



POLICY DOCUMENT

SOLAR

*Prepared by CPRE Hampshire Climate Change and Sustainability Working Group
In conjunction with 'Policy on Sustainability and Land Use in Hampshire'*

Summary

- Climate and biodiversity emergencies pose an existential threat - not least to the countryside
- CPRE Hampshire supports solar energy generation – where impact is acceptable
- However, **our policy** is that this support is guided by the presumptions of:
 - brownfield and rooftop first
 - protection of Valued Landscape
 - prioritisation of productive agricultural land to ensure food security
 - critical importance of community protection and support
- **Greenfield locations for utility-scale solar should be the exception.** Where considered, our priorities are in protecting:
 - Community:
 - local communities must be consulted and supportive of any development
 - health and safety risks, including of battery installations, must be fully assessed, including by Fire Service
 - cumulative impact should be fully considered
 - Landscape
 - the true value of the land must be assessed, including agricultural value and alternative uses for climate mediation
 - tranquillity and amenity including access, footpaths, setting must be given proper weight
- And ensuring:
 - Full Life-Cycle Climate Impact is transparent
 - true lifetime GHG¹ impact, including manufacture and disposal of panels and batteries, must be transparent and fully considered
 - end-of-life removal and land restoration must be guaranteed
 - Biodiversity Net Gain is credible and supported
 - genuine BNG must be properly assessed, including impacts on hedgerows and treelines (e.g. extreme pollarding).

¹ Green House Gas

Policy

The environmental emergency of heating and biodiversity loss pose a clear threat to the landscape, productivity, access and livelihoods of the countryside. CPRE Hampshire is passionately supportive of GHG reductions, including but not limited to, renewable energy.

1. Brownfield and rooftop first

The need for clean energy does not justify damaging the countryside when abundant rooftop and brownfield alternatives are available. Planning policy should not be driven by the commercial benefit of developers, investment companies and landowners.

Planning Policy Guidance (PPG) supports this case, ‘encouraging the effective use of land by focussing large scale solar farms **on previously developed and non-agricultural land**, provided that it is not of high environmental value’.

National Planning Policy Framework (NPPF) Para 119 states ‘strategic policies should set out a clear strategy for accommodating objectively assessed needs, in a way that makes **as much use as possible of previously-developed or ‘brownfield’ land**’.

There is an estimated 250,000 hectares of south facing commercial roof space in the UK². If utilised this could provide approximately 50% of the UK’s electricity demand.

According to a report commissioned by the UK Warehouse Association “the warehousing sector has the roof space for up to 15GW of new solar power” and “has the potential to double UK’s solar PV capacity, which means the warehousing sector alone could deliver the entire UK requirement for 2030 forecast by the National Grid future energy scenarios (FES)”

Laurence Robinson co-author of the report says “the UK’s 20% largest warehouses can provide 75million square metres of roof space, avoiding the need to develop new land equivalent to the footprint of 500,000 houses.”

In addition, there are large areas of industrial and post-industrial land as well as retail, car-parking and land associated with transport infrastructure. This could be harnessed with very little impact on landscape, tranquillity and cultural heritage. There should be no, or very little, need for rural and greenfield utility-scale solar (as distinct from micro / community generation).

The utility solar industry’s preferred location is now on greenfield sites, often on valuable farmland, as this is lower in cost. Developers do not need to account for the externalities in terms landscape, community and agricultural value. In Hampshire in the last two years alone applications for 1547 hectares (3,825 acres) of solar on agricultural land have been lodged.

It is the role of CPRE Hampshire to represent those values in balancing planning policy and decisions against the use of greenfield and towards the assumption of brownfield sites first.

² DECC, UK Solar PV Strategy, Part 1, April 2014

2. Protection of productive agricultural land

The climate crisis is accompanied by an evolving food crisis. The UK meets 46% of its food needs from imports³. It is short-sighted in the extreme to convert large amounts of agriculturally productive land to solar generation, where alternative agriculturally unproductive sites are abundant.

It is our policy that Best and Most Versatile (BMV) land should never be used for solar development. BMV is currently defined as Grade 3A and above. However, 3B land is still productive agricultural land and we agree with the Secretary of State that *“where a Planning Authority is considering a development on 3b land, there is also a need for them to consider whether there is any land that is classified as grade 4 or below as an alternative”*. (Letter to the Environmental Audit Committee on 6th September 2022).

PPG states that where a proposal involves greenfield land and use of any agricultural land has been shown to be **necessary**, poorer quality land should be used in preference to higher quality land. In his letter to the Environmental Audit Committee, the Secretary of State reiterates that requirement.

PPG also states that **continued agricultural use** and/or biodiversity improvements around arrays should be encouraged. In practice, there is very little evidence that existing solar developments provide meaningful continued agricultural use.

It is our policy that productive agricultural land should not, in principle, be lost to solar generation and that Grade 3A and above should never be used in solar developments.

3. Alternative land use

Even where agricultural land is not defined as Best and Most Versatile (BMV) it still has value in terms of attractiveness, biodiversity, access and community worth. There are numerous alternative uses of landscape that reduce or mitigate climate impact through planting and land-use strategies. These retain the broader value of the landscape by preserving its rural character, protecting access, community usage and enhancing bio-diversity.

It is our policy that alternative, more sympathetic, land-use is encouraged to mitigate climate change (this is contained in our Policy on Sustainability and Land Use in Hampshire).

4. Biodiversity Net Gain

BNG is a planning requirement. Utility Solar applications can make BNG projections that are not realised. In addition, solar developments can result in the loss of significant amount of hedgerows and particularly treelines to reduce shading after they are approved. This has significant impact on both the attractiveness and the biodiversity of the countryside, with loss of bird and bat roosting and nesting sites and insect habitat.

It is our policy that that BNG claims must be credible, supported and all impacts transparently reported. Where a development will result in biodiversity loss it will not secure our support. Hedgerows, treelines and important trees need to be conserved through enforceable planning requirement

³ UK Gov. United Kingdom Food Security Report 2021

5. Protection of valued landscape

Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, Areas of Outstanding Natural Beauty and Conservation Areas, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas and should be given great weight in National Parks and within their settings. The scale and extent of development in these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas. Permission for major development should be refused other than in exceptional circumstances and where it can be demonstrated that the development is in the public interest (NPPF paragraphs 176 and 177)

Beyond such nationally designated areas planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes (NPPF paragraph 174(a)). It is accepted that such Valued Landscapes are landscapes that demonstrate physical attributes beyond the ordinary.

Solar energy development which damages such nationally designated landscape or Valued Landscape or their setting should not be permitted. Cumulative impact needs to be taken into account (as per NPPF Paragraph 18)

Other parts of Hampshire's rural landscape is valuable due to its attractiveness and character and its heritage value. It represents a vital resource for a growing population. This is particularly true of; landscape adjacent to towns and villages where access is important for physical and mental wellbeing, and where the landscape has specific historic and heritage value. Introducing large scale industrial development into these landscapes damage their value for a generation or more. In all cases tranquillity and amenity including access, and impacts on public rights of way must be given proper weight.

NPPF Para 158 states 'when determining planning applications for renewable and low carbon development, local planning authorities should approve the application if its impacts are (or can be made) acceptable'.

It is our policy that nationally designated landscape, Valued Landscape, their settings and landscape valued by the community should be protected from utility scale solar development in all cases.

6. Engagement of communities

Communities must be at the heart of shaping the future of their energy needs. CPRE Hampshire is supportive of Community Generation schemes, controlled by and benefiting local people.

However, large utility scale development should only be approved where the community has been consulted and broad support achieved. Otherwise, schemes should be adapted or relocated to achieve broader support.

It is our policy to support and encourage Community Generation.

Solar developments should not be imposed. It is our policy that local communities must be consulted, and their views given proper weight, particularly those of Parish Councils and other local interest groups. Developers should secure the support of the local community for any development.

7. Protection of Communities

The safety of rural and village residents must be considered in any application. There are several established risks of large-scale solar developments which mean they should not be sited in close proximity to people. (see NPPF Par 18 above). These include:

- Noise. The sound produced by inverters and colling apparatus of large-scale solar developments is intrusive and damaging to the tranquillity in rural locations, if houses and public rights of way are within 250 metres.
- Solar panels contain a range of chemicals and heavy metals damaging to the environment if damaged. This should be considered in terms of proximity to watercourses and to residential areas.
- Battery storage is a relatively new technology, and many developers lack experience in this area. Lithium-ion cells can combust, particularly if damaged. This results in a 'thermal runaway' event, producing large quantities of highly toxic emissions, notably Hydrogen Fluoride. A number of these fires have occurred in the UK, US and Australia resulting in exclusion zones of up to 5 miles. Large quantities of water are required to contain these events, far beyond the capabilities of rural fire services.

It is our policy to ensure risks, including of battery installations, should be fully assessed, including by the Fire Service

8. Full Life-Cycle Climate Impact is transparent

We do not support the 'off-shoring' of carbon emissions to producing countries such as China.

Production of Solar PV is highly energy intensive. Energy in manufacturing countries is often carbon-intensive (coal-fired). Transportation of bulky and heavy solar panels and infrastructure over long distances adds to the embodied carbon. Disposal of panels at end of life is uncertain and will be energy intensive. Batteries have short lives and are highly carbon-intensive in manufacture.

We insist that the full embodied carbon is assessed, and a 'carbon budget' prepared to give an honest assessment of the true climate benefit of any development to be set against and balanced with the costs of the development in terms of loss of landscape, agricultural production, amenity etc. This will also allow for an unbiased assessment of other land-use choices and a comparison of the true climate impacts of each.

The 'headline' GHG⁴ payback period on Utility Solar can be attractive, and this is quoted by developers. But research suggests that: carbon-intensive manufacture and transportation, extended transmission distances (e.g. a rural location), end of life disposal, and relatively low levels of insolation in the UK, extend this pay-back period significantly.

Since solar in the UK is replacing energy with a relatively high renewable mix, the carbon payback extends to a point at which the case, in climate terms, for solar is marginal at best. This must be understood to balance the true benefits of solar against the costs.

It is our policy that Planning Authorities should insist developers provide accurate, full life cycle climate impact assessments to include all aspects of manufacture and disposal, and considering real-

⁴ Green House Gas

life insolation, transmission loss and the carbon mix of the energy that will be replaced by this generation. This will allow a true cost-benefit analysis to be conducted. This is particularly so for greenfield sites where the costs to the countryside are the greatest.

9. End-of-life removal and land restoration must be guaranteed

Developers must be able to demonstrate that all infrastructure will be removed, and the land returned to productive use at end of life and this should be made a planning condition. Developers tend to have complex ownership structures and high levels of debt, making them financially unreliable. So that solar developments do not become a blight for future generations, In addition to planning conditions, Planning Authorities should require a Bond issued by the developer with the obligation retained by all subsequent owners of the facility to the end of its life.

It is our policy that any solar development in a rural location can only be allowed if a planning conditions and ideally a Bond ensures the ultimate restoration of the site to productive agricultural land.

10. Local Plans

The above principles need to be set out in a comprehensive policy on solar energy in Local Plans

Appendix

CPRE National policy on Renewables includes the following

- National and local strategic policies are needed for renewable energy and carbon reduction which are prepared with full public scrutiny
- Energy projects should be assessed for their contribution to these strategic policies
- Reducing overall demand for energy through efficiency measures in buildings, industry and transport, should be a national priority – this is also crucial to tackling fuel poverty and creating green jobs
- A sequential policy, supported with investment incentives, should make rooftops, car parks and brownfield sites – and not greenfield sites - the clear locations of choice for solar energy
- Individual and cumulative impacts on landscapes and farmland should carry substantial weight in all planning decisions
- Approved greenfield solar schemes must include a binding requirement to contribute to Local Nature Recovery Strategies
- Direct financial support should be given to community energy schemes, which represent the gold standard for renewables done well.