Fraddon Solar | JBM SOLAR

The Need for Solar

Reaching for Net Zero

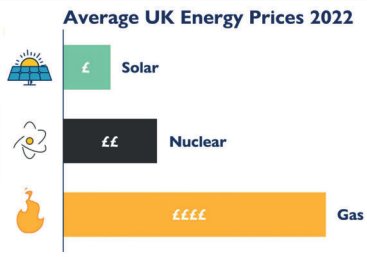
The UK has made a legally binding commitment to achieve a net zero fully decarbonised power system by 2035. This can only be achieved with the adoption and roll-out of reliable, affordable, clean energy sources such as solar.

Cornwall Climate Emergency

Cornwall Council declared a climate emergency in 2019 and published its Climate Change Action Plan, setting a target for the county to lead the way and become carbon neutral by 2030. Solar farms, such as Fraddon Solar Farm, will make a meaningful contribution to the local, and national, climate commitments.

Tackling Energy Security and the Cost of Living Crisis

Solar energy provides one of the cheapest forms of electricity in the UK. This year alone solar has been over 4 x cheaper than gas and 2 x cheaper than nuclear in the UK. A fivefold increase in solar capacity is anticipated by 2035 in the Government's Energy Security Strategy 2022. If approved, Fraddon Solar can help drive down bills and tackle the energy crisis.



Fraddon Solar | JBM SOLAR

Benefits

Building a brighter future

By working in partnership with local communities, JBM Solar unlocks a project's full potential. We ensure that the benefits of solar energy developments are realised in a way that positively impact the surrounding community.

The displacement of over 1,000,000 tonnes of CO2 from equivalent fossil fuel energy, which equates to taking 760,000 cars off Cornwall's roads (19,000 per year for 40 years).

Genuine benefits for local residents, including a £150,000 community benefit fund.

73% biodiverisity net gain providing ecological benefits through new habitats, such as wildflower meadows, grassland areas, skylark plots, ponds, bird nesting boxes and beehives.

£7.6m generated in business rates over the lifetime of the project.

17% net gain for hedgerow / trees including 4km of new hedgerows, along with an orchard and new broadleaved woodland which will provide ecological benefits alongside landscape mitigation.

The ability for over 95% of the site to be used for sheep grazing and remain in farming use, allowing topsoil to recover, by increasing soil organic matter and improving the soil structure.

Investment of c.£250,000 in new green infrastructure such as enhanced rights of way, new permissive paths, outdoor picnic areas, outdoor classroom, a community orchard and information boards.

Battery Energy Storage System (BESS) on site, ensuring the solar farm can be as flexible as possible in delivering energy to the grid.

Fraddon Solar | JBM SOLAR

Proposals

Site Location

Fraddon Solar Farm would be located south of the A30, south of Penhale, east of Summercourt and immediately west of the China Clay works and Fraddon substation, in the St Dennis and St Enoder Division of Cornwall Council.

This location has been carefully chosen by our integrated team of experts. The site will benefit from an infield connection to the electricity grid, can be screened to minimise visual impact and has the potential to deliver significant positive gains for protected species.

The planned solar farm will generate 68GWh of electricity a year. This would provide the equivalent annual energy needs of over 19,000 UK homes.

CO_2

CO2 savings will exceed 1,000,000 tonnes over the lifetime of the project which equates to taking over 760,000 cars off Cornwall's roads (19,000 per year for 40 years).

We are also planning to install batteries to store electricity which can be fed back into the local energy network to help balance the grid at times of high demand.

Fraddon Solar | JBM SOLAR

Natural Capital

Tackling the Ecological Crisis through Natural Capital

Not only are we facing a climate crisis, but we are facing an ecological emergency too, and the two are intrinsically linked. According to the ground-breaking 2019 'State of Nature Report', 60% of British wildlife species monitored have declined and 15% are facing extinction for a variety of reasons including use of pesticides and habitat loss.

A Green Future

The Government's 25-year Environment Plan 'A Green Future' highlights the importance of natural capital as a tool in decision-making. Natural capital refers to the aspects of nature that directly or indirectly produce value for people, such as the stocks of forests, rivers, land, minerals and oceans.

Increasing Biodiversity on Solar Farms

From stocks of natural capital flow ecosystem services or benefits which may be economic, social, environmental, cultural or spiritual with qualitative or quantitative values. For example, access to open spaces and providing a healthy environment. Solar farms offer a unique opportunity to provide significant biodiversity net gains through habitat creation and planting of trees.

73% Net Gain

Ecosystem services arising from well-managed solar farms

- Biodiversity and wildlife habitat provision
- Carbon storage and climate regulation
- Flood attenuation and water cycle support
- Water quality regulation
- Pollination
- Air quality regulation
- Soil erosion mitigation and soil quality regulation
- Education, leisure and community engagement
- Food provision and support for sustainable agriculture

Fraddon Solar | JBM SOLAR

Top FAQs

Are solar farms built with the landscape in mind?

Absolutely, we work closely with communities to ensure that our solar farms blend in and restore traditional meadows and hedgerows to the countryside. The maximum height of our solar panels is three metres, which is the equivalent of a well-maintained hedgerow.

We also provide significant landscape enhancements on every scheme, including new hedgerow and tree planting. The proposals include 4km of new hedgerow planting, along with an orchard and new broadleaved woodland which will provide ecological benefits alongside landscape mitigation. This will result in a 17% net gain for hedgerow / tree units on site.

Why are most solar farms built on agricultural land?

Being one of the cheapest forms of clean renewable energy, a fivefold increase in solar capacity is anticipated by 2050 in the Government's Energy Security Strategy 2022. This cannot be achieved through rooftop and brownfield solar installations alone, as they have considerable practical barriers of their own. Many domestic and industrial buildings either do not have roofs made of suitable material to support a solar system, do not have the infrastructure to export electricity to the grid, or simply present as an unaffordable solution, with initial costs of installation too high for some.

As a result, agricultural land typically of moderate or low quality is also used, without impacting on food security. The proposed site consists of entirely Grade 3b 'moderate' quality land and is therefore considered suitable for a solar energy development under the National Planning Policy Framework.

Will there be much disturbance during construction?

We aim to access sites and manage all traffic in such a way that it will have a minimum impact on surrounding communities. The delivery route to the proposed site will be via the A30 from the north, with the site access being directly from the B3275 on the western side of the site. Highways have been consulted and consider the proposed access to be a safe and viable option. Construction is anticipated to takse 6-9 months, with an average of 4-6 deliveries per day.

Fraddon Solar | JBM SOLAR

Community Benefits

Green Infrastructure

Investment of c. £250,000 in new recreational areas which will be linked by existing paths and new permissive paths creating a looped walk.

All footpaths enhanced to 10m in width and planted with wildflower margins.

New picnic areas, benches and a community orchard.

New "Heritage Trail" including interpretation boards detailing the history of the area, benefits of solar energy and wildflower meadows / pollination.

Outdoor classroom, log pile seating area and beehives providing an educational resource.

Local Economy

Community Benefit fund of £150,000 which can be used on rooftop solar for community buildings / schools and/or other sustainable initiatives locally, e.g. village improvement schemes or other new amenities.

Sponsorship of local school in partnership with the Good Bee Company, includes free curriculum lessons from qualified beekeepers, site visits to the beehives and wildflower garden establishment on school grounds.

The provision of jobs and sourcing of materials locally associated with the construction of the solar farm and the operational phase of development. Construction staff are also likely to use local accommodation and shops / restaurants.

Business rates contribution in excess of £7m over lifetime of the project.

Fraddon Solar | JBM SOLAR

About JBM

What We Do

We are at the heart of the UK's renewables revolution, helping to realise our collective goal of net zero emissions through the deployment of solar energy.

We believe this is best achieved through positive stakeholder relationships and listening to the voices of the community.

Our Vision

Our vision is to power the UK with reliable, affordable, clean solar energy, and to add value through innovation and investment.

We're bringing the benefits of solar energy to communities and the planet – at the scale and pace that is needed to help the country meet its net zero ambitions.

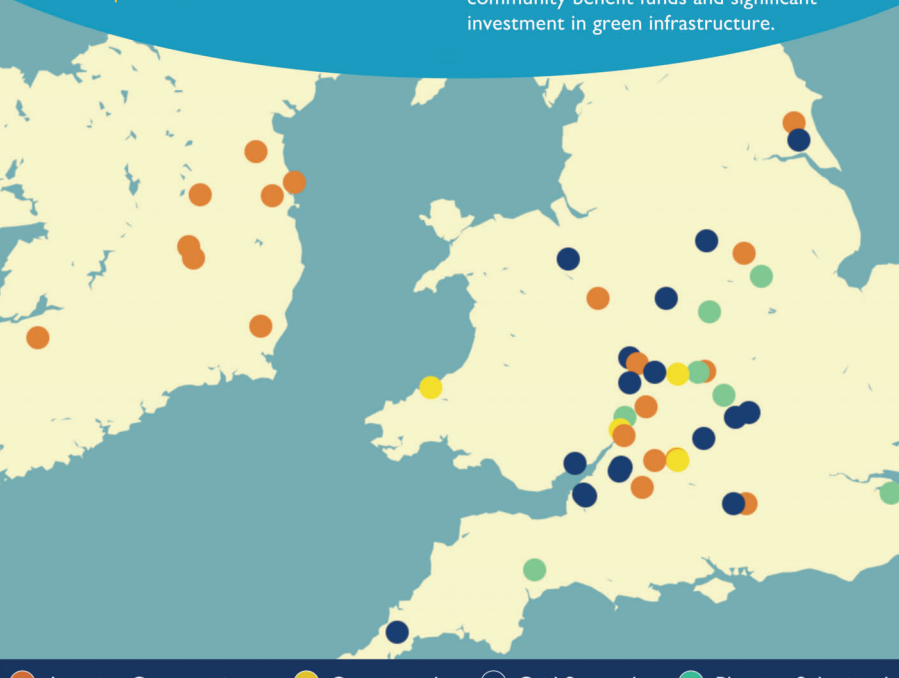
Our Projects

Our 98% planning application success rate over the last decade speaks for itself. We remain committed to using the lessons we have learned in this time to continue delivering large-scale solar farms with co-located battery storage and biodiversity net gains on every project.

All our future solar schemes will achieve a minimum 50% biodiversity net gain, five times the minimum requirement of 10%.

Since 2012, our team has secured planning permission in the UK and Ireland for more than 1GW of solar projects, ranging from 30 to 150 megawatts. This is the equivalent of providing energy to over 265,000 homes.

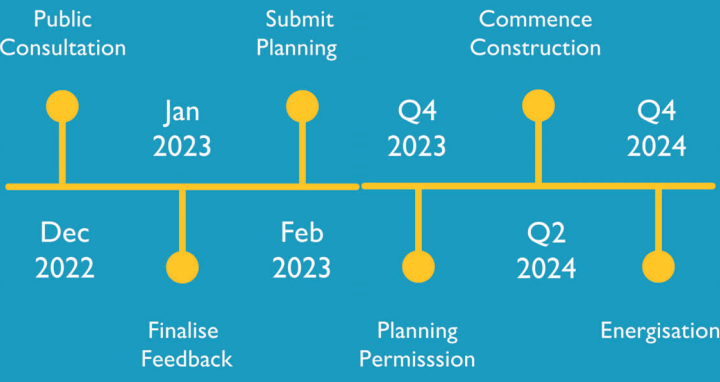
We work closely with local people to shape the future of our projects and to ensure the benefits of solar energy developments are realised in a way that positively impacts local people, through community benefit funds and significant investment in green infrastructure.



Fraddon Solar | JBM SOLAR

Next Steps

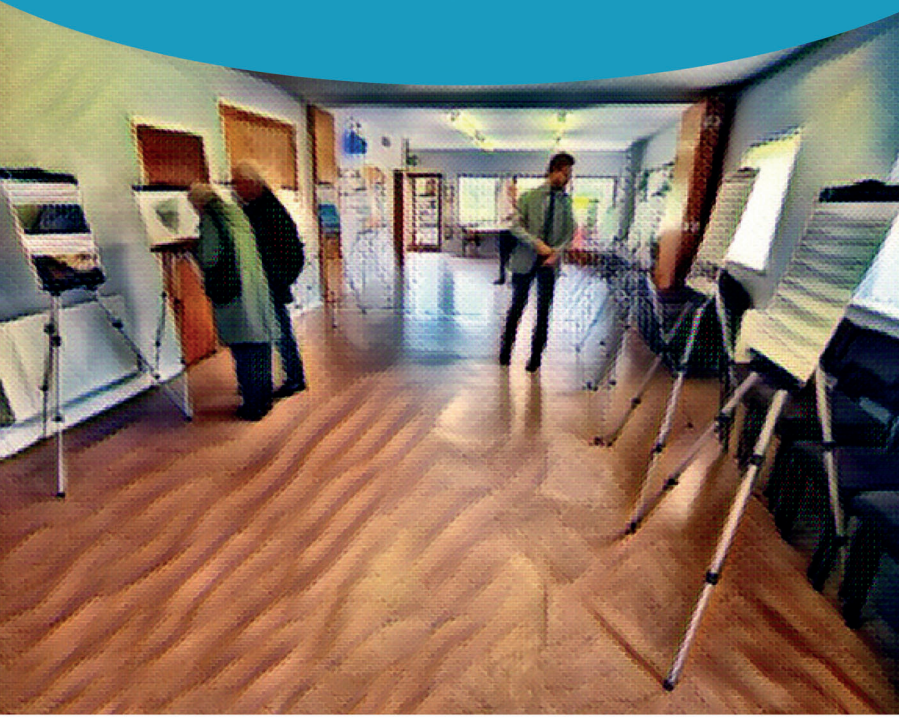
Timeline



Your Feedback

Please take some time today to provide your feedback on the proposals. You can do this by completing the Feedback Form provided.

Please note our pre-submission consultation period closes on the 2nd January 2023. Please ensure that any feedback is sent sufficiently in advance to arrive before this date.

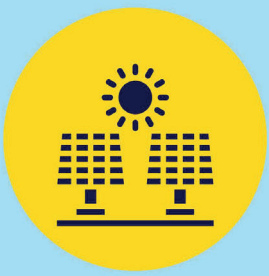


Solar Energy UK

THE FACTS ON SOLAR FARMS

SOLAR COST, PERFORMANCE, SUSTAINABILITY AND RECYCLING

DOES SOLAR PV WORK WELL IN THE UK? IS IT SUNNY ENOUGH?

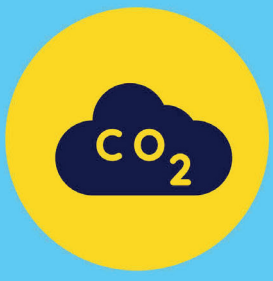


Absolutely. Solar works well everywhere in the UK. Solar panels don't need direct sunlight to operate and produce power all year round, accounting for about 4% of national consumption. In the middle of a sunny day, they can produce over a quarter of the UK's power.

IS SOLAR EXPENSIVE?

Not at all. Solar provides the cheapest electricity in history, far cheaper than gas or nuclear. The energy price crisis has made the case for solar even stronger. For residential and commercial-scale rooftop projects, the cost averages only £1,700 per kilowatt of capacity.

DOES MANUFACTURING SOLAR PANELS PRODUCE MORE CARBON THAN THEY SAVE IN THEIR LIFETIME?



No. Solar projects save vast amounts of carbon emissions over their lifetime. Research shows their carbon payback time is 1-4 years and that they generate a hundred times more energy than it takes to make them over a 40-year warranty period.

ARE SOLAR PANELS RECYCLABLE?

Certainly. Up to 99% of materials in a solar panel are recyclable. All of which can be extracted, separated, recycled or reused. Solar panels are built to last and can function for decades.

Solar Energy UK

THE FACTS ON SOLAR FARMS

LAND USE, LANDSCAPE AND THE ENVIRONMENT

ARE SOLAR FARMS GOOD FOR NATURE?

Certainly. Solar farms provide benefits such as improving local biodiversity by supporting new and existing plant and animal life . Ecologists have found that solar farms can deliver biodiversity net gains of 20% to over 100%.

DOES LAND USED FOR SOLAR FARMS REDUCE FOOD SECURITY?

No. Solar farms provide valuable income for farmers, they can still be used for grazing, and can support UK farmers to continue food production on other parts of their land. Some developers consider growing produce under or alongside solar panels.

HOW MUCH SPACE WILL SOLAR FARMS TAKE UP?

Very little. Even under 2050 Net Zero targets, Solar farms would occupy 0.5% of the UK's land - much less than what is currently used by golf courses.

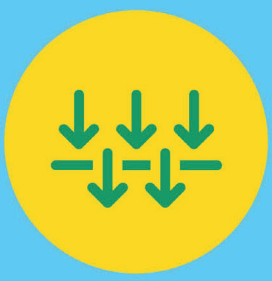
0.5 %

ARE SOLAR FARMS BUILT WITH THE LANDSCAPE IN MIND?

Absolutely. Developers work closely with communities to ensure that solar farms blend in and restore traditional meadows and hedgerows to the countryside.

DO SOLAR PANELS CREATE GLINT AND GLARE?

Barely any. Glint and glare are not a problem. Solar panels are designed to absorb light. The more light a panel absorbs, the more power it will generate.



THE FACTS ON SOLAR FARMS

LOCAL COMMUNITIES AND THE PUBLIC

DO SOLAR PROJECT DEVELOPERS ENGAGE WITH THE LOCAL COMMUNITY?

Of course. Developers work hard to engage with the community, from the presentation and discussion of project plans to ensuring opportunities to provide detailed feedback on proposals. Operators regularly partner with local wildlife groups and welcome school visits.

IS SOLAR POPULAR?

Definitely. According to Government surveys, solar is the most popular energy source. Data in 2021 showed that 90% of the public supported it. When asked about a solar farm being built in their local area, 81% of respondents in 2022 said they weren't opposed. Only 3% significantly opposed, while 8% felt that a solar farm wouldn't be feasible locally.

Solar PV energy systems are affordable, reliable, low-impact, and popular. In 2021 they supplied more than 4% of the UK's entire electricity demand, and this could treble by 2030. The many benefits of solar technology mean it can and must support the UK's transition to a NetZero economy.