



The countryside charity
Cambridgeshire
and Peterborough

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Christopher Vane Percy
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11 November 2022

Submitted by email to: sunnica@planninginspectorate.gov.uk

Dear Sir/Madam

Ref: EN010106 Application by Sunnica Ltd for an Order Granting Development Consent for the Sunnica Energy Farm.

The Cambridgeshire and Peterborough Branch of the Campaign to Protect Rural England (CPRE) is an apolitical, 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.

In summary our objections include:

- Inconsistency with National Planning Policy
- Inconsistency with Local Planning Policy
- Threat to national food supply due to use of productive agricultural land at a time of increasing risk to food imports and flood risk to the Fens
- Threat to public and defence safety and the environment from battery storage accidents
- Potential impact on local public transport and highways improvements
- Damage to the historic and unspoiled landscape environs of Newmarket
- Poor information regarding any visual mitigation measures
- Damage to local communities particularly the farming community
- No consideration of brownfield sites or installation on large commercial buildings & warehouses
- Lack of sustainability due to no current means of end-of-life recycling of materials

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.

However, 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 must also be a significant consideration. This issue requires greater consideration due to the increased flood risk to the Fens caused by the increasing rate of rising sea levels.

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.

This proposal is damaging to rural communities and particularly to those farming families who are threatened by this developer with compulsory purchase. This is totally unacceptable when so little is being done locally and nationally to reduce energy usage.

CPRE supports the objections raised by all local councils and their Parliamentary representatives.

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:

"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 East Cambridgeshire Local Plan 2015 contains Policy ENV 6: Renewable energy development. This policy states:

"Proposals for renewable energy and associated infrastructure will be supported, unless their wider environmental, social and economic benefits would be outweighed by significant adverse effects that cannot be remediated and made acceptable in relation to:

- *The local environment and visual landscape impact.*
- *Impact on the character and appearance of the streetscape/buildings.*
- *Key views, in particular those of Ely Cathedral.*
- *Protected species.*
- *Residential amenity.*
- *Safeguarding areas for nearby airfields; and*
- *Heritage assets.*

Renewable energy proposals which affect sites of international, national and local nature importance or other irreplaceable habitats will be determined against the relevant sections of Policy ENV 7.

The visual and amenity impacts of proposed structures will be assessed on their merits, both individually and cumulatively.

Provision should be made for the removal of facilities and reinstatement of the site, should they cease to operate."

Examining these paragraphs in order, this proposal will have significant adverse effects that cannot be remediated and made acceptable in relation to:

- *The local environment and visual landscape impact*

It will adversely affect the Chippenham Fen Nature Reserve. It will turn a rural farming area into areas of industrial landscape interspersed with large, tall buildings and other structures ranging from 3 metres to 12 metres in height.

- *Impact on the character and appearance of the streetscape/buildings.*
It will have negative impacts on the character and setting of local Cambridgeshire villages such as Burwell, Chippenham, Fordham, Isleham, Kennett, and Snailwell as well individual farms, homes and cottages.
- *Key views, in particular those of Ely Cathedral.*
It will have a negative effect on key views from the hills above Newmarket around and to the north of Dalham Hall, from the Icknield Way Trail and from the Devils Dyke across Burwell Fen to Ely Cathedral.
- *Protected species.*
We think it highly likely that protected species will be affected and that wildlife habitats and corridors that have existed for hundreds if not thousands of years in this area will be damaged.
- *Residential amenity.*
It will certainly have an adverse impact on the residential amenity of Burwell, Chippenham, Fordham, Isleham, Kennett, and Snailwell. It will have a particularly damaging effect on the residential and visual amenity of the District Council's approved 500-home development at Kennett which the West Site A will border.
- *Safeguarding areas for nearby airfields.*
We consider that the Defence Infrastructure Organisation should be consulted to ensure there will be no visual or other risks to aircrew when landing and taking off from RAF Mildenhall and RAF Lakenheath. We are advised that the Defence Infrastructure Organisation and the USAF should carry out a full risk assessment of the explosion and contamination hazard created by the combined battery storage and electrical transformer installation that will be within 2.2 km of RAF Mildenhall and its fuel tanker aircraft.
- *Heritage assets.*
Chapter 7, Cultural Heritage, of the document "Preliminary Environmental Information Report", (PEIR) listed many heritage assets which will be negatively impacted by this proposal. There are far too many to list here and we consider these will be adversely affected significantly more severely than the applicant's consultants are claiming.

For example, the effect on the views from the hills arcing around to the south of Newmarket were not mentioned. We consider this alone to be a serious oversight.

Although not open to the public, the historic residence of Dalham Hall is reputed to have the finest view of the Fens and Ely Cathedral from the hills around Newmarket. Here is a historical summary from Wikipedia which explains why.

"Dalham Hall is a Grade 2 listed country house and 3,300-acre (13 km²) estate, located in the village of Dalham, Suffolk, near Newmarket, and 13 kilometres (8 mi) west of Bury St Edmunds.

Simon Patrick (1626–1707), the Bishop of Chichester (1689–1691) and Bishop of Ely (1691–1707), purchased an estate at Dalham in December 1702, and commissioned the building of Dalham Hall. John Affleck Esq. acquired the estate from the Bishop's widow in 1714.

After remaining in Affleck's family (the Affleck baronets) for nearly 200 years, in 1901, the estate was bought by Cecil Rhodes, on the evidence of photographs, and tales of its game shooting prowess. After Rhodes died in 1902, before taking possession, his brother Francis William Rhodes and his family inherited the hall, and erected a hall in the village in Cecil Rhodes' memory.

The estate was bought in 1928 by Laurence Philipps, a shipping magnate who established what became known as the Dalham Hall Stud.

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In 1981 Major Jim Philipps sold the stud to Sheikh Mohammed bin Rashid Al Maktoum, the Ruler of Dubai and Prime Minister of the United Arab Emirates. After the Major died in 1984, the estate was held in trust by his heirs until July 2009, when it was sold for £45million to Sheikh Mohammed who remains the current owner."

It is our conclusion that this proposal is not consistent with Policy ENV 6 of the East Cambridgeshire Local Plan 2015.

It would appear that the Planning Committee of East Cambridgeshire District Council agrees with us. <https://www.eastcambs.gov.uk/press/councillors-unanimously-agree-not-support-sunnica-special-planning-meeting-0>

Use of Agricultural Land

Examination of the Agricultural Land Classification, DEFRA map Eastern Region (ALC008), shows that the majority of the land in Cambridgeshire affected by this proposal is in Grades 2 and 3 with some Grade 4. Unfortunately Grade 3 is not subdivided in the DEFRA map.

However, land Grade is not the only factor facilitating high quality and yield of crops. The whole area of the development is good growing land and the lighter land to the east in Suffolk is particularly prized for root vegetable production, such as carrots and parsnips.

In our experience the land grading system is frequently mis-used by developers to denigrate highly productive farm land which is not necessarily classed as 'best and most versatile'. A favourite trick is to forget to mention that Grade 1 is reserved for exceptionally productive peatlands such as the Fens, and therefore Grades 2 and 3 are in fact the highest quality 'high' land.

In a country which imports between 25% and 60% of its food supply according to type, a significant proportion of which is now threatened by climate change and the war in Ukraine, taking an area of around 2,800 acres 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, EAC, of Parliament warned the UK government that it must reduce dependence on imported foods because climate change will reduce their availability.

For a summary see:

This warning was repeated in the UK Food Security Report 2021 issued by DEFRA in May 2022 along with much other data.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1041623/United_Kingdom_Food_Security_Report_2021_16dec2021b.pdf

Droughts, wildfires and floods across Europe during the past 12 months have demonstrated that the EAC was correct in its warning. Fresh-food growing areas in the Netherlands and Spain which are the sources of 30% of UK fruit and vegetable imports have suffered badly and food prices have risen accordingly.

This summer's drought has had a significant impact on UK food production possibly leading to winter shortages. With more droughts likely in future years, maintaining land in production is an increasing priority.

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Furthermore, increasing flood risk to the Fens presents an additional threat to national food supply. Already the Environment Agency has issued flood warnings for Cambridgeshire and the Fens for the coming winter.

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Due to the tidal nature of the River Great Ouse, any flooding brings with it nematodes from the saline water and these can cause crop damage for up to seven years.

Newly published research into the increasing likelihood of rapid sea-level rise due to uncontrolled melting of South Polar ice and Greenland ice leads to the conclusion that current official estimates of projected sea level rise and hence flood risk, are too low and that serious flooding of the Fens is almost inevitable sooner rather than later.

The current official estimates of sea level rise used in flood protection estimation and planning are based on either IPCC 2014, 1 metre by 2100, or IPCC 2019, 1.1 metre by 2100. For example, using IPCC 2014, the South Bank of the River Great Ouse is currently being raised to protect against 1 in 80-year events, a very low level of protection.

Due to timing, neither IPCC 2014 or IPCC 2019 takes into account the accelerated melt rate of the Greenland ice sheet leading to an estimated additional 10 inches of sea level rise, as recently announced by researchers here:

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or the increasing risk of the collapse of the Thwaites glacier in the Antarctic, leading to an estimate of up to 10 feet of sea level rise, depending upon which article you read:

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or an estimated potential 0.5 metre sea level rise from the Pine Island ice sheet:

[REDACTED]

These projections indicate a significant increase of flood risk to the Fens and bring forward its timing, the Thwaites Glacier in particular. That is without taking the effects of high-tide and increased tidal surges due to more extreme weather events into account. Neither does it take into account the increased run-off being caused by unwise developments in the upstream flood plain which can no longer be vetoed by the Environment Agency.

This increased risk likely compounds the food supply issue that climate change is already causing whereby countries to the south, which supply much of UK foodstuffs will no longer be able to supply the same quantities, which the EAC has drawn attention to.

It therefore seems very unwise indeed to reduce the availability of productive 'high' land by covering large areas of it with solar panels.

There are thousands of acres of space on the roofs of warehouses, factories, office blocks and other industrial buildings in this country. CPRE Cambridgeshire & Peterborough consider that these should be fitted with solar panels and any further take-up of agricultural land should be halted.

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

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In August 2022 this approach was endorsed by the UK Warehousing Association in their report titled 'Investment-Case-for-Rooftop-Solar-Power-in-Warehousing'

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Transport

CPRE are particularly concerned by the effect of this development on the B1085 Dane Hill Road and Station Road at Kennett, particularly during construction. This road forms the only link for many miles for villages to the south and east of the B1506 Newmarket Road across the railway to the A11 northbound.

The railway bridge is old and weak and is width restricted. The roundabout in Kentford is a recognised bottleneck. No account seems to have been taken of the fact that this road will be made considerably busier by the planned construction of 500 additional houses with access onto this road.

The route of the closed Cambridge-Mildenhall railway has been identified as a heritage asset. There seems to be no awareness of the long-term ambition of the Cambridgeshire and Peterborough Combined Authority and Forest Heath District Council to reconnect Mildenhall to Cambridge by rail. If these plans are funded, there is the very real possibility that the old route of the railway could form a preferred route for metro-style services.

Landscape & Design

CPRE Cambridgeshire & Peterborough have already expressed our very real concerns for the local landscape in the context of the policies of the East Cambridgeshire Local Plan. However, more than that, it must be recognised that this is a very quiet and relatively unspoilt area of East Cambridgeshire with rolling agricultural countryside crossed by the meandering River Kennett and rising up gradually from the Fen landscape around Burwell into the chalk lands of West Suffolk and the chalk hills arcing around Newmarket and westwards to Cambridge and beyond.

It is our opinion that the applicant has completely misunderstood or deliberately ignored the gentle local landscapes in both Cambridgeshire and Suffolk and has 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 "very low" and "low", 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 box-like structures varying in height from 3 metres to 6 metres, 10 metres and 12 metres at several very visible locations within the sites and accompanied in some places by unsightly office and control buildings.

The organised theft of solar panels and equipment has become a significant rural crime, leading to the use of pole-mounted security cameras around such sites. This will be another source of damage to the landscape arising from this proposal.

We note that, to prevent cable and panel thefts, Cambridgeshire Police are requesting solar installers to take the following security measures:

- 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,

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- 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 2 metre, high, security fencing, CCTV mounted on 2.5 metre poles and security lighting will have a major adverse effect upon the landscape.

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 being recommended by the police 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."*

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.

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 analysis of the effects upon views for those using the PRoW network.

We 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.

We are very concerned by the Battery Energy Storage Systems (BESS) expected to be formed of lithium-ion batteries, approximately 17,550 cubic metres of them.

These devices are known to be subject to relatively high risk of fire and explosion especially as they age. These are chemical fires which cause severely toxic fumes.

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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 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.

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CPRE is particularly concerned by the risks arising to RAF Mildenhall and its aircraft stands from the potential fire and explosion of these hazardous installations.

We are unconvinced by the expressions as to how these battery installations will be safely managed, how they will be maintained and how they will be safely disposed of. Clearly-written Standard Operating Procedures should be drafted.

CPRE are particularly concerned for the safety and visual amenity of the residents of Burwell if the existing National Grid installation were to be further expanded.

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 these battery 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.

This would be consistent with the following statement on the HSE website "*The aim of the Control of Major Accident Hazards Regulations 2015 (COMAH) is to prevent major accidents involving dangerous substances and to mitigate the effects on people and the environment of those that do occur.*" BESS installations do contain large quantities of very dangerous, high-energy explosive and flammable substances.

Decommissioning and Sustainability

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. This is a further example of lack of compliance with Policy ENV 6 of the East Cambridgeshire Local Plan 2015.

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?

There is one paragraph, 16.7.28, in the PEIR dealing with disposal and/or recycling of waste solar panels which states that there is "a new industry emerging for recycling solar panels". Reliance on such a vague aspiration that by the time the site ceases to operate, such an industry might or might not exist, is not acceptable.

A clear, fully-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 will take out of production a large area of good agricultural land currently used for growing valuable food crops.
4. This proposal is inconsistent with required responses to the national and international issue of dwindling food supply due to climate change and conflict.

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5. 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.
6. In particular, this proposal takes no account of the increasing risk of flooding of the Fens due to sea level rise and the associated loss of agricultural production of around 24% of UK food crops.
7. There will be significant harm to local agricultural businesses, especially those which may be made the subject of compulsory purchase.
8. There will be significant adverse impact on residential and visual amenity.
9. This proposal will have a further cumulative effect on specific local roads which are already overloaded.
10. It will put at risk the Combined Authority's ability to reopen a rail service between Cambridge and Mildenhall.
11. There will be unacceptable levels of harm to local landscapes and to views across the countryside from the hills around Newmarket as well as significant harm to the historic landscape pattern.
12. The mitigation proposed is minimal and inadequate. It will not reduce the negative impacts on the most sensitive receptors.
13. There will be increased risks to the safety of walkers and riders using the existing Public Rights of Way.
14. The scale of installation and the known fire and explosion hazard arising from the proposed use of lithium-ion batteries in several locations indicates that the HSE should be involved at an early stage in assessing the consequent risks to the population and the countryside.
15. CPRE is advised that there could be a significant risk to installations and operations at RAF Mildenhall should a major battery fire or explosion occur.
16. There is no detailed, resilient plan for the safe decommissioning of the site and the recycling or re-use of the materials removed.
17. A decommissioning fund must be available, sufficient and placed in escrow in advance of any construction commencing.
18. 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 would urge the Planning Inspectorate not to approve this application.

Yours faithfully,

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

Cont'd...

cc:

Rt Hon. Matt Hancock MP

Rt Hon. Lucy Fraser MP

Cambridgeshire County Council, Chairman of Environment & Green Investment Committee, Cllr. Lorna Dupre

East Cambridgeshire District Council, Chairman of Planning Committee, Cllr. William Hunt

Chairman, Suffolk Preservation Society, Robert Townshend

Burwell, Chippenham, Fordham, Isleham, Kennett, and Snailwell Parish Councils