission. For the development of new buildings to house biomass boilers on farms you should check which type of application is required by contacting the Authority. Proposals are screened for Environmental Impact Assessment, which may be required in a few cases.



Figure 32. Wood burning stove

Sources of further information

The [Planning Portal](#) lists exceptions for designated areas/designated land, including National Parks, where there are restrictions on development.

Installation of a flue forming part of a biomass heating system on a house or block of flats. www.planningportal.gov.uk/permission/commonprojects/biomass

Installation of a flue forming part of a biomass heating system on a building that is not a house or block of flats.

<http://www.planningportal.gov.uk/permission/commonprojects/fluesmg>

The Biomass Energy Centre (BEC) is UK Government sponsored and draws together information and advice from existing sources into one easy-to-use website with an information enquiry service tailored to the needs of individuals, companies, local authorities and other organizations.

www.biomassenergycentre.org.uk

The Energy Saving Trust is a useful source, particularly for advice on wood fuel heating.

<http://www.energysavingtrust.org.uk/>

Health and Safety in Biomass Systems.

http://www.cea.org.uk/PDFs/Biomass_HandS.pdf

Read our blog to see our experience of installing a biomass boiler at the Peak District National Park Authority's head office in Bakewell. <https://biomasslog.wordpress.com/>

9.5 Hydropower

- 9.5.1 Within the Peak District National Park there are opportunities to use old mill sites and weirs for hydro power schemes where there is a suitable flow or head of water within water courses.
- 9.5.2 The report [Peak Power: developing micro-hydro power in the Peak District](#) highlights the potential and identifies potential constraints. The Environment Agency document ['Planning for Hydropower: a Good Practice Guide'](#) is also useful.
- 9.5.3 Possibilities for hydropower exist wherever a stream runs down a hillside, a river passes over a waterfall or weir, or a reservoir discharges back into the river. There are already many examples of water power in the Peak District such as:
- Water and sewerage companies use flows between and from reservoirs to provide about 1.4 MW of electricity in the Longdendale and the Upper Derwent catchments (the major source of the hydropower in the Peak District at present).
 - Alport Mill near Youlgrave (a 30 kW turbine installed in 2009).
 - A restored turbine at Flewitts Mill near Ashford-in-the-Water.
- 9.5.4 Hydro development in the Natural Zone is more likely to have a significant impact on the environment. Rivers are likely to be in a more pristine condition and ecologically important. Nevertheless, there may be instances where the impact can be kept to acceptable levels and hydropower may still be an option worth considering. Early discussion with the Authority is advised.

Practical considerations

- 9.5.5 A successful small scale hydropower system needs:
- A suitable head and flow, and space for infrastructure;
 - A nearby demand for electricity or the possibility of grid connection;
 - Suitable site access for construction equipment;
 - To deal satisfactorily with the landscape, water quality, heritage and ecological impacts of the development.



Figure 33. Flewitts Mill near Ashford in the Water

Planning considerations

- 9.5.6 See Chapter 8, Preparing a planning application. You are advised to contact the Authority before submitting an application.
- 9.5.7 Schemes that harmonise with their surroundings are the most likely to be acceptable. New buildings and structures should therefore be designed to conserve and enhance the local landscape, with particular attention given to architectural quality, the choice of building materials and the ability of the scheme to blend in with the natural environment. As with all forms of energy generation, the impact of grid connection should be carefully considered and new power lines placed underground. The turbine house with grass roof at Alport Mill provides a good example of a suitable low impact building.
- 9.5.8 The complexity of hydropower schemes and the number of regulatory bodies involved means that research and consultation before submitting a planning application are particularly important.
- 9.5.9 Your installers need to consider the likely impact of the proposed development on the environment and character of the area and whether planning consent will be required for any additional buildings or other structures in addition to the hydropower installation itself.
- 9.5.10 Applicants are advised to contact the [Environment Agency](#) at the feasibility stage to discuss the types of permits and licences that may be required in addition to talking to the National Park Authority.
- 9.5.11 The grant of planning permission does not pre-judge the outcome of any consents required from other bodies.
- 9.5.12 The method used to abstract water may require Land Drainage Consent from the Consenting Authority under the Land Drainage Act 1991.
- 9.5.13 Hydropower developments have the potential to impact on a range of ecological interests for example due to the infrastructure or altered flow rates impacting on habitats. The Authority may therefore require developers to undertake an evaluation of the site and adjacent habitats to accompany the planning application.
- 9.5.14 Many sites which are considered suitable for hydro schemes involve historic sites and structures (former mills often have very early origins). Many will be listed buildings and, occasionally also, Scheduled Monuments, so will require specific permissions. Schemes can be designed to have neutral or positive impact.
- 9.5.15 Where a historic mill site may have potential for a hydro scheme, it is likely to require archaeological input at the pre-application stage, to assess issues such as levels of ground disturbance and the modification of existing water management features. The Authority can provide a brief for this work.
- 9.5.16 Information to be submitted with a planning application is likely to include:
- an ecological evaluation of the site considering upstream and downstream impacts, along with indirect impacts. This would also identify both the effect of the scheme and the measures proposed to mitigate or compensate for negative impacts (provision for fish passes for example);
 - A heritage asset statement;
 - an archaeological evaluation of the site to identify if any impact and mitigation measures are required;

- maps, diagrams and drawings showing the location and design of intake, pipeline, turbine house, and tailrace;
- photomontage of intake;
- landscaping provisions;
- details of grid connection works,;
- details of vehicular access and vehicular movement both during and after construction; and
- site management measures during the construction phase.

Sources of further information

[British Hydropower Association, England and Wales Resource Study October 2010](#)

[The National River Flow Archive](#)

[Peak Power: 'Developing micro-hydro power in the Peak District'](#)

[The Environment Agency's Good Practice Handbook for Hydro Power:](#)

Environment Agency advice on setting up a new hydro power scheme.

<http://www.environment-agency.gov.uk/business/topics/water/126575.aspx>

[Planning Portal: Common Projects – Hydro Electricity](#)

9.6 Anaerobic digestion



Figure 34. National Park Farm

- 9.6.1 Anaerobic digestion is decomposition caused by bacterial action in the absence of air to produce energy, usually in a purpose built digester. This is typically a cylindrical tank built above or partly below ground, ranging in size from one cubic metre (200 gallons) for a small household unit, to about ten times this for a typical farm plant. It can use agricultural manure and slurry, as well as crops. The resulting biogas is used as a fuel or to generate electricity, and the digestate can be used as a fertiliser or soil conditioner.
- 9.6.2 Anaerobic digesters can be successfully integrated into a farm complex and can provide a useful means of both dealing with agricultural manure and slurry and of providing a sustainable source of heat. More complex systems can also produce electricity. Because of the benefits of anaerobic digestion and its compatibility with other farm activities the Peak District National Park Authority consulted on and included in its Core Strategy a separate policy for on-farm anaerobic digestion installations using only slurry and other feedstocks from a farm or group of farms. This section deals with the provisions within Policy CC4. Schemes using mixed waste streams are dealt with under 'Core Strategy Policy CC3 Waste management' and are outside the scope of this document.

CC4: On-farm anaerobic digestion of agricultural manure and slurry

Proposals for the management of agricultural manure and slurry generated within the National Park must follow the following principles:

- A. Applications for single on-farm anaerobic digester units, and any associated development for management of waste or renewable energy generation, must only use agricultural manure and slurry arising on the planning unit and crops grown for the purpose on the unit.
- B. Centralised on-farm anaerobic digestion facilities will only be permitted where they:
 - I. serve a number of farms mainly within the National Park in close proximity to each other; and
 - II. deal only with agricultural manure and slurry arising on the farms involved and crops grown for the purpose on those farms; and
 - III. are justified by a comparative analysis of alternative single on-farm proposals in terms of economic and functional viability, taking into consideration effects on the environment.

Practical Considerations

- 9.6.3 Small single farm-based systems can be more beneficial to the environment, amenity and health than manure storage and spreading.

- 9.6.4 Larger single on-farm schemes and on-farm collective schemes require more infrastructure and are likely to have more impact, therefore greater care is needed on the location, design and landscaping of such schemes. Detailed guidance on ways of successfully integrating large agricultural developments can be found in the Supplementary Planning Guidance - [Agricultural Developments in the Peak District National Park \(2003\)](#). Collective schemes involving the transport of manure for energy production will result in increased traffic and pollution from vehicles, and information regarding the routing and number of vehicle trips will be required.
- 9.6.5 Anaerobic digestion can also deal with domestic, industrial and commercial waste including mixed waste streams (including agricultural waste or products). Only small scale proposals to serve local communities that do not undermine the strategy and approach of the relevant municipal waste management strategy, and do not involve importation of waste from outside that community may be permitted. This type of development is outside the scope of this document since mixed streams are involved. Policy CC3 is clear that new, expanded, or replacement large scale waste facilities will not be permitted.

Planning considerations

- 9.6.6 See Chapter 8, Preparing a planning application. Also refer to the Authority's Validation Guidance for [householders](#) or [non-householders](#)..
- 9.6.7 Since there can be significant environmental issues related to any type of anaerobic digestion proposal, you should consult the Authority at an early stage. Any scheme in the National Park could require an Environmental Impact Assessment. You should therefore ask the Authority for a scoping opinion, to advise whether or not EIA is required for the proposed development.
- 9.6.8 In some cases the installation of an anaerobic digester can require significant earthworks with ground disturbance. If a proposed development is likely to affect a site of ecological or archaeological interest or a protected species the Authority can require developers to undertake an evaluation of the site.
- 9.6.9 For the development of new buildings to house anaerobic digesters on farms you should check which type of application is required by contacting the Authority.
- 9.6.10 The objective in a National Park is to find a solution that conserves and enhances the natural beauty, wildlife, cultural heritage, valued landscape character and other valued characteristics. To achieve this systems and buildings should:
- be within or adjacent to existing built development to minimise visual and landscape impact;
 - be designed to re-use existing buildings where feasible in preference to new buildings;
 - be of a scale functionally required only to meet the needs of the individual farm or the group of farms which the facility is designed to serve;
 - be located, designed and proposed to be operated so that they respect and do not adversely affect the valued characteristics of the National Park, including the natural and built environment and local community in terms of amenity, transport, visual impact and landscape impact;
 - deal only with on-farm agricultural waste and crops grown on-farm for the purpose, not with municipal waste;
 - be designed in such a manner that the facility and any associated buildings or other structures can be appropriately removed from the site when no longer needed for the purposes;
 - be of suitable materials and colours to help them integrate with their surroundings;
 - avoid prominent locations such as skylines;

- not detract from existing landmarks;
- not be prominent in key views, particularly from open moorland;
- conserve and enhance the historical value of any features and remains and/or the ecological value of wildlife and habitats;
- conserve and enhance the character and appearance of Listed Buildings and Conservation Areas.
- take account of the further guidance available on the siting and design of agricultural developments in the Authority's Supplementary Planning Guidance – [Agricultural Developments in the Peak District National Park \(2003\)](#).

9.6.11 Centralised on-farm anaerobic digestion facilities which collect from a cluster of farms are subject to more onerous environmental permitting procedures by the Environment Agency than using only on-farm waste from a single farm. However Core Strategy Policy CC4B gives guidance on the possibility of centralised on-farm anaerobic digestion facilities.

9.6.12 Information required to accompany a planning application may include:

- site plan and elevation drawings to help determine visual impact;
- photomontage of digester, plant building(s) and chimney stack with clear indication of building material;
- information on electricity grid connection, including the transformer and undergrounding of transmission lines;
- details of vehicular access and movement;
- landscaping provisions;
- site management measures during the construction phase;
- a model of emissions dispersion;
- details of preliminary discussions with the Environment Agency about pollution control and environmental permits or exceptions;
- for anaerobic digesters serving several farms, a comparative analysis of alternative single on-farm proposals is needed, covering economic and functional viability, and effects on the environment - this should include copies of each farm's waste management plan or Nitrate Vulnerable Zone records.



Figure 35. Farmyard

Waste regulatory controls

9.6.13 It is important to consult the [Environment Agency](#) regarding the need for licensing. Digesters must conform to waste regulatory controls and avoid pollution that could harm the environment or human health. You should check with the Environment Agency about the impact of the proposed digester on watercourses and other features, and gain a clear understanding of how the Agency will apply waste regulatory controls to your proposal. The type of authorisation required will depend on the scale and nature of the processing carried out, but will typically cover both the digestion process itself and the burning of resultant biogas. The Environment Agency may either require an Environmental Permit or the need to be registered as an exempt waste operation.

Sources of further information

[Environment Agency](#)

Aardvark 2009, economic modeling of low-tech, low-cost anaerobic digestion/biogas installations in a range of rural scenarios in Cornwall, the Isles of Scilly and Exmoor National Park

<http://www.exmoor-nationalpark.gov.uk/communities/sustainable-exmoor/sdf-projects/anaerobic-digestion-feasibility-for-exmoor/Low-Tech-Low-Cost-Economic-Modelling-Report-Final.pdf>

A community-based study into the potential for anaerobic digestion can be seen at <http://www.sustainableyoulgrave.org/>. The study was prepared with financial assistance from the National Park Authority's Sustainable Development Fund and includes 'A toolbox guide for assessing the feasibility of an anaerobic digestion project for the benefit of a community or single farm'. Most of the detail given within this document relates to large scale mixed waste facilities considered under Core Strategy policy CC3 which are outside the scope of this 'Climate Change and Sustainable Building' SPD, and are the responsibility of the relevant municipal waste Authority.

9.7 Wind turbines

- 9.7.1 Wind turbine development is the most challenging of all types of low carbon and renewable energy development to accommodate in the statutorily protected landscapes of a National Park. The construction of even a single small wind turbine is likely to have significant visual impact in an open landscape. Careful attention to scale, location and design is needed.
- 9.7.2 Wind energy developments are unique, in that they introduce a source of movement into the landscape. Wind turbines use the wind to rotate aerodynamic blades to create electricity. The amount of energy derived depends on wind speed and the swept area of the blade.
- 9.7.3 In all cases, wind turbines consist of the tower, a hub, blades, a nacelle (which contains the generator and gearboxes), a transformer that can be housed either inside the nacelle or at the base of the tower, and turbine foundations.
- 9.7.4 There is no particular preference for the style of turbine. In most turbines the blades turn around a horizontal axis and typically have three, but sometimes two, blades. In some designs the blades turn around a vertical axis.



Figure 36. Vertical axis turbine (picture courtesy of Land Use Consultants)

- 9.7.5 An understanding of local landscape character and other valued characteristics (see paragraph 9.15 of the Core Strategy) and how these are taken into account can assist in finding a solution that does not compromise the statutory purposes of the National Park. Where development is in scale with its surroundings, well designed and sited, making use of the existing built environment, natural cover and local topography, an application for planning consent is more likely to be successful.
- 9.7.6 In some cases combining a wind turbine with other technologies can help to reduce its scale. Wind turbines can be very effective when used in conjunction with solar arrays because if there is not enough solar energy, wind energy will probably be available, and vice versa.

9.7.7 It is advisable to discuss your proposal with the Authority. Details of the proposed location and scale including plans, visual impact assessments, photographs and photo montages will help to inform pre-application discussions/advice.

Practical considerations

9.7.8 Before proposing a wind turbine:

- Monitor the wind speed at the proposed site over a period of time to estimate its performance. Actual output may differ from that estimated by more general wind speed data;
- Consider a site nearer to buildings or trees which may be easier to accommodate in the landscape;
- Try to find a site where the prevailing wind is not obstructed.
- Consider the impact of the turbine on ecology and ensure any necessary surveys are planned well in advance.
- Check that the proposed turbine is covered by the Microgeneration Certification Scheme.
- Research and show on plans the methods for putting transmission lines underground and methods of connecting to the building or grid.
- Will there be interference with communications such as air navigation or radio and television? Contact Ministry Of Defence and National Air Traffic Service (NATS) before submitting a planning application. Evidence that any potential aviation issues have been resolved must be submitted as part of a planning application.
- Will flicker or noise from turning blades affect your own or neighbouring property?
- Take into account the topple distance of the turbine.
- What alternative energy reduction or means of supply are also practical?



Figure 37. Example of turbine located close to buildings and facing into the prevailing wind

Planning considerations

9.7.9 See Chapter 8, Preparing a planning application.

Landscape

9.7.10 The objective in a National Park is to find a solution that conserves and enhances the natural beauty, wildlife, cultural heritage, valued landscape character (as identified in the

Landscape Strategy and Action Plan) and other valued characteristics (paragraph 9.15 National Park Core Strategy 2011).

- 9.7.11 Landscape sensitivity assessment has shown that there is potential for wind turbine development within the National Park provided it is carried out in an appropriate location and at the right scale (see Figure 33 which demonstrates scale). To achieve this, the strategy for wind turbines is to integrate them into the landscape so they appear as part of the existing built environment. The sensitivity assessment states that small turbines, defined as less than 15m to blade tip, offer the most potential for wind energy generation acceptable within the National Park provided their location and appearance does not detract from the landscape or the special qualities of the National Park. Beyond this scale it is difficult to avoid harm to the landscape.

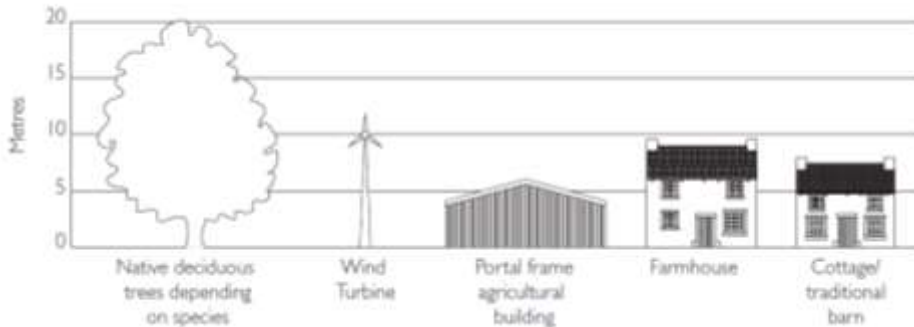


Figure 38. Illustration demonstrating scale of existing landscape features in relation to a small wind turbine

- 9.7.12 A 'Landscape First' approach is fundamental to any planning decision - development that would harm the landscape should not be considered as it would be contrary to National Park purposes and planning policies. Policy L1 of the Core Strategy sets this out. Although the best available wind resource is likely to be in an isolated open countryside location, wind turbine development in these locations is likely to harm the landscape and other valued characteristics of the National Park.
- 9.7.13 The first step is to identify whether the landscape character type has opportunities for wind turbine development. Section 8.2 explains how to use the Landscape Strategy and Action Plan to do this. In order to assist in planning applications for wind energy development, a Landscape Sensitivity Assessment was carried out which provides guidelines on the scale of development that may be acceptable in a particular landscape type – see Section 8.3. Reference to the Landscape Strategy and Action Plan must be included in any application along with reference to Landscape Sensitivity Assessment guidance for the particular Landscape Character type.
- 9.7.14 The next step is to identify existing features of the built environment within a location to which the scale and siting of the wind turbine should be related, so that it is in scale with, and reads in the landscape, as part of the existing built environment. There may be some limited opportunities close to existing groups of trees as illustrated and described in figure 34.

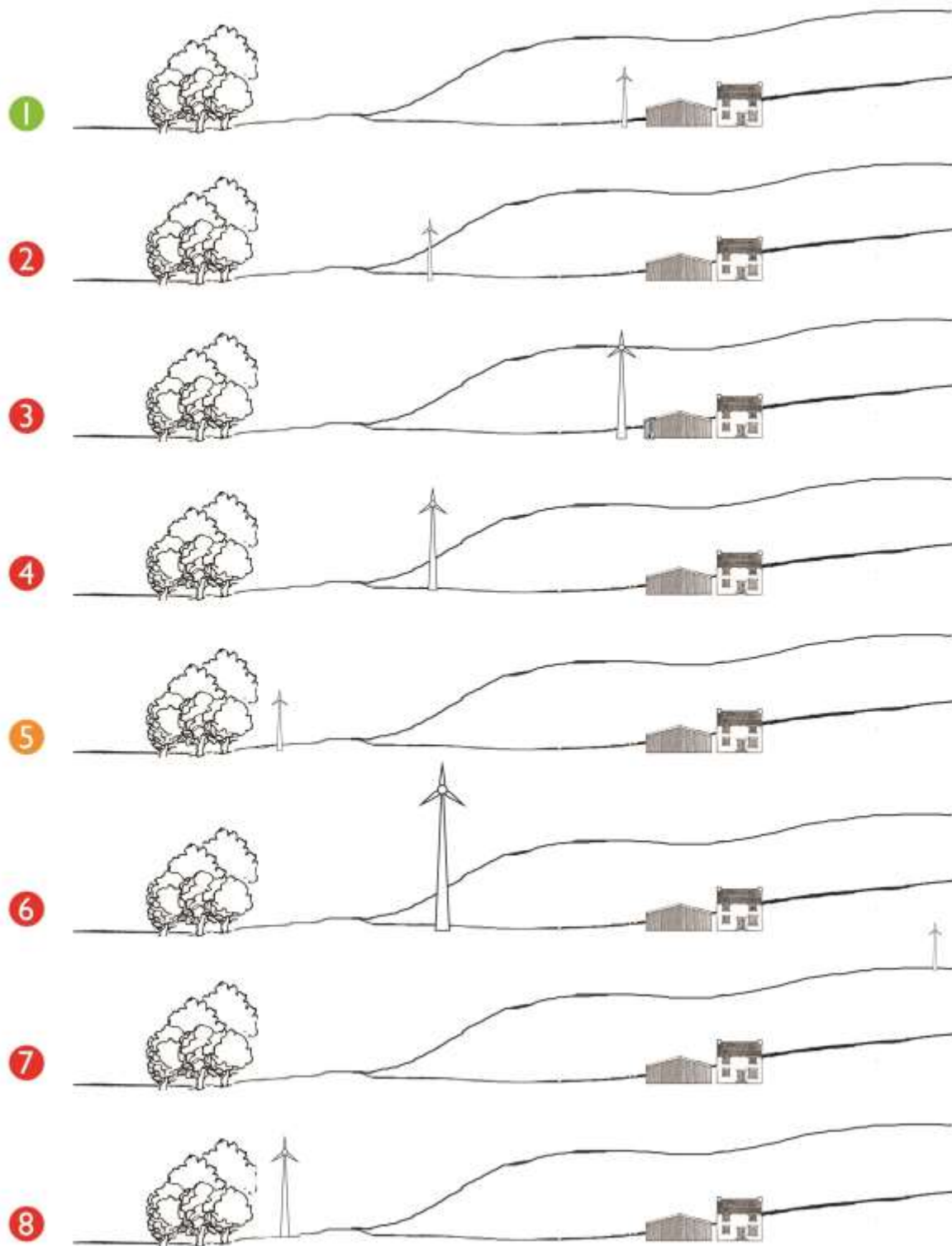


Figure 39. Relationship of turbines to buildings, landform and trees

Key Figure 34.

Green – Opportunity - The relationship of this scale and location to the existing built environment is where the most capacity for a single wind turbine exists, but great care must be taken to ensure there is no harm to the landscape through a site specific assessment.

Amber – Caution - The relationship of this scale and location to natural features has some limited capacity for a single wind turbine, but great care must be taken to ensure there is no harm to the landscape through a site specific assessment.

Red – No opportunity - The relationship of the scale and location of each single wind turbine coloured red indicates adverse impact.

Notes

1. Wind turbine in scale with the group of buildings and located amongst or next to them. Lower impact, less likely to harm.
2. Wind turbine in scale with buildings but not well related to the group. Obtrusive and likely to harm.
3. Wind turbine not in scale with buildings, similar scale to larger trees, although its siting is well related to the group, it is obtrusive and harms its setting and the landscape.
4. Wind turbine not in scale with buildings. Similar scale to larger trees and not well related to building group. Harmful to its setting and the landscape.
5. Wind turbine not related to building group, but well related to trees and of similar scale to smaller ones leaving larger trees to dominate. Lower impact, less likely to harm.
6. Wind turbine completely out of scale with other features in the landscape. Very harmful to setting and the landscape.
7. Wind turbines of any scale that skyline should be avoided due to harm to the landscape.
8. Wind turbine located close to group of trees, similar scale to the larger trees, fails to let the larger trees remain dominant in the landscape. Generally harmful to setting and landscape.

9.7.15 To operate effectively the prevailing wind would need to be unobstructed upwind of the turbine. Having identified a potential site, the wind turbine provider can advise about the suitability of the site for its wind resource. This would usually be monitored over a period of time with an anemometer. In many cases a site close to buildings or other landscape features may be a compromise in terms of wind resource, but would be more acceptable in the landscape.

- 9.7.16 Some locations will be inappropriate for wind turbine development either because of the wind resource or because the landscape is too open or particularly sensitive to change or where international designations apply. Development requiring planning permission is not permitted in the Natural Zone, other than in specific exceptional circumstances (Core Strategy Policy L1 and Local Plan Policy LC1).
- 9.7.17 Development that breaks the ridgeline of a hill when viewed at a distance from the turbine will have significant landscape impacts. If your site is on a down slope or on lower ground, rather than a plateau area of higher ground or on a hill, then the impact of the wind turbine on existing views will be reduced;

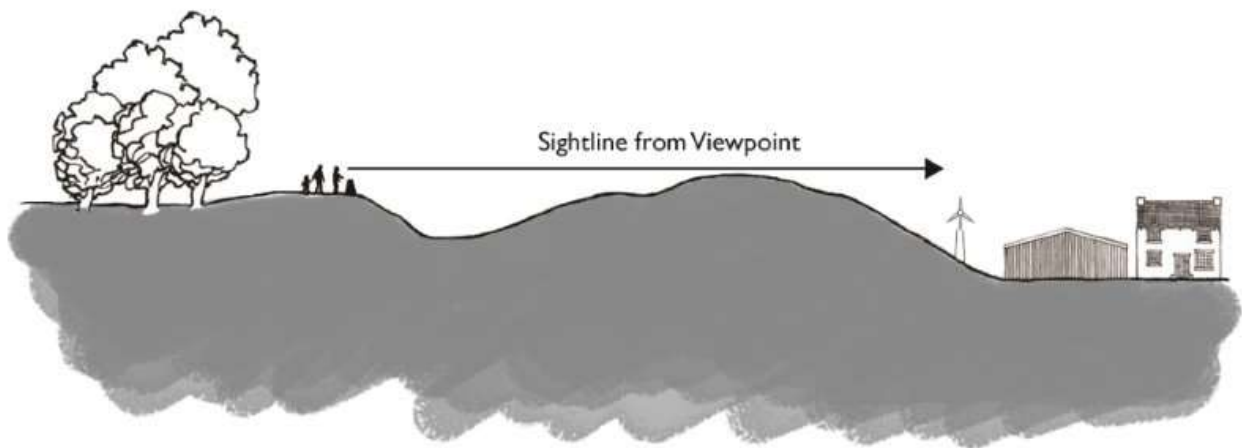


Figure 40. Understanding skylining – a wind turbine below the ridge line does not skyline



Figure 41. Example of a wind turbine breaking the ridgeline, demonstrating how skylining can impact negatively on the natural beauty of the area if the guidance in figure 35 isn't achieved

9.7.18 Other factors to consider are;

- The cumulative impact of the wind turbine with other existing or proposed wind turbines;
- The landscape impact of access tracks, ancillary buildings for electrical equipment,
- Power lines (which should be underground);
- The finish of the turbine - in most cases it is likely a dark colour will help to reduce the impact of the turbine;
- The wind turbine should not bear advertising, logos or branding.

9.7.19 Due to the statutory purposes of the National Park and planning policies, economic, social and wider environmental based arguments for a renewable energy scheme carry little weight in the decision making process and should not outweigh impact on the landscape.

Ecology

9.7.20 Wind turbines have the potential to impact on a range of ecological interests, in particular birds and bats. Most common impacts are those associated with collision risk and displacement from suitable habitat. The location of a turbine needs to be considered and in most cases supporting survey information is required. Separate ecological guidance is to be produced by the Authority specifically relating to this issue.

9.7.21 Sometimes it is not possible to mitigate against the ecological impact associated with a wind turbine, so other types of low carbon and renewable development should be considered. In some cases the 'Landscape First' approach of closely relating the proposed wind turbine development to built or natural features may not be compatible with ecological interests. For example locating the turbine close to buildings, trees or hedgerows may increase the risk of bat and bird strike.

Noise and disturbance

9.7.22 Take into account the impact of the turbine including noise, disturbance and shadow flicker on private and public enjoyment (amenity) of the area and valued characteristics including the tranquillity of the area.

- All wind turbines will produce sound when rotating due to the movement of the blades through the air and from the generator and any associated gearboxes.
- The acoustic data for the wind turbine will always need to be submitted with a planning application. Consult the Environmental Health department of the constituent Local Authority.
- In some cases a noise survey will be required as supporting information for a planning application. In general these establish existing background noise levels at nearby noise receptors (e.g. a house, office or school) and assess the impact of the turbine on these receptors.
- Shadow flicker can impact on buildings when the movement of the turbine blades results in the shadow appearing on and off as it rotates.

9.7.23 Motion of the wind turbine can impact on the valued characteristics of the National Park. This is particularly relevant where a wind turbine can be seen or heard from public rights of way and other public and private vantage points. The valued characteristics that are particularly sensitive to the noise and disturbance from wind turbine proposals are:

- Opportunities to experience tranquillity and quiet enjoyment.
- Natural beauty, natural heritage, landscape character and diversity of landscapes.
- Sense of wildness and remoteness.
- Opportunities to improve physical and emotional well-being.

Heritage Assets and Archaeology

- 9.7.24 Some proposals may need a heritage statement where the proposal will impact on existing heritage assets, including listed buildings and their settings, conservation areas and scheduled monuments. The impact on the historic landscape character of the site should also be considered when designing a scheme.
- 9.7.25 Some proposals may need archaeological assessments, where foundations and undergrounding of electricity cables may impact on any site of known or suspected interest.

Retention of existing landscape features

- 9.7.26 The plans submitted for a planning application should identify any existing landscape features in the applicant's ownership which may help to screen or filter views of the proposed turbine. Where existing landscape features (buildings or trees) have been identified that provide screening or filtering to a proposed wind turbine, and these are in the same ownership as the site, planning conditions may be used to ensure that if these are removed the wind turbine will also be removed.
- 9.7.27 Planning conditions are not able to be used in the same way if the features are not in the same ownership as the site. In those circumstances the applicant should make a statement about the predicted longevity of the features. Permanent features, in comparison to features that are unlikely to be retained throughout the life of the proposed wind turbine development should be given significantly different weight in assessing their effectiveness. For example a commercial forestry plantation is at some point highly likely to be felled to harvest the resource for which it has been planted; the life and effectiveness of a plantation for screening or filtering views may therefore be very temporary in comparison to an historic woodland. Trees with existing preservation orders can be assumed to have longevity.

Environmental statement

- 9.7.28 The National Park Authority may require further details regarding the environmental effects of a wind turbine proposal and may request an environmental impact assessment for development having significant environmental consequences as a result of its nature and/or location. Schedule 4 to the Environmental Impact Regulations sets out the information that should be included. Individual wind turbines are listed under schedule 2.3(i) of the Town and Country Planning (Environmental Impact Assessment) regulations 2011, as amended. Since National Parks are classed as "sensitive areas" (Part 1, 2.1) there is no threshold for the scale of development which may require an environmental impact assessment (EIA). In National Parks, all development types listed in schedule 2 require the Authority to carry out screening opinion as to whether environmental impact assessment is required.
- 9.7.29 It is possible for a developer to request a screening opinion prior to an application being submitted to determine whether an Environmental Impact Assessment is required. In cases where a full environmental impact assessment is not required, the Authority may still require environmental information to be provided.

Photographs and photomontages

- 9.7.30 The planning application validation guidance ([Document VPA1](#)) sets out the requirements for photographs and photomontages to help determine the impact of a wind turbine. In addition to the details specified in the validation criteria, details of the make, model and type of camera and the focal length of the lens used should be included.

Improving on the standard information submitted with a planning application

- 9.7.31 Consider submitting plans which also show the turbine in context with existing features to which its scale and siting is related. This will help anyone involved in the application process to easily ascertain its height in relation to existing features. In some cases this may be a requirement.
- 9.7.32 In some instances an applicant may be required to put up a dummy structure in the chosen location to show the height to blade tip, to help demonstrate the impact of the proposal on the landscape. Previously applicants have used a windsock mounted on a pole to achieve this.
- 9.7.33 Where consent is granted for a wind turbine, planning conditions will be applied to ensure a satisfactory standard of development. These can include:
- Finish and colour of wind turbine
 - Under grounding of cabling
 - No external lighting
 - Foundations of turbine below ground level
 - Landscaping of foundations of turbine
 - No logos or other form of advertisement on the wind turbine
 - Requiring removal of wind turbine when no longer required for energy generation
 - Removal of turbine if existing trees or buildings, in the applicant's ownership necessary to screen or filter views of the proposed turbine, are removed.

Sources of further information

NOABL Wind Map - <http://www.rensmart.com/Weather/BERR>

Planning Portal: [Common Projects – Wind Turbines](#)

10. Flood Risk and Sustainable Drainage (CC5)

10.1 Reducing the risk of flooding

- 10.1.1 All forms of flooding and their impact on the natural and built environment are material planning considerations.
- 10.1.2 Core Strategy Policy CC5 sets out the overall policy on flood risk, and together with the guidance in this SPD complements the responsibilities of the Environment Agency.

CC5: Flood risk and water conservation

- A. Development proposals which may have a harmful impact upon the functionality of floodwater storage, or surface water conveyance corridors, or which would otherwise unacceptably increase flood risk, will not be permitted unless net benefits can be secured for increased floodwater storage and surface water management from compensatory measures.
- B. Where flood management schemes are proposed to reduce the risk of flooding to established material assets, they should wherever possible secure wider benefits for the natural environment, such as habitat creation or landscape enhancement.
- C. Development which increases roof and hard surface area must include adequate measures such as Sustainable Drainage Systems to deal with the run-off of surface water. Such measures must not increase the risk of a local water course flooding.
- D. New development must allow an appropriate set-back distance for adequate maintenance of watercourses.

- 10.1.3 The Environment Agency which is a consultee in the planning process has a statutory duty to manage flood risk for all non-minor planning applications in flood zones 2 and 3. and anything greater than 1 hectare in flood zone 1. It also has responsibility for all development in flood zone 1 located in an area identified as having critical drainage problems. You will need to check that development is in accordance with the strategy of the Lead Local Flood Authority as it will be responsible for flood risk from surface water, groundwater and ordinary watercourses.
- 10.1.4 The main planning aims are to manage flood risk to an acceptable level, and direct development to areas with the lowest risk wherever possible. Floodplains need protecting because they provide water storage and corridors for its movement in time of flood. Opportunities should be taken to reinstate areas of floodplain that have been used incorrectly in the past, restoring the natural course of rivers and promoting green corridors. Please seek ecological advice on this. Any buildings that are allowed in areas of higher risk will need to be flood resistant / resilient.

Planning considerations

- 10.1.5 Before you formally submit a planning application, take account of the flood risk zone that your site is in and discuss this with the Environment Agency and bodies such as internal drainage boards, sewerage undertakers, highway authorities and reservoir owners and operators (the National Park Authority can help you to decide which bodies might have an interest). For example, you should be aware of the Environment Agency (Midlands) by-law requiring all development to be set back at least 8 metres from a main river, and its

view that culverts should not be used unless all other options have been exhausted. Wherever possible, existing culverts should be opened up and re-naturalised.

10.1.6 These discussions should help you to identify the likelihood, extent and nature of flood risk based on Flood Zones, to assist you with a Flood Risk Assessment (see [Technical Guidance to the National Planning Policy Framework](#)). Depending on the nature, scale and location of the proposed development, you may then need to provide information as part of your planning application to demonstrate considerations under a Sequential Test and perhaps, an Exception Test – see Section 10.3. It is your or your agent's responsibility to:

- Ensure that the development is in accordance with policies on flood risk in both the Local Development Plans and government policy on flood risk;
- Provide a Flood Risk Assessment where required, demonstrating whether the proposed development is likely to be affected by flooding from any source;
- Satisfy the Authority that the development will itself be safe and will actually reduce overall flood risk wherever possible or, if it will increase flood risk elsewhere, describe the measures proposed to deal with this;
- Demonstrate that any measures needed to manage flood risk will be securely funded to enable the development to remain safe throughout its lifetime;
- Identify and incorporate measures to reduce flood risk to the development itself and elsewhere, using sustainable drainage systems and, where necessary, flood resilience measures.

10.1.7 Wherever possible, measures to deal with flood risk should identify opportunities to enhance biodiversity and amenity, protect the historic environment, and seek collective solutions to managing flood risk. The Environment Agency's River Basin Management plans provide useful guidance since actions in one part of the River basin can impact on other parts. Issues such as availability of water supplies, maintaining the quality of water in rivers and managing flood risk are considered as a whole

10.2 Peak District National Park's Strategic Flood Risk Assessment

10.2.1 A Level 1 Strategic Flood Risk Assessment (SFRA) was carried out in September 2008. It explains the levels and varying types of flooding in the Peak District National Park, taking the impact of climate change into account. A copy is available on the National Park Authority website:

<http://www.peakdistrict.gov.uk/index/looking-after/plansandpolicies/ppbackground/sfra.htm>

The core recommendations of the SFRA provide a basis for Core Strategy Policy CC5 and inform this guidance.

10.2.2 The Assessment gives guidance on other forms of flooding as well as flooding from main rivers and for that reason it should be used when applying the Sequential Test.

10.3 Site Specific Flood Risk Assessment, the Sequential and Exception Tests

10.3.1 The Environment Agency provides advice to developers and planning authorities on where Site Specific Flood Risk Assessments are required and how and when the Sequential Test and Exceptions Tests should be applied during the planning process; general guidance is provided in the [Technical Guidance to the NPPF](#).

10.3.2 Environment Agency Flood Risk Standing Advice for Applicants and their Agents
<http://www.environment-agency.gov.uk/research/planning/82587.aspx>

10.3.3 Sequential Test Process
http://www.environment-agency.gov.uk/static/documents/Business/SequentialTestProcess_v3.1.pdf

Information required by the Peak District National Park Authority for applying the Sequential Test

10.3.4 For non–minor development proposed in flood zone 2 or 3 you should find out whether the development will be able to meet the requirements of a Sequential Test at the very early stages of a planning application. It is the responsibility of the applicant to assemble the relevant evidence to allow the Peak District National Park Authority to apply the Sequential Test.

10.3.5 You will need to:

- State the Flood Zone of the proposed site of the development;
- State the Flood Risk Vulnerability Classification;
- put forward reasonably available alternatives in lower risk flood zones, starting with flood zone 1 with a justification of why the site proposed is preferable (see examples of evidence bases to use below);
- identify appropriate areas of search for the chosen development (see examples of areas of search below);
- Give address and locations of reasonably available sites with flood zones and details of any constraints to delivery; and
- Conclude whether or not there are any reasonably available sites in a lower flood risk zone or at a lower risk of flooding than the proposed site.

10.3.6 Please find below for assistance examples of evidence bases which can be used to identify reasonably available alternative sites:

- Strategic Housing Land Availability Assessment
- Employment Land Review
- Market search
- Sites of other planning applications

10.3.7 Appropriate areas of search for development are:

- New housing – elsewhere within the same village or town where a need for housing has already been established.
(Please note that you should first demonstrate that you are responding to an identified need for affordable housing or pursuing development that is justified by conservation and enhancement of the National Park under housing policy. (Housing for key workers in agriculture, forestry or other rural enterprises - search area to be agreed with National Park Authority based on the functional needs for such housing identified));

- Replacement dwelling – Sequential Test not required provided the replacement dwelling is not placed at an unacceptable level of flood risk, and does not significantly increase the footprint of the original building (as a guide an increase of more than 20% of the original building's footprint- without more recent extensions - would not normally be supported without a sequential test). The fact that an existing dwelling may already be at risk, does not automatically mean that this would be considered acceptable for a replacement.
- Community development – elsewhere within the community which the proposed facility is designed to serve;
- Employment, retail and commercial development – search area to be agreed with National Park Authority based on the scale, nature and intended market for the proposed development.

Minor Development

10.3.8 The definition of minor development is set out in paragraph 10 of the Technical Guidance to the NPPF along with criteria where flood risk issues would need to be considered. In all cases development still needs to meet the requirements for Flood Risk Assessment and flood risk reduction as set out in Table 1. The National Park Authority and the Environment Agency can advise applicants about necessary requirements in each case. Important considerations include: the Environment Agency's standing advice for Flood Risk Assessment, any flood protection already incorporated in the property and the incorporation of flood resilience measures in the design.

Measures required when development is permitted in areas of higher flood risk

10.3.9 If development cannot be avoided, it will often be necessary to incorporate measures to mitigate (offset or reduce) the likely consequences of a flood including the use of techniques to increase the resistance of a building to flooding and to make it more resilient when it does flood. Such measures can include:

- Dry pedestrian access to and from the development without needing to pass through flood zones 3a or 3b;
- Secured emergency vehicular access;
- Sustainable Drainage measures to achieve a minimum reduction of 20% in Greenfield Discharge.
- Raised ground floor levels to a minimum of 600mm above the 100 year peak flood level plus climate change flood level (+ 20% flows) determined as an outcome of the site-based Flood Risk Assessment.

10.3.10 Further Guidance is found in CLG (2007) 'Improving the Flood Performance of new buildings, Flood Resilient Construction' incorporates the following Guidance, see: http://www.planningportal.gov.uk/uploads/br/flood_performance.pdf

10.3.11 This provides detail about the use of:

- Ground supported floors or suspended floors (not recommended in most cases) and floor finishes
- Hardcore and blinding
- Damp Proof Membranes
- Insulation materials (water will lower the insulation properties of some insulation materials)
- Floor sumps: provision of a sump and automatic pump at a low point of the ground floor is recommended where flooding is relatively frequent (dimensions and operational procedure to be agreed with the planning authority)

- Non-ferrous materials for under-floor services
- Basements (these are discouraged and where permitted must conform to agreed details).

10.4 Sustainable Drainage

10.4.1 Policy CC5C Flood Risk and Water Conservation states:

“Development which increases roof and hard surface area must include adequate measures such as Sustainable Drainage Systems to deal with run-off of surface water. Such measures must not increase the risk of a local water course flooding”

10.4.2 With the onset of Climate Change, drainage systems are becoming overloaded and inadequate for the more intense and more frequent rainfall that is occurring and is projected to occur. A new approach is needed:

“Sustainable drainage” allows for management of surface water with the aim of:

- Reducing damage from flooding,
- Improving water quality,
- Protecting and improving the environment,
- Protecting health and safety, and
- Ensuring the stability and durability of drainage systems.



Figure 42. Car passing through localised flood waters

10.4.3 Traditional drainage involves piping water off-site as quickly as possible. On the other hand SuDS (Sustainable Drainage Systems) try to mimic natural drainage systems and retain water on or near the site, reducing the rate of surface water run-off even at times of peak rainfall, promoting ground water recharge and improving water quality and amenity. In this way they can help to reduce the frequency of floods that occur when the capacity of sewers is exceeded. A suitably designed SuDS scheme can also greatly enhance biodiversity, broadening the range of habitats. These are significant advantages when compared to piped systems and the variety of SuDS techniques available means that virtually any development can make use of them.

10.4.4 Because of their importance, SuDS will be the starting point when considering new development. Most importantly, compliance with national standards for SuDS will be a requirement under the Flood and Water Management Act 2010. Construction work which

has drainage implications will need to be agreed by the approving body whether or not planning permission is required.

10.4.5 Wherever reasonably practicable, sustainable drainage should be incorporated into development proposals. It is important to remember that such systems:

- May require more space than conventional drainage systems;
- Should be integrated into the overall site concept and layout;
- Will require agreements on adoption, maintenance and operation;
- Require a means of monitoring long-term performance;
- Should not involve the use of any contaminated land before there has been adequate investigation and remedial action; and
- May require careful attention to ground stability which can be affected by infiltration of water.

10.4.6 There may be limited opportunities to use infiltration devices (where water is drained directly into the ground) where:

- The soil is not very permeable
- The water table is high
- The groundwater under the site may be put at risk
- Land contamination or ground instability may be present

Planning Considerations

10.4.7 In the future, possibly mid-to-late 2013, it will be important for developers to take into account the requirements of both the sustainable drainage “Approving Body” which will be the Lead Local Flood Authority (either a unitary or county council) and those of the National Park Authority when new legislation is brought in. The grant of planning permission by the National Park Authority will not bind the SuDs Approving Body. The following points should be borne in mind.

10.4.8 The rate and amount of surface water run-off from development can be reduced by avoiding large areas of impenetrable hard surfacing and using soft landscaping and permeable surfaces wherever possible. You should check with the Authority whether planning consent is required for the laying of any new hard surface.

10.4.9 Sustainable drainage and the most appropriate system for your proposal should be considered early in the site evaluation and planning process as well as at the detailed design stage.

10.4.10 Soil and ground conditions, together with the size and type of development, will determine the possible methods of drainage and particularly the suitability of different natural filtration methods. A suitable system needs to match local geological and hydrological conditions. When designing one you should:

- Consult the Environment Agency or its successor the Lead Local Flood Authority Sustainable Drainage Systems Approving Body (the SuDS Approving Body).
- Carry out soakage / percolation tests in accordance with Soakaway Design Digest BRE365 to determine the scope for filtration on site.
- Assess the long term cost of maintaining the drainage system over the lifetime of the development - a fully costed and funded proposal will need to be agreed with the National Park Authority in consultation with the Environment Agency (or its successor the SuDs Approving Body) before planning permission is granted.
- Consider using green infrastructure to help reduce surface water run-off by slowing precipitation, binding soil to prevent erosion and expiring water to the atmosphere.

10.4.11 You should check the National Park planning application validation criteria, (documents VPA1 and VPA2 for householder applications) and discuss all aspects of your proposal with the Authority. The Design and Access form should set out clearly the sustainable drainage method(s) to be used for the development. The National Park Authority's Planning Application Validation Guidance provides further explanation on Ecological Impacts and survey requirements.

Sources of further information

Environment Agency 'Understanding Flood Risk using our Flood Map':

<http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/geh00306bkiy-e-e.pdf>

Environment Agency 'What I need to do for my flood risk assessment'

<http://www.environment-agency.gov.uk/research/planning/93498.aspx>

CLG (2007) 'Improving the Flood Performance of new buildings, Flood Resilient Construction'

http://www.planningportal.gov.uk/uploads/br/flood_performance.pdf

Water Framework directive:

<http://www.environment-agency.gov.uk/research/planning/33362.aspx>

River Basin Management Planning:

<http://www.environment-agency.gov.uk/research/planning/33240.aspx>

River Basin Management Plan Humber River Basin District:

<http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/gene0910bsqr-e-e.pdf>

National Flood Forum:

<http://nationalfloodforum.org.uk/>

susdrain (Sustainable drainage advice):

<http://www.susdrain.org/>

Lead Local Flood Authorities (Sustainable Drainage Systems Approving Bodies)

DEFRA – What does the Flood and Water Management Act mean for Local Authorities?

<http://archive.defra.gov.uk/environment/flooding/documents/policy/fwmb/fwma-local-authority-factsheet-110721.pdf>

Barnsley Metropolitan Borough Council Preliminary Flood Risk Assessment

<https://www.barnsley.gov.uk/media/Development%20-%20Highways,%20Engineering%20and%20Waste/Flooding/Barnsley%20PFRA%20Report%202011.pdf>

Derbyshire County Council Preliminary Flood Risk Assessment

<http://www.derbyshire.gov.uk/environment/flooding/prfa/default.asp>

East Cheshire Council Preliminary Flood Risk Assessment

<http://www.cheshireeasthighways.org/Flood-Risk-Management/Preliminary-Flood-Risk-Assessment.aspx>

Kirklees Council Preliminary Flood Risk Assessment

<http://www.kirklees.gov.uk/community/flooding/pdf/PreliminaryFloodRisk.pdf>

Oldham Council Preliminary Flood Risk Assessment

<http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/flho1211bvms-e-e.pdf>

Sheffield City Council Preliminary Flood Risk Assessment

<http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/flho1211bvjk-e-e.pdf>

Staffordshire Council Preliminary Flood Risk Assessment

<http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/flho1211bvro-e-e.pdf>

Appendices

Appendix A - Core strategy policies

GSP1: Securing national park purposes and sustainable development

- A. All policies must be read in combination.
- B. All development shall be consistent with the National Park's legal purposes and duty.
- C. Where there is an irreconcilable conflict between the statutory purposes, the Sandford Principle will be applied and the conservation and enhancement of the National Park will be given priority.
- D. Where national park purposes can be secured, opportunities must be taken to contribute to the sustainable development of the area
- E. In securing national park purposes major development should not take place within the Peak District National Park other than in exceptional circumstances. Major development will only be permitted following rigorous consideration of the criteria in national policy.
- F. Where a proposal for major development can demonstrate a significant net benefit to the National Park, every effort to mitigate potential localised harm and compensate for any residual harm to the area's valued characteristics would be expected to be secured.

GSP2: Enhancing the National Park

- A. Opportunities for enhancing the valued characteristics of the National Park will be identified and acted upon.
- B. Proposals intended to enhance the National Park will need to demonstrate that they offer significant overall benefit to the natural beauty, wildlife and cultural heritage of the area. They should not undermine the achievement of other Core Policies.
- C. When development is permitted, a design will be sought that respects the character of the area, and where appropriate, landscaping and planting schemes will be sought that are consistent with local landscape characteristics and their setting, complementing the locality and helping to achieve biodiversity objectives.
- D. Opportunities will be taken to enhance the National Park by the treatment or removal of undesirable features or buildings. Work must be undertaken in a manner which conserves the valued characteristics of the site and its surroundings.
- E. Development in settlements necessary for the treatment, removal or relocation of non-conforming uses to an acceptable site, or which would enhance the valued characteristics of the National Park will be permitted. In such cases a site brief may be necessary to achieve the best mix of uses to secure the conservation and enhancement of the National Park and the most sustainable outcome for the community.

GSP3: Development management principles

All development must conform to the following principles:

Development must respect, conserve and enhance all valued characteristics of the site and buildings that are subject to the development proposal. Particular attention will be paid to:

- A. impact on the character and setting of buildings
- B. scale of development appropriate to the character and appearance of the National Park
- C. siting, landscaping and building materials
- D. design in accordance with the National Park Authority Design Guide
- E. form and intensity of proposed use or activity
- F. impact on living conditions of communities
- G. impact on access and traffic levels
- H. use of sustainable modes of transport
- I. use of sustainable building techniques
- J. ground conditions including any land instability from former mining, quarrying or industrial uses
- K. adapting to and mitigating the impact of climate change, particularly in respect of carbon emissions, energy and water demand

GSP4: Planning conditions and legal agreements

A. To aid the achievement of its spatial outcomes, the National Park Authority will consider the contribution that a development can make directly and/or to its setting, including, where consistent with government guidance, using planning conditions and planning obligations.

B. The National Park Authority's use of broader mechanisms will pay close regard to the advice of County and District Councils and other relevant service and infrastructure providers in each part of the National Park.

DS1: Development strategy

A. To promote a sustainable distribution and level of growth and support the effective conservation and enhancement of the National Park, the following principles will be applied to determine proposals for new development. These principles must be considered in relation to the specific core polices in this plan and the subsequent Development Management Policies DPD.

B. The majority of new development (including about 80 to 90% of new homes) will be directed into Bakewell and named settlements, with the remainder occurring in other settlements and the rest of the countryside.

C. In all settlements and in the countryside outside the Natural Zone the following forms of development will be acceptable in principle (where permission is required):

- agriculture, forestry, and other rural enterprises requiring a rural location, including farm diversification;
- extensions to existing buildings;
- recreation and tourism;
- mineral working;
- conversion or change of use for housing, community facilities and business uses including visitor accommodation, preferably by re-use of traditional buildings;
- renewable energy infrastructure;
- utilities infrastructure;
- other development and alternative uses needed to secure effective conservation and enhancement.

D. In Bakewell and the following named settlements there is additional scope to maintain and improve the sustainability and vitality of communities across the National Park. In or on the edge of these settlements new build development will be acceptable for affordable housing, community facilities and small-scale retail and business premises. Other than in Bakewell, no development boundaries will be drawn.

Alstonefield
Ashford
Bamford
Baslow and Bubnell
Beeley
Biggin
Birchover
Bradwell
Butterton
Calton
Calver
Castleton
Chelmorton
Curbar
Earl Sterndale
Edale (Grindsbrook)
Edensor
Elton
Eyam
Fenny Bentley
Flagg
Flash
Foolow
Froggatt
Great Hucklow
Great Longstone
Grindleford and Nether Padley
Grindon
Hartington
Hathersage with Outseats

Hayfield
High Bradfield
Low Bradfield
Holme
Hope
Kettleshulme
Little Hayfield
Litton
Longnor
Middleton by Youlgrave
Monyash
Over Haddon
Parwich
Peak Forest
Pilsley
Rainow
Rowsley
Sheen
Stanton in Peak
Stoney Middleton
Taddington
Thorpe
Tideswell
Tintwistle
Tissington
Wardlow
Warslow
Waterhouses
Wensley
Wetton
Winster
Youlgrave

E. Where there is pressure for development and the National Park Authority is uncertain about the capacity for this in a named settlement, an assessment of site alternatives will be required to demonstrate the extent of development which may be permitted. This process should involve the Parish Council or Parish Meeting and demonstrate that the proposed development complements:

- the settlement's overall pattern of development;
- the character and setting of nearby buildings and structures; and
- the character of the landscape in which the settlement sits.

F. In addition to the general scope for development set out above, in Bakewell the spatial strategy will also seek to:

- retain a development boundary;
- protect the range and integrity of the Central Shopping Area;
- safeguard employment sites and promote the take-up and enhancement of under-used employment sites; and
- offer scope for a new build hotel to serve the town and improve the range of visitor accommodation available within the National Park.

L1: Landscape character and valued characteristics

A. Development must conserve and enhance valued landscape character, as identified in the Landscape Strategy and Action Plan, and other valued characteristics.

B. Other than in exceptional circumstances, proposals for development in the Natural Zone will not be permitted.

LC1: Saved Local Plan Policy 2001 – Conserving and managing the Natural Zone

- (a) The exceptional circumstances in which development is permissible in the Natural Zone are those in which a suitable, more acceptable location cannot be found elsewhere and it is essential:
- (i) in the national interest; or
 - (ii) for the management of the Natural Zone; or
 - (iii) for the conservation or enhancement of the National Park's valued characteristics.
- (b) Development that would serve only to make land management or access easier will not be regarded as essential.
- (c) Where exceptional circumstances prevail, the need for new or significantly enlarged buildings or structures will, nevertheless, be rigorously examined.
- (d) Where development is permitted:
- (i) detrimental effects must be minimised by the use of, for example: appropriate siting; landscaping; layout and design; materials and construction;
- and (ii) particular attention will be paid to matters such as: scale; intensity; hours of operation; vehicle movements; arrangements for parking; storage of vehicles, equipment and materials;
- and where necessary and appropriate:
- (iii) permitted development rights will be excluded by means of planning conditions;
- and (iv) permission will initially be restricted to a period of (usually) 2 years, and except where it is essential in the national interest, further permission will not be granted if arrangements for minimising the development's impact prove to be unacceptable in practice;
- and (v) permission will initially be restricted for the personal benefit of the occupant.

L2: Sites of biodiversity or geodiversity importance

- A. Development must conserve and enhance any sites, features or species of biodiversity importance and where appropriate their setting.
- B. Other than in exceptional circumstances development will not be permitted where it is likely to have an adverse impact on any sites, features or species of biodiversity importance or their setting that have statutory designation or are of international or national importance for their biodiversity.
- C. Development must conserve and enhance any sites or features of geodiversity importance and where appropriate their setting.
- D. Other than in exceptional circumstances, development will not be permitted where it is likely to have an adverse impact on any sites or features of geodiversity importance or their setting that have statutory designation or are of international or national importance for their geodiversity.

L3: Cultural heritage assets of archaeological, architectural, artistic or historic significance

A. Development must conserve and where appropriate enhance or reveal the significance of archaeological, architectural, artistic or historic assets and their settings, including statutory designations and other heritage assets of international, national, regional or local importance or special interest;

B. Other than in exceptional circumstances development will not be permitted where it is likely to cause harm to the significance of any cultural heritage asset of archaeological, architectural, artistic or historic significance or its setting, including statutory designations or other heritage assets of international, national, regional or local importance or special interest;

C. Proposals for development will be expected to meet the objectives of any strategy, wholly or partly covering the National Park, that has, as an objective, the conservation and where possible the enhancement of cultural heritage assets. This includes, but is not exclusive to, the Cultural Heritage Strategy for the Peak District National Park and any successor strategy.

CC1: Climate change mitigation and adaptation

In order to build in resilience to and mitigate the causes of climate change all development must:

A. Make the most efficient and sustainable use of land, buildings and natural resources.

B. Take account of the energy hierarchy by:

- I. reducing the need for energy;
- II. using energy more efficiently;
- III. supplying energy efficiently; and
- IV. using low carbon and renewable energy.

C. Be directed away from flood risk areas, and seek to reduce overall risk from flooding within the National Park and areas outside it, upstream and downstream.

D. Achieve the highest possible standards of carbon reductions.

E. Achieve the highest possible standards of water efficiency.

In all new and replacement housing, other than affordable housing of less than 3 units, a minimum sustainability standard, equivalent to that required by the government of affordable housing, shall be achieved unless the applicant provides evidence to demonstrate that it is not viable for a particular development.

Non-residential major development above 1000m² floorspace must achieve a Buildings Emissions Rate at least 10% less than the Target Emissions Rate.

CC2: Low carbon and renewable energy development

A. Proposals for low carbon and renewable energy development will be encouraged provided they can be accommodated without adversely affecting landscape character, cultural heritage assets, other valued characteristics, or other established uses of the area;

B. Cumulative impacts of low carbon and renewable energy development within the National Park and visible beyond its boundary must be taken into account;

C. Where proposals do not compromise the valued characteristics of the National Park the Authority will also take into account the economic, social and wider environmental benefits of renewable and low carbon development.

CC3: Waste management

The management of domestic, industrial and commercial waste must satisfy the following principles:

A. The National Park Authority will work with the Waste Collection and Disposal Authorities and local communities to promote sustainable management of waste through the waste hierarchy.

B. New, expanded or replacement large scale facilities will not be permitted.

C. Small scale waste facilities may be permitted to serve local communities where they are in accordance with or do not undermine the strategy and approach of the relevant Municipal Waste Management Strategy. Such schemes should meet only the need of the community and must not involve importation of waste from outside that community.

D. The National Park Authority will require the appropriate restoration and after-use of waste sites so that they can contribute to the recreation and biodiversity value of the National Park.

E. Construction and demolition waste must be managed and re-used on site. Where there may be significant environmental risk to flora, fauna, local communities or the water environment, an appropriate off-site disposal option will be required.

CC4: On-farm anaerobic digestion of agricultural manure and slurry

Proposals for the management of agricultural manure and slurry generated within the National Park must follow the following principles:

A. Applications for single on-farm anaerobic digester units, and any associated development for management of waste or renewable energy generation, must only use agricultural manure and slurry arising on the planning unit and crops grown for the purpose on the unit.

B. Centralised on-farm anaerobic digestion facilities will only be permitted where they:

- I. serve a number of farms mainly within the National Park in close proximity to each other; and
- II. deal only with agricultural manure and slurry arising on the farms involved and crops grown for the purpose on those farms; and
- III. are justified by a comparative analysis of alternative single on-farm proposals in terms of economic and functional viability, taking into consideration effects on the environment.

CC5: Flood risk and water conservation

A. Development proposals which may have a harmful impact upon the functionality of floodwater storage, or surface water conveyance corridors, or which would otherwise unacceptably increase flood risk, will not be permitted unless net benefits can be secured for increased floodwater storage and surface water management from compensatory measures.

B. Where flood management schemes are proposed to reduce the risk of flooding to established material assets, they should wherever possible secure wider benefits for the natural environment, such as habitat creation or landscape enhancement.

C. Development which increases roof and hard surface area must include adequate measures such as Sustainable Drainage Systems to deal with the run-off of surface water. Such measures must not increase the risk of a local water course flooding.

D. New development must allow an appropriate set-back distance for adequate maintenance of watercourses.

Appendix B - Requirements and Guidance Summary for New Housing

Development type	What is required	Guidance
New build affordable housing of one or two units by private individuals	<p>A completed environmental checklist showing use of the energy hierarchy</p> <p>Consideration of the Code for Sustainable Homes Criteria</p> <p>Consideration of Building for Life Criteria</p>	<p>Read the SPG on ‘ Meeting the Local need for affordable housing in the Peak District National Park, 2003 ‘</p> <p>Planning Application Validation Guidance document VPA1 – including Affordable Housing, Agricultural Worker’s dwelling</p>
New build affordable housing by Registered Social Landlords	<p>A completed sustainability checklist showing use of the energy hierarchy</p> <p>The Code for Sustainable Homes Level required by government (currently level 3 moving to level 4)</p> <p>For developments of 10 or more houses - assessment under Building for Life criteria</p>	<p>SPG on ‘ Meeting the Local need for affordable housing in the Peak District National Park, 2003 ‘</p> <p>Planning Application Validation Guidance document VPA1 – including Affordable Housing Affordable Housing,</p> <p>Guidance Notes on Section 106 agreements</p>
Open market housing justified for Enhancement reasons	<p>A completed sustainability checklist showing use of the energy hierarchy</p> <p>The same Code for Sustainable Homes Level as required by government of Registered Social Landlords (currently level 3 moving to level 4)</p> <p>Consideration of the Building for Life Criteria</p>	<p>Check Planning Application Validation Guidance document VPA1</p>
Residential conversions and changes of use	<p>A completed sustainability checklist showing use of the energy hierarchy</p> <p>Consideration of the Code for Sustainable Homes Criteria</p> <p>Consideration of the Building for Life Criteria</p>	<p>Check Planning Application Validation Guidance document VPA1</p>

Appendix C – The Environmental Management Checklist

This checklist should be used to help you complete a Design and Access Statement where applicable or to show that you have taken Core Strategy Climate Change and Sustainable Building Policies into consideration in other applications.

A. Making the most efficient use of land, buildings and natural resources Site Layout and Building Design:

Checklist	Done?
Is the proposed site layout designed to make the maximum use of energy from the sun (passive solar gain)? (e.g. main glazed elevations within 30° of south)	
Have you designed in measures to prevent excess solar gain in summer?	
Has the design made maximum use of natural ventilation?	
Has the design made maximum opportunity for the use of natural daylight rather than artificial lighting?	
Have you designed the layout to use landform and landscape to benefit from shelter?	
Have you considered how existing and proposed trees and shrubs could be used to provide shade for outdoor areas?	
Have you considered the potential for passive cooling in summer in order to build in resilience to climate change to ensure thermal comfort?	
Have you considered the proximity of local services?	
Have you considered access to public transport?	
Have you considered access to green travel routes?	
Have you included a green travel plan ?	

B. Taking Account of the Energy Hierarchy by:

- reducing the need for energy
- using energy more efficiently
- supplying energy efficiently
- using low carbon and renewable energy

Using the energy hierarchy will reduce CO₂ emissions by lowering energy demands for heating and cooling. The focus should always be on achieving savings from higher up the hierarchy starting first with energy efficient design then the most low carbon forms of heating.

Demonstrating that you have taken account of the energy hierarchy:

Checklist	Done?
How will the design reduce the use of energy?	
Has the design incorporated energy efficient and energy saving systems?	
Have you explored connection to an existing low carbon network?	
Have you explored ways that are compatible with National Park purposes to generate renewable energy on site as part of the development? (e.g. solar thermal, photovoltaic, ground source heat pumps or wood fuel burners)	

You may wish to research other sustainable design measures as set out in the Code for Sustainable Homes (www.planningportal.gov.uk/uploads/code_for_sustainable_homes_techguide.pdf). If so please specify in your Design and Access statement

C. Directing development away from flood risk areas & seeking to reduce overall risk from flooding

Checklist	Done?
Is the proposed development in a flood risk area ? Have you taken into consideration the implications of flood risk or future flood risk ?	
Has the proposal maximised the use of permeable paving for drives and parking areas?	
Can water be provided by capturing surface water drainage from roofs and other hard surfaces instead of piped mains drainage? (e.g. soakaways, filter strips, swales, balancing ponds etc)	
Have you considered using SUDS techniques that will include features that will make a contribution to amenity or wildlife? (e.g. reed beds, etc)	

D. Achieving the highest possible standards of carbon reductions in all development

You will need to demonstrate through the Design and Access Statement that you have given consideration to the energy hierarchy (see above) as a means of reducing carbon emissions in your development. Consideration of carbon emissions has the added benefit of reducing fuel costs.

Checklist	Done?
<p>For existing buildings, describe the type and level of insulation in the existing building. Do you intend to increase the level of insulation in the existing building at the time of new development?</p> <p>If not you need to explain why this is not possible. If you are going to retrofit insulation in the existing building, then please explain where any insulation will be undertaken and to what specification.</p>	
<p>Have you sought to avoid the use of insulation materials known to contribute to ozone depletion or that have the potential to contribute towards global warming?</p>	
<p>Will you be using low-water use fittings and appliances?</p> <p>If no please explain why this is not possible, or if yes please explain where and set out the relevant specifications.</p>	
<p>Will you be seeking to ensure that the design of surface water drainage systems takes into account expected future changes in rainfall?</p>	

E. Achieving the highest possible standards of water efficiency in all development.

You should aim to reduce dependence on mains water in new development, improve efficiency in the use of water and conserve water resources.

Checklist	Done?
<p>Have you considered specifying water-conserving fittings for taps and sanitaryware? (e.g. low flush W.Cs, spray taps, water-saving showers)</p>	
<p>Can rainwater be collected from roofs for outdoor use? (e.g. water butts installed for garden irrigation)</p>	
<p>Have you considered designing in rainwater harvesting measures to collect rainwater and store it for use internally? (e.g. w.c. flushing)</p>	
<p>Have you considered providing a system to re-use grey-water (waste water from baths, showers and basins) for irrigation or w.c. flushing?</p>	

F. Achieving, in all new and replacement housing, other than affordable housing of less than 3 units, a minimum sustainability standard, equivalent to that required by the government of affordable housing by Registered Social Landlords (currently Code for Sustainable Homes Level 3)

Checklist	Done?
<p>Have you demonstrated how the proposed new residential development will attain the highest possible sustainability standards ?</p> <p>The requirement set out in Policy CC1 is the minimum requirement and all new residential development should attain the highest possible sustainability standards, taking into account viability and feasibility considerations.</p>	
<p>For enhancement housing, for example in an application for a replacement dwelling, have you demonstrated how sustainability measures will match or exceed those required by government of affordable housing by RSLs ?</p>	
<p>Have you achieved the highest possible standards of carbon reductions?</p>	
<p>Have you achieved the highest possible standard of water efficiency?</p>	

In pre-application discussions on policies for enhancement housing, for example in an application for a replacement dwelling, your architect will need to consider how sustainability measures will match or exceed those required by government of affordable housing by RSLs. We are finding that applicants are increasingly keen to reduce carbon emissions and fuel bills through integrated passive design. The Code for Sustainable Homes which is the current measure used by government provides useful guidance.

G. Achieving in non-residential major development above 1000m² floorspace a Buildings Emissions Rate at least 10% less than the Target Emissions Rate.

Checklist	Done?
<p>Have you demonstrated how the new non-residential development will attain the highest possible sustainability standard ?</p>	
<p>Have you achieved the highest possible standard of carbon reductions ?</p>	
<p>Have you achieved the highest possible standard of water efficiency?</p>	
<p>The requirement set out in Part G of Policy CC1 is the minimum requirement and all new non-residential development should attain the highest possible sustainability standard taking into account viability and feasibility considerations. Has this been demonstrated in the application?</p>	