

RES is exploring the potential for a solar farm on land at Boxted, South Suffolk. We recently held a public exhibition in the local area to share information on the preliminary design and to enable people to provide us with their feedback. This information sheet addresses some of the common questions and comments raised by the community, following the public exhibition in January 2023.

Loss of Agricultural Land

Boxted Solar Farm would not pose a threat to food security. One of the biggest risks to food security is the changing climate. This is clear from recent reports on how last year's drought is affecting harvests of staple crops including potatoes, carrots and onions¹.

The solar farm will help towards tackling climate change and furthermore, is specifically designed to be dual purpose, enabling continued agricultural use, in the form of sheep grazing, and renewable energy generation.

Agricultural land covers between 56% and 70% of UK land. Solar farms in the UK currently have a combined capacity of around 14GW which makes up just under 0.1% of land in the UK. By comparison, the total land used by the UK's golf courses is 0.5% and airports is 0.2%. The UK Energy Security Strategy² commits to increase the UK's current 14GW of solar capacity by up to 5 times by 2035. If the government meets its target of increasing solar capacity fivefold, ground-mounted solar would cover a total of around just 0.3% of the UK's land surface³ which is still less than the total land used by the UK's golf courses.



Sheep farming provides employment, supports rural economies and can produce a much more diverse ecological mosaic across the site. Landscapes managed by grazing sheep support a rich diversity of wildlife, while producing food.

Furthermore, where a solar farm is installed on land which has been intensively farmed, it enables the ground underneath to recover, while providing income for the farming business. Solar farms also help regenerate soil quality, and so are helping to ensure the continued availability of high-quality agricultural acreage for future generations.

According to Natural England mapping, the site is classified as Grade 3 land. We will undertake an Agricultural Land Classification (ALC) survey and the results will provide confirmation of the quality of the land. The ALC survey will accompany any planning application that is made.

Efficiency

Technological advancements in solar panel manufacture in recent years has been significant. This includes an industry-standard move towards the use of the more efficient Monocrystalline (single crystal) technology. Monocrystalline solar cells are made from a very pure form of silicon, making them the most efficient material when it comes to the conversion of sunlight into energy.

Furthermore, at Boxted Solar Farm we are proposing the use of bifacial modules, which as the name suggests, have two sides of solar cells, enabling additional energy generation from the reflected and diffused light on the rear-side of the panels. Solar panels do not require direct sunlight to produce energy - diffuse sunlight is sufficient, and a grass surface reflects enough light to justify the use of bifacial modules. The use of bifacial panels means that there is potential to produce more electricity in less space.

¹ <https://inews.co.uk/news/uk-drought-farmers-struggle-feed-cattle-cheap-meat-heatwave-1793194>

² <https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-strategy>

³ <https://www.carbonbrief.org/factcheck-is-solar-power-a-threat-to-uk-farmland/>

Ecology and Biodiversity



The site of the proposed Boxted Solar Farm lies outside of any ecological designations and an Ecological Assessment will be undertaken to assess the potential impacts on local ecology as a result of the development.

Solar infrastructure will be set back a minimum of 5 metres from existing hedgerow and a minimum of 15 metres from woodland.

Solar farms have the potential to be of great benefit to certain fauna, particularly some bird species. The image to the left shows a kestrel using the solar panels at the RES-managed Stour Fields Solar Farm in Manningtree to hunt prey. As a result of eco-cutting at the solar farms that RES manages, the untouched wild grass has provided cover for small animals such as voles, wood mice and shrews which in turn have attracted birds of prey.

According to the Barn Owl Trust⁴, solar farms have the potential to be of great benefit to Barn Owls as the array frameworks are typically at a height from which Barn Owls can perch-hunt. Grass below and around the arrays can provide good Barn Owl foraging habitat.

Perimeter fencing for the solar farm would be in the form of deer fencing, with mammal gates to allow the free movement

of small mammals. Deer fencing is typically situated inside of any boundary vegetation.

The Boxted Solar Farm also has significant potential to enhance biodiversity and deliver a biodiversity net gain. The site is capable of hosting a range of habitats including wildflower meadows, hedgerows, nectar-rich areas for pollinators, and woodland. We would endeavour to maintain all existing hedgerow and trees, however, new and infill planting proposed will be at least equal to, but likely significantly much higher, than the area of any hedgerows and trees removed.

Good for the Environment and the Consumer

As laid out in its Net Zero Strategy⁵ published in October 2021, the UK Government has made it clear that solar and wind will be the backbone to achieving a secure, affordable and low carbon energy supply.

Large-scale solar, alongside offshore and onshore wind is now the cheapest form of electricity generation. The UK is still heavily reliant on gas for electricity generation and with the volatile price of gas unlikely to return to pre-Covid levels, accelerating the switch to renewables will lead to reductions in electricity bills.

If consented, Boxted Solar Farm would be capable of producing clean, green electricity for around 8,000⁶ homes every year.

In addition, if consented, we estimate Boxted Solar Farm would deliver around £60,000 in business rates annually. Babergh District Council retains 100% of all the business rates from renewable energy businesses to fund vital local services for all local residents.

We believe that solar schemes should also provide meaningful benefits locally and we want to work with the local community to gain feedback on their priority projects and aims in the area, which the solar farm may be able to support.

This makes developments like Boxted Solar Farm not just good for the environment but also for the consumer.

⁴ <https://www.barnowltrust.org.uk/hazards-solutions/barn-owls-ground-mounted-solar-panels/>

⁵ <https://www.gov.uk/government/publications/net-zero-strategy>

⁶ The homes figure has been calculated by taking the predicted average annual electricity generation of the site and dividing this by the annual average electricity figures from the Department of Business, Energy and Industrial Strategy (BEIS) showing that the annual UK average domestic household consumption is 3,748 kWh (Dec 2021).

Landscape and Visual

The site of the proposed Boxted Solar Farm is not located within any National Parks or Areas of Outstanding Beauty (AONB) and this includes the proposed extension to the Dedham Vale AONB.

Our iterative design process is informed by site surveys and assessments, and feedback from the community and stakeholders. Following an initial landscape review, at an early stage we removed any infrastructure from the north west corner of site, to reduce potential visibility due to the gradient of the land. The land, however, will not go to waste. It will enable us to use the area for significant biodiversity enhancements measures.



*Hale Farm Solar Farm, Wiltshire
For illustrative purposes only*

RES will seek to design the solar farm so that it will fit sensitively in the surrounding landscape and a comprehensive Landscape and Visual Impact Assessment (LVIA) will be undertaken and accompany any planning application. The LVIA, which will be undertaken by an independent landscape consultant, will identify any likely adverse effects predicted during the operational phase of the proposed solar farm on the landscape and visual resources of the site and surrounding landscape. Should any adverse effects be identified, appropriate mitigation measures will be proposed, and where practicable, embedded within the design of the project. The LVIA will include a series of visualisations of what the solar farm could look like, from various viewpoints in the area, as agreed with the local planning authority. The height of hedgerows and the solar panels will also be determined as part of the LVIA.

A Landscape and Ecological Management Plan (LEMP) will also be produced when we have a final design and also accompany any planning application. In addition to the appropriate setting back of the solar infrastructure from residential properties and Public Rights of Way, potential visibility will be reduced by existing trees and hedgerow and proposed new and infill native planting. As well as providing screening, the planting will provide wildlife corridors and vital resources for mammals, birds, and insect species. The LEMP will set out the location of all new and infill planting, details of the proposed planting mixes and information on timings and aftercare.

What Happens Next?

RES is at a very early stage in the design process for the proposed Boxted Solar Farm. A large range of environmental and technical surveys and assessments are to be undertaken and the results of these will be fed into the iterative design process. Feedback from stakeholders and the local community will also be fed into this process as the design is refined and finalised in due course.

If you wish to be kept up to date on the progress of the project, and you have not completed the comments form which was available at the public exhibition and on our website, please email carey.green@res-group.com to request that your details are added to the mailing list.

Your contact details will be treated by RES with the strictest of confidence, in line with the General Data Protection Regulations (GDPR) 2018. We may at times share your contact details, in confidence, with third parties who we employ to help process your comments or update you on the project and by providing your details you consent to this. You may write to RES at any time to ask that your contact details be removed from our records and from any third parties we work with.

Further Information

If you have any questions, or would like further information, please contact:




Matt Looker
New Sites Manager

 07884 580779

 matt.looker@res-group.com



Carey Green
Community Relations Manager

 01872 226931

 carey.green@res-group.com

Or visit our website at:

www.boxted-solarfarm.co.uk