

Middle Fen Solar Farm and BESS

This note summarises the proposals and highlights the public benefits that would be realised should planning permission be granted. Middle Fen Solar Farm and BESS has been recommended for approval by the planning officer.



“This is a time when we need to be producing more to bolster UK food security, yet energy costs and availability issues have caused areas of UK food production to contract and fertiliser prices to rocket, with prices now 250% higher than this time last year. In order to give farmers the confidence to continue to produce food at scale, we need to see policies which reflect the importance of gas and electricity for food production. We also need immediate measures to boost energy efficiency and fast-track renewables like solar and on-shore wind power, which farmers are well placed to help deliver.”

Tom Bradshaw
NFU Deputy President, responding to the Government's Energy Security Strategy



Unlocking Fenland District Council's carbon neutral potential

In May 2019, the UK Government became the first Government in the world to declare a Climate Emergency, setting a legally binding target of reaching Net Zero emissions by 2050. To achieve this, the UK urgently requires a major increase in further deployment of renewable energy, including solar.



National energy security and energy independence

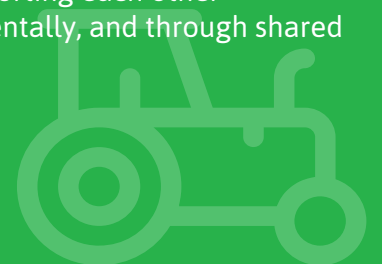
- Russia's invasion of Ukraine has put the need for energy security into stark perspective. The cost-of-living crisis and the ongoing war in Ukraine have all highlighted the importance of energy production and national energy independence. Greater energy independence can support the UK's economic growth by reducing the amount we pay to overseas suppliers for imported energy and by minimising exposure to volatile global energy prices.
- We urgently need to generate energy from new, low-cost, low-carbon sources, and solar-generated power is the lowest-cost and quickest to deploy of all energy sources.
- The proposed solar farm and BESS will generate and store renewable electricity, which contributes not only to national energy security but also to the security of energy generation in Fenland District.



Is solar a threat to food security?

National land use data shows significant areas of agricultural land are already under non-food uses or left uncropped. In fact, the Solar Energy UK 2024 Report stated that Solar Farms currently account for 0.1% of total land use in the UK. Government targets for a fivefold increase in solar would result in 0.3% of the UK land area being used by solar (Carbon Brief, 2022). This is the equivalent of around half of the space used by golf courses in the UK.

According to the 2025 UK Solar Roadmap, the biggest threat to food security is crop failure due to climate change, and solar farms are helping to tackle this directly. Renewable energy infrastructure and farming can be complementary, supporting each other financially, environmentally, and through shared use of land.





Benefits of the solar farm



49.8MW of renewable energy generation with 30MW of battery storage.



The proposed development would create enough renewable energy annually to meet the electricity demands of approximately 24,000 homes. This represents an annual CO2 saving equivalent to taking around 13,000 cars off the road.



A community benefit fund for the surrounding area



The proposed solar farm will not require Government subsidy.



This is a temporary development, allowing the land to rest for the period of operation of up to 40 years, with decommissioning being secured as part of the planning conditions.



The development will be subject to local business rates over the operational lifespan of the development, which can be used to fund Council-run services.



The development will support the UK's transition to energy independence by reducing reliance on imported fossil fuels, thereby strengthening the resilience of the national grid.



This development will make effective use of a carefully selected site to generate clean, locally produced energy that supports both national and local climate commitments.

Why here?

This site has been carefully chosen following a detailed feasibility assessment that considered factors such as grid capacity, land classification, flood zones, and landscape constraints. It performed favourably against all assessment criteria, making it a suitable and sustainable location for a solar development. The site lies within a low-risk flood zone, ensuring minimal environmental impact.

The location also ensures that no Public Rights of Way (PROWs) will need to be diverted or closed, minimising any disturbance to local access or communities.

Whilst many prefer solar farms and BESS to be built on brownfield sites, solar projects simply cannot compete against residential or commercial developments on brownfield land. Solar farms are simply priced out of contention, and to achieve our net-zero goals and secure our nation's energy security, we need to deploy solar PV at scale, with co-located battery storage being key infrastructure to support the National Grid.

Land use

Cambridgeshire County Council Highways, the LLFA, and the Environment Agency, all share no objection to this proposal.

As panelled land is not subject to intensive agricultural practices, the soil is able to retain its minerals and improve its quality, with the topsoil not eroding as it otherwise would.

Fertilisers, which are typically used during intensive farming practices, would no longer be used on the ground throughout the lifetime of the project. Due to the reduced disturbance from these intensive agricultural practices, wildlife can thrive in and around the panels, with a permanent, sheltered habitat in place for the life of the development. This is why solar farms are able to achieve such substantial biodiversity net gains, with this site resulting in a biodiversity net unit change of 358.71% for habitats, 27.25% for hedgerows.



Why is the development needed?

The UK is facing a very real prospect of an electricity shortfall. With all coal power stations now closed and electricity demand expected to double by 2050, driven by electric vehicles and heat pumps, our ageing grid is under increasing pressure. Designed for a fossil fuel era, the current network struggles to support the shift to renewable energy. Its inflexibility is adding costs to bills and slowing progress on cutting emissions.

Battery Energy Storage Systems (BESS) offer a vital solution. They allow renewable energy to be efficiently stored and supplied to the grid when it's needed. With BESS, we can power homes and businesses even when the wind isn't blowing or the sun isn't shining. These facilities store electricity during periods of low demand or oversupply and release it when demand is high. Crucially, they also provide system security, delivering energy during outages and helping to minimise disruption and costs.

