

COTSWOLDS NATIONAL LANDSCAPE BOARD
RENEWABLE ENERGY POSITION STATEMENT
JUNE 2023



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1.0 SUMMARY

Climate change is the biggest threat to humanity and one of the greatest threats to biodiversity. We need to urgently take steps to mitigate and adapt to the impacts of climate change. In this regard, the Cotswolds National Landscape Board has made a commitment to identify a scenario which allows us to endorse a path to Net Zero emissions (or lower) by 2050 (or sooner).

Renewable energy will play an important role in mitigating the impacts of climate change and achieving Net Zero in the Cotswolds National Landscape (CNL) and its setting. The CNL Management Plan 2023-2025 advocates '*generating energy from low carbon sources in a manner consistent with the purpose of National Landscape (AONB) designation*'. This Renewable Energy Position Statement seeks to expand on this Management Plan policy by providing guidance and recommendations on how we can plan positively for renewable energy provision within the CNL and its setting.

The position statement identifies six main types of renewable energy: heat pumps, biomass, hydropower, solar energy, wind energy and battery storage. In principle, the Board would be supportive of all of these forms of renewable energy at a small-scale, provided that relevant considerations have been adequately addressed. Large-scale forms of renewable energy are unlikely to be compatible with the statutory purpose of conserving and enhancing the natural beauty of Areas of Outstanding Natural Beauty (AONBs), such as the CNL.

With regards to biomass, we would be particularly supportive of small-scale wood fuel schemes that use timber from sustainably managed woodlands within the CNL. With regards to solar energy, we would be particularly supportive of rooftop solar panels, especially on contemporary, industrial, business park and agricultural buildings that can provide relatively large-scale, rooftop schemes.

Large-scale wind and solar energy development is unlikely to be compatible with conserving and enhancing natural beauty of the CNL. However, consideration should be given to the sensitivity of the landscape to the type and scale of development being proposed, as this may vary from one part of the National Landscape to another, depending on factors such as topography.

For renewable energy proposals within the CNL that are classed as major development, consideration should be given to whether exceptional circumstances apply that would justify permission being granted for such schemes, particularly in the context of the climate emergency. This would need to be assessed on a case-by-case basis.

National planning policy encourages the identification of 'suitable areas' for renewable energy in local planning authority (LPA) development plans. For wind energy, this is a requirement. We support the identification of suitable areas for wind and solar energy in LPA development plans, where this is underpinned by landscape sensitivity assessments and by relevant constraints and technical considerations.

It is important to note that this Renewable Energy Position Statement is a 'live' document, which will be updated to reflect changes in national policy and renewable energy technology.

The Position Statement is aimed at a wide range of stakeholders who are involved in renewable energy provision in the CNL and its setting. In particular, the Board hopes that the Position Statement will take into account in the local planning process, both in terms of planning policy and development management.

Section 2.0 outlines the context for the Position Statement being reviewed and updated.

Section 3.0 provides guidance and recommendations relating to the six types of renewable energy.

Section 4.0 discusses the issue of community-led renewable energy schemes.

Section 5.0 addresses the issue of battery storage.

Appendix 1 explains the purpose and status of the Board's Position Statements.

Appendix 2 addresses relevant considerations relating to the Cotswolds National Landscape and other key issues.

Appendix 3 provides guidance and recommendations relating to the identification of 'suitable areas' for wind and solar energy.

Further information about the CNL and the CNL Board is available online at www.cotswoldsaonb.org.uk.

2.0 CONTEXT

Climate change is the biggest threat to humanity and one of the greatest threats to biodiversity.¹ Climate change projections show a change towards warmer, wetter winters and hotter, drier summers and an increasing frequency and intensity of extreme weather events. These changes are already happening and will continue to amplify as climate change intensifies.

These changes pose a number of risks including risks to: biodiversity; soil health; natural carbon stores and sequestration; crops and livestock; the supply of food, goods and services; the economy; and human health. We therefore need to, collectively, take a pro-active approach to mitigating and adapting to the impacts of climate change.

Areas of Outstanding Natural Beauty (AONBs), including the Cotswolds National Landscape (CNL), are areas whose distinctive character and natural beauty are so outstanding that it is the nation's interest to safeguard them.² Many of the defining characteristics and 'special qualities'³ of our AONBs are threatened by climate change. However, they are also potentially threatened by our responses to climate change, for example, due to the visual impact of relevant schemes. Action is urgent but needs to be well thought out and carefully implemented.

Within this context, the National Association of Areas of Outstanding Natural Beauty (NAAONB) is committed to ensuring that, by 2024, '*all AONB management plans include meaningful measures around climate change mitigation and adaptation, including clear, measurable targets to support Net Zero*'.⁴ At the local level, the Cotswolds National Landscape Board⁵ has made the following commitment:

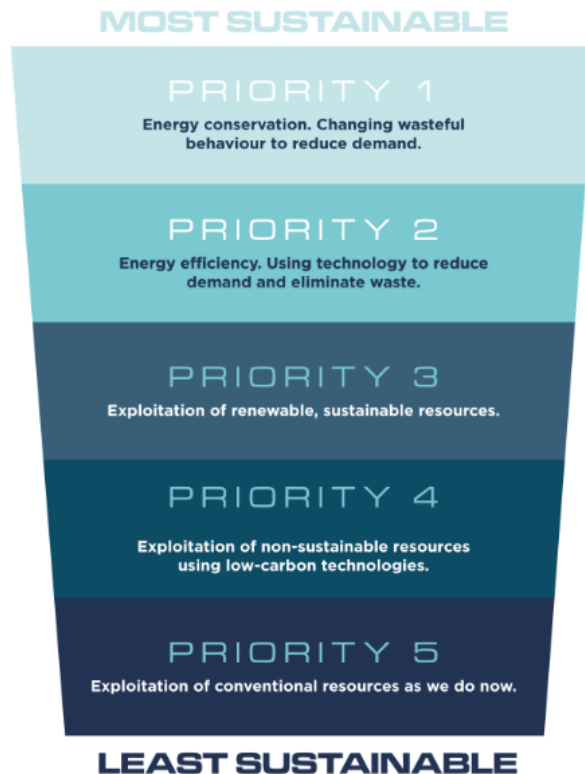
- *It is our commitment to identify a scenario which allows us to endorse a path to Net Zero emissions (or better) by 2050 (or sooner)*.⁶

A key challenge will be to deliver this aspiration in a way that is compatible with the statutory purpose of AONB designation, which is to conserve and enhance the area's natural beauty.⁷ In this regard, the CNL Climate Change Strategy seeks to '*manage the impact of climate change and the Cotswolds contribution to national climate change targets to ensure consistency with conserving and enhancing the landscape character and scenic quality of the Cotswolds National Landscape*'.⁸

A key component of climate change mitigation is to progress towards a more sustainable energy system by applying the energy hierarchy shown in Figure 1, below. The first step in this hierarchy is to reduce the demand for energy through: (i) energy conservation; and (ii) energy efficiency. This includes measures such as passive design and improved insulation. However, even with energy conservation and energy efficiency measures in place there will still be a residual demand for energy. We therefore need to generate energy from renewable energy sources in order to help

achieve 'net-zero'. This will include on-site provision of renewable energy in new developments and, where appropriate, retrospectively. It is this aspect of the energy hierarchy (i.e., Priority 3, specifically renewable energy) that is the focus of this Position Statement.

Figure 1. Energy Hierarchy⁹



In this regard, the CNL Climate Change Strategy 'seeks to generate low carbon energy and heat for its communities' needs whilst conserving and enhancing the natural beauty and special qualities of the Cotswolds National Landscape'.¹⁰ Specifically with regard to renewable energy, the CNL Management Plan 2023-25 (Policy CC1.1) advocates 'generating energy from low carbon sources in a manner consistent with the purpose of National Landscape (AONB) designation'.¹¹ In practice, this would primarily be small-scale renewable energy schemes.

This Position Statement seeks to expand on this Management Plan policy by providing guidance and recommendations on how we can plan positively for renewable energy provision within the CNL and its setting.

The level of protection afforded to AONBs, such as the CNL, may mean that some of the area's renewable energy requirements will need to be generated outside of the area. However, we should still seek to make a meaningful contribution to renewable energy provision within the CNL.

In order to make this meaningful contribution, it is likely that we will need a combination of all forms of renewable energy, at an appropriate scale. A multi-functional approach will be needed, which seeks to make the best use of the land within the CNL and its setting to deliver positive outcomes for natural beauty, climate adaptation and mitigation, nature recovery and related issues, such as food production, in mutually supportive ways. The Position Statement focusses on renewable energy as a means of mitigating the impacts of climate change. Measures to adapt to climate change are also important. However, climate change adaptation is beyond the scope of this Position Statement.

It is important to note that the Renewable Energy Position Statement is a 'live' document, which will be updated to reflect changes in national policy and renewable energy technology.

Further information on the purpose and status of the Board's position statements is provided in Appendix 1.

3.0 TYPES OF RENEWABLE ENERGY

This Position Statement considers six main types of renewable energy in the context of the Cotswolds National Landscape (CNL):

- i. Heat pumps
- ii. Biomass
- iii. Hydropower
- iv. Solar
- v. Wind
- vi. Energy storage

These are addressed below, including relevant considerations specific to each type of renewable energy. CNL considerations and other, general considerations that are relevant to all types of renewable energy are outlined in Appendix 2.

3.1 HEAT PUMPS

There are three main types of heat pumps:

- **Ground-source heat pumps (GSHP):** these take low-level heat, which occurs naturally underground, and convert it to high-grade heat by using an electrically-driven or gas-powered heat pump.
- **Air-source heat pumps (ASHP):** these take low-level heat, which occurs naturally in the air, and convert it to high-grade heat by using an electrically driven or gas-powered pump.
- **Water-source heat pumps (WSHP):** these work by extracting heat from a body of water and converting it into useful energy to heat the home.

Heat pumps for residential dwellings using ground, water or air are generally classed as permitted development, although permitted development rights are more restrictive with regard to listed buildings, conservation areas, scheduled monuments and World Heritage sites. In most cases, proposals are likely to be domestic in scale and, due to their relatively limited landscape impact, will normally be acceptable. Any reinstatement of land should be carefully and sensitively undertaken and historic landscapes should, wherever possible, be avoided.

If buildings are required to house pumps or other equipment, then these may require planning permission and should be carefully sited and designed, using appropriate materials.

Relevant considerations include: the size and location of the units; noise impacts; impacts on historic landscapes and archaeology; and safeguarding existing trees / hedgerows and other priority habitats such as calcareous grassland during construction and operation.

The fitting of heat pumps is likely to be easier for new development than for retro-fitting. However, retro-fitting may still be appropriate where there is available space.

Heat pumps do use electricity so they still potentially contribute to greenhouse gas emissions (depending on the source of electricity). However, they can offer carbon emission savings of around

30% when compared with conventional gas boilers. As such they are a (relatively) low carbon heating source. All new homes built after 2025 will require an alternative heating system to conventional gas boilers, such as heat pumps.

- **Board position:** In principle, the Board would be supportive of the use and installation of heat pumps, provided that relevant considerations¹² have been adequately addressed.

3.2 BIOMASS

Biomass refers to the use of a wide variety of organic material - such as wood, straw, dedicated energy crops, sewage sludge and animal litter - for the generation of heat, electricity or motive power. The two primary types of biomass energy are:

- Woody biomass (wood and energy crops).
- Wet biomass (food waste and farm wastes).

Wood

The use of wood to fuel boilers is not only a renewable source of energy but may have a number of additional benefits.

For example, it can provide an economic incentive to bring woodlands within the CNL back into active management. The active management of deciduous woodlands through coppicing, pollarding, ride widening and other forestry operations helps to create warm, sunlit micro-habitats that benefit insects and wildflowers and provide better nesting habitat for many of our rarest woodland birds.¹³ In addition, the use of wood as biomass can have the benefit of recovering, from the waste stream, waste wood that would otherwise go to landfill. However, care will need to be taken to ensure that management of woodlands does not become unsustainable (for example, as a result of over-exploitation) as demand increases.

Several thousand hectares of new woodland will be required, in the CNL, to facilitate nature recovery and to mitigate the impacts of climate change.¹⁴ Active management of these new woodlands will be essential to provide additional benefits in this regard.

Fuel crops

There may be potential for biofuel from other crops (i.e., energy crops) such as miscanthus and short rotation coppice (SRC). Such developments are likely to have limited impacts if undertaken on a generally small scale. However, careful consideration will need to be given for larger-scale use of land for growing such crops. Large-scale schemes could potentially have an adverse impact on landscape character (for example, as a monoculture that is alien to the locally-distinctive farmed landscape), biodiversity, water quality and soil quality (for example, as a result of winter harvesting) and on the enjoyment of the public due to their height and semi-permanent / permanent nature and, in the case of SRC, their long rotation cycle. For proposals relating to the growing of Miscanthus, regard should be given to the Board's Position Statement on criteria for the planting of Miscanthus and short rotation coppice.¹⁵

Large-scale fuel crop schemes would also potentially conflict with other land use priorities, including food production (particularly where best and most versatile agricultural land would be affected), nature recovery and woodland planting.

Where fuel crops are being introduced, the potential for detrimental impacts on landscape character should be fully assessed, as should potential impacts on sensitive sites, including permanent

grassland, common land, Sites of Special Scientific Interest, other sites of nature conservation importance and historic landscapes

Wood and fuel crops – additional considerations

Whilst burning biomass does release CO₂ emissions, CO₂ is absorbed from the atmosphere during the growth of the source material and so the net lifecycle CO₂ emissions are zero. In reality, all biomass fuels have an associated CO₂ intensity due to the additional energy required for collection, processing, and distribution, as well as for the construction and maintenance of the biomass facility. Transportation can be a large element of this for raw fuels, whilst heavily processed fuels such as wood pellets will require additional energy input during the process stages.

For proposals involving energy production from biomass, consideration should be given to whether such proposals require an Environmental Impact Assessment (EIA), particularly where the area of the development exceeds 0.5 hectares.¹⁶ Consideration should also be given to whether a scheme constitutes ‘major development’, in the context of paragraph 177 of the National Planning Policy Framework (NPPF) – see Appendix 2 for further details

Biomass boilers are a potential source of air pollution, particularly with regards to particulates. Appropriate measures would need to be put in place to protect air quality. Firewood is now required to have a moisture content of 20% or less, which should help to address this issue. Industry should be encouraged to improve the efficiency of stoves and boilers to reduce harmful emissions. The use of domestic woodburning stoves should not be encouraged, particularly in built-up areas (e.g., market towns), due to potential impacts on air quality.

The transport of wood or crops to any energy production plant will increase vehicle movements in the area, unless the plant is adjacent to the source of fuel. However, to avoid unnecessary infrastructure, plants should also be close to the settlements or facilities they serve, so an appropriate locational balance must be struck. For this reason, and to avoid the greater visual and other effects likely to be caused by large-scale plants, the Board would favour small-scale plants rather than medium- or large-scale centralised installations. Suitable schemes could include heating schemes for country estates and small-scale community heating schemes.

Priority should be given to using existing buildings, such as farm buildings, to house biomass facilities and to dry or process wood and other biomass. Where new buildings are required, the siting, scale, design, colour and materials used for these new buildings should always be carefully considered. Biomass provides a relatively small amount of energy per hectare of land that is used. For example, solar energy can provide over 40 times as much energy per hectare as biomass.¹⁷ As such, a very large area of land would be required for energy crops to deliver significant levels of renewable energy within the CNL. Growing energy crops at this scale is likely to adversely affect landscape and scenic beauty, including tranquillity (due to related traffic movements), and could also compromise food production, biodiversity and nature recovery.

- **Board position:**

- **Wood:** In principle, the Board would be supportive of small-scale wood fuel schemes that use locally-sourced wood from sustainably managed woodlands within the CNL, provided that relevant considerations have been adequately addressed.
- **Fuel crops:** In principle, the Board would be supportive of small-scale fuel crop schemes, provided that relevant considerations have been adequately addressed.

- **Biomass priorities:** Priority should be given to the management and utilisation of CNL woodland (for supplying timber for wood fuel) over the planting of energy crops, particularly short rotation coppice.

Wet biomass – anaerobic digesters

Anaerobic digestion is a process in which bacteria break down organic material in the absence of oxygen to produce a methane-rich biogas, which can be combusted to generate electricity and heat,

Anaerobic digestion plants serving a single or small number of local farms may be appropriate within the CNL, provided that the development: can be incorporated within an existing farmstead; uses locally sourced, organic farm waste and / or sewage sludge material; is of an appropriate scale; is not visually intrusive; is constructed using appropriate materials; and is suitably landscaped to ensure the natural beauty of the area is conserved or enhanced. Disused quarries that are located close to the source material could also potentially be suitable locations for anaerobic digestion plants, depending on other after-use options (such as habitat creation).

Where crops, such as maize, are grown specifically as a feedstock for anaerobic digesters, this would raise similar issues to the growing of fuel crops in relation to competing land uses and should be avoided where possible.

Care will be needed in connection with the consideration of the effects and potential harm that may arise from visual intrusion, noise, increased activity, odour, associated traffic movements¹⁸ and associated infrastructure such as overhead powerlines and pylons or poles to support them.

Large new buildings and structures on greenfield sites within the CNL or its setting, and / or schemes that import large quantities of material from outside the CNL, are unlikely to be supported by the Board.

- **Board position:** In principle, the Board would be supportive of small-scale anaerobic digester schemes that use locally sourced, organic farm waste and / or sewage sludge, provided that relevant considerations have been adequately addressed.

3.3 HYDROPOWER

Hydropower uses water flowing through a turbine to drive a generator that produces electricity. It is a highly site-specific technology as it is dependent on being near a body of water that is both flowing and has a sufficient drop in level that can be exploited.

The potential for medium- or large-scale hydro-electric proposals is likely to be limited within the CNL and its setting due to geographical and environmental restrictions. However, there may be some scope for micro- or small-scale projects.

To be acceptable, proposals should: ensure that equipment is placed either in existing buildings or new ones of an appropriate scale and design; use the existing head of water from existing impoundments without affecting the river's flow; noise levels are within acceptable limits and do not adversely affect tranquillity; ensure that fish populations and other river life are not detrimentally affected; and, in the view of the relevant agencies, operate without prejudicing progress towards achieving ecological objectives under the Water Framework Directive.

An important consideration, in this respect, is the following 'special quality' of the CNL:

- River valleys, the majority forming the headwaters of the Thames, with high quality water.

For schemes involving installations for hydroelectric energy production, consideration should be given to whether they require an Environmental Impact Assessment (EIA), particularly where the installation is designed to produce more than 0.5 megawatts and / or where the area of the development would exceed 0.5 hectares.¹⁹ Consideration should also be given to whether a scheme constitutes ‘major development’, in the context of paragraph 177 of the National Planning Policy Framework (NPPF) – see Appendix 2 for further details. Consents from the Environment Agency will also be required. Consideration will also need to be given to the impact of any infrastructure, such as cabling, that is required to connect the hydropower development to the grid.

- **Board position:** In principle, the Board would be supportive of small-scale hydropower schemes, provided that relevant considerations have been adequately addressed.

3.4 SOLAR ENERGY

Types of solar energy

There are two types of solar panel:

- Photovoltaic panels or tiles that generate electricity from the sun’s energy – these can be used at both a domestic and commercial scale.
- Solar panels or ‘collectors’ (flat plate or evacuated tubes) that use the sun’s radiation to heat water – these are primarily used at a domestic scale.

Small-scale solar energy

Size Thresholds

When considering appropriate size thresholds for solar energy, the following thresholds are relevant in this regard:

- The Environmental Impact Assessment (EIA) Regulations specify that proposals should be screened for an EIA if the area of the development exceeds 0.5 hectares.²⁰
- Permitted development rights (PDR) cover:²¹
 - Solar PV or solar thermal equipment on, or within the curtilage of, a dwellinghouse or block of flats.

Strictly speaking, these thresholds do not apply within AONBs (i.e., these PDR rights do not apply in AONBs²² and solar energy proposals that are smaller than 0.5 hectares could potentially be screened for an EIA²³). However, proposals on – and within the curtilage of - residential properties and / or not exceeding 0.5 hectares in size are, in principle, likely to be acceptable in the CNL if they comply with the relevant regulations and accord with the guidance outlined below.

In many landscape sensitivity assessments (LSAs) for renewable energy, ‘small scale’ solar energy development is considered to be schemes covering an area of five hectares or less. LSAs that have been recently undertaken by local authorities that overlap with the CNL indicate that some parts of the CNL would have low landscape sensitivity to this scale of solar energy development. However, other parts of the CNL would have a higher landscape sensitivity to this scale of development. As such, solar energy developments of this scale should be assessed on a case-by-case basis.

Based on the above information, we consider that the following thresholds should be applied for small-scale solar energy development:

- 0.5ha or less = micro-scale.

- 5ha or less = small scale.

Relevant considerations

This guidance primarily relates to such proposals being sensitively located²⁴ and sited²⁵. Location, siting and design will be particularly important considerations in for schemes that relate to listed buildings, conservation areas and other heritage assets.²⁶

PV panels mounted on buildings (particularly rooftops) may have a smaller visual effect than those which are freestanding. PV panels can be used as a building material, integrated into the roof (or facades) of buildings, for example, using solar shingles, solar slates, solar glass laminates and other solar design solutions. These can be integrated with traditional tiles or slates.

Solar collectors or evacuated tubes can be incorporated into the existing roof in the same way as roof windows. Ideally, these require an angle of 30-40 degrees, facing south.

Consideration should be given to the effect of any solar installations on the appearance of the building. It is a good idea to line panels up with existing windows and roof lights and to ensure that the sizes of the panels are complementary to existing features on the building or nearby buildings.

Consideration should also be given to the colour and design of the solar panels. For example, non-shiny, anti-glare options would be less conspicuous. Solar panels with dark surfaces are more likely to be acceptable on buildings with black slate roofs or on new buildings in areas where black slate roofs are characteristic.

Rooftop solar panels can blend in well with contemporary, industrial, business park and agricultural buildings. The use of solar panels on such buildings, including by retro-fitting, should be supported, in principle, especially where relatively large-scale rooftop schemes could be delivered.

Small-scale freestanding solar arrays that are well screened in enclosed gardens or closely linked to existing buildings with no or minimal visual impact may be acceptable. There may also be some circumstances where ground mounted solar arrays to serve groups of properties, community buildings, such as village halls, agricultural properties or other businesses are acceptable, where these are well screened within existing building complexes or by other landscape features such as hedgerows, walls or trees, and do not detract from any architectural or historic interest.

The solar arrays would need to be positioned such that any associated screening did not shade the solar panels. Where new screening is proposed, care would need to be taken to ensure that the screening did not adversely affect wider views or landscape character. Freestanding arrays should be sensitively sited to avoid impacts on wildlife and land of high ecological interest. Consideration will also need to be given to the potential impact of paraphernalia associated with the installation and operation of the solar panels. This issue is addressed in more detail in relation to large-scale solar energy development, below.

- **Board position:**
 - In principle, the Board would be supportive of small-scale solar energy schemes (i.e., 0.5ha or less), provided that relevant considerations have been adequately addressed.
 - The merits of solar energy schemes between 0.5ha and 5ha in size should be considered on a case-by-case basis.
 - We consider that roof-top solar panels on both new and existing buildings should be at the top of the solar energy 'hierarchy'. Buildings that provide the opportunity for

relatively large-scale rooftop solar panel scheme, such as contemporary, industrial, business park and agricultural buildings, are particularly important in this regard.

Large-scale solar energy

For the purposes of this Position Statement, we consider ‘large-scale’ to be anything larger than five hectares (5ha). However, the Board acknowledges that, in the context of landscape sensitivity assessments, for example, a wider range of size thresholds are likely to be used.

It is worth noting that commercial-scale solar energy schemes are likely to require an area of at least five hectares in order to be viable.²⁷ Community-led schemes may also require a substantial area of land. For example, the Southill Solar scheme, near Charlbury, in the CNL, covers approximately eight hectares. This is a 4.5-megawatt (MW) scheme, which generates enough electricity to supply the equivalent of 1,100 homes.²⁸

An important consideration, when assessing solar energy schemes, is landscape sensitivity. Landscape sensitivity is a measure of the resilience, or robustness, of a landscape to withstand specified change arising from development types, without undue negative effects on the landscape and visual baseline. An approach that is informed by landscape sensitivity assessments has the benefit of being evidence based and adding rigour to the process of assessing development proposals.

Most of the district / borough / unitary local planning authorities (LPAs) that overlap with the CNL have either undertaken, are undertaking, or will be undertaking a landscape sensitivity assessment (LSA) for wind and solar energy, as part of the evidence base for their development plans (i.e., Local Plans).

LSAs have recently been completed for Bath and North East Somerset Council, South Gloucestershire Council and Stroud District Council, which collectively cover 21% of the CNL. Table 1, below, indicates the maximum size of solar energy schemes that have been identified in these LSAs for each level of landscape sensitivity. In the table, we have also endeavoured to identify how the different levels of landscape sensitivity relate to the issue of major development (in the context of paragraph 177 of the National Planning Policy Framework), with regard to potential adverse impacts.

Table 1. Scale of solar energy development that could potentially be accommodated within the Cotswolds National Landscape and its setting based on the sensitivity of the landscape to the scale of development being proposed.

Landscape Sensitivity	Likely to be classed as major development	Maximum scale of solar energy development that has been identified for each landscape sensitivity level in the sample LSAs
Low	No	Up to 5ha
Low-Moderate	No	Up to 5ha
Moderate	Possibly	Up to 10ha
Moderate-High	Probably	Up to 20ha
High	Yes	20ha+

This is not a definitive list as it only relates to a relatively small proportion of the CNL. However, it provides a useful indication of the scale of solar energy that could potentially be accommodated, based on landscape sensitivity. It is important to note that some parts of the CNL, such as the

Cotswold escarpment, are identified in the LSAs as having at least Moderate-High landscape sensitivity to even small-scale solar energy.

In effect, the table indicates that solar energy schemes:

- between 5 hectares and 10 hectares in size are likely to result in at least 'moderate' landscape sensitivity (i.e., likely to result in a 'degree of change' in character);
- up to 20 hectares in size are likely to result in at least 'moderate-high' landscape sensitivity (i.e., likely to be harmful, except in some very limited locations / circumstances);
- larger than 20 hectares are likely to result in 'high' landscape sensitivity (i.e., likely to result in a significant change in character).

Landscape and visual impact assessments (LVIAs) will also help to identify the significance of landscape and visual impacts on a case-by-case basis.

It would not be appropriate for the Board to be supportive, in principle, of scales of solar energy that are likely to result in adverse changes to the landscape and visual baseline as this would not be consistent with the statutory purpose of AONB designation or with the Board's statutory purposes.

Solar energy schemes within the CNL that would constitute major development (in the context of paragraph 177 of the National Planning Policy Framework) can only be permitted in exceptional circumstances and where it can be demonstrated that the development would be in the public interest, in line with national planning policy.

One location where relatively large-scale solar energy schemes might be appropriate is in former quarries that are not overlooked from: public rights of way; access land / common land; or public roads. However, other potential after-uses for the quarry, such as habitat creation, would also need to be considered.

Further guidance and recommendations on landscape sensitivity assessments and how they might be applied to identify 'suitable areas' for renewable energy in local planning authority development plans is provided in Appendix 3. Further guidance on the issue of major development is provided in Appendix 2.

Many of the considerations outlined in relation to small-scale solar energy schemes are also applicable to large-scale schemes, including EIA thresholds. In addition to the impact of the solar panels themselves, consideration should also be given to the impacts of any additional infrastructure that is required for the scheme, such as road access, on-site tracks, hard standings, construction compounds, electrical cabling, security fencing and lighting sub-stations, battery storage and / or control buildings. Consideration should also be given to potential conflicts with other land uses, such as food production (particularly on best and most versatile land), nature recovery and woodland creation. Other relevant considerations are addressed in Appendix 2.

- **Board position:** In principle, the Board would not be supportive of solar energy schemes larger than five hectares in size. For larger schemes that might be put forward, applicants should be required to demonstrate that the scheme could be accommodated without significantly affecting the natural beauty of the CNL. For major development proposals, applicants should be required to demonstrate that exceptional circumstances apply and that the scheme would be in the public interest.

3.5 WIND ENERGY

Small-scale wind energy

Size Thresholds

The following height thresholds provide a useful starting point:

- The Environmental Impact Assessment (EIA) Regulations specify that proposals should be screened for an EIA if the hub height of any turbine (or height of any other structure that forms part of the scheme) exceeds 15 metres and / or the area of development exceeds 0.5 hectares.²⁹
- Permitted development rights cover:³⁰
 - Wind turbines, on (i.e., attached to) detached houses, which do not exceed 15 metres in height (or protrude more than 3m above the highest part of the roof, excluding the chimney).
 - Stand-alone wind turbines within the curtilage of houses or blocks of flats that do not exceed 11.1 metres.

Strictly speaking, these thresholds do not apply within AONBs (i.e., these permitted development rights do not apply in AONBs³¹ and turbines in AONBs that are smaller than 15m in height could potentially be screened for an EIA³²). However, wind turbines that are smaller than 25m (to blade tip height) are, in principle, likely to be acceptable in the CNL if they comply with the relevant regulations and accord with the following guidance. This guidance primarily relates to such proposals being sensitively located³³ and sited³⁴.

It is worth noting that the EIA threshold of 15 metres relates to the hub-height of the turbine. The blade tip height can potentially be several metres higher. It is also worth noting that wind turbines with a blade tip height smaller than 25 metres are often classed as ‘small’ in landscape sensitivity assessments.

Based on the above points – and for the purposes of this Position Statement - small-scale is considered to be wind turbines that are 25 metres or less, in height, to the blade tip. Wind turbines of this scale are most likely to be used for individual properties or small groups of properties, rather than commercial scale schemes.

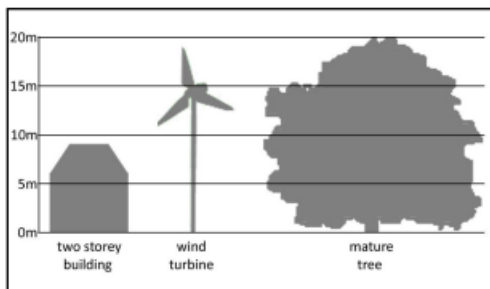
Location

With regards to ‘location’, consideration should be given to landscape sensitivity. This means having regard to the potential sensitivity of the landscape character type / area where the development is proposed. This is addressed in more detail in relation to AONB considerations, as outlined in Appendix 2 and in relation to the identification of ‘suitable areas’, in Appendix 3.

Siting and Design

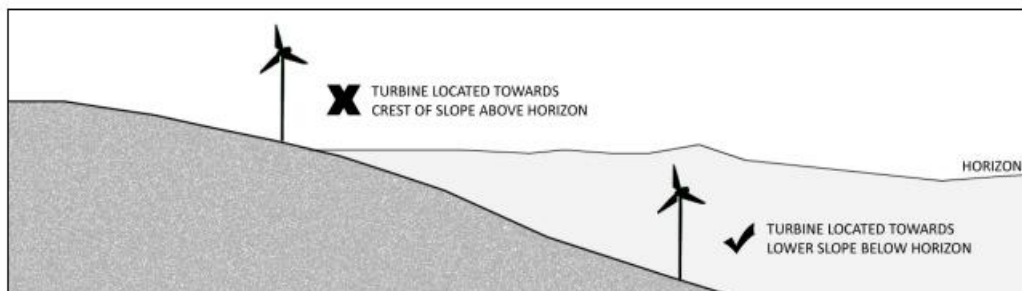
The size of a wind turbine should relate to the scale of its surroundings. Turbines should not dominate existing buildings or landscape features but should be in proportion. The visual impact of small-scale wind turbines can potentially be reduced if a turbine is set against a backdrop of trees and / or if they are associated with settlements or existing groups of buildings or structures.

Figure 2. Wind turbine in proportion with existing buildings and landscape features



The relationship between a turbine and the slope of the landform is a key consideration of wind energy development, particularly with regards to the degree of landscape and visual impact. Ideally, turbines should be located below the horizon / skyline and towards the lower slopes. The top of a steeply inclined slope is also not appropriate because the steep incline creates wind turbulence, which greatly reduces operational efficiency.

Figure 3. Turbine: slope ratio



Choosing appropriate colours for the wind turbines (and associated infrastructure) may help to reduce their visual impact. For example, lighter colours may be more appropriate when the turbine is likely to be viewed against a bright skyline whereas darker colours may be more appropriate when the turbine is likely to be viewed against woodland or against a backdrop that is below the skyline.

Consideration should also be given to:

- Impacts on visual receptors, particularly in relation to impacts on views from publicly accessible locations. Visual receptors on the Cotswold Way National Trail, on named / promoted walking, cycling or horse-riding routes and at important viewpoints (for example, those marked on Ordnance Survey maps or identified in Neighbourhood Plans) are particularly sensitive in this regard. Where there are several potential locations for the wind turbine(s), priority should be given to the least prominent location.
- Ecological impacts. Overall, small-scale turbines are not likely to impact upon bird species and habitats. However, during construction, care should be taken to avoid the removal or fragmentation of existing vegetation. Consideration should also be given to potential impact on bats.
- Impacts on historic environment and cultural heritage features / designations and their settings, particularly conservation areas, listed buildings, scheduled monuments and historic parks and gardens.
- Noise and shadow flicker. Wind turbines generate two types of noise – mechanical noise, created by its gearbox, and aerodynamic noise, produced by its moving blades. Shadow flicker occurs when the sun passes behind a turbine’s rotating blades and casts a shadow

that appears to rapidly flicker on and off. Proximity to neighbouring residential properties is a particularly important consideration, in this regard.

- **Cumulative impacts.** In identifying an appropriate site for wind development, the cumulative landscape and visual impact of the proposed scheme and any existing and approved infrastructure is a key consideration. Infrastructure likely to result in cumulative effects includes other wind developments, overhead powerlines, and telecommunications masts and other vertical structures.
- **Board position:** In principle, the Board would be supportive of small-scale wind energy schemes, provided that relevant considerations have been adequately addressed.

Large-scale wind energy

In the context of this Position Statement, ‘large-scale’ means wind turbines larger than 25 metres in height, the tip of the turbine (taking account of the definition of ‘small scale’, provided above). However, the Board acknowledges that, in the context of landscape sensitivity assessments, for example, a wider range of size thresholds are likely to be used.

As outlined in relation to large-scale wind energy, above, the issue of landscape sensitivity is also an important consideration.

Table 2, below, provides the same type of information as in Table 1 but the information relates to wind energy schemes rather than solar energy schemes (see the text relating to Table 1 for further details).

Table 2. Scale of wind energy development (turbine tip height) that could potentially be accommodated within the Cotswolds National Landscape and its setting based on landscape sensitivity

Landscape Sensitivity	Likely to be classed as major development	Maximum scale of wind energy development that has been identified for each landscape sensitivity level in the sample LSAs
Low	No	None
Low-Moderate	No	Up to 25m
Moderate	Possibly	Up to 25m
Moderate-High	Probably	Up to 60m
High	Yes	60m+

This is not a definitive list as it only relates to a relatively small proportion of the CNL. However, it provides a useful indication of the scale of wind energy that could potentially be accommodated, based on landscape sensitivity. It is important to note that some parts of the CNL, such as the Cotswold escarpment, are identified in the LSAs as having at least Moderate-High landscape sensitivity to even small-scale wind energy developments.

In effect, the table indicates that some parts of the CNL could potentially accommodate wind energy development:

- up to 25 metres in height (to blade tip height) can result in ‘moderate’ landscape sensitivity (i.e., resulting in a ‘degree of change’);

- between 25 metres and 60 metres in height is likely to result in at least ‘moderate-high’ landscape sensitivity (i.e., likely to be harmful except in some very limited locations / circumstances);
- taller than 60 metres is likely to result in ‘high’ landscape sensitivity (i.e., likely to result in a significant change in character).

Landscape and visual impact assessments (LVIAs) will also help to identify the significance of landscape and visual impacts on a case-by-case basis.

Wind energy schemes within the CNL that would constitute major development (in the context of paragraph 177 of the National Planning Policy Framework) can only be permitted in exceptional circumstances and where it can be demonstrated that the development would be in the public interest, in line with national planning policy.

It is worth noting that wind energy companies are unlikely to be interested in putting forward proposals for wind turbines smaller than approximately 150 metres in height (turbine tip height).³⁵

Further guidance on landscape sensitivity assessments and how they might be applied to identify ‘suitable areas’ for renewable energy in local planning authority development plans is provided in Appendix 3. Further guidance on the issue of major development is provided in Appendix 2.

Many of the considerations outlined in relation to small-scale wind energy schemes are also applicable to large-scale schemes, including EIA thresholds. In addition to the impact of the wind turbines themselves, consideration should also be given to the impacts of any additional infrastructure that is required for the scheme, such as road access, on-site tracks, turbine foundations, hard standings, anemometer masts, construction compounds, electrical cabling, battery storage, sub-stations and control buildings. Other relevant considerations are addressed in Appendix 2.

- **Board position:** In principle, the Board would not be supportive of wind energy schemes larger than 25 metres in size (to turbine blade tip height). For larger schemes that might be put forward, applicants should be required to demonstrate that the scheme could be accommodated without significantly affecting the landscape and scenic beauty of the CNL. For major development proposals, applicants should be required to demonstrate that exceptional circumstances apply and that the scheme would be in the public interest.

3.6 WIND & SOLAR ENERGY - IDENTIFICATION OF ‘SUITABLE AREAS’

Paragraph 155 of the National Planning Policy Framework (NPPF) states that, to help increase the use and supply of renewable and low carbon energy and heat, plans should ‘*consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development*’.³⁶

There is a particularly strong onus on identifying ‘suitable areas’ for wind energy in local planning authority (LPA) development plans, with the NPPF stating that ‘*a proposed wind energy development involving one or more turbines should not be considered acceptable unless it is in an area identified as being suitable for wind energy development in the development plan...*’.³⁷ As such, if local planning authorities (LPAs), particularly district / borough / unitary authorities, do not identify suitable areas for wind energy in their development plans then they are effectively ruling out wind energy development in their LPA areas.

In practice, the identification of 'suitable areas' for renewable energy development in development plans primarily focusses on both wind and solar energy.

When 'suitable areas' are being identified, regard should be given to the purpose of conserving and enhancing the natural beauty of the CNL. In effect, this means that the identification of 'suitable areas' should be underpinned by a landscape sensitivity assessment and by consideration of constraints that relate to the natural beauty of the CNL, including nature conservation and historic environment designations (in addition to infrastructure constraints and other technical considerations).

Wind and solar energy schemes should be steered towards areas of lower landscape sensitivity and away from key constraints. Ideally, areas that are identified as having 'high' landscape sensitivity to the type and scale of renewable energy being proposed should be excluded from the suitable area mapping. Careful consideration will also need to be given to types and scales of renewable energy that are identified as resulting in 'moderate-high' landscape sensitivity – such development is likely to be 'major development' in the context of paragraph 177 of the National Planning Policy Framework, for which there is, in effect, a presumption against granting planning permission (other than in exceptional circumstances).

Any renewable energy proposal within a 'suitable area' will still need to be assessed on a case-by-case basis against relevant policy considerations (in a similar way to minerals proposals in the 'areas of search' that are identified in Minerals Local Plans), taking into account relevant CNL / AONB considerations. In the case of wind energy proposals, they will also need to demonstrate that they have the backing of the local community. Where multiple renewable energy developments would be inter-visible, cumulative impacts will also be a key consideration.

- **Board position:**

- The Board supports the identification of suitable areas for wind and solar energy in local planning authority (LPA) development plans.
- The identification of 'suitable areas' should be underpinned by a landscape sensitivity assessment and by consideration of relevant constraints and technical considerations.
- Suitable area maps should exclude areas of high landscape sensitivity (and least within the CNL) and key constraints.
- Renewable energy schemes should be targeted towards areas of relatively low landscape sensitivity (preferably low or moderate-low landscape sensitivity) within the LPA area.

Further guidance and recommendations on the identification of 'suitable areas', including landscape sensitivity assessments and constraints mapping, is provided in Appendix 3. Further guidance on the related issue of major development is provided in Appendix 2. Please also note the reference that is made to landscape sensitivity assessments in relation to large-scale solar energy development and large-scale wind energy development (see Sections 3.4 and 3.5 respectively).

The Board is considering commissioning an assessment of 'suitable areas' for wind and solar energy development across the whole of the CNL area. This would include a renewable energy landscape sensitivity assessment and constraints mapping. This would help to ensure that a consistent methodology is applied for the whole area, with these methodologies having regard to relevant Board guidance. If we decide to proceed with this work, we will endeavour to work closely with our

local authorities and other relevant stakeholders to ensure a collaborative approach that is beneficial for all parties.

3.7 ENERGY STORAGE

Renewable energy, particularly solar and wind, is intrinsically intermittent in nature. For example, the sun does not shine 24 hours per day and the absorption power of solar energy on cloudy days is noticeably reduced. Similarly, wind does not always blow with the same intensity.

To address this issue, it is important to provide energy storage systems that can be charged during periods of excess renewable energy generation and discharged at times of increased demand. Energy storage can also be used to store electricity bought from the grid at cheaper times of the day, with dynamic energy tariffs that vary in price throughout the day.

Energy storage systems include:

- **Pumped hydro:** This involves pumping water uphill at times of low demand, storing it in a reservoir and, in periods of high demand, releasing it through turbines to create electricity,
- **Thermal energy storage:** This involves storing excess energy to be used later for heating, cooling or power generation; thermal energy can be stored in liquids, such as water, or solids, such as sand or rocks. Chemical reactions or changes in materials can also be used to store and release thermal energy.
- **Mechanical energy storage:** This involves harnessing motion or gravity to store electricity. For example, a flywheel is a rotating mechanical device that is used to store rotational energy that can be called up instantaneously.
- **Batteries:** This involves converting stored chemical energy into electrical energy. Advances in technology and falling prices mean grid-scale battery facilities that can store increasingly large amounts of energy are becoming increasingly common.

For the small-scale forms of renewable energy that are advocated in this position statement, the most common form of energy storage in the CNL is likely to be battery storage. In this context, battery storage solutions can be particularly attractive to farmers and rural businesses protecting their operations from fluctuating energy costs. The battery size will depend on energy usage and the size of the renewable energy technologies installed. Some, but not all, battery storage systems can be installed outdoors.

Where planning permission is required for battery storage (and other forms of energy storage), relevant considerations include the following points:

- Location and design of the structure that the batteries are to be stored in (including the potential use of existing buildings, such as barns)
 - Fencing, substation and any other structures / infrastructure associated with the storage system.
 - Access and maintenance arrangements.
 - Noise impacts.
 - The sustainability and environmental impact of the materials being used in the batteries (e.g., lithium).
-
- **Board position:** In principle, the Board would be supportive of energy storage schemes that provide effective storage of renewable energy that is generated in the CNL, providing that relevant considerations have been adequately addressed.

- **QUERY:** *Is this an appropriate position for the Board to take? If not, what should the Board's position be and why?*

4.0 COMMUNITY-LED RENEWABLE ENERGY SCHEMES

The Cotswolds National Landscape (CNL) Board has a statutory duty to foster the economic and social wellbeing of local communities within the CNL. An important component of this is how the energy and heating requirements of these communities is met. As outlined in Section 1.0, above, the CNL Climate Change Strategy *'seeks to generate low carbon energy and heat for its communities' needs [i.e., the needs of local communities within the CNL] whilst conserving and enhancing the natural beauty and special qualities of the Cotswolds National Landscape'*.³⁸

In addition, national planning policy states that *'local planning authorities should support community-led initiatives for renewable and low carbon energy'*.³⁹ In the case of wind energy, national planning policy also states that a proposed wind energy development involving one or more turbines should not be considered acceptable unless, inter alia, the proposal has the backing of the local community.⁴⁰

As such, the extent to which a proposed renewable energy scheme: (i) explicitly helps to meet the energy needs of the individual local community; and / or (ii) is community-led is an important consideration.

Ideally proposals for community-led renewable energy should be supported by evidence of the current carbon footprint / energy use of the community, and of the impact that the renewable energy proposal will have on reducing this.

- **Board position:** In principle, the Board would view community-led schemes more favourably than schemes that are not community-led, provided that CNL considerations have been adequately addressed. All renewable energy schemes should be able to demonstrate benefits for the local community.

APPENDIX 1. PURPOSE AND STATUS OF POSITION STATEMENTS

Purpose of the Board's Position Statements

The primary purpose of the Cotswolds National Landscape (CNL) Board's position statements is to expand on relevant policies in the Cotswolds National Landscape Management Plan. They provide further context, guidance and recommendations in relation to specific policies and associated issues. They are not intended to create new policies.

The Board's position statements are also intended to help local authorities, developers and other relevant stakeholders:

- to have regard to – and positively contribute to - the purpose of conserving and enhancing the natural beauty of the CNL;
- to ensure that the purpose of AONB designation is not compromised by development and that the natural beauty of the CNL is conserved and enhanced;
- to fulfil the requirements of the National Planning Policy Framework and Planning Practice Guidance (or, where relevant, National Policy Statements) with regards to AONBs and the factors that contribute to their natural beauty;
- to take account of relevant case law;
- to have regard to and be consistent with the CNL Management Plan and guidance published by the Board;
- to emulate best practice in the CNL and other protected landscapes;
- to develop a consistent and coordinated approach to relevant issues across the whole of the Cotswolds National Landscape and its setting.

Status of the Board's Position Statements

Relevant authorities⁴¹ are required, by law, to have regard to the purpose of conserving and enhancing the natural beauty of designated areas of outstanding natural beauty (AONB).⁴² This duty is known as the 'duty of regard'. In fulfilling this duty of regard, we consider that it is important that relevant authorities have regard to guidance published by the Board, including the Board's position statements.

As indicated above, the Board's position statements are supplementary – and subsidiary - to the statutory CNL Management Plan. However, the CNL Management Plan 2018-2023 states that development proposals in the Cotswolds National Landscape and its setting should have regard to - and be compatible with - guidance produced by the Board, including the Board's position statements.¹

We consider that the CNL Management Plan and, by extension, the Board's position statements, should be a material consideration in planning decisions. It is important to note that planning law requires that planning applications must be determined in line with the relevant, local authority development plan unless there are material considerations that indicate otherwise.

In some instances, some of the guidance and / or recommendations in the Board's position statements might go further than the policies of current development plans. Hopefully, as new

¹ Cotswolds National Landscape Board (2023) *Cotswolds AONB Management Plan 2023-2025*. Policy CE10 (Development and Transport – Principles)

iterations of the local authority development plans are developed, we hope that the guidance and recommendations from the position statements will be incorporated into these new iterations.

APPENDIX 2. COTSWOLDS NATIONAL LANDSCAPE CONSIDERATIONS AND OTHER GENERAL CONSIDERATIONS

COTSWOLDS NATIONAL LANDSCAPE CONSIDERATIONS

Legislation, policy and guidance

Proposals for renewable energy development within the Cotswolds National Landscape (CNL) and its setting should have regard to:

- the statutory purpose of designation, which is to conserve and enhance the natural beauty of the area;
- national planning policy / guidance, particularly paragraphs 11, 174, 176 and 177 of the National Planning Policy Framework (NPPF);
- the relevant local authority development plan (including Local Plans and Neighbourhood Plans) and other relevant local authority guidance and evidence

In addition, such proposals should have regard to – and, ideally, be compatible with - the following Board publications:

- CNL Management Plan 2023-25, including the ‘special qualities’ of the CNL that are listed in Chapter 4 and the policies in Chapter 5;
- CNL Landscape Character Assessment;⁴³
- CNL Landscape Strategy and Guidelines;⁴⁴
- Cotswolds National Landscape Climate Change Strategy;⁴⁵
- Cotswolds Nature Recovery Plan;⁴⁶
- CNL Board Position Statements,⁴⁷ including the Position Statements on Landscape-led Development⁴⁸ and Development in the Setting of the Cotswolds AONB⁴⁹.

Landscape character

The Cotswolds AONB Landscape Character Assessment describes the 19 different landscape character types (LCTs) within the CNL, including their key features / characteristics. These key features / characteristics are re-iterated in the Cotswolds AONB Landscape Strategy & Guidelines. For each LCT, the Landscape Strategy & Guidelines also summarises the landscape sensitivity, identifies ‘local forces for change’ and their potential implications and sets out guidelines for avoiding or minimising adverse effects

The ‘local forces for change’ that are identified in the Landscape Strategy and Guidelines for each LCT include solar farms, the planting of energy crops and the introduction of vertical elements including wind turbines. With regards to landscape sensitivity, the Landscape Strategy and Guidelines identify that some LCTs are particularly sensitive to ‘tall, vertical elements’, with wind turbines being explicitly mentioned in some cases. The relevant LCTs include:

- LCT 7 – High Wold
- LCT 9 – High Wold Dip-Slope
- LCT 11 – Dip-Slope Lowland
- LCT 13 – Low Limestone Plateau

Regard should also be given to local authority landscape character assessments and related evidence. In most cases these align closely with the Cotswolds AONB Landscape Character Assessment.

Other factors that contribute to natural beauty

The extent to which a proposed renewable energy development might affect the landscape and scenic beauty of the CNL is obviously a key consideration and, in planning terms, these effects should be given great weight⁵⁰. However, there are a number of additional factors that contribute to the natural beauty of the Cotswolds CNL and other Areas of Outstanding Natural Beauty, including

- Natural heritage (including biodiversity):
 - See Policy CE7 (Biodiversity and Nature Recovery) of the CNL Management Plan 2023-2025 and the Cotswolds Nature Recovery Plan⁵¹.
- Cultural heritage (including historic environment):
 - See Policy CE6 (Historic Environment and Cultural Heritage) of the CNL Management Plan 2023-25 and the Board's Position Statement on Conserving and Celebrating Cultural Capital in the Cotswolds AONB⁵².
- Relative tranquillity:
 - See Policy CE4 (Tranquillity) of the CNL Management Plan 2023-25 and the Board's Tranquillity Position Statement.⁵³
 - See also Policy CE5 (Dark Skies) of the CNL Management Plan 2023-25 and the Board's Dark Skies & Artificial Light Position Statement⁵⁴.

More information on the factors that contribute to natural beauty is provided in Natural England's '*Guidance for assessing landscapes for designation as National Park or Area of Outstanding Natural Beauty*'.⁵⁵

Other relevant position statements include:

- Landscape-led Development;⁵⁶
- Development in the Setting of the Cotswolds AONB.⁵⁷

Major development

Consideration should be given to whether a proposed renewable energy development constitutes 'major development' in the context of paragraph 177 of the National Planning Policy Framework (NPPF).⁵⁸ Footnote 60 of the NPPF states that '*whether a proposal is major development is a matter for the decision maker, taking into account its nature, scale and setting, and whether it could have a significant adverse impact on the purposes for which the area has been designated*'. Appendix 4 of the Board's Landscape-led Development Position Statement provides a checklist of relevant considerations in this regard.⁵⁹

Paragraph 177 of the NPPF states that '*permission should be refused for major development other than in exceptional circumstances and where it can be demonstrated that the development is in the public interest*'. The NPPF requires a number of major development 'tests' to be applied, as outlined below

Major development test A – assessing the need for the development

The priority given to climate change, through the declaration of the climate and ecological emergencies, would potentially make it easier to demonstrate 'exceptional need' for renewable energy proposals.

Community-led renewable energy schemes, which have robust evidence of need specific to the community and which have appropriate funding and administrative mechanisms in place, are more likely to demonstrate ‘exceptional need’ than schemes that meet a more generic need.

However, exceptional *need* does not necessarily equate to exceptional *circumstances*.⁶⁰ For example, there may be other, more suitable ways of mitigating the impacts of climate change (or delivering renewable energy) or less harmful locations for the proposed development.

Major development test B – assessing the cost of, and scope for, developing outside the designated area or meeting the need in some other way

Case law has stated that ‘*no permission should be given for major development save to the extent the development met a need that could not be addressed elsewhere*’.⁶¹ As such, all other things being equal, it could be argued that if there are areas outside the CNL (within a local authority area) that are identified as having equal or lesser landscape sensitivity to the type and scale of renewable energy development being proposed, then preference should be given to locating the development in those locations.

Consideration should also be given to whether the proposed scheme is the most effective way of mitigating the impacts of climate change or is the most appropriate form of renewable energy. In particular, consideration should be given to whether there are suitable nature-based alternatives for mitigating the impacts of climate change.

Major development test C – assessing any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated

In relation to this test, case law has stated that ‘*no permission should be given for major development save to the extent the development ... met that need in a way that to the extent possible, moderated detrimental effect on the environment, landscape and recreational opportunities*’.⁶² As such, renewable energy proposals that constitute major development should be required to demonstrate that they have: (i) avoided; and (ii) minimised any potential detrimental effects (to the extent possible) in this regard.

The higher level of landscape sensitivity associated with the scale and type of renewable energy development being proposed, the more this will weigh against permission being granted on the grounds of exceptional circumstances and public interest.

More information on the issue of major development is provided in the Board’s Landscape-led Development Position Statement⁶³ and in Appendix 9 of the CNL Management Plan 2023-25.

Development in the setting of the Cotswolds National Landscape

Renewable energy development in the setting of the CNL has the potential to adversely affect the natural beauty of the CNL, particularly with regards to impacts on views from and to the CNL.

Paragraph 176 of the NPPF states that ‘*great weight*⁶⁴ *should be given to conserving and enhancing landscape and scenic beauty*’ in AONBs. Case law has clarified that this great weight should be applied to development outside an AONB, as well as to development within it, where the proposed development may adversely affect the landscape and scenic beauty of the AONB.⁶⁵ This includes impacts on views from the AONB but not impacts on views looking towards the CNL. However, impacts on views towards the CNL is still an important material consideration, particularly in relation to views looking towards the Cotswold escarpment, with these views being one of the ‘special qualities’ of the CNL. Other relevant considerations include the potential increase in traffic

movements through the CNL (or along its boundary) that may result from the proposed development.

Paragraph 176 of the NPPF states that '*development within [the setting of AONBs] should be sensitively located and designed in order to minimise adverse impacts on the designated area*'. Further information on the topic of renewable energy is provided in the Board's Position Statement on Development in the Setting of the Cotswolds AONB.⁶⁶

Environmental Impact Assessment

Where renewable energy proposals fall under Schedule 2 of the Environmental Impact Assessment (EIA) Regulations,⁶⁷ consideration should be given to whether an EIA is required, particularly if the proposals is above the 'applicable thresholds and criteria' for Schedule 2 development⁶⁸.

EIAs are required where it is considered that the proposal is likely to have a significant effect on the environment. In such circumstances, it is highly likely that the proposal should also be considered major development, in the context of paragraph 177 and footnote 60 of the NPPF.

OTHER CONSIDERATIONS

Temporary structures

As a result of the temporary nature of many of renewable energy technologies, the Board would expect local planning authorities to apply appropriate conditions to planning permissions requiring the removal of any buildings and any other structures at the end of the life of the proposed installation or when they become obsolete, whichever is the earlier. In accordance with the NPPF, sites granted temporary permission should not be considered as constituting brownfield land.

Grid capacity and connectivity

A key constraint to local renewable energy production is the connectivity of the location of a proposed renewable energy scheme with the National Grid. Significant upgrading may need to be undertaken in order to provide this connectivity, which may make a scheme unviable. The consideration of renewable energy schemes, including the assessment of their acceptability, should take account of any necessary associated infrastructure such as access roads, cables and ancillary buildings.

Cumulative impacts

The cumulative landscape and visual impact of a proposed renewable energy scheme (and any associated infrastructure) is a key consideration.

With regards to cumulative visual impacts, this is particularly important for large-scale wind energy proposals, which can potentially be seen from many miles away. Infrastructure that is likely to result in cumulative effects includes: other wind developments; overhead powerlines; and telecommunications masts and other vertical structures.

APPENDIX 3. WIND & SOLAR ENERGY – IDENTIFICATION OF ‘SUITABLE AREAS’

Context

Paragraph 155 of the National Planning Policy Framework (NPPF) states that, to help increase the use and supply of renewable and low carbon energy and heat, plans should ‘*consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development*’.⁶⁹ There is a particularly strong onus on identifying ‘suitable areas’ for wind energy, with the NPPF stating that ‘*a proposed wind energy development involving one or more turbines should not be considered acceptable unless it is in an area identified as being suitable for wind energy development in the development plan*’.⁷⁰

In practice, the identification of ‘suitable areas’ for renewable energy development in development plans primarily focusses on wind and solar energy.

The Board recommends that the identification of ‘suitable areas’ should be based on a combination of:

- Landscape sensitivity assessments.
- Constraints mapping.
- Technical considerations including wind speed and grid connectivity.

The topics of landscape sensitivity assessments and constraints mapping are addressed in more detail below.

Landscape Sensitivity Assessment

As stated in the Government’s Planning Practice Guidance (PPG) for Renewable and Low Carbon Energy,⁷¹ ‘*there are no hard and fast rules about how suitable areas for renewable energy should be identified, but in considering locations, local planning authorities will need to ensure they take into account ... critically, the potential impacts on the local environment, including from cumulative impacts*’.

The PPG goes on to state, in relation to the identification of suitable areas, that:

- ‘*In considering impacts, assessments can use tools to identify where impacts are likely to be acceptable. For example, landscape character areas could form the basis for considering which technologies at which scale may be appropriate in different types of location*’.⁷²

It is important to note that the PPG says ‘could’ rather than ‘should’, in this regard. However, in the context of nationally designated protected landscapes, such as AONBs, and their settings, we consider that it is essential that the identification of suitable areas should be underpinned by a landscape sensitivity assessment. In practice, this type of assessment normally takes the form of a landscape sensitivity assessment. Guidance on this topic has been published by Natural England.⁷³

Landscape sensitivity assessments assess the sensitivity of the landscape (i.e., the sensitivity of landscape character areas / types) to different scales of wind and solar energy. Based on current best practice, suggested thresholds are as follows:⁷⁴

Table 3. Size thresholds for wind and solar energy

Size threshold	Wind	Solar
Very small	Up to 25m (to turbine tip height)	Up to 5 hectares (ha)
Small	26-60m	6-10ha
Medium	61-100m	11-15ha
Large	101m-120m	16-30ha
Very large	121m-150m	31-60ha

An explanation of the different levels of landscape sensitivity is provided in the table below. In ‘positive planning’ terms, areas of high landscape sensitivity can be classed as having ‘low landscape potential’ and areas of low landscape sensitivity can be classed as having ‘high landscape potential’.⁷⁵ The table also provides an indication of whether, in the Board’s opinion, a proposed development is likely to constitute ‘major development’ based on the identified landscape sensitivity (albeit that this will depend, to some degree, on the specifics of the proposed development).

Table 4. Landscape sensitivity, landscape potential and major development

Landscape Sensitivity	Landscape Potential	Definition	Likely to be ‘major development’?
High	Low	Key characteristics and qualities of the landscape are highly vulnerable to change. New solar PV or wind energy developments are likely to result in a significant change in character. Therefore, there is low landscape potential for new development within the LCT/LCA.	Yes
Moderate-High	Moderate-Low	Key characteristics and qualities of the landscape are vulnerable to change from new solar PV or wind energy developments. There may be some very limited potential to accommodate developments without significantly changing landscape character. Great care would be needed in siting and design.	Probably
Moderate	Moderate	Some of the key characteristics and qualities of the landscape are vulnerable to change. Although the landscape may have some potential to accommodate new solar PV or wind energy development, it is likely to cause a degree of change in character. Care would be needed in siting and design	Possibly
Moderate-Low	Moderate-High	Fewer of the key characteristics and qualities of the landscape are vulnerable to change. The landscape is likely to be able to accommodate new solar PV or wind energy development with limited change in character. Care is still needed when siting and designing schemes to avoid adversely affecting landscape character.	Less likely
Low	High	Key characteristics and qualities of the landscape are robust in that they can withstand change from the introduction of new solar PV or wind energy developments. The landscape is likely to have high potential to accommodate such development without a significant change in character. Care is still needed when siting and designing these developments to ensure best fit with the landscape.	Probably not

Where the landscape sensitivity is classed as ‘High’, key characteristics and qualities of the landscape are highly vulnerable to change from the proposed scale of wind and solar energy development. Such development is highly likely to result in a significant (adverse) change in landscape character. In

AONBs, such development is likely to have a significant adverse effect on the statutory purpose of AONB designation, which is to conserve and enhance the natural beauty of AONBs. The same is also true for such development in the setting of an AONB in cases where the impact on views from and / or to the AONB is an important consideration in the landscape sensitivity ranking.⁷⁶

In order for a landscape sensitivity assessment to have a meaningful role in the identification of suitable areas for wind and solar energy we recommend that areas within AONBs that have 'High' sensitivity to particular scales of wind or solar energy development should not be included within 'suitable area' maps in local authority development plans. The same principle should also apply to 'High' sensitivity areas in the setting of an AONB, where the impact on views from and / or to the AONB is an important consideration in the landscape sensitivity ranking.

- **RECOMMENDATION:** The following areas should not be included in 'suitable area' maps (or equivalent), for wind and solar energy, in local authority development plans:
 - i. Landscape character areas / types within AONBs that are identified as having 'High' sensitivity to particular scales of wind or solar energy development.
 - ii. Landscape character areas / types within the setting of AONBs that are identified as having 'High' sensitivity to particular scales of wind or solar energy development *and* where the potential impact on views from and / or to the AONB is an important consideration in the landscape sensitivity ranking.

Key characteristics and qualities of the landscape are also vulnerable to change from wind and solar energy development when the landscape sensitivity is classed as 'Moderate-High'. However, there may be some limited opportunity to accommodate wind turbines/ solar panels in such areas without significantly changing landscape character. Ideally, the landscape sensitivity assessment would specify the circumstances, or locations, where this might be the case. Given the fact that there may be opportunity (albeit limited) to accommodate such development without significantly changing landscape character, it might not be appropriate to automatically exclude such areas from 'suitable area' maps in local authority development plans.

However, where the scale of wind or solar energy development within an AONB (or its setting) is such that the landscape sensitivity would be 'Moderate-High', such development *could* still have a significant adverse impact on the natural beauty of the AONB. Within an AONB, such development is likely to constitute 'major development', in the context of paragraph 177 and footnote 60 of the National Planning Policy Framework (NPPF).⁷⁷

- **RECOMMENDATION:**
 - Landscape character areas / types within AONBs and their settings that are identified as having 'Moderate-High' landscape sensitivity (or lower sensitivity) to particular scales of wind and solar energy development should not automatically be excluded from 'suitable area' mapping in local authority development plans. However, development plans should require consideration to be given to whether such development (within AONBs) would constitute 'major development', in the context of paragraph 177 and footnote 60 of the National Planning Policy Framework.
 - The local authority development plan (and / or the supporting Landscape Sensitivity Assessment evidence base) should set out the circumstances and / or locations in which wind or solar energy could potentially be accommodated within 'Moderate-High' landscape sensitivity areas without significantly changing landscape character.

Renewable energy LSAs that are commissioned by local authorities are normally based on the local authority's own Landscape Character Assessment. However, in fulfilling the statutory duty to have regard to the purpose of AONB designation, they should also have regard to relevant documents published by the relevant AONB Partnerships or Conservation Board, including: (i) Landscape Character Assessments; (ii) AONB Management Plans, particularly with regards to relevant policies and 'special qualities; (iii) Position Statements; and (iv) other guidance relating to landscape character and landscape sensitivity. Natural England's National Character Area profiles would also be a relevant consideration.

- **RECOMMENDATION:**

- **Renewable energy landscape sensitivity assessments, commissioned by local authorities, should have regard to relevant guidance published by the relevant AONB Partnership or Conservation Board.**

Cumulative effects

The Government's Planning Practice Guidance (PPG) for Renewable and Low Carbon Energy states that:

- *There are no hard and fast rules about how suitable areas for renewable energy should be identified, but in considering locations, local planning authorities will need to ensure they taken into account ... critically, the potential impacts on the local environment, including from cumulative effects.⁷⁸ (N.B. Underlining added for emphasis).*

Therefore, careful consideration will need to be given to how the cumulative effects will be addressed in suitability mapping.

Constraints mapping

The Government's Planning Practice Guidance (PPG) on Renewable and Low Carbon Energy states, in the context of identifying 'suitable areas', that '*there is a methodology⁷⁹ available from the Department of Energy and Climate Change's website on assessing the capacity for renewable energy development*'.⁸⁰

The methodology outlined above sets out a five-step process for addressing the AONB designation:

- Step 1: Identify the purposes of the landscape area (reasons for designation)
- Step 2: Identify which technologies might affect these purposes/ integrity of the designation
- Step 3: Identify how each technology might affect the purposes/ integrity
- Step 4: Identify the type and level of renewable and low carbon infrastructure that could be accommodated without compromising the purposes/ integrity of the designations
- Step 5: Provide guidance on how to integrate renewable/ low carbon energy without compromising the purposes/integrity

The methodology identifies whether 'constraints', such as infrastructure and nature conservation and heritage conservation designations, should be excluded from further consideration (i.e., not considered suitable for renewable energy development) and whether there should be a 'buffer zone' around these features. The consideration of relevant constraints and buffer zones is reflected in the evidence base of many, current development plan consultations. Appendix 2 lists the types of constraints that are taken into account in this process, based on both the Government methodology and examples from development plan consultations that overlap with the Cotswolds National Landscape.

Table 5. Technical Constraints

Constraint	Exclude from 'suitable areas' for wind energy?	Exclude from 'suitable areas' for solar energy?	Suggested buffer zone	Comments
Road (A & B roads)	Y	Y	Wind: turbine tip height + 10%.	The DECC guidance excludes A& B roads but not minor roads. The Stroud DC methodology excludes 'roads' and the South Gloucestershire methodology excludes 'major' and 'minor' traffic infrastructure.
Other roads	Potentially	N	N/A	Consider at development management stage. The Stroud methodology appears to exclude all roads (and associated buffer zone). The South Glos methodology excludes both 'major' and 'minor' transport infrastructure. Excluding minor roads and an associated buffer zone (with regards to wind energy) would significantly reduce the potential 'suitable area'.
Rail lines	Y	Y	Wind: turbine tip height + 10%	DECC
Major transmission lines	Potentially	Potentially	Wind: turbine tip height + 10%	The DECC and South Gloucestershire methodologies don't refer to transmission lines but they are excluded in the Stroud DC methodology.
Noise buffer – residential properties	Y	N	See comments column	DECC Stroud District Council methodology (wind): <ul style="list-style-type: none"> • Small (@ 25-60m turbine tip height; @ 50kw): 200m • Medium (@60-100m; @0.5MW): 500m • Large (@ 100-150m; @ 2.5MW): 600m² • Very large: (@ 150-200m; @ 4MW): 750m
Noise buffer – commercial properties	Potentially	Potentially	See comments column	Stroud District Council methodology (wind): <ul style="list-style-type: none"> • Small (@ 25-60m turbine tip height; @ 50kw): 150m • Medium (@60-100m; @0.5MW): 200m • Large (@ 100-150m; @ 2.5MW): 300m • Very large (@ 150-200m; @ 4MW): 350m

² This reflects the DECC guidance.

Constraint	Exclude from 'suitable areas' for wind energy?	Exclude from 'suitable areas' for solar energy?	Suggested buffer zone	Comments
				<p>The South Gloucestershire methodology does not address noise buffer zones for commercial properties.</p> <p>The DECC guidance proposes a 600m buffer around all built-up areas but doesn't specifically address commercial properties.</p>
Built-up areas (i.e., settlements)	Y	Y	See noise buffers (above).	
Airport	Y	Y	Wind: 6km?	<p>DECC.</p> <p>A 6km buffer is suggested in the DECC guidance for wind energy in order to avoid interference with radar.</p>
Airfield	Y	Y	N/A	DECC guidance suggests a 6km buffer zone but it might be more appropriate to address this at the development management stage (otherwise very large areas might be unnecessarily excluded).
NATS Safeguarding Zones	N	N	N/A	Consider at the development management stage (as per the Stroud DC methodology)
MoD sites	Y	Y	N/A	DECC, South Gloucestershire
MoD Low Flying Zones	Y	N	N/A	South Gloucestershire
MoD defence radar	N	N	N/A	Consider at the development management stage (and / or consult MoD at the planning policy stage).
Existing and consented renewable energy developments	Y	Y	N/A	Stroud DC, South Gloucestershire
Active mines / quarries	Y	Y	Solar: 250m	The suggested 250m buffer zone comes from the Stroud DC methodology (relating to dust deposition). The South Gloucestershire methodology excludes these sites but doesn't specify a buffer zone. Not addressed in DECC guidance.
Strategic site allocations in Development Plan (other than for renewable energy)	Y	Y	N/A	
Inland waters (including	Y	Y	2m-50m?	The DECC guidance doesn't propose buffer zones for inland waters but the Stroud DC methodology suggests a 50m buffer zone,

Constraint	Exclude from 'suitable areas' for wind energy?	Exclude from 'suitable areas' for solar energy?	Suggested buffer zone	Comments
rivers, canals and lakes)				whereas the South Gloucestershire methodology recommends a 2m buffer.
Areas with north-east to north-west aspect and inclinations greater than 3 degrees. exclude all areas greater than 10 degrees	N	Y	N/A	Stroud DC
Slopes greater than 10 degrees	N	Y	N/A	Stroud DC
Slopes greater than 15 degrees	Y	Y	N/A	Stroud DC

Table 6. Planning and regulatory constraints

Constraint	Exclude from 'suitable areas' for wind energy?	Exclude from 'suitable areas' for solar energy?	Suggested buffer zone	Comments
CONSTRAINTS RELATING TO NATURAL BEAUTY				
Landscape character				
Landform	Potentially	Potentially	N/A	See consideration of 'slopes', above.
Special qualities of the AONB	N	N	N/A	Ideally, the 'special qualities' of the AONB will be taken into account in a landscape sensitivity assessment. N.B. Some of the designations listed in this table will form part of the special qualities of the AONB.
Key features / characteristics of the relevant landscape character types (LCTs)	N	N	N/A	Ideally, the 'key features / characteristics' of the relevant LCTs will be taken into account in a landscape sensitivity assessment. N.B. Some of the designations listed in this table will form part

Constraint	Exclude from 'suitable areas' for wind energy?	Exclude from 'suitable areas' for solar energy?	Suggested buffer zone	Comments
				of the special qualities of the AONB.
Local landscape designations	N	N	N/A	Ideally, local landscape designations should be considered in the landscape sensitivity assessment. Such designations would potentially increase the 'value' of the landscape and, all other things being equal, the overall landscape sensitivity. Consider at the development management stage.
Natural heritage				
International nature conservation designations (SAC, SPA, Ramsar)	Y	Y	Wind: Blade radius.	The DECC guidance (link) suggests using a 5-step approach, rather than automatically excluding such designations. However, it would not be appropriate to address the climate emergency by exacerbating the ecological emergency. These designations are excluded in South Gloucestershire Council (link) and Stroud District Council (link) renewable energy assessments. We consider that these sites <i>should</i> be excluded. The suggested buffer zones come from the Stroud District Council methodology and is intended to avoid 'oversail'.
National nature conservation designations (NNR, SSSI)	Y	Y	Wind: Blade radius.	See comments in previous row.
Local Nature Reserve	N	N	N/A	Consider at the development management stage. Excluded in Stroud DC and South Gloucestershire methodologies (with the Stroud DC methodology suggesting a 'blade radius' buffer zone). Not addressed in the DECC methodology.
Other local nature conservation	N	N	N/A	Consider at the development management stage. Excluded in Stroud DC methodology (which suggests a

Constraint	Exclude from 'suitable areas' for wind energy?	Exclude from 'suitable areas' for solar energy?	Suggested buffer zone	Comments
designations / sites ³				'blade radius' buffer zone) but not the South Gloucestershire methodology. Not addressed in the DECC methodology.
Irreplaceable habitat - ancient woodland	Y	Y	Wind: 15m or 'blade radius + 50m' Solar: 20m	The DECC, Stroud DC and South Gloucestershire methodologies all exclude ancient woodland. The suggested buffer zone comes from the Stroud DC methodology and is intended to reduce risk of impact on bats. The South Gloucestershire methodology suggests a 15m buffer zone (to avoid root damage).
Irreplaceable habitat - unimproved (calcareous) grassland pre-dating 1945	Y	Y	N/A	The Cotswolds Conservation Board considers unimproved grassland that pre-dates the end of World War 2 to be 'ancient'.
Broadleaved woodland	N	N	N/A	Excluded in Stroud DC (with buffer zone of 'blade radius + 50m' for wind and 20m for solar) and South Gloucestershire methodologies but not addressed in DECC guidance. We consider that this criterion could be addressed at the development management stage (through 'biodiversity net gain requirements' rather than excluding it from 'suitable area' mapping).
Other woodland	N	N	N/A	Stroud DC methodology excludes all woodland on the National Woodland Inventory and suggests a buffer zone of 'blade radius + 50m' for wind and 20m for solar). The South Gloucestershire methodology indicates that this criterion will be given further consideration. See comments in previous row.
Other priority habitat identifies as	N	N	N/A	Consider at the development management stage.

³ Including Local Wildlife Sites / Key Wildlife Sites, Wildlife Trust reserves

Constraint	Exclude from 'suitable areas' for wind energy?	Exclude from 'suitable areas' for solar energy?	Suggested buffer zone	Comments
a priority in AONB Management Plans				
Other priority habitat	N	N	N/A	Consider at the development management stage.
Natural England's Impact Risk Zones (IRZ)	N	N	N/A	Consider at the development management stage.
Cultural heritage				All of the cultural heritage designations listed below are excluded in the DECC, South Gloucestershire and Stroud methodologies (except for 'setting' and, in the case of South Gloucestershire, 'conservation areas' (although these areas will be given further consideration as the local plan review progresses)).
Scheduled monuments	Y	Y	Wind: blade radius Solar: N	
Listed buildings	Y	Y	Wind: blade radius ⁴	
Conservation areas	Y	Y	Wind: blade radius Solar: N	Most Conservation Areas would be within built-up areas so would be excluded on that basis as well. However, some Conservation Areas might extend well beyond the built-up area.
Registered Historic Parks and Gardens	Y	Y	Wind: blade radius Solar: N/A	
Registered Historic Battlefields	Y	Y	Wind: blade radius Solar: N/A	
World Heritage Sites	Y	Y	Wind: blade radius Solar: N	
Setting of any of the above 'cultural heritage' designations	N	N	Wind: blade radius Solar: N/A	Consider at the development management stage.
Tranquillity				

⁴ A noise buffer zone would apply if the listed building was a dwelling.

Constraint	Exclude from 'suitable areas' for wind energy?	Exclude from 'suitable areas' for solar energy?	Suggested buffer zone	Comments
Noise				See reference to noise buffer zones, above.
CONSTRAINTS RELATING TO ENJOYMENT AND UNDERSTANDING⁵				
Public Rights of Way (PROW)	N	N	N/A	Consider at the development management stage The Stroud DC methodology excludes PROW and, for wind energy, a buffer zone of the turbine tip height + 10% (for safety reasons). PROW are not considered in the DECC guidance or in the South Gloucestershire methodology. QUERY: Would excluding PROW (and related buffer zones) excessively restrict 'suitable areas'?
Cycle trails	N	N	N/A	See comments in previous row.
Common land / access land	N	N	N/A	See comments in previous two rows.
National Trust inalienable land	N	N	N/A	Consider at the development management stage. This criterion will be given further consideration in the South Gloucestershire methodology but is not addressed in the Stroud DC methodology or the DECC guidance.
Designated Green Space	N	N	N/A	Consider at the development management stage. This criterion is excluded in the Stroud DC methodology but is not addressed in the South Gloucestershire methodology or DECC guidance.

⁵ The Cotswolds National Landscape Board has two statutory purposes: (i) to conserve and enhance the natural beauty of the Cotswolds National Landscape; and (ii) to increase the understanding and enjoyment of the special qualities of the Cotswolds National Landscape. This second purpose is closely aligned with opportunities for open-air recreation. If there is a conflict between the two statutory purposes, greater weight should be attached to purpose (i).

Constraint	Exclude from 'suitable areas' for wind energy?	Exclude from 'suitable areas' for solar energy?	Suggested buffer zone	Comments
OTHER DESIGNATION CONSTRAINTS NOT RELATED TO 'NATURAL BEAUTY' OR 'ENJOYMENT AND UNDERSTANDING'				
Green Belt	N	N	N/A	Consider at the development management stage. Not excluded in the DECC guidance. Not addressed in the Stroud DC methodology. Will be given further consideration in the South Gloucestershire methodology.
Flood plain / flood zone	N	N	N/A	Consider at the development management stage. Not excluded in the DECC guidance. Not addressed in the Stroud DC methodology. Will be given further consideration in the South Gloucestershire methodology.
Minerals Safeguarding Areas	N	N	N/A	Consider at the development management stage. Not addressed in the DECC guidance or Stroud DC methodology. Will be given further consideration in the South Gloucestershire methodology.

END-NOTES

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- ¹ The National Association of Areas of Outstanding Natural Beauty (2019) *The Colchester Declaration* ([link](#)).
- ² Defra (2019) Areas of Outstanding Natural Beauty: technical support scheme (England) 2019 to 2020 ([link](#)).
- ³ Each AONB is designated by reason of its special qualities; those aspects of the area's natural beauty which make the area distinctive, and which are valuable, especially at a national scale. They are the key attributes on which the priorities for its conservation and enhancement are based. These include flora, fauna, historical and cultural associations as well as landscape and scenic views. The special qualities of the Cotswolds National Landscape are listed in Chapter 4 of the Cotswolds National Landscape Management Plan 2023-25.
- ⁴ See previous footnote.
- ⁵ Cotswolds National Landscape Board is the new name for the Cotswolds Conservation Board, in line with the re-branding of the area, although Cotswolds Conservation Board currently remains the formal / legal entity.
- ⁶ Cotswolds National Landscape Board (2021) *Our Climate Crisis Commitment: A Net Zero Carbon Landscape* ([link](#)). Energy – Aim, page 45.
- ⁷ Section 82 of the Countryside and Rights of Way Act 2000 ([link](#)). See also Appendix 1 of the Cotswolds National Landscape Management Plan 2023-25 for further information.
- ⁸ Cotswolds National Landscape Board (2022) *Cotswolds National Landscape Climate Change Strategy* ([link](#)). Landscape – Aim, page 8.
- ⁹ <https://www.glasgowsciencecentre.org/our-blog/the-energy-hierarchy>
- ¹⁰ Cotswolds National Landscape Board (2022) *Cotswolds National Landscape Climate Change Strategy* ([link](#)).
- ¹¹ Cotswolds National Landscape Board (2023) *Cotswolds National Landscape Management Plan 2023-25*. Policy CC1 – Climate Change Mitigation.
- ¹² Relevant considerations, in this context, refers to the considerations that are addressed in the Position Statement in relation to each form of renewable energy and in the appendices.
- ¹³ <https://www.worcswildlifetrust.co.uk/woodlands/managing-our-woodlands>
- ¹⁴ The target in the Cotswolds Nature Recovery Plan ([link](#)) is 4,000 hectares of new woodland. However, the Board is currently giving consideration to whether additional new woodland (over and above the 4,000ha target) should be created to contribution to 'net-zero' greenhouse gas emissions.
- ¹⁵ Cotswolds National Landscape Board (2013) *Criteria for the planting of miscanthus and short rotation coppice* ([link](#)).
- ¹⁶ Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 ([link](#)). Development type 3(a).
- ¹⁷ <https://www.biofuelwatch.org.uk/2018/biomass-and-land-use/>
- ¹⁸ See previous end note.
- ¹⁹ Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 ([link](#)). Development type 3(h) and 3(a).
- ²⁰ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017. Schedule 2 ([link](#)). Development type 3(a).
- ²¹ The Town and Country Planning (General Permitted Development) (England) Order 2015. Part 14 ([link](#)).
- ²² The regulations relating to permitted development rights (PDR) for renewable energy specify that these PDR do not apply in 'Article 2(3)' land, which includes AONBs.
- ²³ The thresholds and criteria, specified in Schedule 2 of the Environmental Impact Assessment Regulations do not apply in 'sensitive areas', including AONBs.
- ²⁴ 'Located', in this context, refers to the placement of the proposed development with regard to the landscape context.
- ²⁵ 'Sited', in this context, refers to the development's placement in relation to its immediate context.
- ²⁶ 'Relate to', in this context, means 'on', 'in the curtilage of' and / or 'in the setting of'.
- ²⁷ Anecdotal evidence provided by consultants involved in commercial-scale solar energy proposals.
- ²⁸ <https://southillcommunityenergy.coop/how-southill-solar-works>
- ²⁹ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017. Schedule 2 ([link](#)). Development type 3(i) and / or 3(a). The EIA threshold also relates to wind energy development of any height (including smaller than 15m hub height) where there are more than two turbines.
- ³⁰ The Town and Country Planning (General Permitted Development) (England) Order 2015. Part 14 ([link](#)).
- ³¹ The regulations relating to permitted development rights (PDR) for renewable energy specify that these PDR do not apply in 'Article 2(3)' land, which includes AONBs.

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- ³² The thresholds and criteria, specified in Schedule 2 of the Environmental Impact Assessment Regulations do not apply in ‘sensitive areas’, including AONBs.
- ³³ ‘Located’, in this context, refers to the placement of the proposed wind development with regard to the landscape context.
- ³⁴ ‘Sited’, in this context, refers to the development’s placement in relation to its immediate context.
- ³⁵ Informal communication with Land Use Consultants.
- ³⁶ Ministry of Housing Communities and Local Government (2021) *National Planning Policy Framework* ([link](#)). Paragraph 155.
- ³⁷ Ministry of Housing Communities and Local Government (2021) *National Planning Policy Framework* ([link](#)). Footnote 54.
- ³⁸ Cotswolds National Landscape Board (2022) *Cotswolds National Landscape Climate Change Strategy* ([link](#)).
- ³⁹ Ministry of Housing Communities and Local Government (2021) *National Planning Policy Framework* ([link](#)). Paragraph 156.
- ⁴⁰ Ministry of Housing Communities and Local Government (2021) *National Planning Policy Framework* ([link](#)). Footnote 54. The consultation on proposed revisions to the NPPF in spring 2023 proposed changing the requirement for community ‘backing’ to community ‘support’. ‘Support’ is, arguably, a (slightly) lower threshold than ‘backing’. However, community backing or support is likely to remain a requirement for wind energy proposals to be approved.
- ⁴¹ In this context, ‘relevant authority’ includes any: Minister of the Crown; public body; statutory undertaker; person holding public office.
- ⁴² Section 85 of the Countryside and Rights of Way Act 2000 ([link](#)).
- ⁴³ Cotswolds National Landscape Board (2004) *Cotswolds AONB Landscape Character Assessment* ([link](#)).
- ⁴⁴ Cotswolds National Landscape Board (2016) *Cotswolds AONB Landscape Strategy & Guidelines* ([link](#)).
- ⁴⁵ Cotswolds National Landscape Board (2022) *Cotswolds National Landscape Climate Change Strategy* ([link](#)).
- ⁴⁶ Cotswolds National Landscape Board (2021) *Cotswolds Nature Recovery Plan* ([link](#)).
- ⁴⁷ <https://www.cotswoldsaonb.org.uk/our-landscape/position-statements-2/>
- ⁴⁸ Cotswolds National Landscape Board (2021) *Landscape-led Development Position Statement* ([link 1](#) – main document; [link 2](#) – appendices).
- ⁴⁹ Cotswolds National Landscape Board (2016) *Development in the Setting of the Cotswolds AONB Position Statement* ([link](#)).
- ⁵⁰ This ‘great weight’ is a factor in planning decisions when assessing the overall planning balance. In effect, it ‘tilts the scales’ towards a decision that would avoid harm to the landscape and scenic beauty of the affected AONB. The significance of applying this great weight partly depends on the significance of any adverse effects on the AONB. The overall planning balance will depend on the weight that should be given to other considerations.
- ⁵¹ Cotswolds National Landscape Board (2022) *Cotswolds Nature Recovery Plan* ([link](#)).
- ⁵² Cotswolds National Landscape Board (2019) *Conserving and Celebrating Cultural Capital in the Cotswolds AONB* ([link](#)).
- ⁵³ Cotswolds National Landscape Board (2019) *Tranquillity Position Statement* ([link](#)).
- ⁵⁴ Cotswolds National Landscape Board (2019) *Dark Skies & Artificial Light Position Statement* ([link 1](#) - main document; [link 2](#) – Appendix A; [link 3](#) – Appendix B; [link 4](#) - Appendix C).
- ⁵⁵ Natural England (2011) *Guidance for assessing landscapes for designation as National Park or Areas of Outstanding Natural Beauty* ([link](#)). In particular, please refer to Table 3 and Appendix 1.
- ⁵⁶ Cotswolds National Landscape Board (2021) *Landscape-led Development Position Statement* ([link 1](#) – main document; [link 2](#) - appendices).
- ⁵⁷ Cotswolds National Landscape Board (2016) *Developing in the Setting of the Cotswolds AONB Position Statement* ([link](#)).
- ⁵⁸ Ministry of Housing Communities and Local Government (2021) *National Planning Policy Framework* ([link](#)). Paragraph 177 and footnote 60.
- ⁵⁹ Cotswolds National Landscape Board (2021) *Landscape-led Development Position Statement* ([link 1](#) – main document (see Section 7.3 re major development); [link 2](#) – appendices (see Appendix 5 re major development)).
- ⁶⁰ This principle is recognised in relevant case law (R (Mevagissey Parish Council) v Cornwall Council [2013] EHC 3684 (Admin) ([link](#)), paragraph 52): ‘Even if there were an exceptional need ... that would not necessarily equate to exceptional circumstances for a particular development, because there may be alternative sites that are more suitable because development there would result in less harm to the AONB landscape’.

⁶¹ R (Advearse) v Dorset Council v Hallam Land Management Ltd [2020] EWHC 807 ([link](#)). Direct quote from paragraph 35.

⁶² R (Advearse) v Dorset Council v Hallam Land Management Ltd [2020] EWHC 807 ([link](#)). Direct quote from paragraph 35.

⁶³ Cotswolds National Landscape Board (2021) *Landscape-led Development Position Statement* ([link 1](#) – main document (see Section 7.3 re major development); [link 2](#) – appendices (see Appendix 5 re major development)).

⁶⁴ This ‘great weight’ is a factor in planning decisions when assessing the overall planning balance. In effect, it ‘tilts the scales’ towards a decision that would avoid harm to the landscape and scenic beauty of the affected AONB. The significance of applying this great weight partly depends on the significance of any adverse effects on the AONB. The overall planning balance will depend on the weight that should be given to other considerations.

⁶⁵ Stroud District Council v Secretary of State & Gladman Developments Ltd [2015] EWHC 488 ([link](#)). In particular, paragraphs 20-22.

⁶⁶ Cotswolds National Landscape Board (2016) *Development in the Setting of the Cotswolds AONB Position Statement* ([link](#)).

⁶⁷ Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 ([link](#)).

⁶⁸ It is worth noting that the ‘applicable thresholds and criteria’ in Schedule 2 of the Environmental Impact Assessment Regulations ([link](#)) don’t apply in AONBs. This is because AONBs are classes as ‘sensitive areas’, in this regard. As such, Schedule 2 development within the Cotswolds National Landscape that is smaller than the applicable thresholds and criteria may also need to be screened to assess if an EIA is required.

⁶⁹ Ministry of Housing Communities and Local Government (2021) *National Planning Policy Framework* ([link](#)). Paragraph 155.

⁷⁰ Ministry of Housing Communities and Local Government (2021) *National Planning Policy Framework* ([link](#)). Footnote 54.

⁷¹ <https://www.gov.uk/guidance/renewable-and-low-carbon-energy>. Paragraph 005.

⁷² <https://www.gov.uk/guidance/renewable-and-low-carbon-energy>. Paragraph 005.

⁷³ Natural England (2019) *An approach to landscape sensitivity assessment – to inform spatial planning and land management* ([link](#)).

⁷⁴ These thresholds are based on the figures used in the Renewable Energy Landscape Sensitivity Assessments that form part of the evidence base for the Bath & North East Somerset Local Plan Partial Update consultation ([link](#)) and the South Gloucestershire Local Plan consultation ([link](#)).

⁷⁵ Translating high-low landscape sensitivity into low-high potential is used in Bath & North East Somerset Council’s Renewable Energy Landscape Sensitivity Assessment ([link](#)).

⁷⁶ Case law ([link](#) – paragraphs 21 and 22) has clarified that the requirements of what is now paragraph 176 of the National Planning Policy Framework (NPPF) should apply to the impact of development outside an AONB on views from the AONB. In other words, great weight should be given to the impact of such development on these views. The Cotswolds Conservation Board’s Position Statement on Development in the Setting of the Cotswolds AONB ([link](#)) provides more context on this issue. Although the same principle doesn’t apply to the impact of such development on views towards an AONB, these views may still contribute to the ‘special qualities’ of the AONB and / or the ‘key features / characteristics’ of the component landscape character areas / types.

⁷⁷ Footnote 60 of the NPPF specifies that ‘for the purposes of paragraphs 176 and 177 [of the NPPF], whether a proposal is ‘major development’ is a matter for the decision maker, taking into account its nature, scale and setting, and whether it could have a significant adverse impact on the purpose for which the area has been designated or defined’.

⁷⁸ <https://www.gov.uk/guidance/renewable-and-low-carbon-energy>. Paragraph 005.

⁷⁹ LUC and SQW Energy (2010) *Renewable and Low-carbon Energy Capacity Methodology. Methodology for the English Regions*. Commissioned by the Department of Energy and Climate Change (DECC) and the Department of Communities and Local Government (CLG). ([Link](#)).

⁸⁰ <https://www.gov.uk/guidance/renewable-and-low-carbon-energy>. Paragraph 005.