

**Cranborne Chase  
Area of Outstanding Natural Beauty**



## **POSITION STATEMENT**

**Number 9**

### **FIELD SCALE PHOTOVOLTAIC PANELS**

#### **Background**

Position Statement 5, Renewable Energy, sets out this AONB's view on the range of renewable energy options. This one looks specifically at electricity generation by field scale arrays of photovoltaic panels (PVs).

Government guidance says planning should aim to achieve social, economic and environmental gains jointly and simultaneously. It also says that great weight should be given to conserving landscape and scenic beauty in Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty. Major development proposals in these areas should be refused except in exceptional circumstances.

The AONB Management Plan 2014 – 19 is generally supportive of renewable energy proposals that are of an appropriate scale, not visually intrusive, and that integrate with the landscape [p 72, Policy PT14]. In terms of appropriate scale the AONB means that which is of a scale to supplement the farm energy use rather than primarily generating considerably more than the farm needs.

Where there are no Conservation Area or Listed Building issues the AONB has supported PVs on roofs of grain stores and associated farm buildings. These clearly offset the energy requirements of the farm rather than being primarily a local power station.

#### **Parallel matters**

Whilst the AONB Partnership recognises the 'food versus fuel' issue it tends to avoid getting drawn into the debates on these competing uses of land. Nevertheless, the AONB Partnership does tend to support the 'moral high ground' of the farming community growing food for the nation – and, therefore, taking a relatively relaxed view of development that contributes directly to quality food production.

## Scale

'Field scale' means hectares are committed to PVs rather than just a couple of dozen panels mounted on the ground. Furthermore, field scale PVs usually mean the output is in the 'power station' range of megawatts rather than kilowatts. The AONB view is, therefore, that a proposal of that scale should be treated in the way any power station in the countryside would be treated.

It seems to the AONB that the primary use of a field that is covered with PVs is no longer agriculture but power generation. There is, therefore, an additional concern that the field could then be regarded as in an 'industrial' use and hence able to move to other industrial uses under permitted development rights.

The contention that the use of a field for PVs for 25 or 30 years is 'temporary' has been argued in connection with 'temporary' wind turbines – with different views prevailing in different situations! There is, however, no disagreement that 25 years is a significant proportion of the human life span.

## Appearance

Ground mounted PVs are fixed on angled frames, at approximately 30 degrees to the horizontal, and orientated in a southerly direction. The height of the angled panels varies up to about 4 metres.

The frames may be simply fixed to posts that are driven into the ground, or there may be more substantial, raft type, concrete foundations. These processes can adversely impact on historical and archaeological artefacts and interests.

In terms of small scale ground mounted PV panels the appearance can be an issue; the glassy or glossy 'slate roof' appearance from the front, and the rather utilitarian, industrial, side and back views that look a bit like temporary stadium seating. Neither integrates well with our local landscapes although they do have the benefit of being considerably lower than wind turbines.

The metallic colour of the frames and the edges of the panels, which are usually aluminium – and the shine and reflection from them - can be an issue. This AONB has a Good Practice Note on colour in the landscape.

An issue with larger, field scale, developments is the extensive area of shiny and glassy 'slate roofs' – and hence the unusual colour and rectilinear features – in addition to the lack of seasonal changes that are usually associated with fields and the countryside. The fixed and unchanging industrial appearance is, at least, incongruous. Such unusual features tend to catch the eye and draw attention, so the impacts on views of proposed developments will be critically appraised.

The unnatural appearance of the glassy mass of field scale PV panels is readily perceived over 10km way. When viewed from a hilltop some PV

arrays on low ground can give an appearance of a river or lake. However those on a hillside can appear as an unusual but consistent shine and be particularly out of place, incongruous, and intrusive.

The energy generation process involves installing inverter cabins within the arrays along with monitoring / control / transformer cabins. Almost invariably these square or oblong structures on concrete platforms jar with the irregular form of the countryside. Often they are in visually obvious places for the convenience of visiting maintenance staff rather than being located to minimise their visual impact. Elevated communications dishes and security cameras add to the visual intrusion and atmosphere of an urban industrial park, as do the high security gates and the security fencing.

Exporting the power generated means that either a substantial electricity cable already exists close by, or a sufficiently substantial connection has to be made to one. That can involve additional long term visual intrusion through extra electricity lines and poles or short term physical disturbance through undergrounding.

## **Discussion**

There do seem to be some ingenuous comments circulating about a field full of PVs still being agricultural. If the layout is efficient much of the ground will be shaded and therefore not producing much herbaceous growth. The existence of PVs will preclude arable cultivation. That is not to say some grazing may not be necessary to maintain the edges of the site and to help control weeds. Again, however, only light weight animals are suitable as heavier ones can damage the PVs / their frames by leaning on them.

Security is another significant issue. PV panels are expensive and that is one reason why placing them on roofs helps to overcome security issues. Ground mounted PV panels provides a situation similar to pinning £50 notes down in a field! Deer netting or mesh is not sufficiently robust to deter thieves and in a situation close to a major route, or in a remote area, it seems likely that PV installations would be particularly at risk.

An appropriate security fence is likely to be quite substantial and considerably more visually intrusive than a deer fence. The idea of CCTV on posts may work in town situations but in a rural location not only are there the matters of monitoring and response time but there are also matters of connectivity and clarity. Realistic security arrangements may be at risk of being particularly visually intrusive and drawing attention to the PVs.

Manufacturers and developers assert glint, glare, and shine should not be a major issue with good quality PVs, although there may be some when they are wet and the angle of the sun is low. However, the experience of this AONB's professional staff is that if a field scale array is not fully screened it can be visible as an incongruous glassy intrusion in the rural scene from distances well in excess of 10km. The overall 'glassiness' or 'blackness' of

the 'front' of a field of PVs all year round is another visual concern, along with the unmitigated industrial appearance of the structure of the arrays.

The connection to the electricity grid, and the associated converter / substation buildings, may entail additional visually intrusive poles / pylons.

## **Conclusions**

The purpose of AONB designation is 'conserving and enhancing natural beauty', and AONBs 'have the highest status of protection in relation to landscape and scenic beauty'. Those are significant and weighty criteria to balance against the general aspiration for renewable energy, particularly as applications for development proposals should consider developing outside the designated area or meeting the need in some other way [NPPF paragraphs 115 & 116].

In short, PVs on roofs of agricultural buildings, yes [subject to the usual Conservation Area / Listed Building caveats]; however, for field scale PVs the AONB Partnership's position is a basic presumption against them.

Richard Burden BSc DipCons MSc FLI PPLI  
Landscape and Planning Advisor

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Endorsed by Cranborne Chase AONB Partnership Panel 26 October 2016