



March 2022

## CPRE OXFORDSHIRE POSITION PAPER ON RENEWABLE ENERGY

1. **CPRE Oxfordshire believes that renewable energy is desirable in principle, but not at unacceptable cost to the countryside, our rural communities, or to the economy.**
2. We support measures that reduce overall energy requirements such as retrofitting of insulation and an improvement in building standards for future homes.
3. We support renewables done well (subject to the specifics below on solar/wind/ biomass):
  - 3.1 Renewable energy projects should prioritise the use of previously developed ('brownfield') land.
  - 3.2 Where greenfield sites are proposed, projects must:
    - Benefit the rural economy.
    - Be supported and/or owned by local communities.
    - Bring net benefits to wildlife.
    - Avoid/minimise loss of productive agricultural land.
    - Avoid use of designated land such as Areas of Outstanding Natural Beauty and Green Belt, and elsewhere avoid/minimise impact on landscape, tranquillity and cultural heritage.
  - 3.3 The full life-time carbon costs of any project, including associated transport and infrastructure, should be assessed, noting that 'renewable' does not necessarily equal 'low carbon'.
  - 3.4 We consider that there is significant potential to increase use of biomass across the county, as well as ground, air and water source heat pumps, particularly in new-build developments.
4. To ensure that further renewable energy provision is brought forward rapidly, but in a manner that is sensitive to broader environmental, landscape and heritage constraints, CPRE Oxfordshire is in favour of a county-wide strategy, **supported by public consultation and engagement, setting out the amount and spatial location for renewables projects.**



## Solar farms

5. CPRE Oxfordshire is concerned about solar farms in the countryside for the significant visual harm and industrialisation of the landscape, and is opposed entirely to such development in Areas of Outstanding Natural Beauty (AONBs) and the Green Belt.
6. CPRE Oxfordshire will support developments on the roofs of new and existing buildings, or in other sites (outside of designated areas) where the visual impact is minimal and there is no significant loss of land for agriculture, recreation or biodiversity.

7. This is because:

7.1 We do not consider that the benefit solar farms offer in terms of renewable energy is necessarily sufficient to offset the environmental harm they create or the otherwise useful land that is lost.

7.2 Oxfordshire already has a significant number of solar farms either constructed or with permission granted. There should be a moratorium until the need for further capacity and the constraints within the County limiting its provision have been properly identified and consulted on, and public agreement obtained.

7.3 There is a readily available alternative in the form of using the roofs of existing buildings, especially warehouses. The Government has estimated that there are currently 250,000 hectares (approx. 625,000 acres) of south-facing commercial roofs in the UK (Part 2 of the Government's UK Solar Photo-Voltaic (PV) Strategy). CPRE Oxfordshire recognises that PV for buildings is the area where the most rapid technological advances, such as thin-film PV and PV tiling, are being made which provide more efficient roof-top energy generation. Roof-top PV on buildings has the added benefit of providing generation at the point of use, thereby reducing transmission and distribution losses, and the impact of associated infrastructure. Well-designed solar technology should therefore be introduced as a mandatory part of building standards for new build houses and all business/industrial development. Local authorities should support roof-top PV generation through planning conditions to mandate it on new build and major refurbishments.

7.4 Landscape character - The scale and 'alien' appearance of solar farms are an obtrusive impact on the landscape and represent an unwelcome and inappropriate industrialisation of the countryside. Fields containing continuous rows of metal and glass bring a dramatic industrial scar to an otherwise rural environment which is further damaged by perimeter security fencing, floodlighting, CCTV systems, overhead line infrastructure and buildings housing associated apparatus including the battery storage units.

7.5 Biodiversity - Ground-mounted solar arrays can result in direct habitat loss, habitat changes and disturbance or displacement of species. For example, development could impact ground-nesting



birds and security fencing surrounding large areas of land removes traditional pathways for transitory animals.

7.6 Broader environmental and social concerns - Considerable amounts of energy and material such as rare earths are required for the manufacture of photo-voltaic panels and batteries, predominantly in China. These issues, together with transport costs and impacts, and the full life-cycle costs including decommissioning, should be considered and fully accounted for in assessing the balance between environmental harm and solar energy. Concern has also been raised about forced labour and human rights issues in the production of solar panels.<sup>1</sup>

7.7 Food security – the UK imports 40% of the food it consumes and this proportion is rising<sup>2</sup>. As global food prices rise and food security becomes an increasingly important issue, agricultural land in England, even of lower grades, should not be misused by giving it over to inefficient renewable energy schemes.

## **Wind turbines**

8. CPRE Oxfordshire will resist wind turbine development in the countryside, unless the visual harm in a particular case, due for example to the lie of the land, is so minimal that it is outweighed by the demonstrable benefits and supported by local people.

9. This is because:

9.1 Oxfordshire is an inland county with low wind speeds, in most cases making the benefit in terms of renewable energy insignificant in relation to the visual harm.

9.2 Wind turbines are tall moving structures which inevitably have an impact over very large areas. The renewables industry itself accepts that even a medium sized turbine would be 'prominent' in the landscape over 675 square kilometres, equivalent to 26% of the total land area of the county. That does not include the miles of new power lines that may need to be installed to connect remote turbines to the National Grid.

9.3 Apart from its important open countryside, Oxfordshire has a high percentage of designated land, including the Oxford Green Belt (approx. 13%) and three Areas of Outstanding Natural Beauty (approx. 25%). Once one also factors in conservation areas, Blenheim World Heritage Site, important listed buildings, parks and gardens, and towns and villages of character, we believe that there is unlikely to be any location where the visual harm a turbine would cause would be acceptable.

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<sup>1</sup> <https://www.antislavery.org/solar-panel-industry-uyghur-forced-labour/>

<sup>2</sup> Food Matters: Towards a strategy for the 21st Century

[http://webarchive.nationalarchives.gov.uk/http://www.cabinetoffice.gov.uk/strategy/work\\_areas/food\\_policy.aspx](http://webarchive.nationalarchives.gov.uk/http://www.cabinetoffice.gov.uk/strategy/work_areas/food_policy.aspx)



## **Biomass**

10. CPRE recognises this as an emerging approach which could have a useful role to play in meeting renewable energy targets and would almost certainly cause less landscape and visual harm than solar farms. We will continue to review the evidence on this matter with a view to understanding the potential benefits and harms for the Oxfordshire countryside.
11. We recognise that biomass could be a reliable source of energy and the land used could be restored for other crops within a season.
12. To reduce carbon and transport implications, any biomass generator/s in Oxfordshire should be related to locally sourced biomass fuel, not reliant on importing from a distance. Given the size of buildings involved and their industrial nature, biomass generators should be located away from greenfield sites, whilst still keeping transportation distances to a minimum.
13. We are also concerned about the landscape impacts of growing industrial scale biomass mono-crops. Any growing of biofuel crops should not dominate the landscape and should ideally be integrated into a mixed farming landscape. Our concerns about food security (see 7.7 above) remain.

## **Further considerations**

14. Where developments are to be considered, the following issues and mitigation measures should be taken into account:

### **14.1 Visual impact & tranquillity**

- i) *Siting* - The most unsuitable sites (other than for biomass) are on sloping land highly visible from the surrounding landscapes, or where there are sensitive landscape features, rights of way and/or significant heritage assets. Green Belt, AONBs and other designated areas should be avoided.
- ii) *Agricultural land* – renewable energy projects should not be located on useable agricultural land, in particular not the most productive Grade 1, 2 and 3a land. Nor should they be on typically low-grade hillside land where their impact would be greatest. The grade should be stated on any application.
- iii) *Screening* - Screening (and softening) in the form of hedges or tree belts may be appropriate to help reduce visual impact, providing it is in keeping with the local landscape character. It should be borne in mind that a hedge may well take ten years to grow to a height sufficient to provide effective concealment and tree cover longer.



- iv) *Zone of Visual Impact* - Landscape and Visual Impact Assessment should be employed at the pre-application stage to describe local landform and key views. This should consider the potential for sun glint and glare at any properties or key landscapes and the impact on users' rights of way. Solar panels, or other infrastructure, should not detract from the local character of a settlement.
- v) *Materials & additional infrastructure*
  - a) Solar panels should be coated in a non-reflecting material to minimise glare and visual impact, and be stipulated as a planning condition.
  - b) Bases should be easy to remove to permit restoration of the land.
  - c) Security fences should be of sympathetic design and screened as necessary.
  - d) Lighting features should be of sympathetic design and installed to eliminate light spill.
  - e) Pole mounted CCTV should be carefully considered to minimise visual impact.
- vi) *Building structures* - transformer stations and inverter cabinets etc should be unobtrusively sited and suitably shielded to minimise visual impact.
- vii) *Access roads* - roads and tracks should be kept to an absolute minimum.
- viii) *Grid connection* - proposals should set out clear assessments of the visual and environmental impact of grid connections, whether overhead or underground, confirmed by the appropriate utility company.
- ix) *Tranquillity* – the impact of noise, both in construction and operation, should be carefully considered, especially given that this may be proportionately more disruptive in otherwise quiet rural areas.

## 14.2 Assessment of Impacts

Cumulative impacts must be a critical consideration. Ability to access the grid will limit suitable locations and this is likely to lead to the clustering of applications in certain areas, with associated cumulative impacts.

Proposals should set out suitable assessments of impacts on biodiversity, hydrology, archaeology, landscape.

Transport assessment should consider access and vehicle movements during all stages of construction and development.

## 14.3 Manufacturing & De-Commissioning

Decommissioning of energy sites at the end of their useful life (for solar, generally quoted as 35 to 40 years but likely to be much less as technology progresses) also poses issues which must be planned for. For example, Councils should require applicants to account for how solar panels and batteries will be recycled or how toxic waste will be disposed of, as part of relevant applications.



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#### **14.4 Restoring the site**

Developments should be regarded as temporary. A legal agreement should be sought to ensure restoration of any relevant land to agricultural usage once the consent or use has terminated and a condition imposed that all equipment associated with the development is removed.