

Sunnica Energy Farm
Planning Inspectorate Reference: EN01016

I wish to object to the Sunnica Energy Farm application for the following reasons:

Adverse Effect on this Community. Having lived and worked in Isleham for nearly twenty years, I have become very conscious of the rich history of the village and the way it is reflected in the people and in the landscape in which it sits.

There is an unusual sense of community in Isleham, probably born of the agricultural economy that sustained the village for centuries. The character of the place is inseparable from the scenery.

It would be impossible to ignore the ever-changing views, not only on entering and leaving the village but always visible from within the village even on the briefest of walks. The undulating landscape might be considered unremarkable if it were not for the rich rotation of crops, evidence that we are surrounded by the most fertile, highly productive farmland.

To sacrifice these views for a barren landscape of serried ranks of solar panels and massive battery storage buildings is truly a dystopian nightmare.

I understand the need for clean energy and have had a solar pv system on my own roof for over nine years. However, I cannot support the Sunnica application for numerous reasons.

Size. The size of this proposed solar farm and its proximity to several settlements suggests a disturbing lack of consideration for the welfare of the local community and this has been reflected in the cursory consultation process.

Loss of Good Quality Farmland. The area of arable land taken out of use for food production would be very substantial, while the sum of the area already turned over to solar farms in this area is enormous. Food security is a critical issue for the UK – we already import a great deal of our foodstuffs and recent geo-political issues have highlighted the risk of dependence on other nations, quite apart from the carbon cost of transporting foods from afar.

Not Carbon Negative. Expert analysis suggests that the proposed solar farm would not be carbon negative over its life cycle. The initial carbon cost is enormous and the output unreliable. Apart from the variability of sunlight, the panels are much less efficient when ambient temperatures are high, as in the recent summer.

Battery Safety Risk. The applicant has not been prepared to say what the battery system would be, but it is almost inconceivable that it would other than a variant of lithium-ion technology. It is an inescapable fact that the risk of ‘thermal runaway’ in such batteries, though small, is never absent. This phenomenon is not ‘fire’, though it may set fire to other adjacent materials, and it is deeply alarming both because it is inextinguishable and enormously energetic and potentially releases toxic fumes. Several incidents have led, for instance, to international regulations regarding the transportation of lithium batteries, the

UN regulations UN3480, UN3481, UN3490 and UN3491. Such is the severity of the risk that these regulations prohibit the carriage by air of other than very small batteries (of less than 100Wh capacity) and require them to be largely discharged (less than 30% charge level). See the IATA 2022 Lithium Battery Guidance Document.

The following is an extract from the Introduction to the US Department of Transportation Lithium Battery Guide for Shippers, Revised September 2021, quoted for its' clarity:

The risks posed by lithium cells and batteries are generally a function of type, size, and chemistry. Lithium cells and batteries can present both chemical (e.g., corrosive or flammable electrolytes) and electrical hazards. Unlike standard alkaline batteries, most lithium batteries manufactured today contain a flammable electrolyte and have an incredibly high energy density. They can overheat and ignite under certain conditions, such as a short circuit or improper design or assembly. Once ignited, lithium cell and battery fires can be difficult to extinguish. Additional, although infrequent, events can result in lithium cells and batteries experiencing thermal runaway, a chain reaction leading to a violent release of stored energy and flammable gas. This thermal runaway can propagate to other batteries or conductive materials nearby, potentially resulting in large scale thermal events with severe consequences.

It would clearly be undesirable to live near such a system.

Toxic Legacy. The adverse effects of this sort of development are not justified by the present urgency to produce more and cleaner electricity. It would never be economical to revert these fields to agricultural use. The short-term gain will doubtless become a toxic legacy for our successors.

References:

1. IATA 2022 Lithium Battery Guidance Document
2. US Dept. of Transportation PHMSA Lithium Battery Guide for Shippers