Welcome to the Community Exhibition for Barton Hall Solar Farm

These display boards are to inform you about our proposal for the solar farm. Our project team is on hand to answer any questions and understand local views and suggestions to incorporate into the plans that we will submit to Rochford District Council in the way of a planning application.

Once you have learnt about the project, we would be grateful if you could complete our short feedback form and make any suggestions to the design.

About Aura Power

We are a renewable energy developer, builder and operator with offices in Bristol, Glasgow and London and a team of around 70 people. We have a number of solar farms and battery storage sites in development, construction and operation in the UK and Europe.

Our team prides itself on developing projects to the highest standards, whilst protecting local sensitivities and offering a haven for wildlife.

Our aim is to build trust with local people to develop a design that accounts for local concerns and benefits the local community.

We work closely with landowners and local stakeholders to power an emissions free world through the deployment of affordable solar energy and follow three key mission goals to do so:



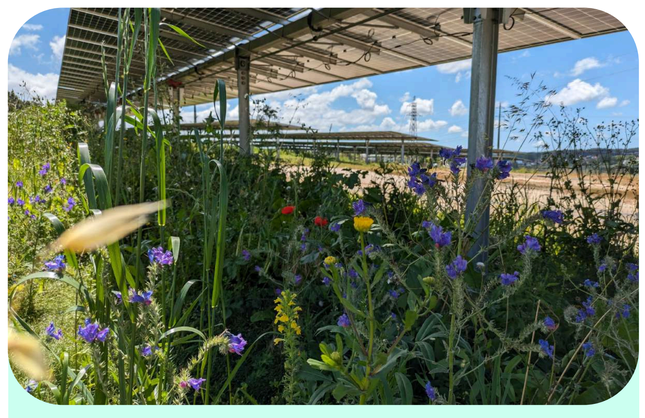
Tackling Climate Change

Solar power provides a solution to fight the worst impacts of climate change



Supporting Local Communities

Working with the local community to develop the best possible scheme



Boost Local and National Economy

Helping biodiversity to recover and ecology to thrive

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The Need for Solar

Solar farms are not only a crucial part in bolstering the UK's energy supply, but are the **cheapest form of renewable energy generation.**

The dramatic carbon reductions required globally to **avoid the worst impacts of climate change** can be achieved due to the massive falls in the price of energy from solar and wind.

The UK Government has a legally binding target to reach Net Zero emissions by 2050 and is committed to delivering a **clean electricity system by 2030,** aiming for at least 95% of Great Britain's electricity generation to come from clean sources by 2030, alongside an ambition to fully decarbonise the electricity system by 2035, subject to security of supply.

Increasing homegrown renewable generation can **help reduce the UK's exposure to international fossil-fuel price shocks**, while **strengthening energy security** and supporting the transition to a cleaner electricity system.

This solar farm would contribute significantly to local and national ambitions to reduce carbon emissions.

- Electricity produced from **solar is half the price of electricty produced by gas** and significantly lower cost than nuclear
- **Electricity demand is expected to double** as heat, transport and industry become increasingly electrified, alongside rapidly growing demand from data centres and AI.

Government target:

TRIPLE SOLAR CAPACITY BY 2035

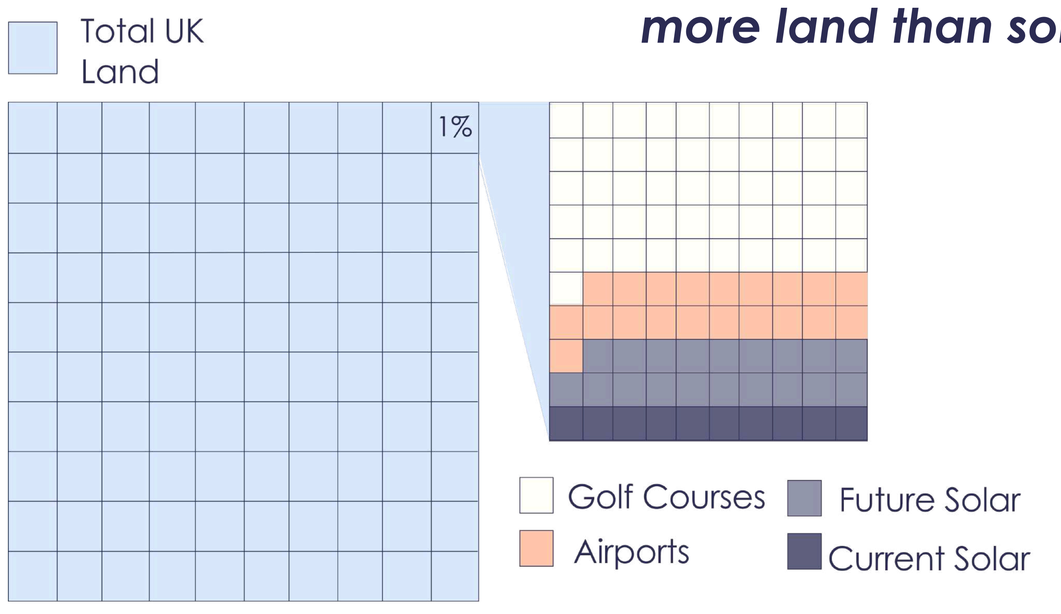
The increase required in solar power cannot be achieved through rooftop and brownfield sites alone. As a result, ground mounted solar is also needed which can offer a haven for wildlife, with new habitats created and no disturbance from intensive farming practices.

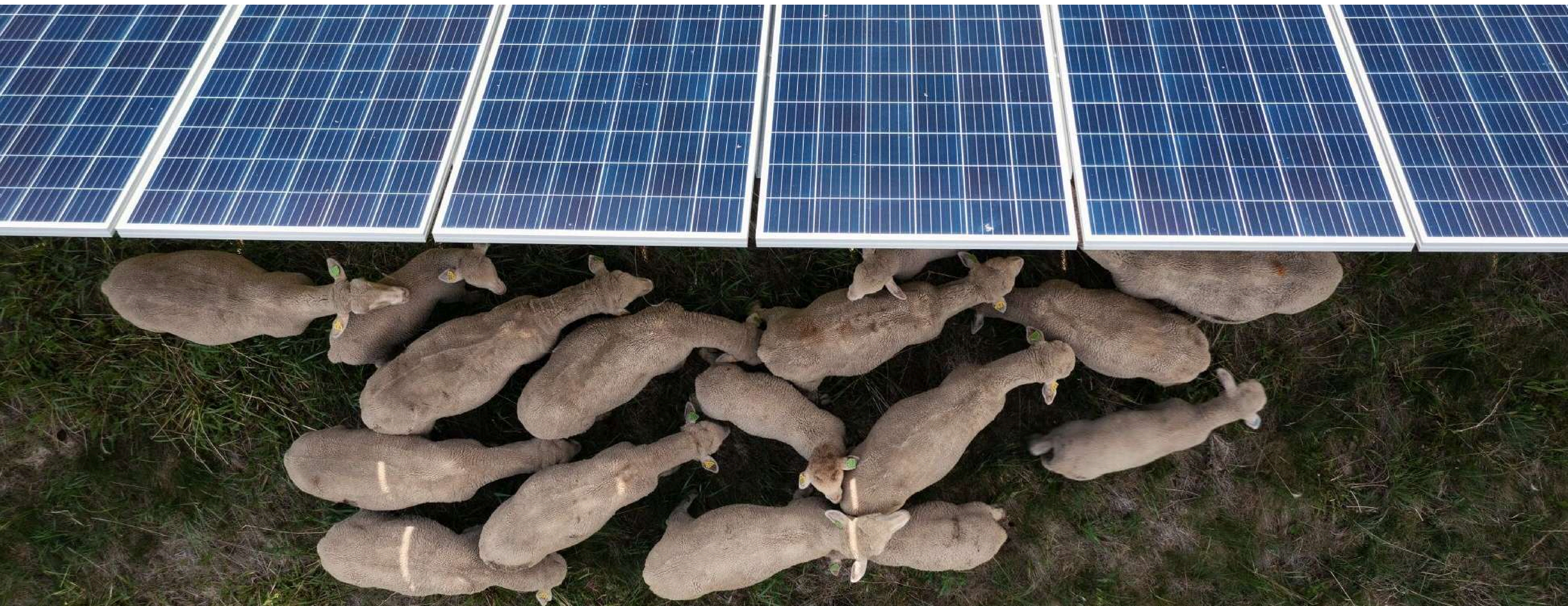
Solar farms are generally installed on lower quality farmland and can provide a stable income for struggling farmers.

Food production can continute with sheep grazing amongst the panels allowing the soil to rest and rejuvenate, providing a stable carbon store and often leaving the soil in a better condition with less intervention.

The anticipated deployment of solar across the UK is expected to require just 0.5% of land currently used for farming.

Golf courses take up more land than solar!



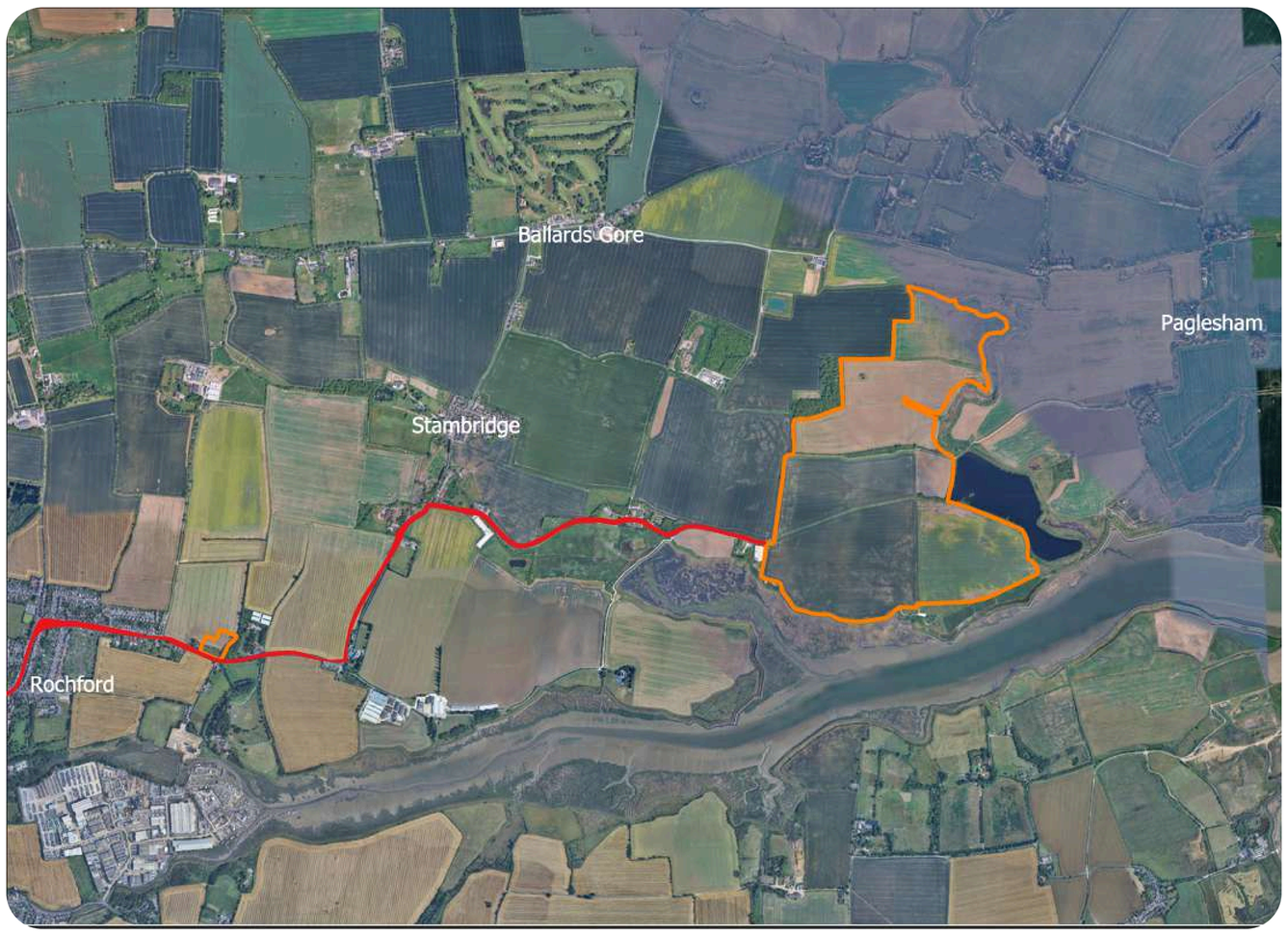


Selecting this Site

Our proposed site is situated between Stambridge and Paglesham. It lies entirely within Stambridge parish with Paglesham parish immediately to the east.

Finding a suitable site for a solar farm is very difficult with a need to balance a number of sensitive constraints. This site has been carefully selected due to:

- is close to existing electrical infrastructure, where we have a **secured grid connection with the intention to connect before 2030**
- limited visibility from residential areas
- is not located on highest-quality agricultural land
- is outside designated environmental and landscape areas
- has the ability to support ecology and boost biodiveristy



The site is located in the Green Belt, but offers an opportunity to deliver renewable energy alongside significant landscape and biodiversity enhancements. We will work with the community and statutory consultees to develop a scheme that minimises impacts and incorporates local feedback.

Solar Farm Infrastructure



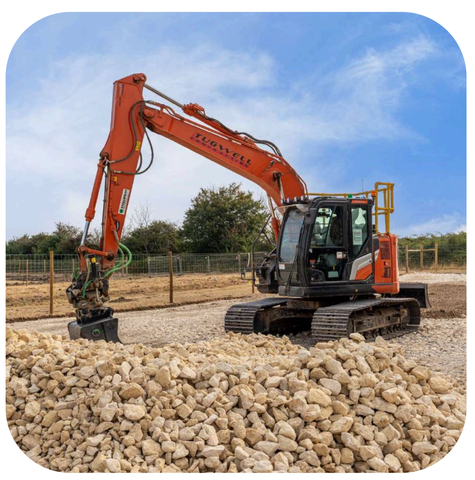
Tracker PV panels



Inverters



Rural style perimeter fence



Crushed stone access tracks & underground cables



132kV Substation



Transformers and storage containers



Battery storage units for load shifting / flexibility services

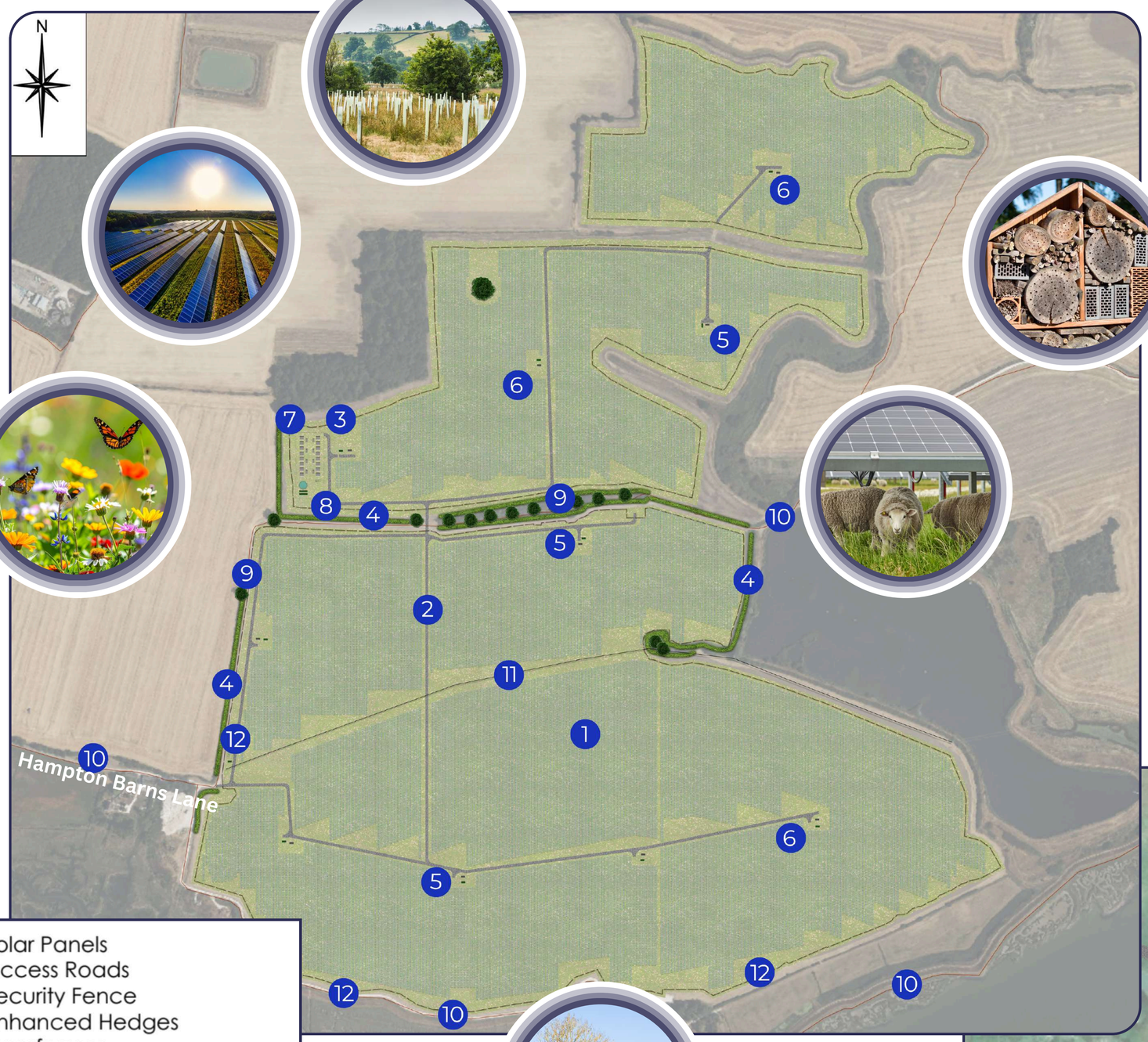


Biodiversity enhancements & new planting

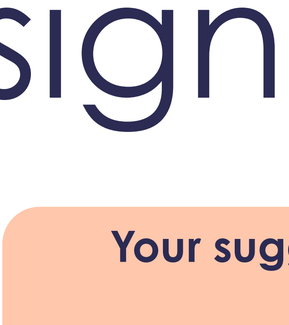
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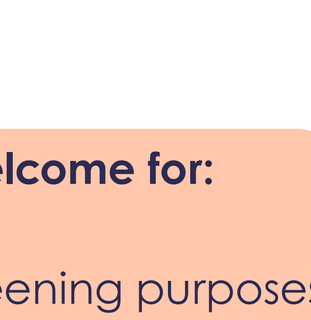
Barton Hall Solar Farm

Help shape the design









Your suggestions welcome for:

- New planting for screening purposes
- Setbacks from nearby properties and footpaths
- Traffic arrangements
- Ecological enhancements - orchards, wildflower meadows, woodlands etc.
- Improvements/ mitigation for footpaths

Natural England Agricultural Land Classification mapping indicates that the site is made up of **Grade 3 and Grade 2 land.** An **Agricultural Land Classification survey** is being undertaken to determine the specific grading of the land at the site which will be factored into the plans.

The land is currently used for arable farming with crops predominantly grown for animal feed. The landower has experienced a number of challenges farming the land, making it very difficult to farm profitably. **Diversifying land use through renewable energy can provide farmers with a more reliable income stream, helping to support the continued farming of other parts of their land, invest in new machinery and improve the resilience and productivity of their wider farming business.**

The operational period of this solar farm is anticipated for **40 years**. Once the end of the operational period is reached, the **solar farm's infrastructure will be completely removed and the land returned back to its former state**, likely in a better state than it was before the solar farm, with **more trees, hedges, and wildlife and no fertilisers or pesticides.**

49.9 MW Solar capacity

Batteries for load shifting

Equivalent of powering 18k homes

15k tonnes of CO2 saved

Net gains in biodiversity

Contributes to lower bills

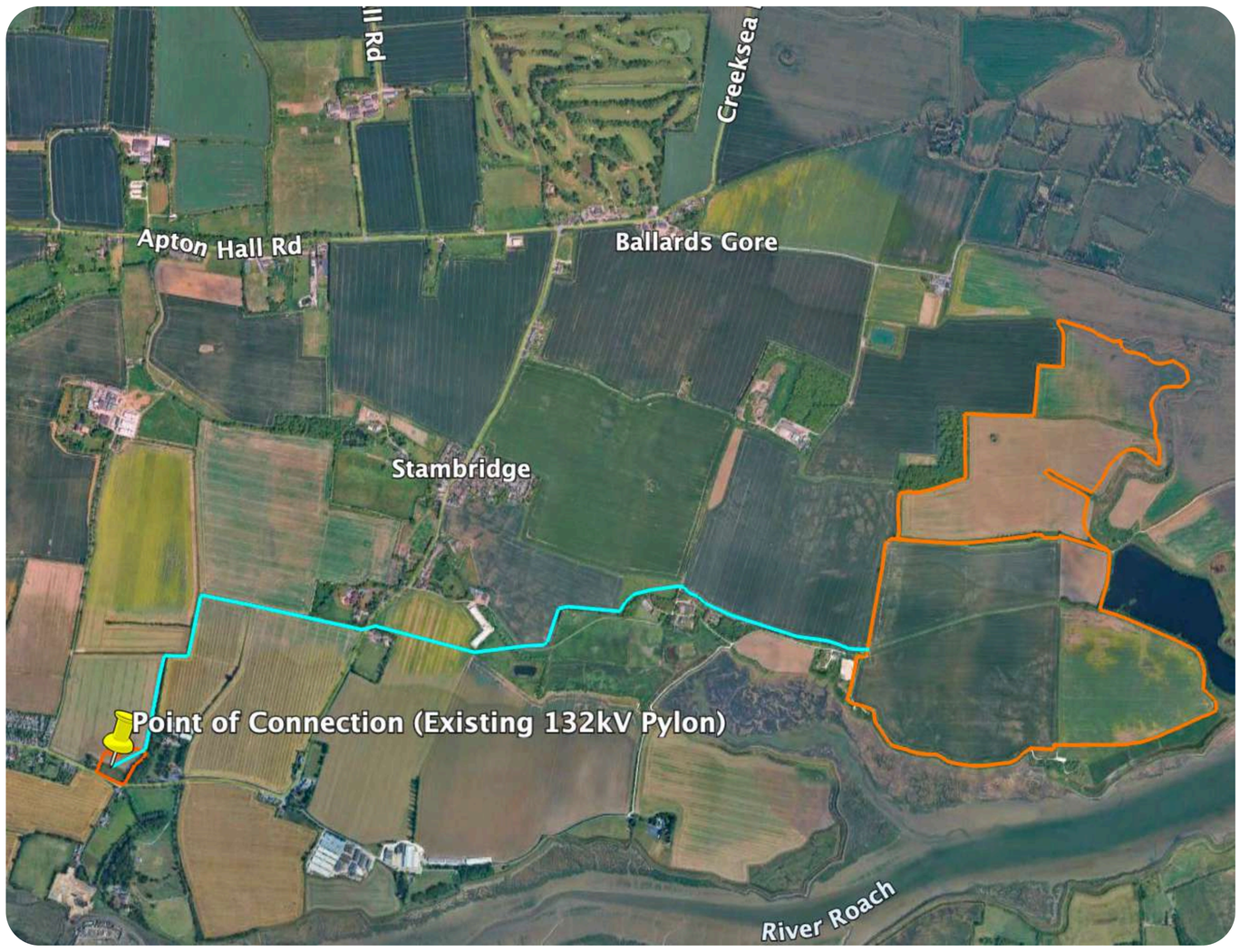
£20k annual community fund

Cable Route

The project will connect to the electricity grid via an existing electricity pylon marked as Point of Connection on the plan.

The cable will be routed entirely on private land, avoiding the need to use public highways and will be contained within the development areas under Aura's control, minimising disruption to local road networks.

The electricty generated from the solar farm will feed directly onto the local distribution network.



Surveys

We are taking a range of surveys as highlighted below which alongside community feedback will help inform our plans. We will undertake any additional surveys if required by the planning authority.

Ecology

Currently in the early stages with the following surveys in progress:

- Phase 1 Habitats
- Breeding birds (nocturnal & diurnal)
- Wintering birds
- Bats
- Riparian mammals
- Badgers

Landscape & Visual

This will assess visual impact for residents, road and users of public rights of way.

Our aim is to design a scheme that mitigates any negative impacts.

Flood Risk

Located predominently within Flood Zone 1 which is the lowest flood risk.

Well managed solar farms do not increase the risk of flooding elsewhere.

Noise

A noise assessment will ensure any noise emitted is within statutory noise limits and there is no impact on nearby dwellings. Solar farms are very quiet. There can be a slight hum from the cooling fans of battery units but these will be located in an area away from nearby properties to ensure there is no adverse impact.

Heritage

A desk based assessment and site visit has been undertaken, to consider the potential impacts of the development on designated and non-designated heritage assets. We are also in the process of undertaking a geo-physical survey to determine the extent, if any, of archaeological interest across the site.

Glint & Glare

Solar panels are designed to absorb light rather than reflect it. They are considered safe to install close to airports and near major roads. An assessment of potential impacts nearby sensitive receptors will be undertaken and any impacts identified will be mitigated.

Construction & Access



- Indicative route to site from the Southend Arterial Road, through Rochford and onto Stambridge Road and Hampton Barns Lane.
- No construction traffic through villages
- Around **8 - 12 month construction period**
- Peak construction typically takes place in first few months
- Minimal traffic going to site once operational
- Construction traffic will avoid peak times
- Construction and Environmental Management Plan will be **agreed with the Highways Authority, prior to construction**

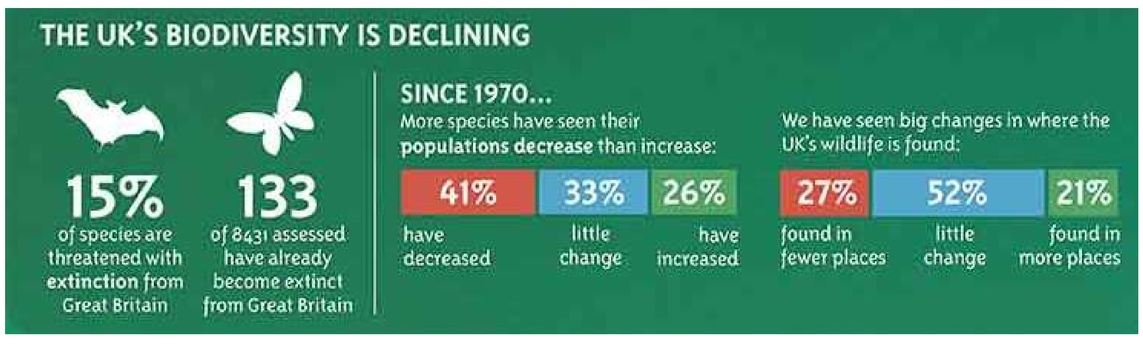
Biodiversity

We are facing an **ecological emergency** as well as a climate one. A recent study by scientists at London's Natural History Museum has shown the **UK has lost nearly half of its biodiversity since the industrial revolution.** That's more biodiversity loss than any G7 country and **is in the worst 10% globally.** We have also **lost a staggering 97% of wildflower meadows since the 1930's.** Political leaders are starting to take action and have committed to reversing biodiversity loss by 2030.

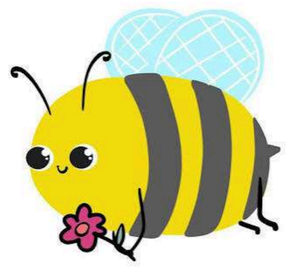
Solar farms can significantly improve local biodiversity, by providing new habitats and food for wildlife.

Panels sit on piles or surface mounted concrete feet, so there is minimal disturbance to the ground which **allows the grass to continue to grow and the ability for sheep to graze beneath them.** It also means that the **solar panels are easy to remove at the end of their life**, with minimal disturbance to the environment.

Fields can be converted to **species rich pasture suitable for sheep grazing**, creating a stable store of carbon; a dual benefit to combat climate change and boost biodiversity.







Nearly three times as many birds

A recent study by the RSPB and University of Cambridge found that solar farms designed with nature in mind can see nearly three times as many birds than arable fields.



New tree, hedgerow & species rich wildflower planting for controlled sheep grazing

Panels and infrastructure are built around existing hedges and trees. The perimeter fence will allow small mammals to pass beneath.

A full biodiversity net gain calculation will be submitted with our planning application - expected to be well in excess of the required 10%.

A recent study by the Solar Trade Association (now Solar Energy UK) discovered that some **solar farms had up to six times more pollinators than adjacent fields without solar panels on.**

Local Benefits





In addition to the significantly enhanced biodiversity, there are a number of other local benefits this solar farm could bring:

£20k annual community fund

Index linked for the lifeltime of the solar farm

Suggestions & volunteers welcome

We are looking for volunteers to sit on the local panel and suggestions for how the funds could be spent

Working with local schools

We offer school visits and workshops to educate and enthuse the next generation

Local suppliers

We would love to hear from any local suppliers interested in the construction

Information boards

To be installed in public areas

Over £100k in business rates every year to Rochford Council

Timescales

September/October 2026
Pre-planning community consultations

November 2026
Present refined layout to community

December 2026
Submit planning application

Summer / Autumn 2027
Planning decision expected

Spring 2028
Anticipated construction start

Autumn 2029
Site to be fully operational

Consulting with the local community is very important to us and a critical to designing the best possible scheme.

Please speak to a member of our project team to provide your feedback and ask any questions.

Following this consultation we will look to incorporate the views of the local community and come back later this year with a more detailed design. We will then finalise our proposed design and aim to submit our planning application before the end of the year.

After the application is submitted, Rochford District Council will undertake their own consultation process and invite local residents to comment.

Our aim is to submit a proposal which not only complies fully with the Local and National Planning Policy but one which the local community can support.

We will continue to keep the local community updated on our website at www.aurapower.com/projects/Barton Hall where these boards will also be made available. For future queries please contact:

bartonhallsolarfarm@aurapower.com I 0117 214 1971

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Frequently Asked Questions

Will there be much disturbance during construction?

Our aim is to manage the construction in such a way that it will have minimum impact on surrounding communities. The delivery route will be rigorously assessed by the Highways Authority, to ensure it is a safe and viable option.

A Traffic Management Plan will be agreed with the Council prior to construction. Construction is anticipated to take around 9-12 months, with the majority of traffic in the initial phase of construction.

Do solar farms reduce our nations food security?

No they do not. In fact the opposite is true. Solar farm's can support the farming industry and food security by:

- Lowering energy prices for everyone
- Additional income for farmers from leasing land for renewables to keep farmers in business and farm other parts of their land, means securing food supplies
- Continuing agriculture with sheep grazing
- Solar farms address climate change - one of the leading causes of crop loss
- Solar farms increase biodiversity - bees help crops grow

The most recent DEFRA report of Food Security, showed that the biggest threats to food security in the UK are shortages of labour and increased costs of fertiliser, pesticides and fuel.

The predicted amount of land required for the targeted uplift in solar deployment is just 0.3% of all UK land. That is equivalent to 0.5% currently used for farming.

If you have any further questions, please chat to a member of our project team



Why are most solar farms built on agriculture land?

The UK Government has committed to a three-fold increase in solar deployment by 2030 to help secure our nations energy independence, tackle climate change and reduce energy bills. This cannot be achieved through rooftops and brownfield sites alone. Many domestic and industrial roofs are not structurally suitable and either do not have the infrastructure in place to export electricity to the grid or are too expensive.

Planning policies in Great Britain discourage solar farms from being built on the highest-grade agricultural land.

Are solar panels recyclable and are they ethically sourced?

In most cases, 99% of a solar panel is recyclable, and there are well established industrial processes and organisations already in existence to do this.

As members of Solar Energy UK we follow 11 commitments to ensure our projects are developed responsibly and part of an energy transition that is just, inclusive and respects human rights.

The solar industry is committed to supporting rural communities, as well as being a responsible steward of the countryside.