



The countryside charity
Cambridgeshire
and Peterborough

The Town Hall, Market Hill
St Ives, Cambridgeshire
PE27 5AL
www.cprecams.org.uk
Tel: 01480 396698
Email: office@cprecams.org.uk

Planning Development Control,
Huntingdonshire District Council,
Pathfinder House,
St Mary's Street,
Huntingdon,
PE29 3TN

Branch President
Christopher Vane Percy
Branch Chair
Alan James
Branch Vice-Chair
Jane Williams

By email to: developmentcontrol@huntingdonshire.gov.uk
Att: James Lloyd
22 August 2022

Dear Mr Lloyd

Ref: 22/00668/FUL - Installation of a solar park to export up to 22 MW (AC) electricity, comprising up to 65,000 photovoltaic panels, 10 inverter/transformer cabins, a single control building and associated works. Land North East of Bates Lodge Peterborough Road Haddon.

The Cambridgeshire and Peterborough branch of the Campaign to Protect Rural England (CPRE) is an independent charity which works to maintain the thriving and beautiful countryside of Cambridgeshire and Peterborough, to encourage strong rural communities and to prevent urban sprawl into and other damage to the countryside.

CPRE objects strongly to this proposal for the reasons set out below.

Background and Principle

CPRE locally and nationally is very conscious of the accelerating effects of climate change and the need for rapid change to a low carbon economy using suitable sources of renewable energy.

All such projects must be considered in terms of their true, life-time, environmental impact just as any other item of new infrastructure.

In the case of solar installations on farm land, the cumulative effect on national food supply should also be a significant consideration.

This proposal is damaging to the countryside, to the landscape, to local heritage assets and to local communities in many ways and there is little evidence that alternative methods of providing the same levels of renewable energy or alternative, more sustainable, locations have been looked at meaningfully by the applicant or the appropriate authorities.

National Planning Policy

The National Planning Policy Framework, (NPPF), para 148, states:

"The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure."

and in para 151:

"To help increase the use and supply of renewable and low carbon energy and heat, plans should:

a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);"

and in para 152:

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“Local planning authorities should support community-led initiatives for renewable and low carbon energy, including developments outside areas identified in local plans or other strategic policies that are being taken forward through neighbourhood planning.”

In summary, the NPPF considers that renewable energy projects should be part of the Local Plan process, should not cause cumulative landscape or visual effects and that the only acceptable projects which are outside of Local Plan boundaries should be those supported by communities through the neighbourhood planning process.

Clearly this proposal satisfies none of these criteria.

Local Planning Policy

The Huntingdonshire District Local Plan, 2019 includes the following Policy Statements.

“Policy LP2

The development strategy for Huntingdonshire is to:

- *Support a thriving rural economy;*
- *Protect the character of existing settlements and recognise the intrinsic character and beauty of the surrounding countryside;*
- *Conserve and enhance the historic environment; and*
- *Provide complementary green infrastructure enhancement and provision to balance recreational and biodiversity needs and to support climate change adaptation.”*

“Policy LP10

The Countryside

Development in the countryside will be restricted to the limited and specific opportunities as provided for in other policies of this plan.

All development in the countryside must:

- a. *seek to use land of lower agricultural value in preference to land of higher agricultural value:*
 - i. *avoiding the irreversible loss of the best and most versatile agricultural land (Grade 1 to 3a) where possible, and*
 - ii. *avoiding Grade 1 agricultural land unless there are exceptional circumstances where the benefits of the proposal significantly outweigh the loss of land;*
- b. *recognise the intrinsic character and beauty of the countryside; and*
- c. *not give rise to noise, odour, obtrusive light or other impacts that would adversely affect the use and enjoyment of the countryside by others.”*

“Policy LP35

Renewable and Low Carbon Energy

A proposal for a renewable or low carbon energy generating scheme, other than wind energy, will be supported where it is demonstrated that all potential adverse impacts including cumulative impacts are or can be made acceptable.

When identifying and considering the acceptability of potential adverse planning impacts their significance and level of harm will be weighed against the public benefits of the proposal.

When identifying and considering impacts on heritage assets and/ or their settings special regard will be had to the desirability of protecting and enhancing the significance of such assets.

When identifying and considering landscape and visual impacts regard will be had to the Wind Energy in Development in Huntingdonshire SPD (2014) and the Huntingdonshire Landscape and Townscape Assessment SPD (2007) or successor documents.

Having identified potential adverse impacts the proposal must seek to address them all firstly by seeking to avoid the impact, then to minimise the impact. The acceptability of impacts on the significance of heritage assets will be considered at this point. For all other impacts alternative enhancement and/ or compensatory measures should be assessed and included in order to make the impact acceptable. All reasonable efforts to avoid, minimise and, where appropriate, compensate will

be essential for significant adverse impacts to be considered fully addressed. Sufficient evidence will need to have been provided to demonstrate that adverse impacts on designated nature conservation sites can be adequately mitigated. Where relevant this will include sufficient information to inform a Habitats Regulations Assessment.

Provision will be made for the removal of apparatus and reinstatement of the site to an acceptable condition, should the scheme become redundant or at the end of the permitted period for time limited planning permissions."

CPRE considers that on balance the current proposal is not compliant with the above policies. The site consists of predominately Grade 3 good agricultural land with a long history of grass and arable production. This application does not support that historic use.

The adverse impact of covering a large area of countryside with visually and environmentally intrusive reflective glass panels mounted on steel poles and accompanying buildings is damaging to the character and beauty of the countryside and has in no way been effectively mitigated by the applicant.

The applicant repeats the myth of most such applications that the area beneath the panels will be grazed by sheep. Actual maintenance regimes are very different. Solar panels must be regularly cleaned using either chemicals or de-ionised water, they are regularly under-sprayed with weedkiller and the spaces between them mechanically mown. There are companies which specialise in providing these services, such as the following:

<https://www.optisolservices.co.uk/>

<http://mlrsolar-tech.solutions/>

<https://www.tugwellcontracting.co.uk/solar-farm-maintenance>

<https://cleansolar.solutions/services/solar-farm-ground-maintenance/>

<https://www.cgmltd.co.uk/services/grounds-maintenance/solar-farmsrenewable-energy/>

The cumulative impact of damage to the soil over a period of 40 years from a combination of shielding from daylight, regular spraying with weedkiller and routine tracking of panel-cleaning and grass-cutting vehicles has not been considered.

No financial provision for the removal of the apparatus and reinstatement of the land has been made and a suitably valued bond should be lodged by the applicant with the council to protect the council from the risk of the applicant becoming bankrupt or otherwise non-trading for this purpose.

The proposed site lies within the Northern Wolds Landscape Character Area of Huntingdonshire and the Huntingdonshire Landscape and Townscape Supplementary Planning Document 2022, states:

"3.7 *Agricultural land is a valuable asset in itself as it contributes to the local and national economy and assists with food security and is a store of carbon. Huntingdonshire's agricultural land is almost entirely of good quality: 98% is classed as grades 1, 2 or 3. 15% is grade 1 (excellent quality) which is concentrated in the north east of the district, mainly in the Fens with a few pockets along the Great Ouse Valley. The land north of Huntingdon and land south of the A14 is predominantly grade 2. From the Nene Valley in the north of Huntingdonshire south to the A14 corridor and extending from the district's western boundary to the A1 the land is classed almost entirely as grade 3. Figure 3.2 shows this."*

3.87 *The Northern Wolds are an attractive and relatively unspoilt part of the district with a strong historical character. Both villages and countryside are vulnerable to unsympathetic development. The Northern Wolds are a sub-division of the much larger Western Claylands identified within the Cambridgeshire Landscape Guidelines and broad landscape management and improvement principles are included within pages 45 to 48.*

3.88 *The Northern Wolds are an attractive and relatively unspoilt area of countryside with a strong historical character. They are a sub division of the much larger Western Claylands identified within the Cambridgeshire Landscape Guidelines, and broad landscape management and improvement principles are included within pages 54 to 57 of the Guidelines. The historic nature of many of the*

landscape features in this area, for example roads, hedgerows and villages, means that their removal or alteration not only has a visual impact on the landscape, but also erodes its fabric, and therefore its intrinsic character. Non-scheduled archaeological features are at risk of being lost through ploughing, and many earthwork features, such as those of Washingley Castle are hidden by overgrowth. Key issues for the Northern Wolds landscape character area looking forward include:

- *Protection and enhancement of the distinctive characters of the valley and plateau landscapes through retention of the established pattern of smaller fields and meadows in the valleys, and the maintenance of long views from the upland areas*
- *Protection of key views towards the distinctive skyline of ridge tops, church towers and woodland Preservation of archaeological features, with improved public access and enhanced interpretation where appropriate*
- *Retention of historic settlement character through maintenance of village greens and other distinctive features and good siting and design of new buildings*
- *Protection of the parkland setting to Kimbolton village and School*
- *Protection of the existing watercourses in the area and enhancement of their biodiversity value Protection of ancient hedgerows and oak trees within the valleys*

Development proposals should:

- *Protect key views towards the distinctive skyline of ridge tops, church towers and woodland.*
- *Protect and enhance historic settlement character through careful siting and design of new buildings. Improve the nature conservation value of the streams and immediate valley sides.*
- *Conserve both designated and non-designated heritage assets with improved public access and interpretation where appropriate.*
- *Conserve or where appropriate enhance the significance of the heritage assets including any contribution made to significance by their settings.*
- *Conserve the archaeological heritage dispersed throughout the landscape.*
- *Protect and enhance the distinctive characters of the valley and plateau landscapes through maintenance of field patterns and long-distance views from the upland areas and protection of ancient hedgerows and oak trees within the valleys.*
- *Protect the parkland setting to Kimbolton village and School.”*

CPRE considers that the current proposal is totally non-compliant with the landscape protection ambitions of the District Council for the Northern Wolds as expressed above in the recently adopted SPD which recognises the value of agricultural land as a carbon sink as well as a source of food security.

Use of Agricultural Land

Examination of the Agricultural Land Classification, DEFRA map Eastern Region (ALC008), shows that the majority of the land affected by this proposal is in Grade 3. However, Grade is not the only factor facilitating high quality and yield of crops. The whole area of the development is good growing land with a long-recorded history of grass and arable production.

In a country which imports somewhere between 40-60% of its food supply, a proportion of which is now threatened by the war in Ukraine, taking an area of around 44 hectares of productive land out of use is not in the national interest or in the interest of the environment. It will likely cause more food miles and greenhouse gas generation than it will save.

In 2019, the Environmental Audit Committee of Parliament warned the UK government that it must reduce dependence on imported foods because climate change will reduce their availability.

<https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/1803/180302.htm>

For a summary see:

<https://www.foodnavigator.com/Article/2019/09/18/UK-s-food-supply-at-risk-from-climate-change-and-imports-report>

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There are thousands of acres of space on the roofs of warehouses, factories, office blocks and other industrial buildings in this country. Indeed, there is enough empty roof space on the new and existing warehouses alongside the A1 between Norman Cross and Peterborough to generate far more electricity than this proposal will provide.

CPRE Cambridgeshire & Peterborough considers that given the inaction by national government, the time is right for local planning authorities in Cambridgeshire to consider mandating as planning policy the fitting of solar panels to large warehouses and other large commercial buildings and that any further take-up of agricultural land by solar panels should be halted.

CPRE nationally, working with the Building Research Establishment, have published several articles making this point and advising how it can best be achieved.

<https://www.cpre.org.uk/wp-content/uploads/2019/11/Place-ResponsiveZDesignZforZSolarZPhotovoltaics.pdf>

<https://www.bre.co.uk/filelibrary/nsc/Documents%20Library/NSC%20Publications/123160-NSC-Solar-Roofs-Good-Practice-Guide-WEB.pdf>

<https://www.bregroup.com/wp-content/uploads/2018/03/99939-BRE-Solar-Carpark-Guide-Feb18-A4-24pp-nocrop-LR.pdf>

Transport

CPRE are particularly concerned by the effect of this development on the A605. This forms a nationally important link from Peterborough to the south-west. The effects of construction activities upon this road do not seem to have been properly considered. The risks arising from the installation of high voltage inverters so close to the road do not seem to have been properly assessed.

The effects of the proposed installation on the nationally important EXOLUM pipeline have not been properly considered or risk assessed. This is witnessed by the Objection registered by Fisher German LLC on behalf of Exolum Pipeline Ltd.

Landscape & Design

CPRE Cambridgeshire & Peterborough have already expressed our very real concerns for the local landscape in the context of the policies of the Huntingdonshire Local Plan 2019 and the Huntingdonshire Landscape and Townscape Supplementary Planning Document 2022.

It must be recognised that this is a very quiet and relatively unspoilt area of Huntingdonshire with rolling agricultural countryside crossed by the meandering valleys and rising up gradually from the nearby Nene Valley.

It is our opinion that the authors of the Landscape and Visual Impact Assessment and Landscape Masterplan have completely misunderstood the gentle local landscapes and have failed to comprehend their significance historically, visually or as the settings for the villages and farms which these landscapes encompass.

Consequently, the categorisation of landscape sensitivities as mostly "Moderate/Minor" and "Slight", results in the clear underestimation of landscape and visual impacts of this proposal.

The ranks of solar panels will turn the current vibrant landscape into a dead area, visibly industrial and totally unnatural.

There will be a range of large industrial inverter structures at several very visible locations within the sites and accompanied by unsightly office and control buildings.

No level of tree planting in mitigation will hide the visual harm. Trees will take time to grow and, as usual, the author seems to conveniently forget that trees lose their leaves in Autumn and don't get them back until Spring.

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We find it extremely worrying that the authors of the LVIA appear to have made no reference to the Huntingdonshire Landscape and Townscape Supplementary Planning Document 2022.

We are also concerned that in paragraph 6.7.3, the authors of the LVIA state: *“The primary change in landscape character would arise from a localised change in landcover from arable fields to a solar scheme with battery storage, surrounded by deer proof fencing”* As far as we are aware, the applicant has stated that there will be **no battery storage** on the site and the fencing is to be security fencing.

If the authors of the LVIA are inaccurate about their basic brief, one has to question how accurate and properly informed are any of their statements.

We note that, to prevent cable and panel thefts, Cambridgeshire Police have requested that:

- security rated weldmesh fencing/gating to meet LPS1175 SR2 is installed,
- installed CCTV is continuously monitored, and any recordings are stored should they be required for evidential purposes,
- a fully qualified lighting engineer is assigned as they will be able to design in the safety and security element as well as having the ecology and wildlife in mind.

CPRE fear that the combination of 2m high security fencing, CCTV mounted on 2.5m poles and security lighting will have a major adverse effect upon the landscape.

Further doubt on the accuracy of the LVIA arises because it makes no mention of the effects on the landscape of either CCTV or security lighting and assumes *‘deer fencing’* and not security fencing to meet LPS1175 SR2.

We are particularly concerned by the security lighting which will be disturbing to wildlife and residents. Locally, it could negate the major investment in shielded LED streetlighting which has been made by Cambridgeshire County Council and which has significantly darkened the county’s skies, made stars visible again and reduced sky-glow in the nightscape.

CPRE considers that the use of CCTV in the manner proposed will be visually intrusive in this rural landscape and completely out of character with the surrounding countryside. It also represents a significant privacy intrusion and any such use must be in accordance with the GDPR and registered with the Information Commissioner, in accordance with the Information Commissioner’s Office (ICO) document *“In the picture: A Data Protection Code of Practice for Surveillance Cameras and Personal Information.”*.

Public Rights of Way and Safety

The sites are criss-crossed by a network of Public Rights of Way (PROWs). It is promised that these will be retained during the life of the sites except for some during construction. CPRE is concerned that there appears to have been no full analysis of the effects upon views for those using the PROW network.

Like Cambridgeshire County Council, CPRE are also concerned at how safe the PROW network will be, especially for children and horse riders. It is one thing to fall or be thrown from a galloping horse onto a grassy sward. It is quite another to hit a metal security fence, a metal and silicon solar panel or to be tossed into high voltage electricity apparatus.

Will fences be properly maintained so as to prevent wandering children and bored teenagers from entering an exciting enclosure humming with electrical energy?

If an accident does occur, how will emergency services safely access any injured persons in remote areas of the sites? It will not be possible for MAGPAS to safely land the emergency helicopter on a sea of silicon and metal.

CPRE are very concerned by the mention of Battery Energy Storage Systems (BESS) in the LVIA. These are very dangerous structures with a relatively high risk of fire and explosion especially as they age. Any fires are chemical fires which cause severely toxic fumes.

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https://www.researchgate.net/publication/352158070_Safety_of_Grid_Scale_Lithium-ion_Battery_Energy_Storage_Systems?enrichId=rgreq-873e393d91059ca7880082fa3f0fcb5c-XXX&enrichSource=Y292ZXJQYWdlOzM1MjE1ODAzMDtBUzoxMDMxMzgwMDYyNDQ1NTcwQDE2MjI5MTE1Nzc0OTM%3D&el=1_x_3&_esc=publicationCoverPdf

The fires are very difficult to fight and require excessive amounts of water. There is no indication as to how such large volumes of water are to be made available to firefighters.

In some areas of the USA some fire brigades are being instructed not to fight fires involving these types of battery, particularly when electric cars are involved in road accidents and catch fire, even if the occupants are trapped. In the Netherlands special equipment has been developed to deal with such car fires. The batteries used in electric cars are very much smaller than these BESS installations.

https://www.liverpoolecho.co.uk/news/liverpool-news/live-updates-fire-rips-through-18934842?utm_source=linkCopy&utm_medium=social&utm_campaign=sharebar

<https://www.nbcnews.com/business/autos/federal-regulators-warn-risks-firefighters-electrical-vehicle-fires-n1271084>

<https://cfpa-e.eu/container-puts-out-inextinguishable-fires-in-electric-cars/>

CPRE considers that this issue **must be clarified**.

CPRE believes that the Health and Safety Executive (HSE) should be involved in assessing all aspects of the risks to health, safety and the environment that the electrical installations will pose and that instead of being regarded by HSE as 'objects', these sites should be registered as COMAH sites in accordance with the Control of Major Accident Hazards Regulations 2015.

Decommissioning and Sustainability

As indicated above, CPRE are very concerned by the statements made by the applicant concerning the removal of facilities and reinstatement of the sites, should they cease to operate. These are no guarantee that resources will be available to carry out what are just very long-term promises.

There are statements to the effect that panels and their frames will be removed and that the land can then be returned to agricultural use, but will a guaranteed decommissioning fund be lodged independently to ensure that there will be sufficient resources for this to happen in 40 years time?

Currently, there is no known process for the recycling of waste solar panels. There is research into this subject and a new industry may emerge for recycling solar panels. Reliance on a vague aspiration that by the time the site ceases to operate, such an industry might or might not exist, is not acceptable and currently it has to be assumed that the disposal route will be landfill.

A clear, funded plan for the decommissioning, removal and recycling of the materials from these sites must be in place before their development is allowed to proceed.

Formal carbon lifecycle analysis, (CLA), should be used to prove that during their whole lifecycle; construction, operation, decommissioning and disposal/recycling; this installation will actually save more carbon emissions than it creates. The standard evaluation used by the applicant is not a complete CLA. Without a robust carbon lifecycle analysis, the development cannot be said to be sustainable.

Conclusions

1. This proposal is not compliant with national planning policy.
2. This proposal is not compliant with local planning policy.
3. This proposal makes no mention of the Huntingdonshire Landscape and Townscape Supplementary Planning Document 2022.
4. This proposal will take out of production a significant area of good agricultural land.

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5. This proposal is inconsistent with required responses to the national and international issue of dwindling food supply due to climate change and conflict.
6. This proposal is in direct opposition to the advice of the Environmental Audit Committee to government to increase the proportion of food grown within the UK.
7. There will be significant adverse impact on residential and visual amenity.
8. This proposal will pose a possible risk to safety on specific local roads which are of strategic importance.
9. This proposal will pose a possible risk to a nationally important pipeline.
10. There will be unacceptable levels of harm to local landscapes and to views across the countryside as well as significant harm to the historic landscape pattern.
11. The mitigation proposed is minimal and inadequate. It will not reduce the negative impacts on the most sensitive receptors.
12. Security lighting will be disturbing to residents and wildlife and negate the County Council's investment in LED street lights which reduce visibility and sky-glow.
13. There will be increased risks to the safety of walkers and riders using the existing Public Rights of Way.
14. Security fencing, although necessary to prevent crime, will be inconsistent with the rural landscape and a hazard for walkers and riders.
15. CCTV will be visually intrusive and a potential invasion of privacy.
16. There is a lack of clarity about the possible installation of lithium-ion batteries.
17. There is no detailed, resilient plan for the safe decommissioning of the site and the recycling or re-use of the materials removed.
18. A decommissioning fund must be available, sufficient and placed in escrow or lodged as a bond in advance of any construction commencing.
19. A full carbon lifecycle analysis has not been carried out for this installation, without which it cannot be claimed to be sustainable.

CPRE Cambridgeshire and Peterborough urges the Planning Committee not to approve this application.

Please note that our submission is in respect of the proposed variation of conditions. While we have taken every effort to present accurate information for your consideration, as we are not a decision maker or statutory consultee, we cannot accept any responsibility for unintentional errors or omissions and you should satisfy yourselves on any facts before reaching your decision.

Yours sincerely,

Alan James BSc.Tech., PhD, MBCS, CITP, MIMMM, CEnv
Chairman - CPRE Cambridgeshire and Peterborough