



Energy Crop Guidance within the Chilterns and North Wessex Downs Areas of Outstanding Natural Beauty

This guidance is aimed at anyone within the North Wessex Downs and Chilterns Areas of Outstanding Natural Beauty (AONBs) who may be considering planting energy crops.

The guidance has been developed to highlight some of the issues that you will need to consider when planning an energy crop scheme within these areas. If you are intending to apply for Energy Crops Scheme grant assistance, the Natural England representative who will visit your site once you have submitted your application will also consider these factors.

It is not intended that this guidance should replace Defra's Energy Crop Scheme Guidance and other such documents. Instead, it brings together some of the information that is of particular relevance to the AONBs and shows you where to go for further information that may help you with your application

This guide does not cover every eventuality in every field within the AONBs. Below are the general considerations that will help you decide if the field is appropriate. A list of useful publications and sources of advice are listed at the end of this guide

If you require further information after reading this guide please speak to Natural England, the Forestry Commission or the AONB team in your area. Please see the map and contact details on the back of this guide. A list of useful publications and sources of advice are also listed

Areas of Outstanding Natural Beauty

Areas of Outstanding Natural Beauty (AONB) are nationally important landscapes. The AONB designation exists to conserve and enhance the natural beauty of the landscape. In this instance, the term "natural beauty" covers both the natural and cultural heritage of the area.

AONB designations are not supposed to prevent change. However, they do place a responsibility on all of us to think carefully about the impact of our decisions and actions on these important landscapes. By thinking about these considerations and the information in the guide before you apply, you will be able to submit an appropriate scheme, which will meet the conditions of the Energy Crop Scheme at an early stage.

The Chilterns

The Chiltern Hills have been designated as an Area of Outstanding Natural Beauty in recognition of their exceptional landscape qualities.

Whilst the natural beauty of the area is undeniable the Chilterns is above all a cultural landscape, with a deep and pervasive sense of history. Winding sunken lanes, old

enclosed fields and Anglo-Saxon boundaries are all elements of 'ancient countryside' which have survived the rapid and dramatic changes of the present century and are an essential ingredient of the Chilterns identity.

Two of the most fundamental aspects of the Chilterns landscape are its complexity and diversity. The intricate mosaic of woodland, copses, enclosed pastures, arable fields, wooded and open heath and scattered farms and villages, overlying a complex landform of rolling hills and hidden valleys, presents a continually varying landscape. Loss of this variety or a change in scale significantly alters the character of the landscape.

While the Chilterns as a whole can be identified as a distinctive area, there are variations in landscape character between different parts. Four broad regions have been identified: Scarp and Foothills, Plateau and Dipslope, the Arterial Valleys, and the Thames Fringes. These are further divided into characteristic landscape types which have a coherent and recognisable identity

Insert map

The North Wessex Downs

The North Wessex Downs is an area of contrasts. It contains large scale open chalk downland and arable sweeps, significant areas of woodland and areas with smaller, high hedged fields interspersed with heathland, woodland and parkland. The conservation and enhancement of the character and diversity of these landscapes is fundamental to the AONB designation.

The North Wessex Downs contains a diverse range of habitats of national and international importance, including semi-natural chalk grassland, woodland, chalk rivers, wet meadows and low intensity arable land. Associated with these are a wide range of nationally important and rare species – from stone curlew to rare arable plants. The North Wessex Downs is working to conserve and expand these habitats and maintain and increase protected priority species.

The area also contains internationally important historical and archaeological remains. Enhancing the protection and management of these features is a key objective for the North Wessex Downs AONB Partnership.

For the soils of the North Wessex Downs, the main threat is erosion, particularly on steeper slopes and under "open" crops. Threats to water resources include poor management e.g. loss of river side vegetation and cultivation of winterbourne channels; water loss/abstraction and diffuse pollution

The North Wessex Downs AONB Management Plan gives strong support to community led, bottom up renewable energy initiatives that fit within the landscape and meet local needs.

Insert map

Areas likely to be unsuitable for planting.

There are certain areas likely to be considered unsuitable for planting energy crops. These include:

- registered commons
- open access land
- Sites of Special Scientific Interest

- Scheduled Ancient Monument.

It is also likely that planting will be considered unsuitable in Conservation Areas, registered historic parks and gardens, within the setting to a listed building, historic battlefield sites, on former water meadows, existing semi-natural habitat such as woodland and permanent pasture, local nature reserves, local wildlife sites, well known and popular beauty spots and country parks.

Permission would not be given if planting resulted in obstruction of rights of way.

Some of the Factors when considering Energy Crop Schemes

Landscape character

You will need to consider how the landscape may be affected by any planting. Your energy crop scheme should respect and strengthen the key characteristics of the landscape that you are within. They should be in keeping with the local landscape and rather than standing out.

To help you consider the landscape, Landscape Character Assessments give descriptions of those key characteristics and these are available within both the North Wessex Downs and Chilterns AONBs (see reference list at the back of this document). Advice can also be sought from your AONB office or local authority landscape officer.

A few examples of how the design of energy crop schemes can affect landscape character:

Scale Of Planting

The impact of an energy crop scheme may be quite different in a large, open landscape than in a more enclosed area.

You will need to consider:

- How much of the open area within the landscape will be planted on?
- Would the energy crop fields be broken up by other crops, land uses or boundary features?
- Would large fields under one crop be characteristic of the area?
- Will your planting add to an existing or proposed area of energy crops nearby? (Details of schemes that are in the pipeline or being planted can be obtained from Natural England.)

Landform and Views

The impact of an energy crop will vary considerably depending upon the form of the land it is being planted on and where it is located. You should consider whether the crop will be seen from above e.g. looking down from a hill, from below e.g. looking up to a skyline or from the side (often the case on flatter ground).

There are both short and long distance views to consider. Short views are those from the edge of the field and within the field, such as the view from a footpath. Planting may also affect or obscure long or panoramic views. All of these issues may affect both the shape and the scale of planting that is appropriate and whether you need to plan open areas within the field.

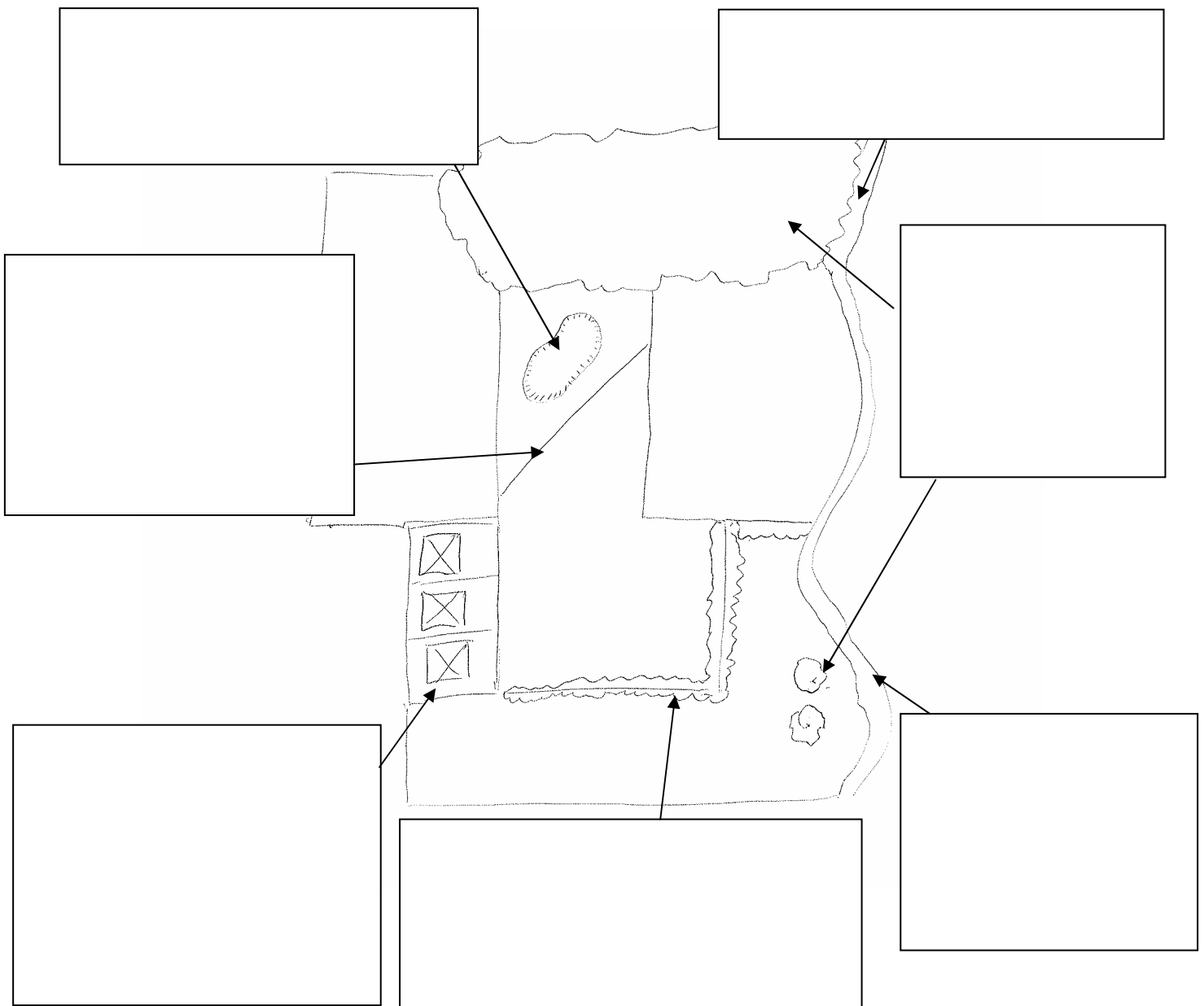
Field Patterns

The impact of an energy crop will depend upon whether it is set within a landscape with a strong field pattern bounded by well developed hedgerows or in a largely open landscape of large fields divided by post and wire fences. The scale and shape of any planting should respect the scale, shape and pattern of the fields in the local area. Some field systems may be important remnants of traditional forms of land management, old enclosures or clearances of heath, common or woodland.

Direct Impact on Landscape Features

Energy crops can have direct impacts on landscape features through for example over shading, competition, impact on associated flora and fauna, run off into water courses and lack of space between the crop and the feature to still manage those features effectively. In many cases, adverse impacts can be avoided simply through leaving sufficient open space around these features. The diagram below highlights the main factors to consider.

A table giving recommended margin sizes can be found at the back of this guidance note.



Archaeological and historic features

A number of issues need to be considered when planting in an area where there are archaeological or historic features. These include the potential for damage to archaeology from the root systems of the energy crop, damage by machinery at planting, harvesting and final removal of the crop, and localised lowering of the water table (with corresponding impacts on waterlogged archaeological remains). However, there can also be *indirect* adverse impacts on the setting of historic sites and their “sense of place”.

Landscapes have always evolved and the changes to the landscape caused by the growing of energy crops are not always damaging. However, the planting of energy crops is likely to be more appropriate in landscapes that have already experienced considerable alteration e.g. intensive agricultural landscapes, than in areas with well preserved historic field patterns or other features.

Historic Landscape Characterisation Studies are available for both the Chilterns and North Wessex Downs AONBs. These can help to highlight important historic landscape features in your area.

Further guidance should be obtained from your local authority archaeology department.

Wildlife and plants

Before submitting an application you should find out about the wildlife on the site and its surroundings **and** the likely impact that such planting may have on that flora and fauna. Existing semi-natural habitats should be conserved. Before considering a change to arable cropping patterns, consider the fact that light, shallow soils may contain rare arable plants. Planting up formerly open ground may have a negative impact on some birds and other species so you will need to consider how to reduce this or compensate for it in other areas. New planting may affect the soil and local drainage and you should consider whether this will affect important habitats nearby. You may also need to think about the likely impact on nearby habitats or species from shade. Again, many issues can be resolved by retaining open space within and around the energy crop to maximise biodiversity.

Your local Wildlife Trust or conservation adviser should be able to provide further guidance.

Margins

Please see the table below as a guide to the minimum margins that should be applied to ensure that key landscape features are not adversely affected by energy crops. In many circumstances the actual margins will be larger than this to take in to account the local issues. Under the energy crop schemes an element of the grantable area can be left open and unplanted. This rate depends on the crop used. In some circumstances extra open space may be required to facilitate the planting.

Margin Type	Miscanthus	Short Rotation Coppice
Field Boundaries	3m	3m
Woodland	10m from edge of canopy	10m from edge of canopy
Infield Trees	5m from edge of canopy or 15x the diameter of the tree, which ever is greater	5m from edge of canopy or 15x the diameter of the tree, which ever is greater

Margin Type	Miscanthus	Short Rotation Coppice
Public Rights of way	3m on field edge paths 5m through crop; this should be irregular along its length.	5m each side of path.
Farm Drains	3m	5m 7m internal drainage board
Neighbours property	10m	10m
Wayleaves	As specified by utility company or 6m either side of centre	As specified by utility company or 6m either side of centre
Headlands	3m	3m
Archaeological features	10m from edge of feature	10m from edge of feature
Water courses	10m and consider additional buffers zones for run off	10m and consider additional buffers zones for run off

What Next?

This guide will hopefully help you in considering which fields you may wish to include in your application to Natural England. It is important that you read the contract information and conditions and complete the application form and provide the appropriate maps to the standards stated in the application literature. Giving the most up to date information and maps will help speed up the assessment process.

If you have further questions about the scheme or suitability of a field to be included in the scheme you should contact the local office of Natural England.

Where to go for further advice

Natural England: *Add Local Contact Details*

AONB Offices:

North Wessex Downs AONB
Denford Manor
Lower Denford
Hungerford
Berkshire
RG17 0UN

Tel: 01488 680452
Fax: 01488 680453
Email: info@northwessexdowns.org.uk
Website: www.northwessexdowns.org.uk

Chilterns AONB
Chilterns Conservation Board
The Lodge
Station Road
Chinnor
Oxon OX39 4HA

Tel: 01844 355500
Fax: 01844 355501
Email: office@chilternsaonb.org

Website:
www.chilternsaonb.org

Forestry Commission:
Upper Icknield Way
Aston Clinton
Aylesbury
HP22 5NF

Tel: 01296 696543
Fax: 01296 696662
Website: www.forestry.gov.uk

Local authority contacts – names of authorities:
West Berkshire Council, Council Offices, Market Street, Newbury RG14 5LD E-mail:
jdavy@westberks.gov.uk

Useful reference documents:

Defra Energy Crop Scheme Establishment grants
Defra Planting and Growing Miscanthus
Defra Growing short rotation coppice

Forestry Commission Guidance Short Rotation Coppice in the Landscape

English Heritage (2006) Biomass Energy and the Historic Environment

Countryside Agency (2002) The North Wessex Downs Landscape: A landscape assessment of the Area of Outstanding Natural Beauty

(2004) North Wessex Downs Management Plan

Chilterns Area of Outstanding Natural Beauty Management Plan – The Framework for Action 2002 - 7

Countryside Commission (1992) The Chilterns Landscape: A landscape assessment.

Local Records Office for local information on nature conservation

Local authority archaeology service for historic records

Guide produced June 2007

This guidance has been produced by the North Wessex Downs AONB Partnership, the Chilterns Conservation Board and the Forestry Commission¹, in consultation with Natural England

¹ The Forestry Commission was involved in the 2006 application by undertaking the site assessments on behalf of Natural England.

Opportunities and optimum sitings of energy crops (produced by NE for DEFRA)

JCA No 110		Name Chilterns	
Overall comments	The Chilterns are one of the most wooded lowland landscapes in England and half of the area is designated AONB. It consists of chalk hills and plateau with a prominent escarpment in many places, and gradual dip slope with many dry valleys. Miscanthus may have potential to be accommodated where intensive arable already exists, such as on the scarp foothills and Thames Valley. SRC could potentially be assimilated into an already heavily wooded landscape, particularly within river valleys where the visual impact of the crops would be lessened.		
Generic landscape characteristics	<i>Key landscape characteristics</i>	Potential effects (PA =potentially adverse N =neutral, PB = potentially beneficial)	
		SRC	Miscanthus
Topography	Chalk hills and plateau with a prominent escarpment	PA – likely to be conspicuous on escarpment	PA – likely to be conspicuous on escarpment
	Extensive, gentle dip slope with many dry, enclosed and intimate valleys	N – potential to be planted on gently sloping land and to be into valleys	N – potential to be planted on gently sloping land and to be into valleys
Woodland	Extensive areas of woodland, dominated by beech on plateau, and ‘hanging’ woodlands in valleys – one of most wooded lowland English landscapes	PB – may have potential to be accommodated into an already heavily wooded landscape	PA – large-scale plantings would be out of keeping in areas that are heavily wooded
Boundary features	Small fields and dense network of ancient hedges characterise steep ground	PA – avoid obscuring hedgerow pattern	PA – avoid obscuring hedgerow pattern
	Medium or large regular fields on dip slope, gentler slopes of escarpment and foothills; hedgerows often poor or sparse	PA/N – whilst appropriate in large fields, would bring some enclosure. Avoid hedgerow loss.	PA/N – whilst appropriate in large fields, would bring some enclosure. Avoid hedgerow loss.
	Many areas of semi-open common land on plateau	PA – would bring greater enclosure and hence change character	PA – would bring greater enclosure and hence change character

Agriculture	Overall mixture of dairying and sheep and arable farming; includes intensive arable farming on scarp foothills and in Thames Valley	N – providing would not lead to loss of pasture.	N/PB – could potentially be accommodated into current cropping pattern. Avoid loss of pasture.
Settlement and development	On plateau areas and in some valleys high dense hedges edge sunken lanes, offering limited views into fields beyond	PB – as crops would be partially obscured	PB – as crops would be partially obscured
	Historic riverside towns in Thames Valley and picturesque villages in chalk valleys	PA – avoid impacting on settings	PA – avoid impacting on settings
Semi-natural habitats	Remnants of chalk downland on escarpment and valley sides	PA – where it would result in loss of chalk downland	PA – where it would result in loss of chalk downland
Historic features	Numerous archaeological sites and settlements including Palaeolithic flint sites, later burial mounds, Iron Age hillforts and strip lynchets.	PA - avoid known archaeological sites and their settings, and respect historic landscape character	PA - avoid known archaeological sites and their settings, and respect historic landscape character
	Designed landscapes occupy prominent positions on sloping valley sides	PA – avoid impacting on parkland settlings	PA – avoid impacting on parkland settlings
Rivers and coasts	Chalk streams with associated waterside landscapes are an important localised landscape feature	PA – large-scale plantations would affect the character of these areas	PA – large-scale plantations would affect the character of these areas
Views and inter-visibility	Limited intervisibility in enclosed valleys	N – crops likely to be less noticeable	N – crops likely to be less noticeable
	More open plateau top, with extensive views from scarp to clay vale below	PA – may limit long-distance views to vale	PA – may limit long-distance views to vale