Frequently Asked Questions

What makes a good site for a solar farm?

We consider many key drivers when planning a solar farm, including the following:

- Proximity to a grid connection point.
- No environmental, planning policy or heritage constraints.
- A local planning authority that is supportive of Renewable Energy Projects.
- Access from a public highway.

What happens to the land after the solar farm is removed?

There is a legal requirement that the land is returned to its original condition at the end of our lease and money is set aside to ensure this can happen. Our panels are mounted on pile-driven frames that cause minimum disturbance to the land and can be easily removed.

What happens to the panels at the end of their life?

Like any other electrical waste, solar panels need to be disposed of responsibly. In Europe over 70% of PV manufacturers take part in a global PV CYCLE Network that helps producers meet the legal obligations of the Waste Electrical and Electronic Equipment (WEEE) Directive legislation. As members of this initiative, producers are actively engaged in the sustainability of their product during manufacturing and throughout its lifespan. Components of the panels are broken down and recycled, not just disposed of.

How do you ensure a safe and productive wildlife population? Does the deer fencing keep larger wildlife out?

Natural habitat is a key focus for us, and we have partnered with the RSPB to make sure we get it right. As well as reinforcing existing hedgerows and planting new ones, we plant trees, sow native grass and flower mixes and manage the field margins to provide habitat for pollinators and small birds and mammals. Amphibian habitat is retained and protected in existing hedges, ditches and ponds, and cuttings from around the site are used to make habitat piles for the benefit of invertebrates, small mammals and reptiles. Where there are local populations of barn owls we provide opportunities for them to nest onsite. Whilst the deer fencing is designed to keep deer away from the electrical equipment (for their safety and to prevent damage), roe deer are commonly found 'inside the fence' on solar farms and are quite content. The fencing has a 15cm gap at the base to allow small animals such as hedgehogs to pass under, and regular mammal gates for larger animals to enter and leave the site.

What happens to footpaths or bridleways that cross your sites?

Footpaths and bridleways are a key countryside asset for many users in the local community. We protect and enhance them with extended and improved hedges so they can continue to be enjoyed. Behind these hedges is a 5m gap before we have our fence, and our solar panels are then a further 4m inside this fence. So the solar panels are about 9-10m from the path itself.

Is there glint and glare?

Solar panels are designed to absorb as much light as possible and not to reflect it, however sometimes glint can be produced as a direct reflection of the sun from the surface of the solar PV panel, and glare can occur as a source of bright light. Glint and glare needs to be managed – we do that by carrying out assessments at the site and designing sites so any impact is low.

Are solar farms noisy?

There is some noise generated onsite during the construction stage – from the construction traffic and from fixing the frame that supports the solar panels into the ground. Once built, there is no or low level noise from the site – it's not usually something you can hear from the edge of the site.

Do solar panels work when the sun's not shining?

They produce power from daylight so can work even when the weather is overcast.

How are views screened? Hedgerows take 7-10 years to grow, do you plant alternatives in the meantime?

Ecology is of utmost concern to us, so screening consists of hedges and trees. We agree that these can be slow growing, but there are solutions that we can build into our planting plan. There are options such as 'double screening' while the hedges are growing, where we could plant fast growing high crops in adjacent fields, or build a temporary earth bank planted with a bee-friendly plant such as broom.

Who is responsible for the hedges and general maintenance of the site once it's been built? Is there a legal obligation to keep the hedges high?

The site owner is legally obliged to maintain the site as per the planning obligations. Work is often undertaken by local agricultural contractors.

What other supporting infrastructure gets built alongside the panels?

Alongside solar panels, there will be:

- Inverters (the size of a small storage container). These are placed away from site boundaries, so cannot be seen or heard by passersby.
- A transformer substation with battery storage, connecting the solar farm to the grid.
- Inward facing infra-red CCTV.
- Paths between panels for maintenance access.

Is there excess noise and lighting during the construction phase?

The construction period is generally 4-6 months. We try to avoid the winter months, which reduces the need for artificial lighting and has less construction traffic impact. We submit a noise assessment as part of our planning application. The first few weeks are the most noisy, then it is much quieter in the latter half of the construction period. We cannot pretend that it is quiet, but we do keep disruption to a minimum. We design our sites so that construction traffic shouldn't need to reverse – this reduces any beeping from lorries.

How can I access the full surveys and reports?

Where possible we publish surveys and reports on our website. We do not always have them ready in time for our community consultations, because we like to engage with the community early in the planning process – this allows the communities we join to have some input into our final design. All surveys and reports are accessible to the public for scrutiny once the planning application has been submitted, and even at that late stage we remain flexible. We want to be transparent – get in touch if there is a particular aspect of our plan that you would like further information on.

Can solar farms affect health?

Solar farms are not known to pose any significant health dangers to their neighbours. Unlike fossil fuels they do not release emissions into the atmosphere so there is no impact from emissions on human health. Replacing fossil fuel power stations with renewable energy alternatives like solar and wind farms means there will be less emissions from fossil fuels in the atmosphere in the longer term – good for human health and the health of the planet.

What about EMF from solar panels?

All electrical and electronic devices create electromagnetic fields or EMF around them when used and also emit electromagnetic radiation or EMR. This includes solar panels and solar inverters as well as most electrical devices in our homes – televisions, radios, fridges and mobile phones. It's the level and type of EMR that is important. EMR from solar panels and solar inverters is non-ionizing and is well within national health-based guidelines. Refer to the International Commission on Non-Ionising Radiation (ICNIRP) for more details about EMF and EMR in our daily lives www.icnirp.org.

How many sites have Lightrock Power developed to date?

Lightrock Power was created to utilise our development expertise in the US market and between them the directors (Ben and Chris) have 10+ operational solar farms in the UK under different developers. There are currently ten Lightrock sites around the UK, at various stages of active planning.

What are the UK climate change commitments?

The Climate Change Act 2008 introduced the UK's first legally binding target for 2050 to reduce greenhouse gas emissions by at least 80% compared to 1990 levels. Between 1990 and 2017, the UK reduced its emissions by 42% while growing the economy by more than two thirds. On 27 June 2019 the UK government amended the Climate Change Act recognising the need to go further, and set a legally binding target to achieve net zero greenhouse gas emissions from across the UK economy by 2050. Their aim: to set a world-leading target that will bring to an end the UK's contribution to climate change.

What is net zero?

The temperature of the planet responds slowly to cutting greenhouse gas emissions. The planet will only stop warming when we reach 'net zero' carbon dioxide emissions. Achieving net zero means reducing global greenhouse gas emissions to a much lower level than today – and balancing the remaining emissions by reabsorbing the same amount from the atmosphere. Greenhouse gases can be absorbed by growing trees and plants, as well as through technological processes that can remove carbon dioxide from the air, but have not yet been used at large-scale. Reducing global greenhouse gas emissions rapidly and emitting as little as possible on the way to 'net zero' will also help minimise further changes in the climate.

Do you remove trees or hedgerows?

We generally plant trees and hedgerows, unless our ecologists advise selected thinning. In the unlikely event a hedgerow needs to be disturbed for access, we always ensure reinstatement and reinforcement.

Between manufacture and disposal are panels as green as they claim to be?

The benefits of reduced CO2 from generating electricity by solar panels outweighs the CO2 released from their manufacture within 2-5 years. Once the transportation, construction, operation, decommissioning and recycling is accounted for in a Life Cycle Analysis, it is estimated that a solar farm in the UK pays back the embodied energy in 10-15 years. This is sometimes called the 'carbon payback' time. Solar panels are predominantly made of materials that are widely recycled. The PV Cycle scheme's purpose is to establish the recycling infrastructure now for recycling solar panels at the end of their lifetime.

Where do you source your solar Panels? I read that they have links to forced labour?

We will be working with our developers, EPCs and manufacturers to ensure that our supply chains are not associated with forced labour issues. Lightrock Power have signed the Solar Energy UK statement relating to the development of a supply chain transparency protocol and have a zero-tolerance approach to slavery and human trafficking.

Why can't you put your solar panels on brownfield sites or warehouse roofs?

We would much rather put solar panels on brownfield sites or roofs. Planning regulations mean that brownfield sites are almost always earmarked for housing and unfortunately most commercial industrial buildings do not have the structural integrity to handle panels.

Do your developments receive any governmental grants or subsidies?

No. One of the great things is that renewables can now be cheaper than other forms of generation without subsidy.

How are panels mounted and does this involve drilling or piling foundations?

Panels are mounted on a frame which is fixed to the ground with a driven C-shaped pile.

Can you provide an actual case where biodiversity has been increased by the presence of a solar farm?

https://www.lancaster.ac.uk/spies/wp-content/uploads/SPIES_journal_article.pdf

https://solarenergyuk.org/solars-synergies-with-nature/

http://www.clarksonwoods.co.uk/wp-content/uploads/2020/07/CW_2019-Solarview.pdf