

Frequently Asked Questions (FAQs)

From our initial discussions with local stakeholders and the community we have received a number of recurring queries and comments about the proposals on a range of topics. We have collated these into a 'Frequently Asked Questions' summary below.



What are we proposing to develop?

WGC Solar Limited is in the early development stages of a solar project, known as West Welwyn Solar Farm, in Welwyn Hatfield, on land located between Ayot St Lawrence and Ayot St Peter.

The proposals comprise a solar farm covering approximately 31 hectares with an expected generating capacity being up to 32MW.

The solar farm would comprise of rows of solar panels mounted on metal frames (tables) secured into the ground via simple piled metal stanchions.

The layout will be designed to minimise visual impact and maintain access to and enjoyment of public footpaths. Landscaping measures will include enhancing and improving the network of hedgerows around and within the site.



Who is proposing to develop West Welwyn Solar Farm?

WGC Solar Limited proposes to develop and operate the solar farm on behalf of the Colt Data Centre Services.

WGC Solar Limited has been created by highly experienced partners to help accelerate the transition to a zero-carbon future and to realise the huge potential of that shift for investors, for power users and for communities.

Colt Data Centre Services, the proposed off-taker, is one of the leading global data centre operators, with an operating facility in Welwyn Garden City. Data centres are an essential part of the modern economy, providing vital infrastructure for countless businesses and private individuals underpinning the transition to a low carbon economy.



Where is the site?

We are proposing the development of a solar farm on land located between Ayot St Lawrence and Ayot St Peter. The expected generating capacity of the project being up to 32MW.

The site is located in the Welwyn Hatfield district sitting to the north-west of Welwyn Garden City.

The site lies on open, agricultural land interspersed and surrounded by a network of hedgerows.



Why this location?

One of the key drivers for the siting of renewable energy projects is being close to the connection point to where the power is exported. Additionally, proposed land is independently assessed to understand its suitability for use for solar development.

A detailed site search for suitable agricultural sites in the locality of the end user identified West Welwyn Solar Farm as the preferred option for development. This was the only commercially available viable site.

This is the only site currently being explored in the locality on behalf of the Colt Data Centre Services.



Solar Energy

Why Solar?

The Government's '**Net Zero Strategy: Build Back Greener**' commits the UK to be powered entirely by clean electricity by 2035, subject to security of supply. To deliver the strategy overall electricity demand is expected to increase 40-60% by 2035, all met from low carbon sources.

In April 2022 The Department for Business, Energy & Industrial Strategy (BEIS) released the **British Energy Security Strategy** which outlined The Prime Minister's plan to boost Britain's energy security following rising global energy prices and volatility in international markets. This included bold new commitments to supercharge clean energy and accelerate deployment, which could see 95% of Great Britain's electricity set to be low carbon by 2030. Outlining ambitious, quicker expansion of nuclear, wind, solar, hydrogen, oil and gas. The Government has put more emphasis on the importance of energy security and carbon reduction with the creation of the Department for Energy Security and Net Zero in February 2023.

Solar farms are a simple and established technology providing a source of safe and clean energy which produces zero emissions when in operation.

Solar energy projects have a low visual impact potential if designed correctly, have no moving parts, meaning maintenance requirements are low through the lifetime of the project. They are considered 'temporary' as they are easily decommissioned at the end of their lifetime.

Biodiversity enhancements, and ongoing agricultural use of the land (animals such as sheep can continue to graze the land around the solar panels) for example means that this technology can operate alongside traditional land uses very easily.



Does solar work well in the UK? Is it sunny enough?

Solar works well everywhere in the UK. Solar panels don't need direct sunlight to operate, and they produce power all year round.

Solar is an effective technology around the country. Over a million homes, businesses and landowners have installed solar panels over the past decade, which are providing electricity directly to residential and commercial premises, as well as the national grid.

Solar can already produce as much as 30% of UK electricity at different points in the year, and in 2020 provided more than 4% of the UK's total supply, which was 9 times the total power demand of Welwyn Garden City in 2020.



How does it work?

Solar power works by converting energy from the sun into power. There are two forms of energy generated from the sun for our use – electricity and heat. Solar power is a clean renewable energy source with an infinite supply.

When photons, or particles of light, hit the thin layer of silicon on the top of a solar panel, electrons are knocked off the silicon atoms.

This photovoltaic charge creates an electric current which is captured by the wiring in the solar panels. The direct current output is then converted to alternating current by an inverter.

The carbon footprint of solar panels is already relatively small, as the materials used in the panels are increasingly recycled, so the carbon footprint is kept to a minimum.



Environment

What are the impacts on the local environment and biodiversity?

This project aims to deliver a biodiversity net gain and the approach will be captured in a comprehensive Landscape and Ecological Management Plan. A well-designed solar farm provides many opportunities for local ecological and biodiversity improvement particularly on land that has previously been intensively farmed. Potential biodiversity enhancements include reinforcement of existing and planting new hedgerows, planting of native grasses and wildflowers within and around the solar farm itself. We will incorporate planting that meets with the objectives of local initiatives and ideas. We welcome suggestions from the local community about planting and other environmental benefits we could implement on site. Any lighting required for the site will be localised to the main gate and will not be across the rest of the solar farm.



How will biodiversity and landscape enhancements be assessed?

A Preliminary Ecological Appraisal has been carried out on the land by an independent qualified ecologist. The appraisal provides an understanding of the current ecological state of the land and identifies any habitats for protected species which may be present. The landscape and ecological strategy will be informed by ongoing communication with the Local Planning Authority and stakeholders.



What are the impacts on the Green Belt land?

The site and part of the surrounding landscape is situated within the Green Belt, but as a result of natural screening by vegetation and topography, visibility of the site is limited and the potential for impact to the 'openness' of the Green Belt will be limited. Development in the Green Belt requires justification of 'Very Special Circumstances', where the benefits to the scheme clearly outweigh any potential harm to the Green Belt. It will be for the local authority to decide whether the broader benefits of the scheme, such as its contribution to addressing the climate emergency and ongoing UK energy security issues, outweigh any more localised issues, such as visual impact.



Will you be removing trees and hedges?

Removing features such as trees and hedges goes against the environmental improvements we hope to achieve at the site. We will work with the existing land, leaving a buffer zone clear of panels around any boundary habitats, including existing hedgerows and woodland edges, as advised by our ecology partners.



What impact will building the solar farm have on land use?

The solar farm will seek a temporary use of the land for initial 30 years. The current agricultural activity on the land is rotated between arable and temporary grassland. The land underneath the panels will be laid to permanent grassland and left undisturbed, with the potential for sheep grazing on rotation, at a suitable stocking density, therefore allowing the land to rest and improve biodiversity on site.



Will the proposals cause an increase in flood risk locally?

Solar panels are mounted on frames which are driven into the ground on spikes. No concrete bases are required for the panels, meaning that dispersal of rainwater can continue into the ground. As part of the application, we are required to assess drainage and flood risk, and put in place appropriate drainage and other mitigation measures to ensure that there is no net increase in water runoff from the site.



Will the solar panels be visible from my house?

Visibility of the proposed development from surrounding areas is a key design consideration. The panels are relatively low lying and although the proposals will be visible from some points in the local area, the proposed development will be screened from most residential areas by topography and/or intervening vegetation. Enhancing the hedgerows throughout the site will also improve screening from local roads and villages.



Will I still be able to use the footpath that passes through the proposed site?

There are several public rights of way and bridleways in close proximity to the site. These public rights of way will remain accessible for people wanting to enjoy the countryside throughout construction and operation.



Will there be any sound emitted from the solar farm?

There is some noise generated on site during the construction stage, but this is only for a short duration. Once built there is low level noise from the cabins housing the associated equipment. From the edge of the site, any noise produced will be less than other background noise such as passing traffic, wind, and other local sounds.

Construction and ongoing operation

How will the site be accessed?

Our preferred route for construction traffic and operation access to the site is now available on the website. Once the solar farm is in place it requires little maintenance with occasional maintenance visits.

All construction traffic will be subject to a Construction and Environmental Management Plan (CEMP) that will be agreed with the Local Authority. This will agree specific points, such as delivery times, restrictions, and routes to ensure that construction traffic does not have a detrimental impact to the local road network.

What about security?

Security fencing will be required around the perimeter of the site to reduce the possibility of theft or vandalism. We also need to install Close Circuit Television (CCTV) cameras. These will be kept to a minimum and located to reduce any visual impact and respect privacy. Fencing will be permeable to small animals and there will be no audible alarms. Lighting will be placed around the compound entrance which will only be triggered by movement.

Are there any associated risks or impacts from the electricity cable?

The proposed cables are well within the International Commission on Non-Ionizing Radiation Protection (ICNIRP) policy guidelines (adopted by the UK in 2004). Reference levels for the public are:

- 100 microteslas for magnetic fields
- 5000 volts per metre for electric fields

For an underground 33kV cable, this equates to ~1microtesla magnetic field and negligible electric field. <https://www.emfs.info/sources/overhead/specific/33-kv/>

What happens to the site at the end of the initial 30 years?

At the end of the solar farm's lifespan all hardware can be easily removed, and the land returned to its previous use. The site's designation as agricultural land will not change as a result of this application and will not change after decommissioning.

Community Benefits

How will the proposed Project benefit the local community, support the economy and involve the local supply chain?

This scheme represents an important contribution to meeting the UK's legally binding target under the Climate Change Act 2008 to achieve a 'net zero' carbon account by 2050. Renewable energy developments deliver a clean, secure source of electricity that is generated in the UK using natural resources. Solar power represents a 'clean' source of renewable energy as it doesn't release any harmful emissions or pollutants and is also one of the cheapest forms of new renewable power generation in the UK.

In addition, benefits include:

Assisting the Climate Emergency

The proposed project will assist the UK in urgently reducing greenhouse gas emissions in line with local, national and international targets and the declared Climate Emergency to transition to a low carbon future.

Reducing demand and carbon for the National Grid

The proposed solar farm will reduce Welwyn Garden City's carbon footprint^[1] by 16% providing the end user with approximately 914GWh of renewable energy over the lifespan (initially 30 years) of the project. This would release supply capacity back to the National Grid by meeting the equivalent demand of around 54%^[2] of household demand for Welwyn Garden City. This would enable further growth and development within City and its surrounding areas.

[1] Excluding Colt's own demand

[2] Based on Ofgem's Typical Domestic Consumption Values for a medium house of 2,900kWh per year as at 1st April 2020. There are 19,549 homes in WGC according to this <https://tcpa.org.uk/new-town/welwyn-garden-city/>



Security of supply

Solar power generated in the UK reduces the need to import electricity and gas from abroad. This not only creates energy industry jobs in the UK, but also makes our energy supply and prices more secure. Energy supplied from overseas can vary in price as supply and demand change, but domestic power generation means that UK prices and availability are not reliant on/impacted by prices rises or instability in other countries.

In April 2022 The Department for Business, Energy & Industrial Strategy (BEIS) released the **British Energy Security Strategy** which outlined The Prime Minister's plan to boost Britain's energy security following rising global energy prices and volatility in international markets. This included bold new commitments to supercharge clean energy and accelerate deployment, which could see 95% of Great Britain's electricity set to be low carbon by 2030. It also outlined ambitious, quicker expansion of nuclear, wind, solar, hydrogen, oil and gas generation.

Ofgem has recently launched a **review** into local energy systems as it is believed that the current arrangements are not geared up to support net zero targets. New local markets, such as private wire arrangements, could play a bigger role in future to balance power supply and demand flexibly and reduce the need for building expensive new grid capacity.

Improving local biodiversity

This project will deliver a biodiversity net gain and the approach will be captured in a comprehensive Landscape and Ecological Management Plan. The current agricultural activity on the land is rotated between arable and temporary grassland. The land underneath the panels will be laid to permanent grassland and left undisturbed, with the potential for sheep grazing on rotation, at a suitable stocking density, therefore allowing the land to rest, leading to improved biodiversity on site.

Protecting the landscape

Incorporating the existing and proposed new hedgerow planting will be used to contain and screen the proposed solar panels from the surroundings, minimising any visual impact. Based on current specifications solar panels will be no taller than 3m high.

Employing locally and utilisation of local supply chain

WGC Solar Limited is committed to employing locally and utilising the local supply chain during construction and operation where possible.

Community Benefit Contribution - WGC Solar Limited has volunteered to make an donation into a community benefit fund. We will consult with the local community and relevant organisations to agree how best to organise this fund, and feedback on this is welcome.

Data centres are key for everyday life

We rely heavily on data centres for our everyday lives, banking, shopping, connecting with friends and family. None of this would be possible as it is today without the significant work that data centres do. During the Covid-19 pandemic when everyone was asked to work from home, data centres' workload increased dramatically to enable new ways of working. Without the services that data centres provide home working would not have been possible. They also play a fundamental part in helping to deliver our national security by keeping finances secure and protecting data from security breaches.



Planning Process

Who decides whether planning is granted and what happens if planning permission is refused?

Welwyn Hatfield Borough Council will assess the planning application and consult with a number of relevant consultees and organisations to seek their views and to ensure that the proposal complies with National and Local Planning Policy.

They will decide if planning permission is granted.

A decision is made on the planning application either by a nominated planning officer with delegated powers, or by members of the planning committee who vote on a recommendation from the planning officer.

If the application is approved a decision notice is issued approving consent of the development, subject to certain relevant planning conditions. If the application is refused, a notice of refusal is issued detailing the planning reasons for refusal.

The applicant has the right to appeal against the reasons for refusal and this process involves the submission of an appeal to the Planning Inspectorate. An appeal is decided by an independent Planning Inspector who determines to either uphold or dismiss the applicants appeal, with the power to overturn a refusal notice and grant planning permission.



When will an application be submitted?

The application will be submitted in March 2023.



How to have your say

How can I contact the Project Team to find out more and provide my comments?

If you would like to find out more about West Welwyn Solar Farm, please contact us using the details below.

Email: info@westwelwynsolarfarm.co.uk

Telephone: +44 20 3148 5182

Address: 25 Eccleston Place, London, SW1W 9NF, United Kingdom.

Alternatively, you can leave any comments you have about the project by clicking 'Get in touch' on the [website](#) and use our contact form.