

A proposed University of Surrey's solar facility



A strategic energy collaboration



The University of Surrey is a research-intensive university, dedicated to life-changing education whilst building a community of people and ideas that seek to inspire students to achieve great things.

The University aims at becoming carbon neutral by 2030 and to achieve this, the University has teamed up with SSE Energy Solutions to propose a new solar energy facility



SSE Energy Solutions provides low carbon energy infrastructure, including solar energy generation and battery storage to support local decarbonisation

SSE Energy Solutions is part of SSE plc which is committed to investing £12.5billion in crucial low carbon infrastructure in the next five years to support achieving a net-zero carbon society

Why solar energy?

Solar power has an important role to play in tackling climate change

- The UK government aims to increase the current solar capacity by five fold (up to 70GW) by 2035.
- The Surrey County Council aims to expand renewable energy generation capacity across the county with a focus on solar PV installations - 15% of energy from solar PV by 2032

The University project:

- will contribute to local and national targets
- will help to reduce UK fossil fuel imports, supporting security of supply.
- will help the University increase their clean energy generation and consumption
- Solar panels are quick to install, and once it is in place the solar facility will be able to produce electricity for thirty-five years
- At the end of its life, it's easy to remove
- The materials - mainly steel, silicon, aluminium and copper - are all recycled.



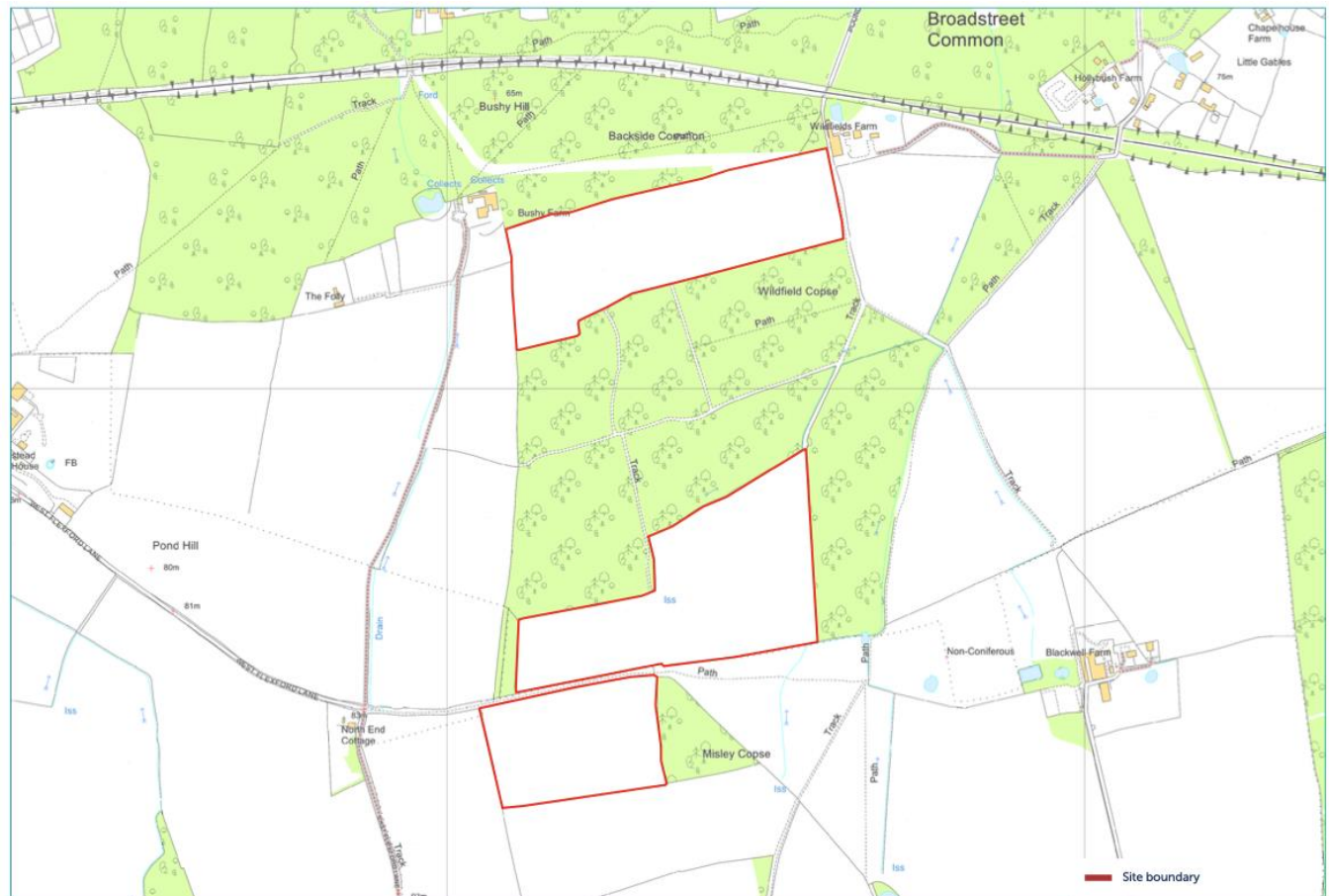
The location

WE BELIEVE THAT THIS IS AN EXCELLENT SITE FOR OUR SOLAR ENERGY PROJECT

It is large enough to provide space for the number of panels and receives enough sunlight to ensure that energy generation is efficient.

This is in combination with planned solar rooftops on University's buildings

- The site was selected after consideration of all the land owned by the University, taking into account existing and proposed uses and environmental constraints
- area of about 21.6 hectares
- 12.2MW capacity



Little Misley (southernmost proposal field). New hedgerow planting on southern and western boundaries
Big Misley (middle field) substantially screened by existing trees and hedgerows.
Wildfields field (northernmost proposal field) entirely screened by intervening woodland at Wildfield Copse
Chalk Pit Cottages

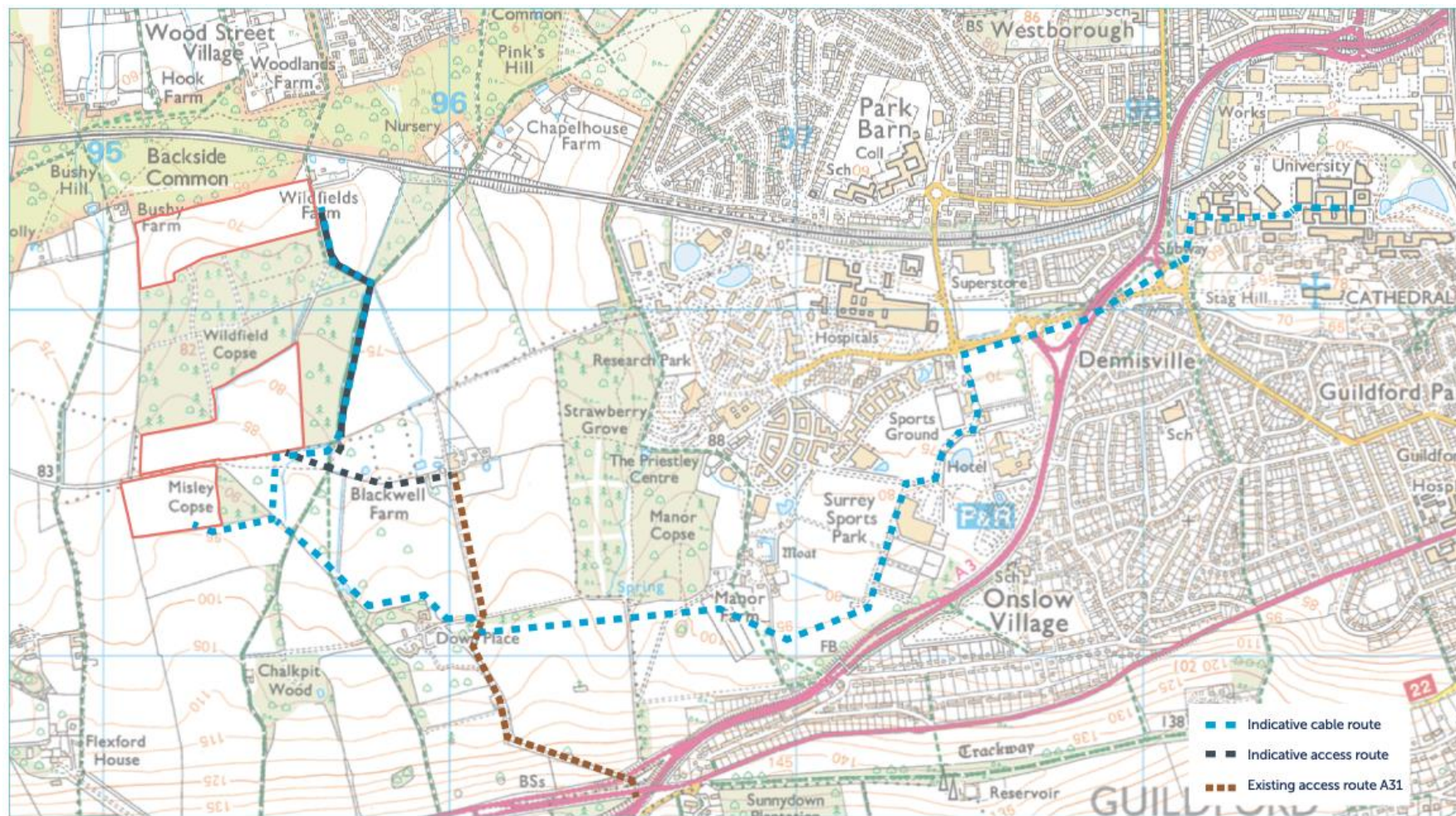


Viewpoint 1 from the A31 Hog's Back looking south towards the proposal. Photograph of existing view



Viewpoint 1. Photomontage 15 years after completion. Plant growth estimated at average 6m height

ACCESS AND CABLING



Solar panels

- **rows of PV panels on metal frames, set no more than three metres above the ground at the highest point.**
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- Each of the three fields will be surrounded by a 2.45 metre high deer fence, with a field gate at each field entrance.
- Poles will be installed to support movement sensors and cameras for site security.
- There will be a transformer in each field, inside a rectangular box that will look like a small shipping container.
- As the frames will be supported by posts driven into the ground, there is very little impact on the ground itself. Less than 5% of the land will actually be disturbed by the installation of the panels.

Biodiversity and environment enhancement

Existing hedges, trees and woodland around the fields are valuable for nature conservation, and there are some areas of ancient woodland.

- The layout of the solar panels has been designed to ensure that there are suitable buffers to the adjacent woodland and hedges to avoid and minimise potential for adverse impacts on these.
- Tracks to access the fields, and underground cable routes, will use existing openings in the hedges where possible.

We recognise that agricultural land is an important resource.

- The quality for agriculture varies across the site, but most of the land is of a lower quality (grade 3b).
- Conditions on planning permission will require that after 35 years the solar panels would be removed.
- The soils will be in a better condition than today, having been taken out of intensive agriculture for this time.

UNIVERSITY OF SURREY SOLAR FACILITY

HABITAT CREATION AND MANAGEMENT

Semi-natural broadleaf woodland edge

Zone between woodland edge and solar farm fence to be managed to encourage natural colonisation of woodland edge plants with transition to grassland.

Hibernacula (a shelter for amphibians and reptiles to overwinter) located in sunny positions within the woodland edge zone.

Gaps under fence to allow badgers to cross.

Wildflower meadow areas extending throughout the site, around and beneath the solar panels. The seed mix contains a wide range of species to create a diverse sward adaptable to differing conditions.

Wildlife benefitting from the habitat improvements will include a wide range of invertebrates including bees and butterflies, reptiles including slow worms and grass snakes, bats, several bird species such as yellowhammer, skylark, stock dove, dunnock, mistle thrush, common whitethroat and kestrel, and small mammal species including voles, shrews and field mice as well as larger species such as badger.

Footpath (2m approx)

Overhead powerlines

Deer fence (2.4m high)

Solar panels (3m high)

Existing hedge is currently approximately 1.5m but would be left to grow and then maintained at 3m

New woodland planting average 6m after 15 years

New woodland planting average 3m after 5 years

2m 2m 25m 6m 8m 9m

Species rich grassland with wildflowers

Indicative cross section showing screening of solar facility from footpath adjacent to Wildfields Farm

The area beneath, between and around the panels will be managed to become a haven for wildlife.

Solar panels create sheltered spots for insects, reptiles and ground nesting birds.

- They provide habitats that support a range of plant and animal life.
- This will be encouraged by sowing of native grass and wildflowers, selected to be of value for locally native species, and by careful management to maximise the wildlife benefits.

Chemical pesticides and fertilisers will no longer be applied to the land within the site

- This will allow the soil to recover from years of intensive agriculture and will improve the quality of water that runs off the site into the local drainage network.

The existing field boundaries will be kept and added to with new planting

- Instead of annual cutting, they will be allowed to grow to about 6m high.
- This means they will provide more wildlife habitat and better screening to hide the panels from view.

SSE has partnered with expert ecologists Buglife to develop a best-in-class biodiversity project that will be regularly monitored through the life of the project.



The solar facility will make a real positive difference to local biodiversity.

- Independent evidence shows that solar facilities typically improve biodiversity within a range of 20% to over 100%.

There is a significant opportunity to increase knowledge and awareness of renewable energy

- exploring ways to involve and inform local people through links with the University and local schools.

In line with SSE practice, a community fund will be provided, aimed at supporting the community

- SSE aims to conduct its business in a way that contributes positively, giving back to the local communities in which it operates.



Key expected dates

By end 2022 - submit planning application

Q1 2023 – estimated planning decision

Q4 2023 – construction starts if granted approval

second half 2024 – solar facility begins to generate energy.

We have a website which contains all the project's information and an email universityofsurrey@sse.com to submit comments/questions

[University of Surrey Energy Partnership \(sseenergysolutions.co.uk\)](https://sseenergysolutions.co.uk)