

# **Ceredigion**

**Local Development Plan  
2007 - 2022**

## **Nature Conservation and Solar PV Arrays Help Sheet**

**Produced in accordance with and approved by Natural Resources  
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## 1. Introduction

1.1.1 **This help sheet aims to build on guidance within the Nature Conservation Supplementary Planning Guidance (SPG), in order to clarify what information is required to be submitted with a solar PV array application, with regards to nature conservation. This includes a broad guide on the survey requirements, however it is advised developers speak to the LPA at pre-application stage to get specific advice.**

1.1.2 The guidance enables developers to meet the Council's proactive approach towards achieving a high quality natural environment and to address statutory duties and social responsibilities, while having a positive attitude to renewable energy. It will guide how to meet in particular LDP Policies DM14: Nature Conservation and Ecological Connectivity and DM15: Local Biodiversity Conservation, as well as elements of DM06: High Quality Design and Placemaking, DM20: Protection of Trees, Hedgerows and Woodlands and DM22: General Environmental Protection and Environment.

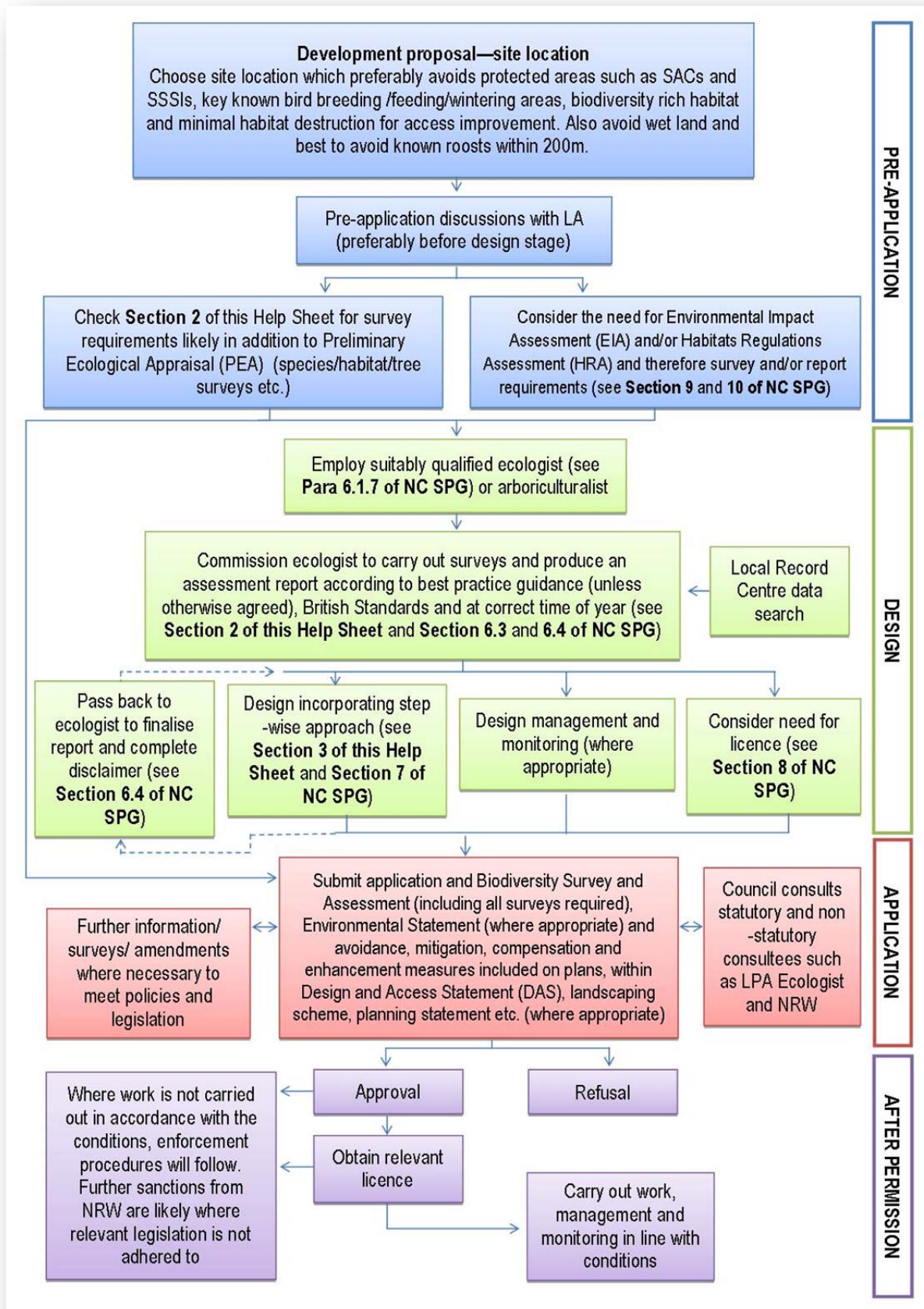
1.1.3 **Key messages drawn from this guidance and the Nature Conservation SPG (see Nature Conservation Supplementary Planning Guidance for more information).**

- All applicants for solar PV array applications will be required to submit an ecological survey report. The level of survey required will depend on the nature and scale of development and the sensitivity of the surrounding habitat and species.
- Pre-application advice with the LPA, including the LPA Ecologist is available on request (small fee may be payable) to discuss necessary surveys and whether suggested mitigation and plans are suitable.
- Surveys should be carried out at the beginning of the process so that they can inform design, rather than trying to fit the results around the current design.
- Various surveys and mitigation can only be carried out at certain points of the season, and therefore this needs to be considered in the timing of the application and development construction.
- Reports should include the results of the survey **AND** an assessment of the effect of the development on the species/habitats/sites, recommendations for mitigation etc.
- The recommended actions and mitigation included in these reports and advice must be included within the proposal plans where they relate to the design of the development, layout etc., unless agreed with the Planning Officer that this is not necessary. Other

recommendations (such as licensing for a protected species, management agreements etc.) will be covered by conditions/informatives depending on the context. In some cases, Section 106 agreements may be required where conditions are not suitable. Depending on the site and its features, this may require financial contribution.

- Surveys, assessments and reports are required to be carried out in line with the British Standards for Biodiversity: Code of Practice for Planning and Development (BS42020:2013) and relevant guidelines (unless justified deviations) and by a suitably qualified, knowledgeable and experienced ecologist.

**Figure 1.** Outline of the planning process with regards to nature conservation and solar PV array.



## 2. Survey Requirements

2.1.1 All solar PV array development will be required to meet National (relevant policies within Planning Policy Wales (PPW) and Technical Advice Notes (TAN) 5 and TAN 8), Local policies (Ceredigion Local Development Plan (LDP) Policies DM14 and DM15) and the British Standards for Biodiversity: Code of Practice for Planning and Development (BS42020:2013). The Council is also required to meet its duties under the Conservation of Habitat and Species Regulations 2010 (as amended (Regulation 9(5))) and Section 40 of the Natural Environment and Rural Communities Act 2006.

2.1.2 In order for the Council to determine whether the application meets these policies and to ensure the Council meets its duties, a Preliminary Ecological Appraisal (PEA) of the site and immediate surroundings will be required to support any field based proposal for solar PV array, regardless of area and number. Further surveys may be required dependant on the nature, scale and location of the panels and the sensitivity of the local environment.

2.1.3 Where the PV array is roof-top mounted, bat and breeding bird surveys may be required.

2.1.4 All surveys will be required to be carried out by a suitably qualified and experienced ecologist within the appropriate season and to appropriate survey standards and methodology. The Nature Conservation Supplementary Planning Guidance (SPG) (available on the Ceredigion County Council website [www.ceredigion.gov.uk](http://www.ceredigion.gov.uk)) provides further information on survey requirements and survey timings generally.

### 2.2 Preliminary Ecological Appraisal

2.2.1 A desk study and field survey to determine the likelihood of any potential impacts on biodiversity will be required. This must include the site of the panels and any works related to the development such as access, access improvements, cable laying, crane pads etc. The following list provides guidance for aspects to be included in the preliminary ecological appraisal. General guidance on PEA can be found on the Chartered Institute of Environmental and Ecological Management (CIEEM) website<sup>1</sup>. More specific requirements are listed below.

### 2.3 Desk Based Study

2.3.1 The following desk top information is required in order to make a desk top assessment of the potential impacts.

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<sup>1</sup> <http://www.cieem.net/guidance-on-preliminary-ecological-appraisal-gpea->



### Desk Based Study Requirements

Statutory and non-statutory designated sites within 2 km of the proposed development;

Listing of any species under Section 42 of Natural Environment and Rural Communities (NERC) Act 2006 and in the relevant Local Biodiversity Action Plan (LBAP) (protected and notable (including priority) species records) within 2km. Also list current known status of species if known.\*

Assessment of aerial photos to determine landscape scale features for bats and birds connecting them to onsite and offsite habitats. Graphical data displayed as a set of maps are preferred to tabulated data.

Location of water features within 200m

Solar PV arrays within 2km which have been consented or which are publically available in the planning system

\* Must be obtained from the Local Record Centre (West Wales Biodiversity Information Centre) and other additional relevant sources such as county recorders, NRW etc. A fee may be chargeable.

#### 2.4 Field Survey

2.4.1 2.7 An Extended Phase 1 Habitat Survey completed in accordance with the *Handbook for Phase 1 Habitat Survey - A technique for environmental audit* (JNCC, 2010) (see also CIEEM PEA guidance (footnote 1 above) should be undertaken and a report prepared in conjunction with the desk based study on the PV array site plus a 250m buffer and the other areas such as panels, cables, turbine house, access tracks (including access points) etc. plus a 100m buffer.

2.4.2 This should be extended to include:

### Field Survey Requirements

The value of the habitat and surrounding habitat including any areas affected by panels, cables, turbine house, access tracks (including access points)

Hedgerow value as defined under the Hedgerow Regulations 1997, not just Phase 1

Signs of use by protected and priority species e.g. badgers, otters etc.

Incidental records including breeding birds, winter foraging birds, reptiles etc.

Target notes and general notes of habitat potential for protected and priority species.

All buildings, trees or features within 200m of the proposed PV array development shall be externally, and if possible, internally assessed for potential roosting bats in accordance with Bat Conservation Trust 2012 Guidelines and Mitchel-Jones 2004, including land which is not in the ownership of the applicant. Also including access tracks where trees may need to be cut back, lopped or felled.

Suitable trees should be surveyed for signs of use by breeding red kites (feeding remains, nests etc.) within 600m in accordance with RSPB guidelines (Forests and Birds (RSPB and Forestry Authority, 1997)), including land which is not in the ownership of the applicant/land owner.

## 2.5 Report

2.5.1 The report should include the results of the above and an **assessment of the impacts**, including recommended further survey and cumulative impacts with other PV array developments and projects with similar effects.

2.5.2 This should include an assessment of construction and post construction impacts, including (but not limited to):

- Impacts on protected sites or their features
  - E.g. pollution, habitat loss, impacts on mobile species (in particular birds, mammals, bats and invertebrates)
- Habitat loss
  - E.g. birds/bats due to disturbance from habitat, badger sett destruction, loss of reptile basking/hibernacula, amphibian feeding area, bat roosts, bird breeding sites etc invertebrate sites, loss of BAP habitat, pollution/damage of habitat from construction
- Disturbance
  - E.g. bats/birds from habitat, breeding birds during nesting, breeding badgers, water voles, otters
- Displacement
  - E.g. birds from breeding/feeding sites
- Death to individual species
  - E.g. bats attempting to 'drink' from panels, killing/injuring of reptiles, killing/injuring of badgers
- Cumulative impacts
  - From all of the above

## 2.6 Further surveys

2.6.1 Depending on the results of the above, further surveys may be required. These will need to be carried out in accordance with published guidance and any deviations from this justified. It is recommended survey requirements are discussed and agreed with the LPA/NRW before they are carried out to avoid later delays.

### 3. Avoidance, Mitigation, Compensation and Enhancements

3.1.1 The following information details how you can try to avoid impacts to wildlife, mitigate impacts to reduce them and compensate for any impacts which can't be mitigated in line with TAN 5 and LDP Policy DM15: Local Biodiversity Conservation. Some suggested enhancements are also listed below but these will be generally site specific and should be recommended by the consultant ecologist.

#### 3.2 Avoidance and mitigation

3.2.1 When planning the location and construction of the PV array, in order to try to reduce risks to wildlife from the turbine, the following should be incorporated. This may reduce the amount of mitigation and survey effort required, and in some cases objection to the turbine on ecological grounds. Most of these elements can be determined from the PEA.

- **PV array panels should be based in improved fields and any cabling, access tracks or other requirements associated with the panels, including off-site access, should avoid removing trees, hedgerows, marshy grassland, scrub, woodland or any other habitat important for biodiversity.** Where they aren't, further surveys may be required including Phase II habitat surveys, invertebrate, birds, bats, reptiles etc. depending on extent and quality of habitat affected.
- **Sites should be avoided on wet land, regardless of its ecological value.** Particularly where the land is sloping and meets with a watercourse. Construction of a solar farm on wet land can result in erosion and sedimentation run-off into watercourses.
- **Suitable buffers (at least 10m or root protection areas of trees, whichever is greater) should be provided** between any retained habitat feature and the panels/access track/turbine house. For trees, see the British Standards for Trees in Relation to Design, Demolition and Construction (BS5827:2012), which should be followed.
- **Panels should not be placed in shading areas** which would result in the loss of or heaving trimming/lopping of trees.
- **Diggings should be avoided within 30m of an active badger sett.** Where within 30m, appropriate mitigation shall be required and need to be agreed. A badger licence is likely to be required.
- **Any diggings should be covered over at night and a method of escape provided** e.g. plank of wood placed in the digging to allow any animals to escape.
- **Construction should be avoided when brown hares are breeding** (determined by pre-construction survey).
- **Construction of the PV array should be carried out outside of bird breeding season.** This is generally good practice but may be a requirement if there are birds sensitive to disturbance from construction within 1km. This would usually be March to August inclusive but may be February to June inclusive for red kites.

### **3.3 Compensation**

- 3.3.1 Some habitat which is affected may be able to be recreated or alternative compensatory measures incorporated. For example, where areas of hedgerow may need to be removed for access, it may be possible to replant elsewhere or to fill gaps of existing hedgerows.

### **3.4 Enhancements**

- 3.4.1 Ecological enhancements will be required with all solar PV array applications in line with LDP Policies DM06 and DM15 as well as TAN 5. The most appropriate enhancements will be site dependent but could include additional hedgerow/tree planting, alternative management regimes of land/boundary features, bat/bird boxes etc.

### **3.5 Monitoring**

- 3.5.1 Where appropriate the LPA may require monitoring of the development. This may for example incorporate monitoring species populations or vegetation quality. In some cases it may be more appropriate to add a condition that requires the access of the site to the LPA or a person appointed by the LPA for monitoring purposes. The requirements will be site specific.

4. Who to contact

**Local Authority**

Contact the LA planning Ecologist at [ecology@ceredigion.gov.uk](mailto:ecology@ceredigion.gov.uk) or call 01545 572147.

**NRW (Natural Resources Wales)**

Contact NRW at [enquiries@naturalresourceswales.gov.uk](mailto:enquiries@naturalresourceswales.gov.uk), call 0300 065 3000 or visit their website <http://naturalresourceswales.gov.uk>.

**Wildlife Trusts**

Wildlife Trust of South and West Wales

Call 01656 724100 or visit their website <http://www.welshwildlife.org/contact-us/>.

**Local Record Centre**

West Wales Biodiversity Information Centre

Call 01994 241468 or visit their website <http://www.wwbic.org.uk>

## 5. Useful documents, links and references

Bat Conservation Trust (2012) Bat Survey Good Practice Guidelines

BSI (2013) British Standards for Biodiversity: Code of Practice for Planning and Development (BS42020:2013)

Ceredigion County Council (2015) *Local Development Plan Energy Supplementary Planning Guidance*

Ceredigion County Council (2015) *Local Development Plan Nature Conservation Supplementary Planning Guidance*

CIEEM (2013) Guidelines for Preliminary Ecological Appraisal. [Available online] [http://www.cieem.net/data/files/Resource\\_Library/Technical\\_Guidance\\_Series/GPEA/GPEA\\_April\\_2013.pdf](http://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/GPEA/GPEA_April_2013.pdf)

Conservation of Habitat and Species Regulations. (2010).

Hedgerow Regulations 1997

Joint Nature Conservation Committee (JNCC). (n.d.). Retrieved from JNCC website: <http://jncc.defra.gov.uk/>

Mitchel-Jones, A. and McLeish, A. (2004) *Bat Workers Manual*. [Available online] <http://jncc.defra.gov.uk/page-2861>

Natural England (2011) *Solar parks: maximising environmental benefits* [Available online] <http://publications.naturalengland.org.uk/publication/32027>

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Protection of Badger Act. (1992).

Welsh Assembly Government. (2005). *Planning Policy Wales: Technical Advice Note (TAN) 8: Renewable Energy*.

Welsh Assembly Government. (2009). *Planning Policy Wales: Technical Advice Note (TAN) 5: Nature Conservation*.

Welsh Assembly Government. (2010). *Planning Policy Wales (PPW)*.

West Wales Biodiversity Information Centre (WWBIC) <http://www.wwbic.org.uk/>

Wildlife and Countryside Act. (1981). (*as amended*).