



CRANFIELD ROAD SOLAR FARM

Frequently asked Questions and Answers



Aerial Site Location

— Site Boundary — Cable Route

Q1 What is being proposed?

The proposal is the construction, operation, maintenance and decommissioning of a ground mounted solar farm with a maximum export capacity of 45.5MW with potential for a second phase of battery storage. The site would generate enough renewable energy to supply on average 13,5000 homes* annually. The proposed development would, typically, have a life of up to 40 years at the end of which the modules would be decommissioned and removed from the site. The site would then be returned to its current state and use, namely agricultural land.

There will also be small-scale electrical connection infrastructure on site, and an underground cable from the solar farm to the point of connection to the electricity grid. The point of connection is an existing pylon located 2,000m to the east of the main site which forms part of the 132kV Sundon to Bedford overhead line. There are currently two grid connection route options to connect the proposed solar PV development to the existing 132kV transmission lines further to the east of the site. These include a route which follows the A422 to the north and then Hay Lane to the south. Alternatively, the grid connection route may cross third party land to the east subject to landowner agreement to reduce the grid connection distance between the A422 and Hay Lane. There may be a small-scale disconnecter installed adjacent to the existing tower, which is likely to be no greater than 3m in height, and will be located alongside the point of connection to the 132kV pylon.

Q2 Where is the proposed site located?

The site is located on land near Astwood, Milton Keynes, Bucks, MK43 8SU. The site straddles three administrative boundaries: Bedford; Milton Keynes and Central Bedfordshire Council.

Q3 Why this location?

The site has been carefully selected following a detailed feasibility process. Locating a solar farm is a grid-led process because renewable generation projects are no longer subsidised. As the UK's energy grid is highly constrained, with limited available capacity to connect new generation. Where network capacity is available, this represents an important opportunity to find a suitable site for renewable energy generation.

Whilst this is a key consideration in selecting a location for a solar farm, it is by no means the only one. To ensure compliance with local planning priorities and to minimise disruption to local residents, this site is not located within:

- a sensitive area, as defined by Environmental Mental Impact regulations.
- a highly sensitive landscape area.
- a prominent hillside.
- environmentally or ecologically designated land such as an AONB.

Technical studies and reports are still being conducted to inform the final site design. A full assessment and justification, in terms of the proposed location, will be included within the Planning Statement, submitted alongside the detailed planning application.

* Reference: [www.solar-trade.org.uk/solar-farms/#:~:text=Some%20facts%20about%20solar%20farms&text=%E2%80%93%20For%20every%205MW%20installed%2C%20a,megawatts%20\(MW\)%20of%20installation](http://www.solar-trade.org.uk/solar-farms/#:~:text=Some%20facts%20about%20solar%20farms&text=%E2%80%93%20For%20every%205MW%20installed%2C%20a,megawatts%20(MW)%20of%20installation)

Q4 Why develop on agricultural land?

Please see response to question no.3 explaining why this particular location has been chosen. Please also refer to the answer to question no.5 which explains that the land can continue to be used for agriculture, in the form of sheep grazing, once the solar farm is constructed. At the end of the life of the solar farm, the land will be returned to solely agricultural use. National and local planning policies allow for the development of renewable energy within the countryside, including the use of greenfield sites or agricultural land.

Around 4.5 acres of solar panels generate 1MW of renewable energy. To maximise available grid capacity with sufficient space, it is often necessary to use agricultural land. Brownfield land of this scale is seldom available for solar and typically any brownfield land is located within or on the edge of urban areas where the policy presumption prioritises residential or commercial developments. Solar generation requires unobstructed and direct exposure to sunlight. Rural locations are less likely to be constrained or overshadowed by existing developments that would impede the function of a solar farm in built up areas.

For greenfield sites, proposals should aim to use poorer quality agricultural land in preference to higher quality land. This is not always possible due to the feasibility process in selecting solar sites. Planning applications are supported Agricultural Land Classification Survey to determine the quality and grading on specific areas of a site.

Q5 What are the wider benefits of the development?

The main benefits of the development proposed are summarised below:

- The site would generate enough renewable energy to power the equivalent annual energy needs of 13,500 homes*, making a significant contribution to local clean power and regional renewable targets.
- The scheme would displace the equivalent of 862,000 tonnes of CO2 emitted by similar scale fossil fueled energy generation over the lifespan of 40 years. This is around the same reduction in carbon emissions as taking over 187,000 cars off UK roads.
- The scheme would allow Bedford Borough, Milton Keynes and Central Bedfordshire to play its part in reducing greenhouse gas emissions in line with local, national and international targets, including the region's ambition to go carbon neutral by 2030.
- The site will be subject to considerable biodiversity and landscape enhancements. Both will be carefully managed with a Landscape and Ecological Management Plan.
- The site can be used for grazing throughout the operation of the solar farm and can be returned to its original agricultural use following decommissioning.
- The Public Rights of Way that cross the site will be retained, enhanced and open to the public as usual during construction and operation of the solar farm.
- Information boards for educational purposes can be provided along these retained public right of way (PROW) to provide an educational benefit for the local community and PROW users.

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Q6 How will the proposed project support the local environment, ecology and biodiversity?

The solar farm will result in significant improvements to local and regional biodiversity, ecology, and soil chemistry as intensive agricultural practices will be halted during the 40 year operation of the site, and the land allowed to regenerate before returning to agricultural use.

The applicant has taken this into account when proposing a location for the development of a solar farm. The maps used to determine the ALC are indicative, high-level, historic and thus site-specific assessments are required to confirm the current land grading. A detailed assessment of the quality of agricultural land will be prepared and submitted to accompany the full planning application submission. Furthermore, it is intended that the fields will be used for grazing throughout the life of the development, allowing a continued agricultural use of the land.

The project will provide a net biodiversity gain at the site through the restoration of local habitat, retention and planting of additional green corridors and hedgerows, planting and management of species-rich wildflower meadows beneath the solar PV arrays to benefit local invertebrate populations and the implementation of a variety of other biodiversity and landscape enhancements which are managed through a Landscape and Ecological Management Plan (submitted to and approved by the Local Planning Authority following public consultation).

These include the installation of small mammal gates, barn owl boxes, bird nesting boxes, beehives, log piles, restoration of traditional field boundaries, and other hibernacula such as small buried rubble piles suitable for reptile species, amphibians and insect life. When solar farms are approved, they are time restricted, usually for up to 40 years. Pausing intensive farming has environmental benefits of its own, improving the quality of land for when it returns to agricultural use. This supports the retention and enhancement of agricultural quality.

Q7 What is the name of the solar generation project, and why is it referred to by different names in different places?

We understand the various site names circulating in public information to date has led to some confusion among residents and interested third parties. Due to the rural nature of the site, it is difficult to provide a geographically accurate name, so the applicant is in the process of finalising the name of the site and this will be confirmed in the detailed planning application submission. All suggestions to date are being considered.

Q8 When will there be vehicles moving to and from the site?

Once operational there will be only a few non-HGV vehicle movements a handful of times each month for management and any required maintenance work. There will be additional vehicle movements at the site during the construction phase. The construction is anticipated to take approximately 6 months.

A Construction Traffic Management Plan (CTMP) is being prepared alongside the detailed planning application. This will be submitted as part of the application and will outline the proposed vehicle routes for construction vehicles. Any impact on traffic due to construction will be temporary for the construction phase. Furthermore, the CTMP will outline that construction vehicles will avoid trips during peak commuting hours on the local roads. The Construction Management Plan will be independently assessed by the local highways authority to ensure the proposals are compliant with standards.

Q9 Are solar energy farms noisy?

No – solar farms are not noisy, producing no more than normal background levels of sound similar to wind or distant traffic beyond the site boundary. No noise can be heard from private properties. For those walking near or through the site, the noise level is no more than a low hum, similar to a boiling kettle. No noise is experienced beyond the confines of the site boundary. No sound will be generated at night as the solar panels will not be producing electricity. There will be some construction-related noise, but this will be carefully managed and restricted to minimise disruption to the local community, as outlined in our construction plan. Construction times will be restricted by the local planning authorities to mitigate any impact on amenity.

Q10 Will there be light reflected from the panels?

Solar panels are designed to absorb light, not reflect it, to produce renewable energy efficiently. Any light reflected from the panels is lost potential energy generation, so panels are carefully designed by their manufacturers to absorb as much as possible, reducing reflections. Levels of glint and glare are not considered to be significant to the surrounding area. This is demonstrated by solar developments located at airports, such as London Luton Airport, Newquay Airport, RAF Yeovilton and recently approved at Cardiff Airport.

Q11 How will the design of the proposal ensure safety of nearby flight paths?

The installation of solar panels will not impact the safety of aircraft. Please be assured there are numerous examples where solar panels have been installed adjacent to aviation runways, for example at Gatwick Airport.

However, if this is considered an issue by the Council, they are likely to consult with the Civil Aviation Authority (CAA). If the CAA are concerned by the proposed development, it is common for them to hold an independent consultation with stakeholders where concerns can be raised directly.

Q12 How much energy will be generate from the site?

The proposed development will have a maximum export capacity of 45.5MW (megawatts). The site would generate enough renewable energy to power the equivalent annual energy needs on average of 13,500 homes*.

Q13 When will we know more details about a phase 2 / battery storage at the site? Will this increase the amount of solar panel at the site?

To future-proof the solar farm to support the UK's Net Zero 2050 ambitions, the site includes a proposed area for battery storage. If batteries are to be installed during the 40 year lifespan of the project, this will be consented at a later date via an additional planning application.

If installed, the batteries at the site will store surplus renewable energy to assist the wider electricity system to meet peak consumer demand, such as in the evenings when people are more likely to be using energy in their homes for cooking and heating. The installation of battery storage will not increase the amount of solar panels at the site, but rather utilise the energy generated more effectively to supply more sustainable renewable energy to the grid, for example during periods of demand such as winter evenings, when the sun has gone down.

Q14 How long will the solar panels be there?

The development proposes a life span of up to 40 years. No later than this, the development would be decommissioned, and the site returned to solely agricultural use.

Q15 Will the energy power my home? / Can I buy energy direct from the site?

The renewable energy generated will be fed directly into the local power grid network for use by the nearest points of demand. You will not be able to purchase energy directly from the site – however, developments like these make it possible for energy suppliers to offer renewable tariffs and people interested in obtaining a fully renewable electricity supply should contact their providers.

Q16 Will the site get planning permission for development after the solar use for alternative developments, such as houses?

If planning permission is granted for the proposed solar development, the local planning authorities will condition the permission to ensure at the end of the life of the solar farm the site will return solely to agricultural use. Should subsequent development be proposed at the site, this will be subject to a separate planning application assessed, and determined, independently from this proposed development.

Q17 Who are Renewable Connections Developments Limited?

Renewable Connections is a wholly owned subsidiary of Armstrong Capital Management Ltd (Armstrong), one of the UK's leading renewable energy companies who own and manage a portfolio of ground mounted photovoltaic (solar) generation in the UK. The Renewable Connections team has a successful track record of delivering well designed and locally supported renewable energy schemes across the UK.

Armstrong partners with one of the leading renewables developers in Europe, European Energy A/S. Under this venture, Renewable Connections are responsible for the development of the solar farm and European Energy will be responsible for the construction, operation, and maintenance of the solar plant. European Energy have previously developed and built 8 solar farms across England and Wales and continue to own and manage them.

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Q18 What are the benefits of the development for the local community?

There are a number of benefits to the local community:

Community Benefits

Renewable Connections is proposing to offer range of Community Benefits for the local community, which may include the option of a local community fund. Discussions are ongoing as to the exact form of this fund or targeted improvements to the local facilities and environment, as the site crosses 3 Parish Council boundaries. More details will be provided when available, and suggestions from local residents and interest groups would be welcomed. This could include funding for local community projects such as tree planting, construction of new playpark facilities or the restoration of local community halls.

Local jobs and employment

Where possible, Renewable Connections try to offer local jobs and supply contracts when we get to construction, operation and maintenance phase of running our sites. Interested local suppliers should submit their information to Renewable Connections via the project website to be added to our local supplier register, which will be passed onto the Engineering, Procurement and Construction (EPC) partner, who will build the site, prior to construction.

Tax contributions to the local community

The project will also contribute to business rates to the local council.

Energy security and climate change

More broadly the project provides renewable energy source for future generations, maintaining supply and adding to England's energy security. It also contributes to the urgent fight against climate change, which is a major concern for individuals, school children, communities, and Governments worldwide.

Boosting biodiversity

Once built, solar farms also provide great opportunities for micro-habitats. The variety of dry, wet, shaded and sunny areas, where properly planted and managed meadow habitats will support a wide variety of wildlife.

Education and public access

Public access points through and around the proposed solar park could provide educational opportunities to teach generations about the production of renewable energy. As such, educational boards can be provided around the site boundary once the site is operational. All Public Rights of Way will be retained at the site for continued public use, including by walkers and riders.