

About PACE



Pathfinder Clean Energy brings together experience from the development, construction and operation of over 1GW of clean energy projects. This allows us to bring the latest best practices, technical solutions and innovation to our projects.

PACE is headquartered in the UK and is committed to a sustainable future. We are working to create low-carbon energy to the benefit of the environment and the community.

Our team includes ecologists, landscape and heritage specialists who help us to create environmentally friendly solar farms.

PACE intends to build and operate its solar farms and so building strong links with the local community is important to us. We would welcome suggestions from you as to how we can improve our proposals.

Our consented projects include:

- ✓ Attleborough, Norfolk – 26MW
- ✓ Three Bridges, Norfolk – 15 MW
- ✓ Burgate, Norfolk – 15MW

We have around 150MW at pre-application stage.

Our preferred contractor to build the solar farm has experience of over 300 projects since 1992, including projects well over 50MW in size.

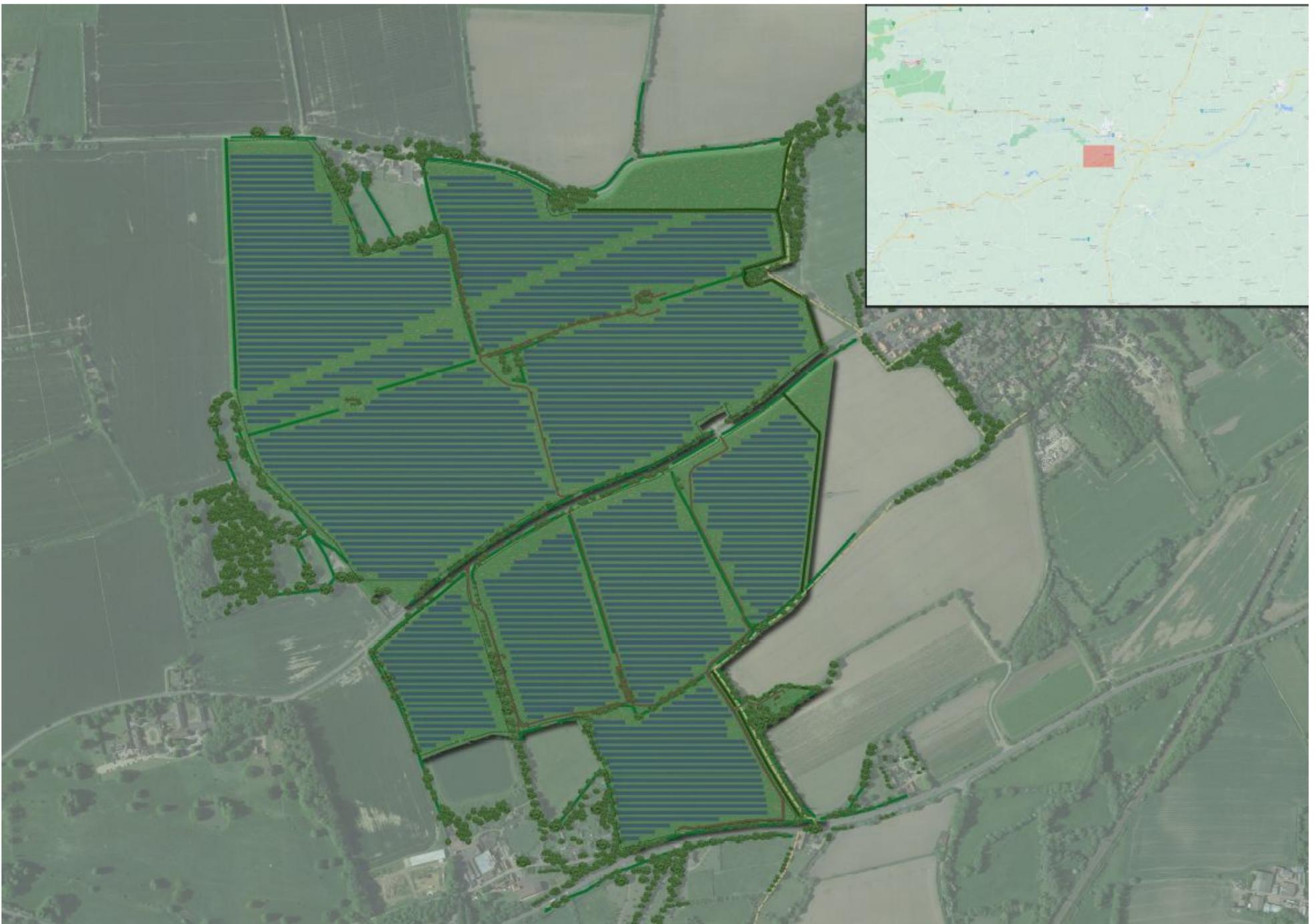
Project Overview

The site is located to the west of Palgrave on land either side of Lion Road.

Land will be leased from the farmer for 40 years, during which time it will continue to be used for grazing sheep.

Significant changes have been made to the layout following feedback from Palgrave Parish Council, including:

- ✓ Moving the development further away from the edge of Palgrave.
- ✓ Creating a larger set back from the Millway Lane quiet route.
- ✓ Setting development further away from Lion Road and reducing the panel height to minimise visibility.
- ✓ Adding substantial new hedgerows.



Project Benefits: Toward Net Zero

Solar farms are becoming a common feature in the British landscape. They use photovoltaic (PV) panels to generate energy from daylight and distribute it to homes and businesses.

Our solar farm has 4 objectives:

- ✓ Tackling the climate emergency declared by Mid-Suffolk and all Suffolk authorities.
- ✓ Delivering zero carbon energy for power, heat, industry and transport.
- ✓ Enabling big increases in biodiversity to reduce the decline in British wildlife.
- ✓ Enable agriculture to continue alongside solar generation.

Solar farms help the UK become energy independent and reduce reliance on imported fossil fuels. This is particularly important as demand for electricity for electric vehicles and heating grows.



Suffolk's Climate Emergency Plan notes:

- *“For Suffolk to be carbon neutral by 2030, the supply of electricity needs to fully decarbonise by then.”*
- The importance of reducing emissions from agriculture, including conversion of arable land to grassland.

The solar farm will:

- ✓ Have the capacity to generate 48 megawatts of renewable energy.
- ✓ Power the equivalent of around 16,000 homes per year.
- ✓ Reduce climate changing emissions by the equivalent of 11,600 tonnes of CO₂



Project Benefits: Ecological

Natural England' Biodiversity Net Gain calculator shows that our solar farm will:

- ✓ Increase in habitat by 88%
- ✓ Increase hedgerows by 10%

Compared with the current fields, using a combination of new species rich meadows and hedgerows.

Suffolk Biodiversity Information Service notes that meadows and hedgerows support Suffolk's priority species:

- Birds, including skylarks
- Mammals, such as bats
- Bees
- Reptiles and amphibians
- Moths and butterflies



Project Benefits: Environmental



No agricultural land will be lost.

Our solar farm combines biodiversity enhancement with renewable energy generation and continued agriculture.

Pastures are generally grazed throughout the summer; then shut up in the spring to allow the sward to grow. A hay cut may then be taken before bringing back the livestock to graze the re-growth in late summer.

The grazing of vegetation keeps bulky species in check and allows more delicate species to flourish.

At the end of its 40 year operational life, the site will be completely restored.



What it will Look Like

The development will include:

- PV arrays in south facing rows and mounted on metal racks. No concrete is used.
- The tall end will be up to 3m (9.8ft) high and the low end around 80cm (2.6ft) off the ground.
- Inverters and transformers are used to turn the energy into a form suitable for export to the grid.
- A substation within the site will connect the development to the existing overhead pylons.
- The development will be surrounded by a 2m (6.6ft) high post and wire fence.
- Small CCTV cameras will be used and will only capture images from inside the site.



Traffic and Construction

Once operational, solar farms generate almost no traffic.

During construction, traffic will access the site from Lion Road without needing to pass through Palgrave.

Two points of access are proposed off Lion Road to serve the northern and southern parts of the site.

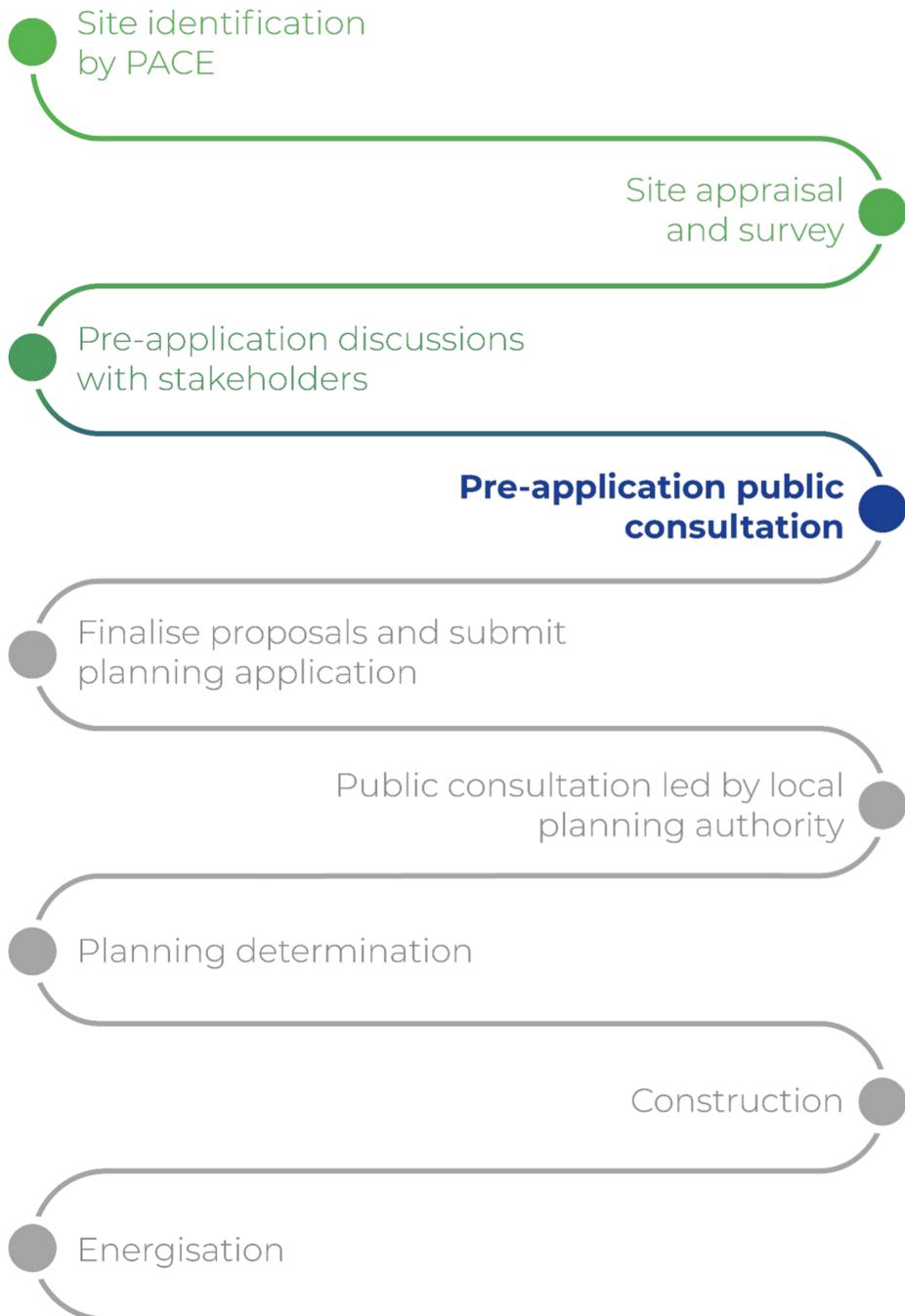
Construction will last around 35 weeks and on average approximately 5 heavy goods vehicles will deliver to the site per day.

Two temporary construction compounds will be created within the site.

We will prepare a Construction Management Plan and we would welcome your suggestions on how to minimise disruption.



Next Steps and Community Benefit



Important dates

- Submit the planning application to Mid Suffolk – Autumn 2021
- Public consultation run by Mid-suffolk – Autumn/Winter 2021
- Planning committee to determine the application – Spring 2022
- If successful, start on site 2022

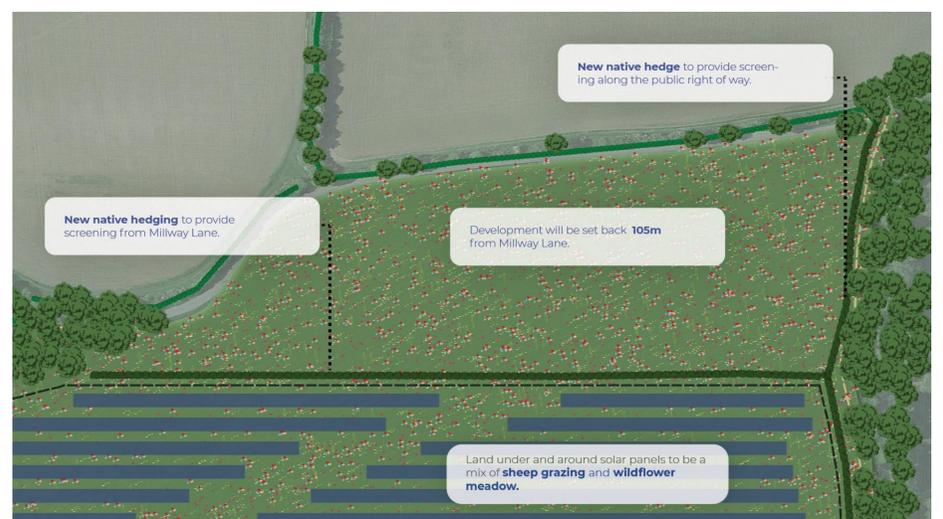
Community benefits

We believe generation of renewable energy alongside considerable biodiversity measures represent important benefits to the community.

However, we also recognise that the solar farm will affect the community and so we are discussing Palgrave Parish Council how we might support local projects. Some suggestions have included:

- ✓ Installing rapid electric vehicle charging facilities within Palgrave.
- ✓ Improving local footpaths.
- ✓ Using the area along Millway Lane created by setting the development back to provide recreational facilities.
- ✓ A community benefit payment.

We would welcome your suggestions for this.



Frequently Asked Questions

Noise

Solar farms make very little noise once in operation. The only noise will be a low level hum from the substation, transformers and inverters during daylight hours. The solar panels themselves do not emit any noise.

It is unlikely that the project will be audible from outside the site.

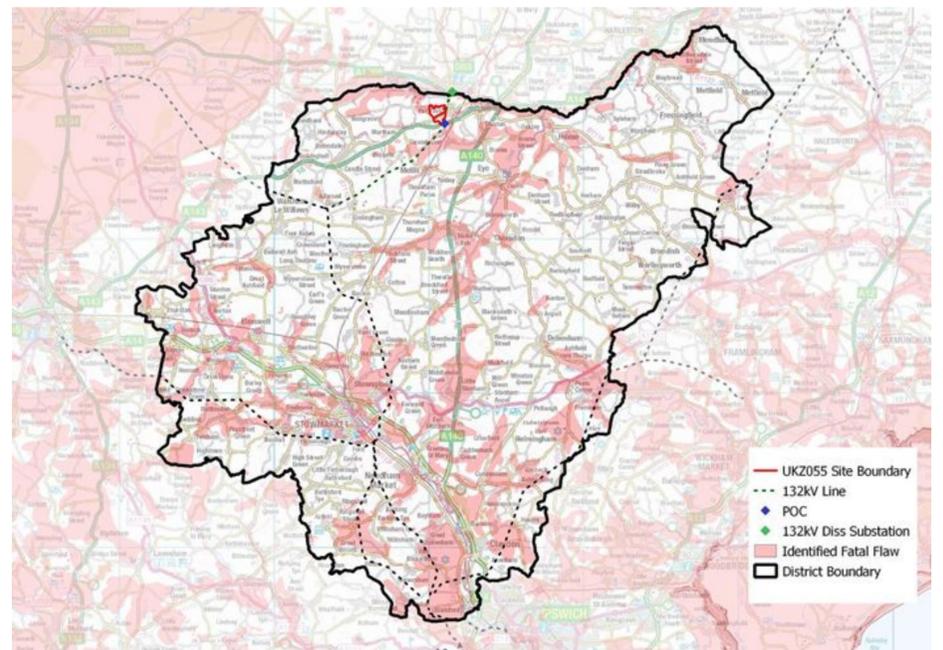
During construction there will be noise from vehicles and some aspects of the construction process. We will aim to keep this to a minimum and will agree a Construction Management Plan with the council.

Use of agricultural Land

We undertook an extensive search for sites along the 132kV overhead line from Diss to Stowmarket.

We discounted designated areas and land with the most productive agricultural grades.

The proposed site has a willing landowner and few environmental constraints.



What surveys have you undertaken?

- ✓ Landscape & visual impact
- ✓ Heritage and archaeology
- ✓ Ecology and protected species
- ✓ Biodiversity net gain

- ✓ Transport and access
- ✓ Flood risk and drainage
- ✓ Agricultural land grade
- ✓ Grid connection studies

Frequently Asked Questions

Glare

Solar panels will be orientated to face south, typically at an inclination of 20 to 30 degrees.

The function of a PV module is to absorb as much light energy as possible, not reflect it.

There are many examples of large solar farms being installed adjacent to roads, railway, homes, and even airport runways.

Provenance and recycling

Typically, the solar panels we use in our projects come from China. PACE is committed building our site with only manufacturers and contractors who have pledged to prevent modern slavery in our supply chain. The balance of system components are generally sourced from the UK and EU.

At the end of the project, the solar farm will be decommissioned by a specialised recycling company. We have made provision for a decommissioning bond through our land legal agreement, to ensure sufficient funds are in place at the end of the project's lifetime.

What are the health impacts?

Solar farms are very safe. There are no harmful emissions.

The polycrystalline silicon semiconductor in solar panels is common in the electronics industry.

As with all electronic equipment, such as phones, cars and laptops, some rare earth metals are used.

The energy used to create the solar panels will be quickly offset by the energy it generates.

You can keep up to date with progress on our website at:

www.grangesolar.co.uk