

FAQS

Why do we need renewable generation like solar farms?

The world is currently on track for a dangerous level of climate change and those impacts can be seen today. Across the UK, we will experience those very same impacts - wetter and stormier winters, and hotter summers with heavier rainfall, will bring impacts across the country. For that reason and because nowhere is isolated from the impacts of climate change, it's hugely important that we understand the role renewable energy plays in tackling climate change.

Policy at the local, national and global level is changing rapidly to address the threat of climate change. Decarbonisation means we must reduce our consumption of fossil fuels and increase renewable and low carbon energy generation. The UK has established ambitious climate change objectives, aiming to achieve net zero carbon emissions by 2050 while ensuring a secure, dependable, and cost-effective energy supply.

Key UK Government policies that showcase the need for renewable energy are outlined below:

- **2008** – The [Climate Change Act](#) set a legally binding target to reduce the UK's greenhouse gas (GHG) emissions by 80% by 2050, compared to 1990 levels.
- **June 2019** – The 80% target was raised to 100%.
- **July 2019** - 2019 - Lewes District Council set the ambitious target of reaching net-zero by 2030.
- **October 2021** – The [Net Zero Strategy](#) was published, setting out how the net zero target would be met, making it clear that solar and wind generation are the backbone to achieving a secure, affordable and low carbon energy supply.
- **April 2022** – The [Energy Security Strategy](#), outlined the Government's energy plans, focusing on accelerating the roll-out of renewable technologies like solar, wind, nuclear, and low carbon hydrogen. A central objective of this strategy is to quintuple the UK's solar capacity by 2035, thereby raising the current generation capacity of 14 gigawatts (GW) to approximately 70GW in the future.
- **March 2023** - The document [Powering Up Britain](#) highlights the government's dedication to realising the net zero target and reinforces the necessity to maximise the deployment of both rooftop and ground-mounted solar installations to meet national objectives.

Oldhouse Solar Farm would contribute towards achieving the aim of the Lewes district and the wider UK targets.

What is a solar farm, and how does it work ?

Solar farms generate electricity by harnessing the power of the sun using photovoltaic (PV) cells, which directly convert sunlight into electricity. Solar PV cells are arranged on a flat panel, which is then typically mounted together on a wedge-shaped structure with other panels. This entire structure taken together is called a solar array.

The solar arrays are typically arranged in long banks with space in between them to ensure that all the panels can be accessed for maintenance, and that they don't shade each other at certain times of day. In the UK, the arrays usually face south, and the panels are angled in such a way that they capture the most possible sunlight across the day.

Electric converters known as inverters are employed to transform the DC power produced by the PV panels into AC power, the standard format of electricity utilised by the National Grid and used to power our homes and businesses. This AC power is subsequently elevated to the requisite voltage level and disseminated across the grid. An electricity generation meter is employed to track the amount of electricity generated and delivered to the grid.

The Oldhouse Solar Farm proposal encompasses the complete cycle of construction, operation (including maintenance), and eventual decommissioning of the ground-mounted PV panels along with the necessary supporting infrastructure.

Once operational, the technology is passive and requires very little maintenance across its lifetime. Operational and maintenance visits are anticipated to occur roughly once per month. Solar panels do require occasional washing to remove dirt and grime build-up on the photovoltaic surface of the panel, as this reduces their efficiency. If there is any damage to the panels over the lifetime of Oldhouse Solar Farm, these issues will be identified during operational and maintenance visits and the affected panels replaced.

What is solar irradiation?

Solar irradiation represents the power of the sun that reaches a surface per unit area and gives an indication of how much solar power would be available to generate renewable electricity on an area of land.

Do the solar panels require constant sunlight/heat to produce energy?

Solar panels harness the energy in sunlight to produce electricity, and even on cloudy days there is enough light present to allow some electricity to be produced. Direct, intense sunlight will increase the output of the solar panels but is not needed for them to produce electricity. Solar schemes currently operate across the UK all year round, including in sites much further north than Oldhouse Solar Farm with more inclement weather.

Is solar energy effective in the United Kingdom?

Solar energy is effective throughout the entirety of the UK. The ability of solar PV panels to generate electricity is primarily dependent on solar radiation, not temperature, heat, or direct sunlight. Solar panels function consistently regardless of direct sunlight and remain operational all year round. In 2022, National Grid set out that solar power contributed approximately 4.4% to the total annual national energy consumption ([How much of the UK's energy is renewable? | National Grid Group](#)).

Does solar energy need 'back up'?

All forms of power generation require back-up and no energy technology can be relied upon 100%. The national grid system is designed to cope with large fluctuations in supply and demand and already operates with enough back-up to manage the instantaneous loss of a large power station.

What is the size of Oldhouse Solar Farm?

The Site covers approximately 44 hectares. The Site area will not be covered entirely in solar panels but through a detailed design exercise, will accommodate supporting infrastructure, a new network of internal single tracks, and landscape and ecological enhancement measures in addition to approximately 33,000 panels grouped in arrays across the Site. Each individual panel will be approximately 3m tall and will be angled to catch sunlight effectively.

During peak operation, the solar farm should produce up to 25 megawatts (MW) of electricity, enough to power the equivalent of up to 6,350 homes¹. The work carried out to date has informed the current design of the proposed Oldhouse Solar Farm. Where required, suitable mitigation will be designed into the scheme. The overall aim is to design a layout that has the least environmental impact whilst optimising the renewable energy generation from the Site.

¹ Installed capacity (in MW) multiplied by the number of hours in one year (8,760) multiplied by the average load factor for each technology divided by the average annual household energy consumption (3.831MWh) (being the average annual household energy consumption during 2021, 2020 and 2019 as published within Energy Consumption in the UK 2022, BEIS, 2022).

Where is Oldhouse Solar Farm located?

The Site is located approx. 1 kilometre (km) east of the village of Ringmer and 4.2km north-east of Lewes in East Sussex. The application will be submitted to Lewes District Council, as the site is situated entirely within their administrative authority area.

The site covers approx. 44 hectares (ha) and is currently used for arable farming and rough grazing. It sits adjacent to the sewage water treatment works on Neaves Lane and is bound by Moor Lane to the east of the Site, Neaves Lane to the west and the B2124 Laughton Road to the north. The boundary of the South Downs National Park is approximately 100m south-west of the Site.

Why was this location chosen for the solar farm?

The Site's ample sunlight, effective screening, and proximity to Lewes Grid substation make it an ideal location for a solar farm.

There is a viable grid connection within the existing 132kV overhead line which crosses the Site and connects into the Lewes Grid substation at Ringmer. This, coupled with the consideration of environmental and planning constraints, led us to identify Oldhouse Farm as a good site for solar potential.

Whilst recognising the existence of the approved Ouse Valley solar project, there has not been many large-scale solar developments in the Lewes district and in order for Lewes to meet their ambitious target of net-zero by 2030, it is important that more renewable energy developments are deployed in the region.

How would Oldhouse Solar farm connect to the grid?

A substation compound will be installed and is proposed to be located in the north-eastern area of the Site, adjacent to the site access point off Moor Lane. The existing 132-kilovolt (kV) overhead line crosses the Site providing a means for connection onto the National Grid. The connection date is still to be confirmed and is determined by the Distribution Network Operator (DNO), UKPN, however, the indicative connection date would be in 2029.

Will Oldhouse Solar Farm provide any community benefit and what can be delivered with this fund?

SPR has been working alongside communities across the UK and Ireland for over two decades and is committed to being a responsible developer of renewable energy and a good neighbour in the communities where we operate.

We are keen for nearby communities to share in the benefits of our projects and to date we have shared over £1.5 million in community benefit funding to communities surrounding our onshore windfarms in England. These communities are empowered to decide how to direct their funds towards local initiatives that best serve the needs of their community. Funds can be used to deliver a wide range of activities and we asks that these sit within one of the following categories:

- Net Zero/Emission Reduction
- Environmental
- Community Facilities and Services
- Skills and Employment
- Heritage
- Community and Local Events

- Sport and Recreation
- Youth and Education

Communities across the country have used their funding to improve energy efficiency and reduce the running costs of their community buildings by adding solar panels, insulation or by replacing inefficient windows and doors.

Funds from Lynemouth Windfarm, in Northumberland, enabled the local Parish Council to create a community garden on previously derelict land for use by local school children and other community members who are able to visit, enjoy and learn about Lynemouth from information boards that tell the story of the birth of this traditional mining village and its evolution towards hosting green energy generation and all the benefits it brings.

At Coldham Windfarm in Cambridgeshire, funds have been used to deliver a series of environmental activity sessions for adults and children to engage them in their local environment. Activities included pond dipping, bug hunting, animal footprint ID, wildlife-themed games, fire lighting, natural art, fossil hunting and sensory games.

The Parish Council close to Carland Cross Windfarm, in Cornwall, has supported various local sports clubs with upgrades to equipment and refurbishment of club buildings and were able to contribute towards the funding of a new Multi Use Games Area (MUGA) for their young people.

The community benefit projects above, although referring to windfarms, provide examples of potential uses of the Oldhouse Solar Farm community benefit fund. The community benefit fund would consist of a one-off payment once the solar farm is fully operational.

Will there be any impact on local access?

There are no Public Rights of Way (PRoW) that cross the site; the nearest Right of Way is located approximately 65m west of the Site. It is anticipated that there will be no direct impact on this or any PRoW, with existing public of rights of way being maintained as far as reasonably possible. Any impacts on PRoWs will be investigated as part of the Landscape and Visual Assessment (LVA).

During construction there may be some temporary access restrictions in the immediate vicinity of the construction site; this should not significantly affect public thoroughfare, which will be maintained via suitable diversion if necessary.

Will there be any security installed at the Site?

Security fencing will be erected around the perimeter of the Site. The fencing will be approximately 2.5 metres (m) high. CCTV cameras will be mounted along the site perimeter fencing at regular intervals and will face inwards towards the Site. They are required to monitor the Site only, and operation and maintenance visits are expected to occur once per month.

Will there be any noise associated with the construction or operation of the solar farm?

A Noise Impact Assessment is being carried out to assess the potential impact of Oldhouse Solar Farm on the nearest noise-sensitive receptors, including the closest residential properties on Neaves Lane and Moor Lane, during its construction and operational phases. It is not anticipated that there would be any significant noise impacts associated within the proposed solar farm. Solar panels are designed to be quiet and emit little noise.

The location of the substation and inverters have been carefully sited away from residential receptors to mitigate against potential noise effects and most noise impacts are likely to be during the construction phase of the development, which is temporary.

Will there be any impact on agricultural land in the area?

As part of our planning application, an Agricultural Land Survey is being prepared to inform the design of Oldhouse Solar Farm and accompany the application. This will confirm the quality of agricultural land located on the Site. We are currently awaiting the results of this on-site survey.

Good practice construction methods will be utilised to ensure minimal disruption to the ground during the installation of the equipment. It's possible for sheep grazing to continue under the panels.

What will the solar farm look like from the surrounding area?

A Landscape and Visual Assessment (LVA) is being prepared to consider the potential effects of Oldhouse Solar Farm on landscape features, character as well as special qualities of any landscape designations. This assessment will also consider visual amenity of the area from multiple viewpoints including residential, transport and recreational receptors. The study area will extend to 3km from the site boundary.

The LVA helps to determine the optimum size, number, and layout of the solar panels to reflect the landscape of the Site and the surrounding area. The main site area will experience some landscape effects due to the presence of solar infrastructure. However, these effects will be counterbalanced by enhancements and mitigation measures. Existing trees and hedgerows will be retained where possible, and a significant amount of new planting is being proposed to assist in providing visual screening, whilst also contributing to biodiversity.

The incorporation of these measures like screen planting will mitigate the majority of these visual impacts especially as the planted vegetation matures over time. Notably, a dedicated effort will be made to minimise the impact to nearby residences, particularly along Neaves Lane. The LVA will also address potential cumulative effects between the Site and the approved, but as yet unbuilt, Ouse Valley Solar Farm.

Will the solar farm affect any local archaeology?

An assessment of the potential effects of Oldhouse Solar Farm on heritage and archaeology is currently being prepared and will inform the final design and planning application. Should Oldhouse Solar Farm be granted consent, a programme of archaeological fieldwork will be agreed with Lewes District Council and its archaeological advisers before construction starts. This will ensure that heritage assets are protected, and any discoveries made during construction are recorded, and all findings published.

There are no statutory heritage assets within the Site. An Archaeological Notification Area, a local heritage designation, is present onsite due to the Roman Road, which is located on the northern part of the Site; no development is proposed on the Roman Road itself. Designated heritage assets in proximity to the Site include eight Grade II Listed Buildings located within 1km, with the nearest being 'Arches Farmhouse', located approx. 80m to the west of the Site. The 'Ringmer Conservation Area' is located 1.5km to the west.

Will there be an increased risk of flooding due to the proposal?

Information from other solar projects indicates that the impact of established solar farms on flood risk is minimal. This is primarily due to the fact that the ground beneath and between solar panels maintains its permeability, allowing rain to runoff as before without accumulating. Consequently, rainfall across the site continues to remain the same in volume as before and no increased flooding risk is anticipated off-site as a result of Oldhouse Solar Farm.

Oldhouse Solar Farm is proposed in an area classed as Flood Zone 1 (low risk), with some area to the north-east classed as being Flood Zones 2 and 3 (medium and high risk). The higher risk of flooding onsite is primarily associated within a main watercourse known as Glynde Reach, which flows north-west to south-east across the Site. No development is being proposed any closer than 8m to the watercourse as per Environment Agency guidance. There is also some surface water flood risk onsite. The impact of Oldhouse Solar Farm on flood risk is being assessed and will inform the final design.

How do you intend to mitigate the environmental impact of the development?

We have taken care to avoid the most environmentally sensitive areas when planning this development.

We endeavour to maintain all existing hedgerow and trees where possible, and any new infill hedgerow planting proposed will be at least equal in height or taller at maturity than existing hedgerows. In terms of connectivity for wildlife, the perimeter fencing around the Site will contain 'gaps' in its design to ensure that small mammals such as hedgehog / hare have continued access across the whole site for foraging and commuting. We don't expect there to be any significant impact on local wildlife.

We are planning dedicated biodiversity enhancements, the details of which are being finalised and Oldhouse Solar Farm has significant potential to enhance ecological habitats

and deliver 10% Biodiversity Net Gain. The Site is capable of hosting a range of habitats including wildflower meadows, species rich grassland, hedgerows, nectar-rich areas for pollinators, and woodland. These enhancements will afford benefits to the current biodiversity, minimise landscape and visual impacts, and improve flooding. A Biodiversity Net Gain Plan and Landscape Mitigation Masterplan will be included in the planning application submission.

During construction, effects would be minimised by the adoption of mitigation measures and following construction best practice standards, as identified in a Construction Environmental Management Plan, to be submitted to the Council post-consent.

When do you expect to begin construction?

If Oldhouse Solar Farm receives planning consent, construction will likely commence towards the end of 2027. The grid connection programme agreed with the Distribution Network Operator (DNO), UKPN, will also impact on the construction start date.

How long will it take to construct the solar farm?

If Oldhouse Solar Farm receives planning consent, construction is anticipated to take nine months. There will be a peak construction period during which it is expected there would be approximately 10-15 Heavy Goods Vehicles (HGV) travelling on to the Site per week, for roughly four months of the overall nine month build programme. Sustainable travel and lift sharing between site contractors will be encouraged and enforced as much as possible. Outside of peak construction, it is expected vehicle numbers would be fewer. At this stage, construction routes are still being considered to determine the best and most viable route.

The construction period would comprise the following stages:

- Access, onsite tracks and infrastructure – construction of a new access, internal onsite tracks and construction compound
- Mobilisation – delivery of plant, equipment and construction materials
- Assembling of components – delivery of solar panels and other components and installation onsite.

How long do solar panels operate for?

The project is anticipated to generate renewable energy for roughly 40 years, though the lifetime of Oldhouse Solar Farm will depend on the duration of any planning consent.

What happens at the end of that lifespan?

Following the conclusion of a solar farm's operational phase, it is envisaged either consent would be sought from the Council to repower the Site, or the Site will be decommissioned and restored to its previous use with an increased state of biodiversity.

Will the panels be recycled?

Many solar panel manufacturers offer schemes for reuse or disposal, and these schemes will be utilised as much as possible with the priority to reuse and/or regenerate materials to ensure that sustainable principles are followed. If reuse/regeneration is not possible at the time of decommissioning, the panels will be recycled at an appropriate facility.

When will local communities have the opportunity to share their thoughts on the proposals or ask questions?

We welcome your feedback on our initial proposal to help us refine the details of Oldhouse Solar Farm. You can submit feedback via the online feedback form on our website, where you can also view more detailed information on the proposal and find our contact details.

www.scottishpowerrenewables.com/oldhouse-farm

We will use the findings from environmental surveys, technical studies, and consultation feedback to continue to shape the design of Oldhouse Solar Farm ahead of submitting an application to Lewes District Council.

Please note that any comments made on the proposals to SPR at this stage are not representations to the planning authority. When the application for consent is subsequently submitted to the Council, statutory consultation will be undertaken. At that time, you will have the opportunity to make a formal representation on the proposal.