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Guidance Note 2
Solar Farm Development in
Central Bedfordshire

Contents

1.0	Introduction	3
1.5	What this guidance covers	3
2.0	National Policy and Guidance relevant to Solar Farms.....	5
3.0	Local Planning Policy.....	7
4.0	Agricultural land quality.....	8
5.0	Landscape	11
6.0	Cumulative impact	22
7.0	The Historic Environment.....	23
8.0	Biodiversity	26
9.0	Glint and Glare.....	28
10.0	Noise	28
11.0	Drainage and surface water run-off	29
12.0	Securing the solar farm (fencing etc).....	29
13.0	Managing impacts of construction	30
14.0	Community engagement and benefits	31
15.0	Countryside Access and Rights of Way.....	32

1.0 Introduction

- 1.1 Solar Photovoltaic (PV) panels are recognised in the government's *'Solar PV Strategy part 1: Roadmap to a brighter future'* as one of the priority renewable energy technologies to assist the UK to meet its renewable energy targets, help to deliver secure, cleaner energy at the lowest possible cost to the consumer and ensure security in supply.
- 1.2 In recent years, costs have fallen dramatically, with Solar PV now being installed in a range of different locations and sizes – from domestic properties to large scale grid connected solar farms, sometimes also referred to as solar parks¹.
- 1.3 The Solar PV Roadmap makes it clear that new large scale solar installations need to be sensitively placed, setting out guiding principles which includes that:
- 'Support for solar PV should ensure proposals are appropriately sited, give proper weight to environmental considerations such as landscape and visual impact, heritage and local amenity and provide opportunities for local communities to influence decisions that affect them'.*
- 1.4 Policy 46 of Central Bedfordshire Council's emerging Development Strategy supports this approach with the overall aim being for the most appropriate deployment of large scale Renewables in the most appropriate place.

1.5 What this guidance covers

- 1.6 This guidance document aims to provide practical advice and insight into the range of key principles that need to be considered by developers, planners and communities alike with regards to solar farm proposals.
- a) Provide interpretation of how the elements of the national guidance on Renewables, relating to solar farms, will be applied in Central Bedfordshire.
 - b) Give an overview of what areas are deemed to have a higher sensitivity with regards to landscape impact and which areas would be considered as preferred areas of search.
 - c) Provide practical advice on what is expected to be provided within the supporting information that accompanies and helps assess a planning application.
 - d) Provide an overview of what is expected in the future management plans for the site, how these can be designed to promote biodiversity.

¹ For clarity when this document refers to solar farms, this also includes solar parks or any other developments that propose large scale deployment of ground mounted solar arrays.

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e) Give an upfront assessment of how impacts on other important infrastructure and users of the countryside can be factored into the applications, for instance with regards to rights of way.

1.7 This guidance provides a starting point for decision making, but it is essential that local variations in character are considered in relation to individual proposals.

1.8 In relation to some of the generic aspects of the planning implications for solar farms, the Building Research Establishment Guidance (BRE) guidance has been referenced to ensure the advice given in this document is consistent with what is being advised by other planning authorities in the UK.

1.9 What is not included

1.10 It does not cover planning advice for smaller building mounted PV systems. Many are covered under permitted development rules, unless they are on listed or protected buildings or in conservation areas – in which case it is likely they will require planning permission.

It is recommended that planning advice is always sought.

1.11 More information is available on the Council's website:
<http://www.centralbedfordshire.gov.uk/planning/planning-information-and-advice/default.aspx>

Or via the planning portal website at: <http://www.planningportal.gov.uk/permission/>

1.12 While the preference, both in terms of national and local planning policy is for large scale PV systems to be roof-mounted on buildings with a large footprint (such as warehousing), this guidance does not provide advice on the planning requirements for these systems.

1.13 An overview of how national policy and guidelines apply to Renewables is given in the introductory document, although this guidance does pick out specific elements relevant to the development of solar farms.

2.0 National Policy and Guidance relevant to Solar Farms.

2.1 The Council's planning guidance note 'Renewable Energy Guidance Notes – Introduction²', includes a high-level overview of national and local policy with regards to the development of large scale Renewable Energy developments. This solar farm guidance document specifically highlights any elements that relate to the development of solar farms or associated issues.

2.2 For example given the coverage of land taken by solar farms or parks, this guidance considers how agriculture land grades should be considered with the aim of ensuring that high quality agricultural land remains agriculturally productive.

2.3 The NPPF and national planning guidance:

2.4 The NPPF doesn't specifically mention solar farms and talks about Renewables more broadly. The basic premise of this being in favour of sustainable energy systems as long as that any impacts are (or can be) made acceptable, and that local planning authorities approach these as part of a positive strategy for tackling climate change.

2.5 In relation to this guidance it is important to note that the NPPF ensures the following are underlying principles to how planning applications for Renewables should be considered:

- a) It is not required for applicants of energy developments to demonstrate the overall need for renewable or low carbon energy and also recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions. The Council does ask for an indication of the energy generating capacity of the proposed scheme to accompany the application. This is in order to help demonstrate scale put the application into a context that can be easily understood (see Renewable Energy Guidance Introduction notes for more information).
- b) The planning authority must approve the application if its impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified, subsequent applications for commercial scale projects outside these areas should be expected and approved if the applicant is able to demonstrate that the proposal the criteria used in identifying suitable areas.

2.6 To provide greater detail and further clarification CLG produced further guidance in the summer of 2013. With regards to solar farms this states that³:

- a) The deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in very undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively.

² Available from <http://www.centralbedfordshire.gov.uk/planning/strategic-planning/renewable-energy.aspx>

³ From: 'Planning Practice for Renewable and Low Carbon Energy'
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/225689/Planning_Practice_Guidance_for_Renewable_and_Low_Carbon_Energy.pdf

- 2.7 It also details the particular factors a local planning authority will need to consider when determining a planning application, these include:
- a) Encouraging the effective use of previously developed land. If a proposal does involve greenfield land, that it allows for continued agricultural use and/or encourages biodiversity improvements in the areas around the arrays.
 - b) Solar farms are normally temporary structures and planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use.
 - c) The effect on landscape of glint and glare and on neighbouring uses and aircraft safety should be considered.
 - d) The extent to which there may be additional impacts if solar arrays follow or track the daily movement of the sun.
 - e) The need for, and subsequent impact of, security measures such as lights and fencing in their own right.
 - f) As the significance of a heritage asset derives not only from its physical presence, but also from its setting, careful consideration should be given to the impact of large scale solar farms on such assets. Depending on their scale, design and prominence, a large scale solar farm within the setting of a heritage asset may cause substantial harm to the significance of the asset.
 - g) The potential to mitigate landscape and visual impacts through, for example, screening with native hedges.
 - h) The energy generating potential, which can vary for a number of reasons including, latitude and aspect.
- 2.8 It also states that the approach to assessing cumulative landscape and visual impact of large scale solar farms is likely to be the same as assessing the impact of wind turbines. However, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero.
- 2.9 The National Policy Statements for Energy (EN1) and Renewable Energy (EN3) do not currently cover solar farms regardless of size or generating capacity. This means that all solar farm applications in Central Bedfordshire would be determined by the Council.

2.10 Other useful guidance:

- 2.11 Where relevant this document highlights and provides links to additional more detail guidance that could prove useful when looking at specific issues and impacts.
- 2.12 Guidance relating specifically to the development of solar farms has been produced by BRE and is available here: <http://www.bre.co.uk/page.jsp?id=3202>

3.0 Local Planning Policy

- 3.1 When assessing a planning application for a solar farm the Council's planners consider the proposal alongside a range of policies and guidance. Where these are from an adopted development plan, or have been adopted by the Council for development management purposes (as this guidance will be) they are called material considerations.
- 3.2 National policy that is a material consideration is detailed above. Local planning policies that are used to help determine planning applications are found in the Council's emerging Development Strategy.
- 3.3 The following policies from the Council's emerging Development Strategy, which has been endorsed by Council in November 2012.
- Policy 36: Development in the Green Belt
 - Policy 45: The Historic Environment
 - Policy 46: Renewable & Low carbon energy development
 - Policy 50: Development in the Countryside
 - Policy 57: Biodiversity and Geodiversity
 - Policy 58; Landscape
- 3.4 More information on the Council's emerging Development Strategy can be found at: <http://www.centralbedfordshire.gov.uk/planning/strategic-planning/development-strategy.aspx>
- 3.5 More detailed guidance on site sensitivity, mitigation etc is given in the rest of this document.

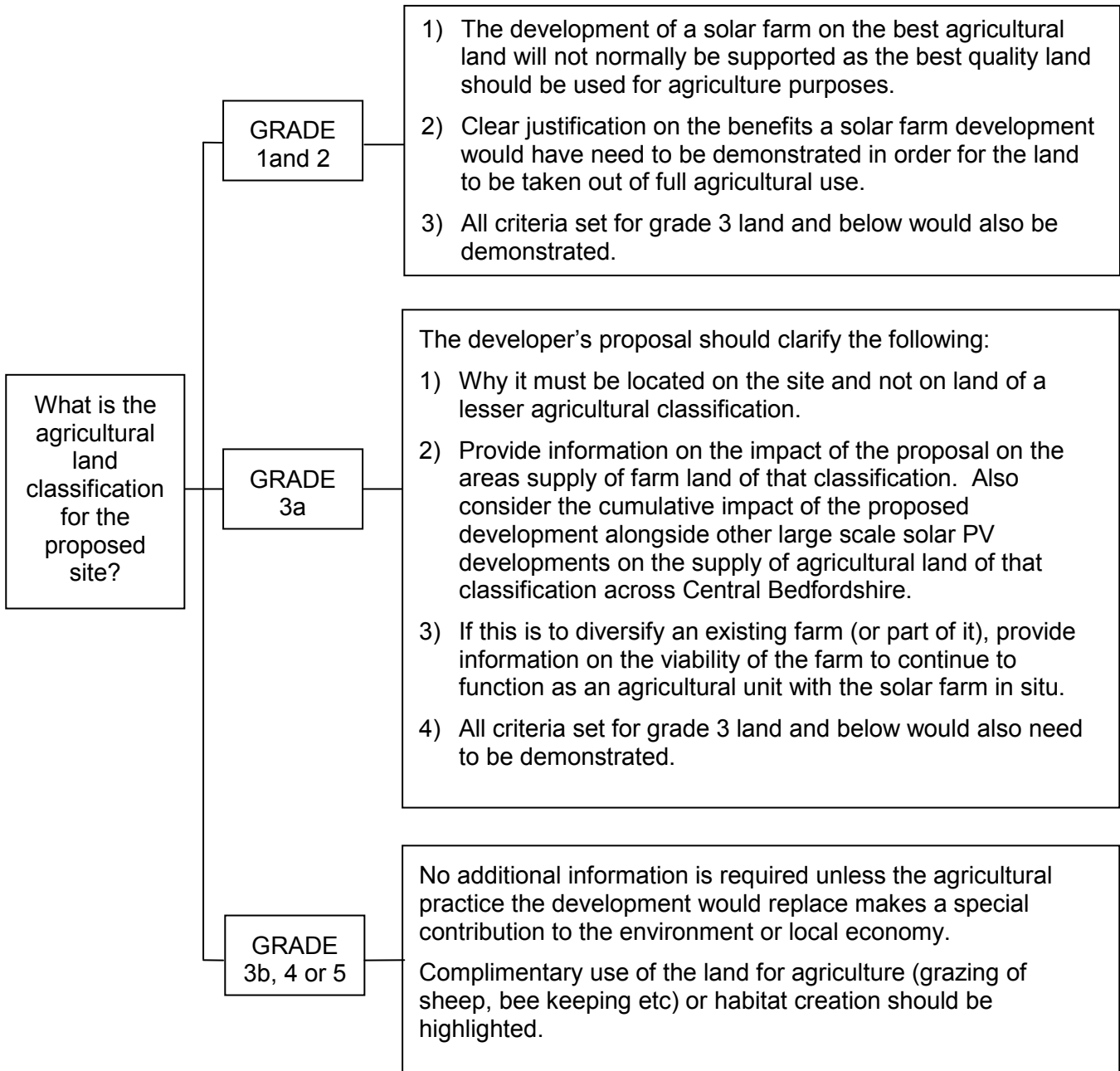
4.0 Agricultural land quality

- 4.1 Developers of solar farms should in the first instance look to utilise previously developed land, brownfield or contaminated land, industrial land or land of agricultural classification 3b, 4 or 5.
- 4.2 The BRE guidance highlights that, in theory, solar farms on sites classified agricultural grades 1, 2 and 3a, designated for their natural beauty, or recognised ecological or archaeological importance or interest are not prohibited. It is however unlikely that planning permission will be granted where there is significant impact on these designations and particularly where appropriate mitigation is not proposed.
- 4.3 There are numerous examples of planned solar farm developments in the UK that have sparked controversy due to being proposed on sites deemed to be of high agricultural land quality.

4.4 Key principles

- 4.5 The Council's emerging Development Strategy states that... 'The Council will also continue to protect the best and most valuable agricultural land from significant development. It will achieve this by steering proposals to less valuable land except where outweighed by other sustainability considerations, for example locational factors or where lower quality land supports valuable biodiversity assets.'
- 4.6 The diagram in figure 2 provides an overview of how agricultural land grading will be considered and what will need to be demonstrated.
- 4.7 With a practical and in-depth knowledge of the working landscape, both landowners and farmers will recognise that there may be variance across their landholding with regards to the productivity of the land. This may not be reflected in the agricultural grading of the land.
- 4.8 For example some areas may be poor draining or have historic field boundaries that create field shapes that are difficult for modern farming machinery to operate in.
- 4.9 Consideration will also be given to where the management plan for the proposed solar farm incorporates other agricultural uses such as grazing of sheep or apiculture (bee keeping).
- 4.10 An overview of these circumstances could be provided, along with supporting evidence to support the justification for use of land of a higher agricultural grade (as detailed in figure 1).

Figure: 2 Steps for developers considering agricultural land classification of potential Solar Farm Sites⁴.

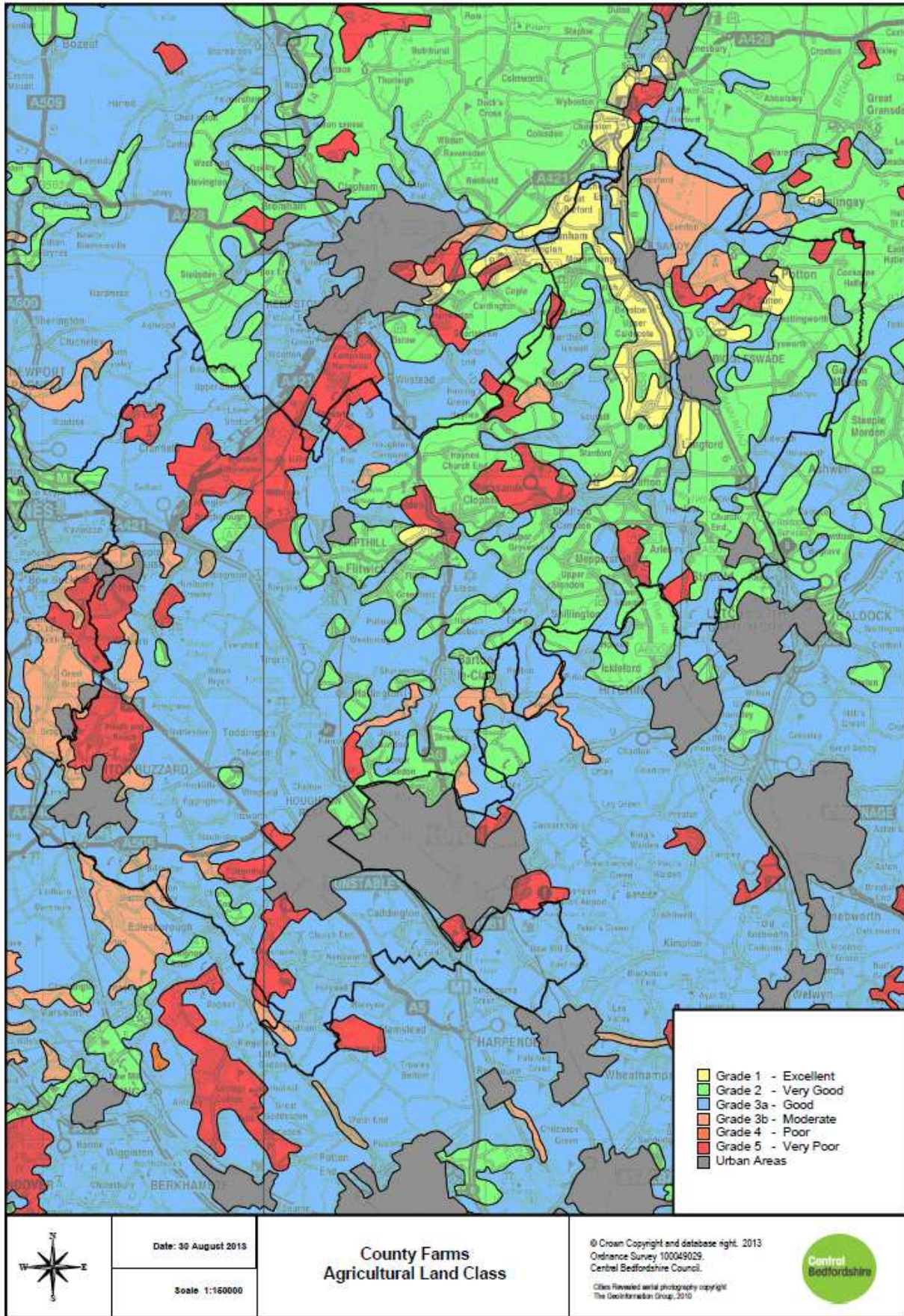


4.11 Agricultural land in Central Bedfordshire is largely grade 3a with higher grade land (grade 2) in the central areas surrounding Clophill and Ampthill, moving up towards north eastern Central Bedfordshire – Biggleswade area. More details are shown in the map in Figure 2 below.

4.12 Poorer grade soils often support habitats or landscapes of national importance, which will also constrain site selection.

⁴ Adapted from Cornwall Council's Renewable Energy Planning Guidance Note 2: The development of large scale (>50kw) solar PV arrays

Figure 2: Agricultural Land Grades in Central Bedfordshire



5.0 Landscape

- 5.1 The deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in very undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can often be properly addressed within the landscape if planned sensitively.
- 5.2 This section of the guidance considers the planning for solar farms in light of Central Bedfordshire's complex landscape character.
- 5.3 Central Bedfordshire has a varied geology, which has created a sequence of landscape character types that align across the area from the north-east to the south-west. The Ivel Valley cuts through the greensand and clay landscapes in the east of the area. The clay landscapes offer the greatest potential for sites able to accommodate solar farm developments with the least visible impact, for example the elevated plateaux's in the west and south of the Central Bedfordshire area. Likewise the well hedged plateaux associated with the Greensand Ridge offers potential.
- 5.4 However, the wide open valleys of the east Bedfordshire clay vales, the central clay hills and vales and the Chilterns provide highly visible slopes in which solar installations could prove highly intrusive.
- 5.5 Central Bedfordshire is also characterised by its many small settlements. The countryside surrounding towns and villages experiences its own pressures, such as compartmentalisation of fields for pony paddocks or other diversification, which can lead to commercial use of the former farmed landscape. Landscape change which leads to incongruous urbanisation of the countryside is a major issue. It will be important to ensure that solar energy does not detract from the rural characteristics of the urban fringe, as well as the amenity of landscapes recognised for their scenic value.
- 5.6 Every planning application will need to be carefully considered with regards to landscape impact, alongside the level of mitigation (by way of screening etc.) being proposed. However there are basic principles that relate to Central Bedfordshire and the range of landscape character areas that define

5.7 Over-arching key principles

- 5.8 The landscape and visual impacts of solar energy are usually related to the size of the development and the visibility of the site. These overarching principles apply broadly to how solar farm developments should be viewed with regards to landscape in Central Bedfordshire:
- a) The impact will be affected by the magnitude of change brought to the landscape and how this is perceived by the community. For example whether the views are obtained from a domestic or recreational site, or from a less sensitive setting such as a railway or workplace. The view from the road is important, particularly if the view of the development will be seen frequently by the same viewer.
 - b) The degree of impact will also be affected by the appropriateness of the location e.g. whether the arrays are sited where they could:
 - i) Create an urbanising feature on highly visible open slopes

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- ii) Be looked down on by the viewer, for example where the proposed solar farm is set on low lying or valley slopes.
 - iii) Allow for clear views of the ancillary structures and infrastructure, such as fencing, CCTV posts and inverters⁵.
 - iv) The proposed solar farm can be seen as extending the built development, for example next to or adjacent to industrial roofscapes or greenhouses, without sufficient landscape buffering in place.
 - v) Contrast in scale with the existing landscape framework or create an imposed pattern within the existing field network, for example by creating incongruous shapes..
- c) Landscape sensitivity is the degree to which a particular landscape can accommodate change without detrimental effects on its character. As sensitivity is derived from assessment of different aspects of character, it will vary in significance even over the extent of the range of relatively small landscape character areas identified within Central Bedfordshire.
 - d) It is important to note that significant effects will not always necessarily be detrimental.
 - e) The magnitude of the visual change will vary according to different factors, in particular these being:
 - i) The degree of contrast or integration with the existing landscape
 - ii) The condition of the landscape features in the view
 - iii) The perception of the view and how it is valued by the community or by visitors.
 - f) The distance between the viewer and the development is obviously a key factor. The frequency and ease of which the development will be seen from a particular viewpoint is also critical.
 - g) Developers of solar farms should avoid sloping areas and focus proposals on flatter areas that are better suited to being screened.
 - h) If planned correctly there is scope to mitigate landscape and visual impacts through, for example, screening with native hedges.
 - i) Mineral workings for clays and sand and gravel have led to extensive lakes within the river corridors and the Marston Vale. Consideration will need to be given to the visual impact of solar arrays if they are proposed close to large water bodies, where they may be seen to extend the reflective surface (see section 9.0).
 - j) The same consideration will need to be applied proposed solar farm developments in areas next to or commercial glass greenhouses.
 - k) Solar farm developments should not detract from the rural characteristics of the urban fringe around Central Bedfordshire's towns and villages.

⁵ Inverters are the equipment that convert the direct current (DC) electricity generated by the solar panels into alternating current electricity (AC) which is the form transmitted across the electricity grid.

5.9 Landscape mitigation

5.10 Even where a solar farm is proposed for an area of medium to high landscape sensitivity the NPPF is clear that if these negative impacts can be mitigated to the satisfaction of the planning committee, permission should be granted.

5.11 When considering mitigation actions to limit impact the following should be considered:

- a) Existing trees, hedgerows, copse and woodland should be utilised to integrate and mitigate development.
- b) Removal of hedgerows and trees must be avoided wherever possible.
- c) Additional landscape mitigation may be required to screen local or longer distance views including trees, hedgerows, shelter belts.
- d) Planting must be in keeping with local character in terms of species and form. New hedgerow and tree planting may also be included within the development site to reduce the visual mass of development and restore landscape character.
- e) Opportunities for landscape enhancement should also be considered and included in proposals; the Central Bedfordshire Landscape Character Assessment (LCA) provides guidance on landscape and visual sensitivities, landscape management and development considerations.

5.12 Considering landscape impact of solar farms at the local level

5.13 To help provide guidance at an appropriate scale, the landscape character areas have been grouped into eight sub-divisions of the Central Bedfordshire area (shown in figure 3). These evaluation areas are:

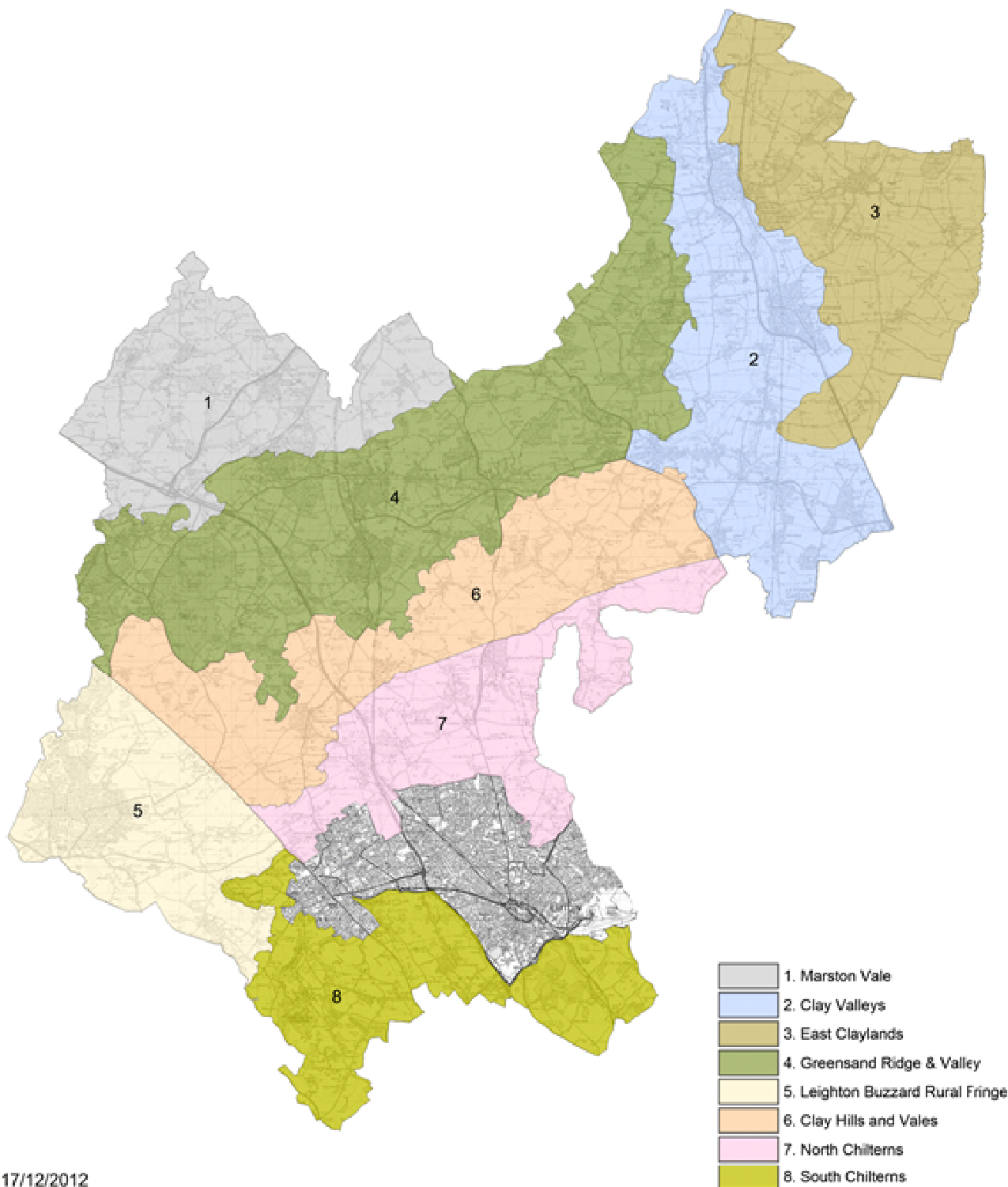
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|--|--|
| 1. Marston Vale | 5. Leighton Buzzard rural-urban fringe |
| 2. Clay Valleys | 6. Clay Hills and Vales |
| 3. East Claylands | 7. North Chilterns |
| 4. The Greensand Ridge and Flit Valley | 8. South Chilterns |

5.14 Given the complex nature of Central Bedfordshire's landscape, the evaluation areas have in most cases combined several different landscape character types together to enable ease of assessment of broad geographical areas, for example the East Claylands evaluation areas contains the eastern extent of the Greensand Ridge.

5.15 The consideration of landscape sensitivity in this guidance is done at a strategic level. This therefore makes it sensible to look at the range of landscape types in a setting rather than separate out a particular type as many landscape character areas are very narrow in extent but have a close visual inter-relationship within Central Bedfordshire. This was supported by ground proofing and site visits by the Council's Landscape Officers across Central Bedfordshire. The areas deemed least sensitive in terms of landscape impact are illustrated by the yellow shaded areas in figure 4. This map also shows those areas proposed for urban expansion in the Council's emerging Development Strategy (shaded in blue).

5.16 Those areas not shaded parts of Central Bedfordshire considered to have a higher degree of landscape sensitivity as well the presence of key natural or heritage resources (shown in appendix 1).

Figure 3: Landscape Evaluation Areas



17/12/2012

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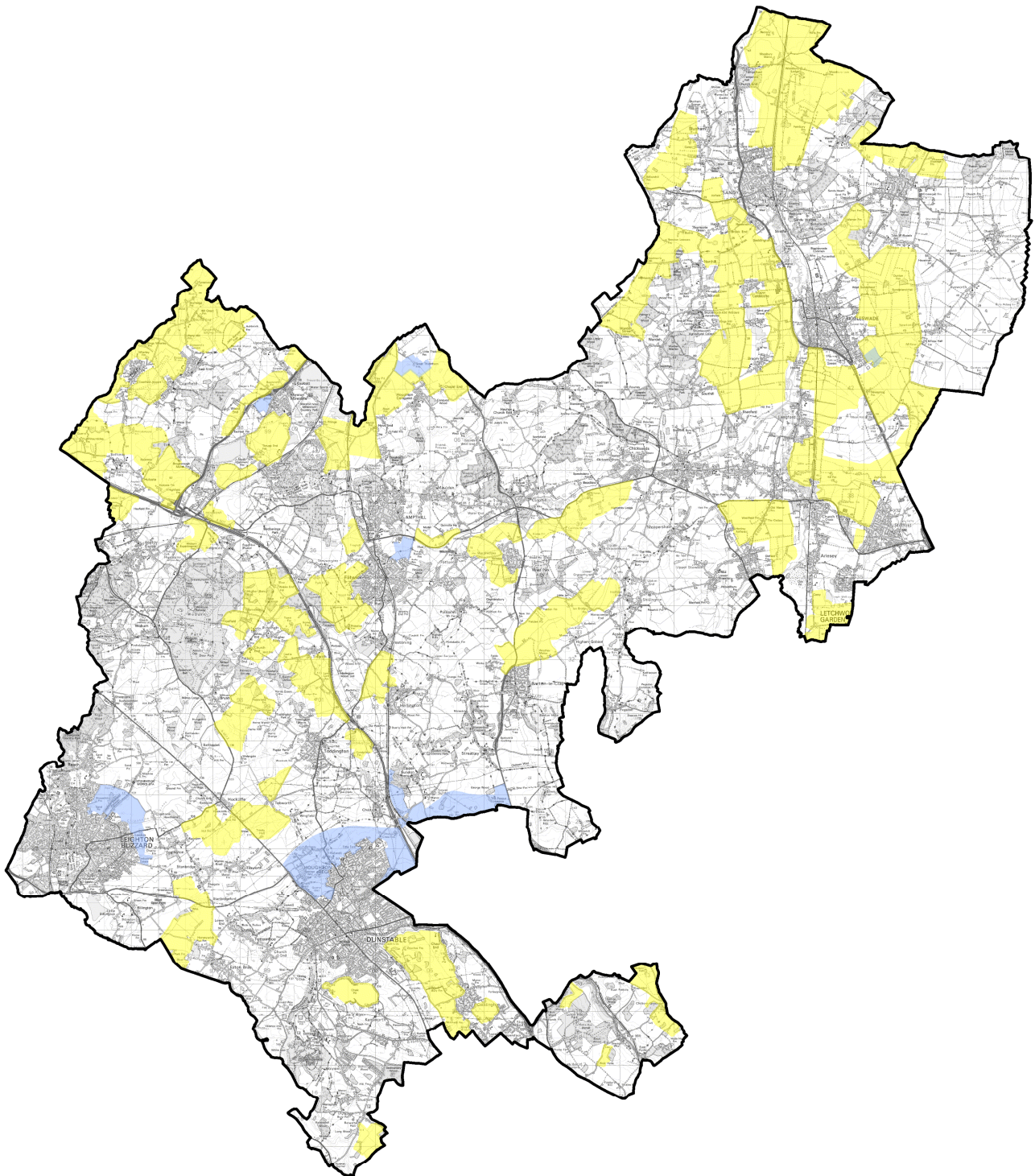


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Figure 4:

Landscape Character Sensitivity






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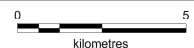


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Landscape Character

-  Low sensitivity to solar development
-  Urban expansion
-  Central Bedfordshire boundary



5.17 **Marston Vale**

5.18 The Marston Vale is a landscape recovering from an industrialised past, now recognised nationally for the distinctive landscape arising from the brick working industry (*EN – NCA draft report: Bedfordshire and Cambridgeshire Claylands*). As well facing new challenges due to growth, the area also has much recreational value. For instance, apart from the wooded resource and the Millennium Country Park, there are promoted trails such as such as the Bunyan Way, Clay Way, Timberland Trail and Sustrans Route 51. The former brick pit lakes are popular for ornithology and water sports.

5.19 **Key principles:**

- a) The Marston Vale is a moderate but improving landscape with the Forest of Marston Vale bringing new landscape structure and woodland mosaic.
- b) Solar development will need to be assessed in the context of other new development which could include the extensive roofscapes of commercial development and also other renewables
- c) The A421 corridor is an increasingly visually disturbed with industrial development, which is out of scale with village settlements and residential character.
- d) There is reasonable potential for solar farms would be located on plateau farmland or associated with mineral workings, but only if it is well screened and not open to view.
- e) It is a priority to avoid the urbanisation of village settings that may result from having solar farms on adjacent land.
- f) Development should not detract from the heritage assets arising from former land use, which includes the setting of the brick pit settlements, the lakes and the new landscapes being created by the Forest of Marston Vale.

5.20 Across the Marston Vale there are a range of appropriate landscapes to accommodate solar farms of varied scale. There are also areas where a solar farm would not be appropriate when considering landscape impact.

- a) *Cranfield – Stagsden Clay Farmland*: There is scope on the elevated plateau around Cranfield and to the west of the area at Whitsondoles.
- b) *The North Marston Vale*: Smaller farms would be more suitable on the land between Marston, Lidlington and to the west of Brogborough. This part of the Vale is overlooked by the Greensand Ridge and landscape change needs to respect the sensitivity of the views from Greensand Ridge path and other viewpoints. It is important to avoid the location of arrays on the highly visible slopes leading up to the clay ridge.
- c) *The East Marston Vale*: Has very limited potential, primarily because of the importance of limiting the urban fringe influence within this landscape. This is particularly relevant for areas in view from the Greensand Ridge and to ensure the conservation of village edges.
- d) *Salford – Aspley Clay Vale*: The countryside forming the setting to Hulcote and Salford is particularly distinctive, with a more pastoral and wooded landscape.

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This is seen as an area of constraint as many fields have historic boundaries and create an unusual pattern for Bedfordshire. Only the smallest scale development would be considered appropriate.

- e) The “*Aspley triangle*” in the western edge of the Vale: This area provides a coherent, rural foreground to the Greensand Ridge at Woburn. The introduction of a solar farm in the area would be highly visible and detract from the current qualities of an open and visually tranquil landscape.

5.21 **Clay Valleys**

5.22 The Clay Valleys landscape evaluation area encompasses accessible urban fringe countryside, peaceful beauty spots and river corridors of the River Great Ouse and River Ivel, both of which are rich in biodiversity. The Ivel Valley itself area retains a traditional wooded and pastoral landscape.

5.23 **Key principles:**

- a) Importance is placed on the need to conserve the rural quality of the area, as urbanisation and disturbance pose a continued threat to valuable local countryside. Because of this area being a small scale and complex settled landscape it is considered that there is very limited scope for solar energy.
- b) In general the actual river corridors of the River Great Ouse and the River Ivel are not considered suitable locations for solar farms. There may be some very limited scope for small scale development if the site is well screened and unlikely to increase the urban fringe character that is, for example, prevalent in the Ivel Valley.
- c) Remaining traditional pastures require conservation, but there may be scope to convert a small arable field to grassland under the solar panel and so enhance the biodiversity of the river corridor.
- d) The broad vale surrounding the Ivel Valley does offer greater potential for solar farms, which would need to be in scale with the field pattern. Hedges within the Upper and Lower Ivel character areas are often denuded or absent, so restoration and reinstatement of these will be important in order to strengthen and enhance the landscape framework.
- e) Many locations are reasonably well enclosed, which is beneficial to integration. The more open landscape north of Langford and overlooked by Topplar’s Hill has greater sensitivity. Care will be required to ensure any new compartmentalism of the landscape follows appropriate boundaries and is in scale with the setting.
- f) There is also potential to the west and particularly to the south of Arlesey. Significant wooded integration would be required, which in itself is a particular aim of the landscape strategy for the Arlesey area.
- g) The Ouse Valley has greatest sensitivity close to the river and in the Blunham area, where small scale pastures are characteristic. The land to the west of Blunham offers the most potential.
- h) The Bedford River Valley Park is being established between Bedford and Great Barford, with the potential to extend the Park towards Sandy is a consideration. Solar energy is not a conflict with this aspiration as this could support the

conversion of arable land to flower rich grassland, which would be seen as beneficial.

5.24 East Claylands

5.25 The East Claylands evaluation area covers rural countryside with extensive arable farmland, remote and tranquil. It is an area requiring significant landscape renewal characterised by very open, highly visible vales.

5.26 Key principles

- a) This area offers opportunities for medium to large-scale solar farms. The fairly level clay vale, *Lower Ivel Clay Valley*, to the east and south of Biggleswade has varied enclosure but would be able to accommodate solar farms if they were well integrated with screening hedgerows.
- b) Sites should aim to avoid the direct urban fringe, where a buffer of agricultural land is considered the best setting to the large scale commercial development at Stratton or the residential expansion at Kings Reach.
- c) A further area of opportunity occurs in the *Biggin Wood Clay Vale* around Tempsford, where the network of small woodland blocks and hedgerows offers opportunities for integration. However, it is important to avoid development close to the north facing slope of the Greensand Ridge.
- d) To the north of this Evaluation Area is a distinctive part of the *Biggin Wood Clay Vale* where it extends to the River Ouse and the elevated Alington Hill Clay Farmland which occurs predominantly within Bedford Borough. Conservation of the river valley landscape is important, as is retaining the rural character of the farmland forming the foreground to the Alington Hill ridge. However there is scope within this part of the Vale for medium to large scale solar farms if they are sensitively placed and well screened.
- e) It may be possible to accommodate smaller installations within the more enclosed plateau landscape. Some limited scope occurs to the north of Potton and towards Cockeyne Hatley. Hedgerows here are more variable and landscape integration of any proposed wind farm through hedgerow restoration and reinstatement will be essential.
- f) It is important to conserve the rural qualities of the *Everton Heath Greensand Ridge* particularly where the plateau has a sweeping, open character, this would mean this area is far less suitable for solar farm developments of any scale.
- g) The expansive undulating *Dunton Clay Vale* is also particularly sensitive. This is a tranquil and undeveloped landscape with clear reciprocal views to and from Cambridgeshire. The change in land-use brought about by potential solar farms would be highly visible and would disrupt the integrity of this landscape.

5.27 The Greensand Ridge and Flit Valley

5.28 The Evaluation Area covers the *Woburn Greensand Ridge* and the *Mid Greensand Ridge* and the *Flit Greensand Valley*. The Greensand Ridge is a highly valued, rare and distinctive character area; the only example in the mainland UK. It has high cultural, biodiversity and recreational value, with a long-distance trail, making it significant regionally for tourism. The landscape in this area is considered in

decline, making it highly sensitive to inappropriate change especially that which affects the skyline and northern scarp slopes.

5.29 Key principles

- a) The majority of the Greensand landscape is considered an area of constraint. The northern escarpment is highly visible and although characterised by varied agricultural and forestry uses, maintains a strongly rural character.
- b) This is also a landscape rich in landscapes of national importance with historic and cultural sites, particularly Parklands and areas of high biodiversity value. It is particularly important to avoid urbanisation of the lower slopes leading up to the north facing escarpment.
- c) However, some limited scope may be possible to the west of the Ridge approaching Northill and also on the east of the *Mid Greensand Ridge* where the dip slope approaches the more level ground of the *Lower Ivel Clay Valley*.
- d) The *Mid Greensand Ridge* is a landscape of large scale fields and woodland blocks. Any development must avoid incongruous division of the landscape and respect the scale of existing features; mitigation would need to be extensive.
- e) There may also be opportunities to integrate solar farms within the smaller scale field patterns and more enclosed landscapes within the Eversolt, Tingrith and Milton Bryan areas, although it will be essential to conserve the village settings.
- f) The *Flit Greensand Valley* is a narrow character area considered highly vulnerable to change. This character area offers very little scope for even small scale installations. Areas of open arable or market gardening fields are highly sensitive to change. There are sites which are more secluded and enclosed where there might be limited scope; if so ecological enhancement of the site would be an important issue.

5.30 Clay Hills and Vales

5.31 This evaluation area forms a distinctive band across Central Bedfordshire between the Greensand Ridge and the Chiltern Hills. It is predominantly rural with a sequence of settlements with a strong identity. The landscape is characterised by the varied topography, with sweeping vales between the hills. It is a largely open landscape with only a few woodland areas. Hedgerow enclosure along field boundaries is variable with scope for restoration or reinstatement. There are many extensive views of the vales from within the area and also from the elevated land to the north and south. The area is vulnerable to urban fringe influence.

5.32 Key principles

- a) There is very limited potential for solar farms of any size without compromising the openness of slopes or rural quality of the settings of the many villages and hamlets.
- b) The areas of greatest sensitivity are those where there are clear views of the vales and hill slopes from the settlements and from the Chiltern escarpment.
- c) The areas of least constraint are around Westoning and in the Henlow Airfield and Stondon area.

- d) More limited opportunities may occur around Cainhoe and in the enclosed landscape to the north of Barton-le-Clay.

5.33 Leighton Buzzard rural-urban fringe

5.34 This Evaluation Area covers the *Toddington and Hockcliffe Clay Hills, the Eaton Bray Clay Vales, The Woburn Greensand Ridge and the Ousel Greensand Valley*. The area has undergone significant change as a result of mineral activity and the continued growth of Leighton Buzzard. Leighton Buzzard imparts a strong urban influence, with abrupt land use change in places. The area is characterised by its diverse rural urban fringe, with many recreational sites, such as golf courses and sports pitches. It is also important in views from Chiltern Hills.

5.35 Key principles

- a) The farmed landscape and the distinctive settlements to the east of Leighton Buzzard retain a strong rural traditional character of which it is considered important to conserve in order to retain each individual sense of place.
- b) This together with the strategy to conserve the elevated and undulating landscapes of the Greensand Ridge mean that there is only very limited scope for solar farms of any size within this area. Much of the area is highly visible in views from the Chiltern escarpment at Sewell and Totternhoe and in more distant views from Dunstable Downs.
- c) There is some limited potential for solar energy linked to growth or mineral restoration, but this would need to be kept in scale with the limited areas of level, well hedged fields.
- d) There is also some limited scope to the west of the A5 in the more enclosed landscape south of Hockcliffe and to the south and west of Stanbridgeford.
- e) Screening to minimise intrusion in the views from the chalk escarpments and the more local clay hills will be important.
- f) There may also be opportunities linked to the growth area, particularly of commercial units and also linked to the restoration of some mineral sites.

5.36 North Chilterns

5.37 The North Chilterns Evaluation Area extends from the urban edge of Luton to the clay vales to the north and is largely covered by the AONB designation, with the remaining countryside largely forming the setting to the AONB. The Sundon – Sharpenhoe escarpment forms a dominant landscape feature in the west, with the Barton Hills – Pegsdon Hills creating the major landform in the east. The reciprocal views between these elevated landscapes and the vales to the north are highly valued. The area is subject to growth and urban fringe pressures but also retains some highly tranquil landscapes e.g. to the north of Sharpenhoe.

5.38 Key Principles

- a) The protected nature of the designated landscape will mean that there is little opportunity for solar development on the elevated chalk landform of the *Chalk Escarpments* or the *Rolling Chalk Farmland*. If any small scale site is proposed

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on the *Rolling Chalk Farmland* it will be important to set the development back from the scarp and ensure that the development is effectively screened.

- b) The rural quality of the settings of the villages needs to be conserved in order to maintain local distinctiveness. Any development will need to ensure that it does not increase the urban fringe character experienced in this area e.g. extending the visual impact of subdivision of land for pony paddocks.
- c) Some limited opportunities might arise within the main transport corridors.
- d) There may be scope linked to the largescale growth proposed for north of Luton, particularly the major commercial development at the proposed Rail freight Interchange.
- e) The largely undeveloped nature and rural, tranquil character is a national priority for conservation.

5.39 South Chilterns

5.40 The South Chilterns Evaluation Area extends over the highly complex and varied landscape south of Luton and Dunstable. The largescale plateau and sweeping chalk valleys create a rural setting for the towns and the Caddington villages. Settlements such as Totternhoe and Eaton Bray sit to the north of the major escarpment of Dunstable Downs. The area is covered almost in its entirety by the AONB designation or is influenced by the major Parkland and estate of Luton Hoo. Even so, this is a busy landscape with tranquillity reduced by the major road and rail corridors and the presence of Luton Airport.

5.41 Key Principles

- a) The protected nature of the designated landscape will mean that there is little opportunity for solar development on the elevated chalk landform of the *Chalk Escarpments*.
- b) The scale and openness of the *Chalk Valleys* limit the potential for development as it is important to protect the integrity of these slopes.
- c) The wooded farmland of the *Caddington – Slip End* plateau offers scope for solar development as this is a strongly enclosed landscape, although other constraints may apply as this is an area rich in archaeology.
- d) The Luton Airport – Chiltern Green Chalk Dipslope also offers scope for smaller scale solar development, although it will be important to ensure these are well screened from views from the elevated land in the Lea Valley, the Luton Hoo estate and in views from the east.

5.42 Additional information to help support applications

5.43 Additional information supporting an application can assist in assessing capacity of site and landscape to accommodate development, level of impact of change and mitigation needs:

- a) Depending on the scale of the proposed development or sensitivity of the site and landscape setting, the following could be required:
 - an EIA Local Visual Impact Assessment (LVIA);

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- a LVIA supporting a planning application where no EIA is deemed necessary;
 - a Landscape and Visual Appraisal.
- b) Topographic surveys including contours describing existing levels on and adjoining the site; including heights of landscape and planting features, existing structures including overhead or underground cables.
 - c) Tree and hedgerow survey describing location, character, condition and enhancement opportunities.
 - d) A masterplan for the proposed solar farm to describe the integration of the development within the site and surrounding area. This should include details of green infrastructure links and mitigation including habitat corridors and access.
 - e) Topographic plan including contours describing proposed layout of panels, supporting infrastructure and landscape features including landscape mitigation
 - f) Long and short sections across the site and relating to adjoining land and treatment of edges.
 - g) Details on panels, such as dimensions, tilt, support structures and fixings.
 - h) Description of buildings, including inverters: dimensions, detail on locations and with special consideration to finishes and relating to local character.
 - i) Landscape Plan identifying planting character, species, size and quantities.
 - j) Landscape management plan.

6.0 Cumulative impact

- 6.1 Cumulative impact will need to be considered if two or more solar farms are proposed for the same landscape area. If the solar farms are screened and integrated with planting in a plateau landscape, the increase in scale may not be of significance visually.
- 6.2 It may also be necessary to assess the cumulative impact of change if the development can be seen in the context of other renewable energy or highly visible or reflective development such as business parks, glasshouses or even the surface of lakes.
- 6.3 Cumulative impact usually occurs in the following ways:
 - a) **Combined /simultaneous impact** – this occurs when the observer is able to see two or more relevant developments from one viewpoint without moving the head.
 - b) **Successive/repetitive impact** – this occurs when the observer is able to see two or more relevant developments from one viewpoint but has to move the head to do so.
 - c) **Sequential impact** – this occurs when the observer has to move to another viewpoint to see other relevant developments or a different view of the same development, for example when travelling by road or rail.

- 6.4 Adjacent solar farms will have the greatest cumulative impact, especially where the developments will be prominent in the same view from many locations.

7.0 The Historic Environment

- 7.1 Central Bedfordshire has a rich and varied historic environment which is at the heart of the area's local character and plays an important role in shaping what makes the area a great place to live and work.

- 7.2 The area's heritage assets and their settings are a finite and non-renewable resource and the Council is committed to their protection, enhancement and conservation - to allow for them to be enjoyed by the whole community, both now and in the future.

- 7.3 Heritage Assets include: Listed Buildings, Scheduled Monuments, Conservation Areas, Registered Parks and Gardens, Historic Landscapes, Archaeological Sites and Monuments and other non-designated assets. As with any development, solar farms have the capacity to have an impact upon the historic environment. This broadly falls into the following categories:

- a) **Impact on Setting of Heritage Assets:** The setting of heritage assets forms part of their significance. There is potential for an inappropriately placed the solar farm to have detrimental impact on the setting of heritage assets including historic landscapes historic buildings and archaeological sites and monuments. This could result in a loss of significance to the assets and detract from their sense of place and lead to a compromise in the visual amenity of the wider landscape.
- b) **Impact on archaeological remains:** Construction of solar farms and their associated infrastructure, such as access roads, storage compounds, cable trenches, sub-stations, security fencing and lighting all have the potential to disturb or destroy archaeological deposits and earthwork remains. Significantly the impact of ground anchors to hold PV arrays in place - such as pile driven or screw foundations, over a large area can be cumulative and have a severely adverse impact upon the preservation and survival of below ground archaeological deposits.

7.4 Additional information to help support applications

- 7.5 **Historic landscapes:** Historic landscapes do not only comprise parks, gardens and other designed landscapes but also include historic boundaries, field patterns, woodlands and settlement patterns. Where a solar farm proposal affects a historic landscape or historic landscape features a desk-based assessment will be required. The contribution of the setting of the historic landscape to its significance must be identified and illustrated though the use of photo views, photo montages, ZTVs or other appropriate techniques.

- 7.6 **Archaeological:** Where a solar farm proposal affects or has the potential a heritage asset with archaeological interest, including their setting, a desk-based assessment will be a minimum requirement, where necessary a field evaluation may also required.

- 7.7 Evaluations commonly comprise a combination of surface artefact collection, geophysical survey and trial trenching, although other techniques may be required as appropriate.
- 7.8 Where the setting of Scheduled Monuments and other archaeological sites and monuments is likely to be affected by the proposed development the contribution of the setting to the significance of the Monument must be identified and the impact of the proposed development on the setting must be identified and illustrated through the use of photo views, photo montages, ZTVs or other appropriate techniques.
- 7.9 The archaeological information should be combined with technical information on the proposed development to identify the impacts of the proposal on heritage assets with archaeological interest.
- 7.10 Applicants should contact the Council's Archaeology Team at an early stage to identify the scope and nature of the information required to support a planning application.

7.4 Determining and mitigating impact

- 7.5 The impact of potential solar farm developments on the historic environment will need to be assessed on a case by case basis as impacts will vary considerably.
- 7.6 Understanding the character and significance of heritage assets is key to identifying the impact of solar farm proposals on the historic environment. The provision of the following information will help developers and planners to determine the likelihood of their being any significant issues. This will also assist the Council's planners and historic environment specialists to assess the proposal, determine possible impact and, if appropriate, agree mitigation.

7.7 Potential Mitigations

- 7.8 **Historic Landscape** - Ultimately the best way to limit impact of a solar farm proposal on the historic landscape is to locate the proposal elsewhere. There may be some instances where impact can be limited through use of natural screening (hedgerows, tree lines etc).
- 7.9 **Archaeological** –When an impact on heritage assets with archaeological interest is identified through the application process mitigation for the impact will be required.
- 7.10 Where designated heritage assets or undesignated heritage assets with archaeological interest of national importance are identified mitigation may be achieved by excluding them from the development. For heritage assets of local or regional importance it may be appropriate for the assets to be investigated in advance of development in order to record and advance understanding of the significance of the heritage assets, publishing the results as appropriate and placing the archives in a secure and accessible public depository. The extent and nature of the investigation will be dependant on the significance of the heritage assets affected.
- 7.11 If a solar farm will have an impact on the setting of a heritage asset with archaeological interest it may be best to locate the proposal elsewhere. There may

be some instances where impact can be limited through use of natural screening (hedgerows, tree lines etc).

- 7.12 To limit impact from ground anchoring, it is possible to employ ballasted support systems, which do not penetrate the ground. While the use of pre-moulded concrete blocks can entail less ground disturbance, some will inevitably still occur. Depending on the sensitivity and significance of the heritage asset this level of ground disturbance may or may not be acceptable.
- 7.13 Additional guidance and sources of information:**
- 7.14 Central Bedfordshire's Historic Environment Record (HER):** The Central Bedfordshire HER contains details of all known archaeological sites, historic buildings and historic landscape features within the area. In addition to a computer database and GIS it consists of written and printed information, plans, illustrations, aerial and other photographs which are available for use by all, including the Council's officers, planners, developers, consultants, schoolchildren, students and the public.
- 7.15 It is also the prime source for identifying Heritage Assets for inclusion in Heritage Statements as required to accompany planning applications in accordance with the National Planning Policy Framework (March 2012). More information on how to access this resource can be found on the Council's website at:
<http://www.centralbedfordshire.gov.uk/environment/conservation/conservation-historic-environment-record.aspx>
- 7.16 Guidance for the assessment of any impacts upon the setting and therefore significance of a heritage asset is provided in the English Heritage publication "*The Setting of Heritage Assets*" (2011). This can be found at: <http://www.english-heritage.org.uk/publications/setting-heritage-assets/setting-heritage-assets.pdf>
- 7.17 Useful guidance has also been produced by English Heritage with regards to piling and its impact on archaeological remains. The document "*Piling and Archaeology*" (2007) can be found at: <http://www.english-heritage.org.uk/publications/piling-and-archaeology/pilingforwebtagged.pdf>
- 7.18 The English Heritage guidance document "Seeing History in the view" provides useful advice on taking the historic environment into consideration when preparing a proposal for development:
<http://www.english-heritage.org.uk/professional/advice/advice-by-topic/setting-and-views/seeing-the-history-in-the-view/>

8.0 Biodiversity

- 8.1 Little is known about the long term impact of solar farms on biodiversity of the site and surrounding area, it is however difficult to foresee many negative impacts. In fact from an ecological point of view there is far more potential for opportunities to enhance biodiversity from a solar farm development.
- 8.2 Solar farms usually consist of large fenced off areas of grassland that are screened through the use of hedge rows or trees along one or more boundaries. The panels have no moving parts and the associated infrastructure typically covers no more than 30% of a site, although it is spread across it.
- 8.3 If managed correctly solar farms represent an excellent opportunity to deliver a biodiversity net gain for the area by providing a largely undisturbed habitat for a wide range of flora and fauna.

8.4 Key principles

- 8.5 The ecological interest of the site and its surrounding area needs to be identified at the earliest opportunity. From this it should be made clear how the proposal will conflict with, or benefit the existing ecological assets of the site and its surrounding area. This would also identify the proximity of the proposed solar farm site to a biodiversity opportunity area, providing potential opportunities for habitats to be created and enhanced around the edge of the site. For example on sites adjacent to County Wildlife Site meadows (CWS) an extension of the species mix into the solar farm would be beneficial.
- 8.6 Its important to note that it is not only how the site is managed that can provide biodiversity benefits. The introduction of nest and roost boxes for birds and bats, or hibernacula for reptiles and amphibians should also be considered, especially as the solar farm, once constructed, will remain largely undisturbed apart from occasional maintenance. Some solar farm developers also work with local farmers and introduce bee hives, which have a biodiversity and agricultural benefit to the area.
- 8.7 The provision of the following information will help developers and planners to determine the likelihood of there being any significant issues. This will also assist the Council's Planners and Ecologist to assess the proposal, to determine the possible impact and, if appropriate, agree mitigation.
- a) All solar farm applications should be supported by a **Phase 1 Habitat Survey** which will explain the existing value of the site and assess potential protected species interest.
 - b) Where protected species are identified then **Protected Species Surveys** will also be required.
 - c) A Strategy showing how a net gain for biodiversity can be achieved. This should be accompanied by a proposed **Biodiversity Management Plan (BMP)** for the solar farm, to show details of how the Strategy will be delivered and managed throughout the life time of the solar farm. This should be provided at the earliest opportunity in the planning process, although this would often form part of a planning condition if permission were granted. BRE's guidance provides a good overview of what should be considered in a BMP (details below).

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- d) The impacts of construction should also be carefully assessed for ecological impact. For example pile driving to erect the solar panel supports/frames may have a negative impact on any badgers nearby. In this instance a badger survey would need to be conducted and a licence may be necessary.
- 8.8 The key as to whether the biodiversity enhancement potential is fully realised is ultimately down to on-going site management and how the BMP is delivered. Without on-going management of the sites, the value of any biodiversity gains, for example through new wildflower or species rich grassland, will soon diminish.
- 8.9 Site layouts should factor in practical aspects of implementing the BMP, for example panels need to be positioned so as to enable ease of access if machinery is required for a hay cut. If sheep are used then the panels will need to be set higher.
- 8.10 Opportunities for wetland areas between panels could also be explored, which could be beneficial to both the ecology of the site and the output of the solar farm. Solar farm developers have stated said how water helps with panel cooling and so optimising the energy output of the panels on hot days when there would be risk of overload. The associated shading of the panels also promotes opportunities for bryophyte communities and other 'micro-ecosystems'.

8.11 Additional guidance and sources of information:

- 8.12 BRE's National Solar Centre has produced high-level guidance on solar farms and biodiversity, with specific reference to the planning process. The document '*Nation Planning Guidance – Biodiversity*' (BRE, 2013) can be found at: http://www.bre.co.uk/filelibrary/pdf/other_pdfs/NSCBiodiversityAppendixBrochure.pdf
- 8.13 The Natural England Technical Information Note '*TIN101 - Solar parks: maximising environmental benefits*' is available from: <http://publications.naturalengland.org.uk/publication/32027?category=34022>
- 8.14 The Bedfordshire & Luton Biodiversity & Records Monitoring Centre is an excellent source of local biodiversity information on for the Central Bedfordshire area. More details can be found at: <http://www.bedscape.org.uk/BRMC/newsite/index.php>

9.0 Glint and Glare

9.1 Glint is the direct reflection of sunlight, whereas glare is diffuse reflection (or reflection of the bright sky around the sun). Any metallic or shiny surface has scope to cause reflection of sunlight, which may in turn have a negative impact on neighbouring uses, aircraft etc.

9.2 Key principles

9.3 The solar cells used in solar farms are designed to absorb as much light as possible in order to generate electricity, not reflect it. As a result they are much less reflective than other sources of glint or glare (such as glass windows that may be found in agricultural buildings such as green houses etc).

9.4 There may be instances, where due to aspects such as the proposed site location or the orientation of the solar farms infrastructure, including PV panels, that there is scope for glint or glare to be a problematic impact of the solar farm.

9.5 The potential for PV panels, their frames and supports along side other materials used for the construction of the solar farm, to have a reflective quality that results in glint and glare, should be assessed. This should have particular reference to:

- a) The effect on landscape of glint and glare and on neighbouring uses and aircraft safety should be considered.
- b) The extent to which there may be additional impacts if solar arrays follow or track the daily movement of the sun.

10.0 Noise

10.1 The standard set up most commonly used on solar farms uses no moving parts and therefore results in no noise from the panels themselves. There are a number of 'inverters' on solar farms to convert DC into AC and these machines do emit a humming sound.

10.2 Key principles

10.3 Careful consideration should be given to the location of inverters to ensure that they are located away from parts of the solar farm where they are likely be audible by neighbouring sites and users of the countryside (e.g. via the Rights of Way network).

10.4 Where this is not technically feasible, possibly due to issues with grid connection or maximising site layout, then inverters should be housed in sound proof casing.

10.5 Noise during construction will be dealt with in the same way as any other development, with restrictions put on times of work etc through planning conditions as deemed necessary.

10.6 Maintenance of the site should be carried out at appropriate times e.g. week day between normal working hours, in order to minimise disruption.

11.0 Drainage and surface water run-off

- 11.1 The BRE planning guidance for solar farms highlights that due to the size of solar PV farms, the Environment Agency have stated that planning applications should be accompanied by a Flood Risk Assessment (FRA). The primary aim the FRA being to assess surface water runoff produced by the development and if necessary outline measures to ensure flood risk is not increased downstream of the site.
- 11.2 As solar panels drain to the ground, and track ways and areas of hard standing would be limited, it is anticipated that the impact will not in general be significant and therefore this should not be an onerous requirement.
- 11.3 An exception to this could be where an area of poorer agricultural output due to tendency to flood is being used. In this instance the impact of any drainage works carried out would need to be considered.

11.4 Key principles

- 11.5 Sites should be configured or selected to avoid the need to impact on existing drainage systems and watercourses. Culverting existing watercourses/drainage ditches should be avoided and if unavoidable, it should be demonstrated that no reasonable alternatives exist.
- 11.6 Impacts of drainage works to prevent or reduce flooding on the site need to be carefully considered. For example potential changes to how the land drains and impacts on footpaths etc should be identified and mitigated as part of the Flood risk assessment for the proposal. The developer should also be prepared to carry out corrective works if problems arise at any time during the solar farms operation.
- 11.7 Any access tracks needed should always be permeable and kept to a minimum.
- 11.8 Localised SuDS, such as swales and infiltration trenches, should be used to control any run-off.
- 11.9 Where applicable, the provision of a surface water management plan for the proposed solar farm (utilising SUDs design principles) will help evaluate the application.

12.0 Securing the solar farm (fencing etc)

- 12.1 The Council recognises that solar farms represent a significant investment and given their often isolated locations warrant measures being put in place to secure the site. This would be expected to include security fencing and CCTV systems.

12.2 Key principles

- 12.3 The effort made by applicants to screen the proposed solar farm and limit landscape impact should also be applied to any security measures used. Therefore planning applications should include full details and specifications for all proposed security and lighting installations. This is to enable an accurate assessment of visual and ecological impacts to be made by the Council's planners and specialist officers.

- 12.4 Security fencing should be kept to a minimum, with the developer looking to utilise and enhance existing landscape features, such as hedgerows. Where used, fencing should be appropriate to the setting (e.g. deer fencing). If necessary it should also accommodate local biodiversity needs and be designed to allow movement across the site by wildlife.
- 12.5 Any further security equipment, such as pole-mounted CCTV should be as discrete as possible. Where possible infra-red CCTV should be used to limit the need for security lighting. CCTV cameras should be mounted to face inwards into the solar farm and not outside of the sites boundaries. This is in order to not infringe on other users of neighbouring countryside facilities, such as rights of way.

13.0 Managing impacts of construction

- 13.1 The biggest impacts and disruption caused by a proposed solar farm are likely to happen during construction. Although the construction period for solar farms is short compared to the deployment of other Renewable Energy developments, it still needs to be carefully managed, given the sensitive nature of the rural environment where solar farm developments tend to happen.

13.2 Key principles

- 13.3 The development will require the delivery and storage of construction materials, plant, machinery and office accommodation and welfare facilities for staff working on the sites constructions. In most instances this will be a temporary construction compound and should be carefully located in order to minimise environmental or amenity impact. Details of the size and location would be included as part of the planning application.
- 13.4 Where the excavation of soils associated with construction compounds, access roads, cable trenching etc occurs, all topsoil and subsoil should be stripped, stored and replaced separately. Methodology for soil stripping, storage and replacement to minimise soil damage and to provide optimal conditions for site restoration is expected to be included as part of the planning application.
- 13.5 Hedges should as far as possible be fully retained, with new hedge breaks created. If any hedges/scrub are to be removed, further ecological surveys will need to be carried out. It is also expected that replacement planting of the same of a higher quality is carried out (ideally elsewhere on site).
- 13.6 Highways impacts will vary on a site by site basis and the developer is encouraged to discuss implications on the highways network, particularly during construction, with one of the Council's highways planners at the earliest opportunity.

14.0 Community engagement and benefits

- 14.1 In July 2013 the government issued 'Planning practice guidance for renewable and low carbon energy' which states that the need for renewable energy does not automatically override environmental protections and the planning concerns of local communities.
- 14.2 The NPPF explains that all communities have a responsibility to help increase the use and supply of green energy, but this does not mean that the need for renewable energy automatically overrides environmental protections and the planning concerns of local communities.

14.3 Key principals

- 14.4 As with other types of development, the views of local communities likely to be affected will be listened to when the Council considers the planning application.
- 14.5 The Council is keen that developers of renewables, including solar farms, take a proactive approach to working with affected communities at the earliest stage in order to mitigate impacts and provide adequate compensation and benefits.
- 14.6 Fundamental to community engagement is to ensure a high standard of public engagement. Developers are encouraged to carry this out at the earliest opportunity. This should be a two-way process and give all stakeholders (including communities and developers) the opportunity to raise and address concerns as well as beginning dialogue as to how local community benefits will be realised and delivered.
- 14.7 As part of the engagement process, communities should be given the opportunity to have their concerns addressed, possibly through the developer organising visits to operational solar farms. Communities should also be given the opportunity to identify what they would deem as an appropriate level of reward/compensation/benefit for the community to receive.
- 14.8 There are a range of options open to developers when exploring community engagement and benefits. These could include:
- a) Entering into voluntary agreements with affected communities to reward them for hosting the development. Rewards could include:
 - i. Grants to carry out one off significant improvements to local facilities (e.g. a new community hall or leisure facilities)
 - ii. Establishment of a local Environmental Trust or Community Benefits Trust, with funds being contributed annually by the developer and used for energy conservation measures.
 - iii. Local share issue.
 - iv. Local or community ownership of panels.
 - v. Investment in Green Infrastructure provision and management, especially at the landscape scale.
 - b) The compensation may be secured through Section 106 obligations agreements. These agreements require the developer to provide for any matters that are necessary to make a development acceptable in planning terms. This can

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include contributions to the provision of services and infrastructure that benefit affected communities, such as roads, education and health facilities.

14.9 In all cases the Council will expect that the community benefits are proportionate to the size and impact of the development.

14.10 Community led initiatives

14.11 Community initiatives are likely to play an increasingly important role and the Council will seek to encourage these as a way of providing a positive local benefit from renewable energy development.

14.12 The Council will therefore support truly community-led initiatives for renewable and low carbon energy, where the benefits – be they financial or the generated electricity are realised by the communities most affected (and as long as other impacts as mitigated and addressed as detailed in the remainder of this guidance).

14.13 Neighbourhood plans represent a good opportunity for communities to plan for community led renewable energy developments, allowing communities to use Neighbourhood Development Orders and Community Right to Build Orders to grant planning permission for renewable energy development.

14.14 In February 2014 the government published its 'Community Energy Strategy' proposes to further encourage development by providing incentives to local communities to boost acceptance and uptake of community led renewable energy projects. This includes Rural Energy Fund, which provides grants of up to £20,000 for communities to undertake initial feasibility studies and unsecured loans of up to £130,000 for further work to develop planning applications and the business case for investment. More details can be found at:
<https://www.gov.uk/government/publications/community-energy-strategy>

15.0 Countryside Access and Rights of Way

15.1 Central Bedfordshire's countryside is enjoyed and accessed by through the existing public rights of way network. There are over 1330 kilometres of public paths in Central Bedfordshire through our towns, villages and out into the wider countryside, made up of 975 km of public footpath, 330 km of public bridleway and 26 km of byway open to all traffic (BOATs).

15.2 Any large development, such as a solar farm, can impact on the accessibility and openness that is so attractive to the users of this path network. However, it also provides scope to work with developers to maximise benefits to the public, by improvements on the ground, improving connectivity or using the development as a focal point for circular routes.

15.3 Key principles

15.4 Potential issues and impacts fall within the following areas:

- a) Proposed solar farm developments could impact on Central Bedfordshire's public rights of way. Routes may cross proposed sites or run adjacent to them, with potential implications for accessibility and enjoyment by a range of legal users.
- b) Boundary definition, whether by fencing or hedge planting should be appropriate in scale and as far as possible not detract from users enjoyment of the countryside (see section 12.0). Structures should not be used on the rights of

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way network itself for the purpose of security - only to control livestock, and only after being officially authorised by this Council.

- c) Alterations to tracks for construction access and future maintenance should be kept to a minimum unless they represent an opportunity to improve the rights of way affected. Such works may require an application to the Council for the temporary closure/diversion of the rights of way in question.
- d) All surfaces that are damaged by the developer during construction will be restored to a standard at least as good as existed before the works.
- e) Large developments, such as solar farms, are opportunities for increasing access, particularly those which contribute to community funds. There may opportunities to upgrade a footpath to bridleway or to gain an additional linking route. Even short links can enable greater or safer use of existing routes in an area. Permissive agreements might also be considered in certain circumstances.
- f) Applicants may wish to give consideration, where appropriate, to the development and installation of viewing areas, benches, interpretation panels or visitor or educational facilities as part of any development proposal.

15.5 Potential Mitigations

- 15.6 It should not be beneficial to divert a public right of way that crosses the site of a proposed solar farm, as its layout (e.g. arrays) can usually be arranged around the route. However in some cases it may be necessary to divert to maintain the viability of the proposed solar farm, especially if it provides a more advantageous route or better links with nearby routes.
- 15.7 An application for the diversion [and creation if being offered] must be made to this authority along with an undertaking to cover the costs of our administration and necessary advertising. Proposed changes will need to meet the tests of the relevant legislation.
- 15.8 The width of any public right of way affected should be increased whenever possible and certainly never narrowed.
- 15.9 Where it crosses an application site, the open corridor provided should bear in mind hedge growth should boundary planting be considered, as well as the width required for future routine maintenance. A margin either side of the path of at least 1 metre should be provided between the edge of the path and any planting or fencing.
- 15.10 Where appropriate the Council will seek the upgrade of poor quality routes and provision of new routes. This upgrade would include improvements to the surfacing and drainage as well as road signage, way-marking and interpretation panels.
- 15.11 New access tracks should be kept to a minimum with any maintenance requirements being able to be serviced by a four wheel drive vehicle.

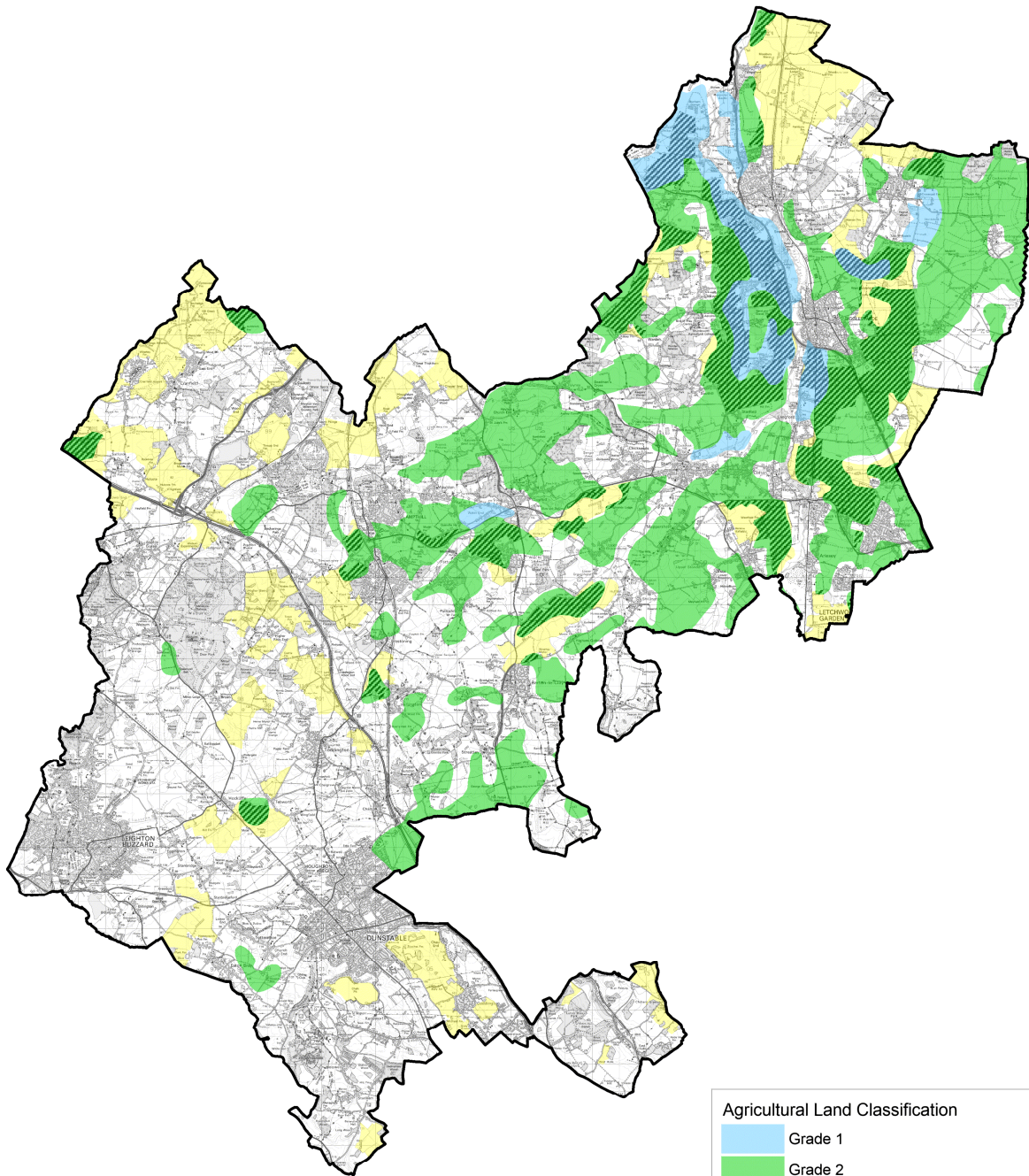
15.12 Additional guidance and sources of information:

- 15.13 Rights of Way and Development Guide for Central Bedfordshire 2014, available from the Councils Countryside Access Service.
- 15.14 The British Horse Society has produced advice on solar farms, which can be found at:
<http://www.bhs.org.uk/~media/BHS/Files/PDF%20Documents/Access%20leaflets/BS%20Advice%20on%20Solar%20Farms.ashx>

APPENDICES

- 1) Landscape character sensitivity with Agricultural Land Classification (grade 1 and 2)
- 2) Landscape character sensitivity with tranquillity

Landscape Character Sensitivity
with Agricultural Land Classification



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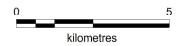
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03/03/2014

Agricultural Land Classification

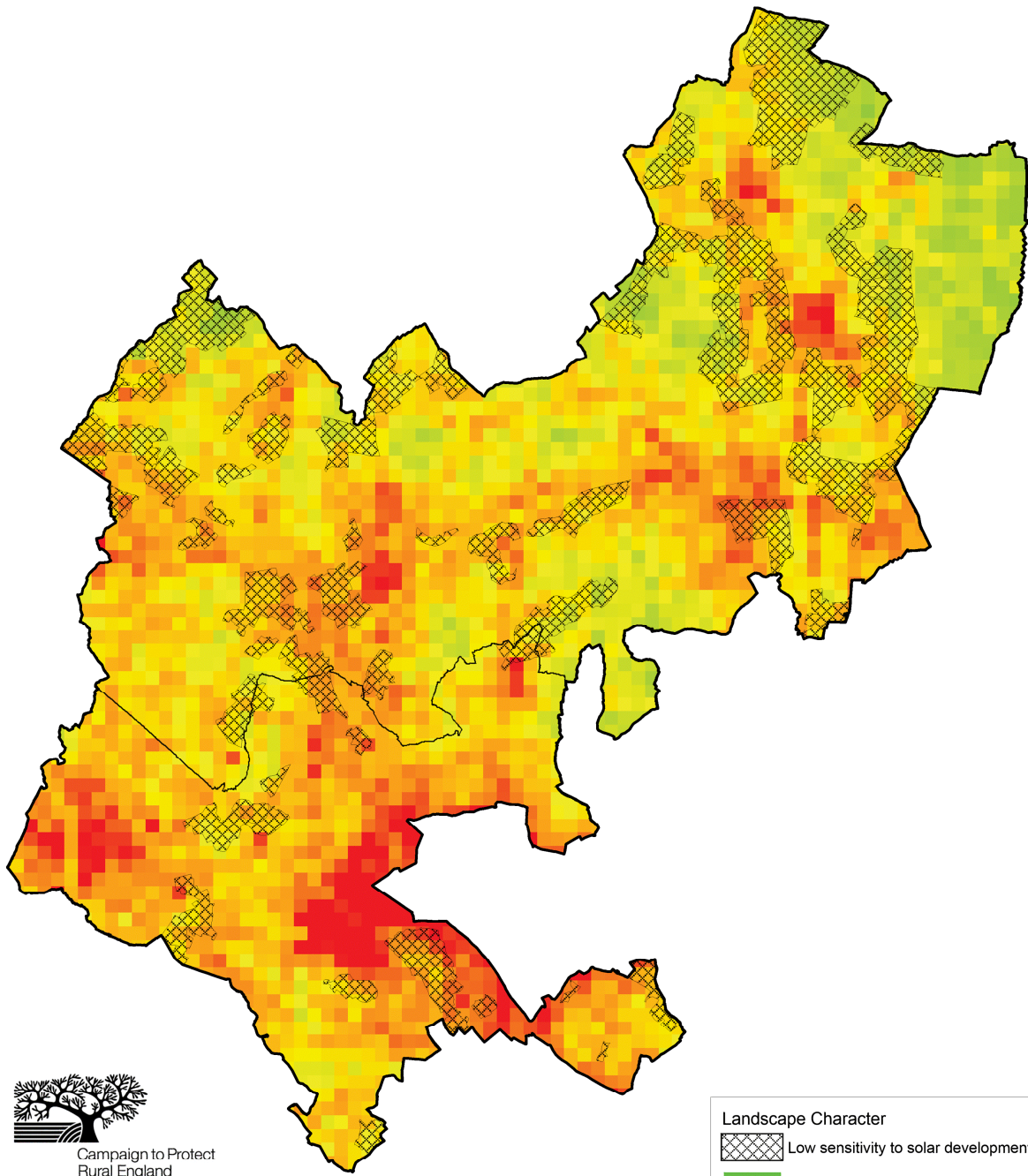
- Grade 1
- Grade 2

Landscape Character

- Low sensitivity to solar development
- Areas constrained by Agricultural Land Classification
- Central Bedfordshire boundary



Landscape Character Sensitivity
with Tranquillity



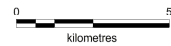
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Landscape Character

- Low sensitivity to solar development
- High tranquillity
- Low tranquillity
- Central Bedfordshire boundary





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