Mount Field Solar Farm

Introduction

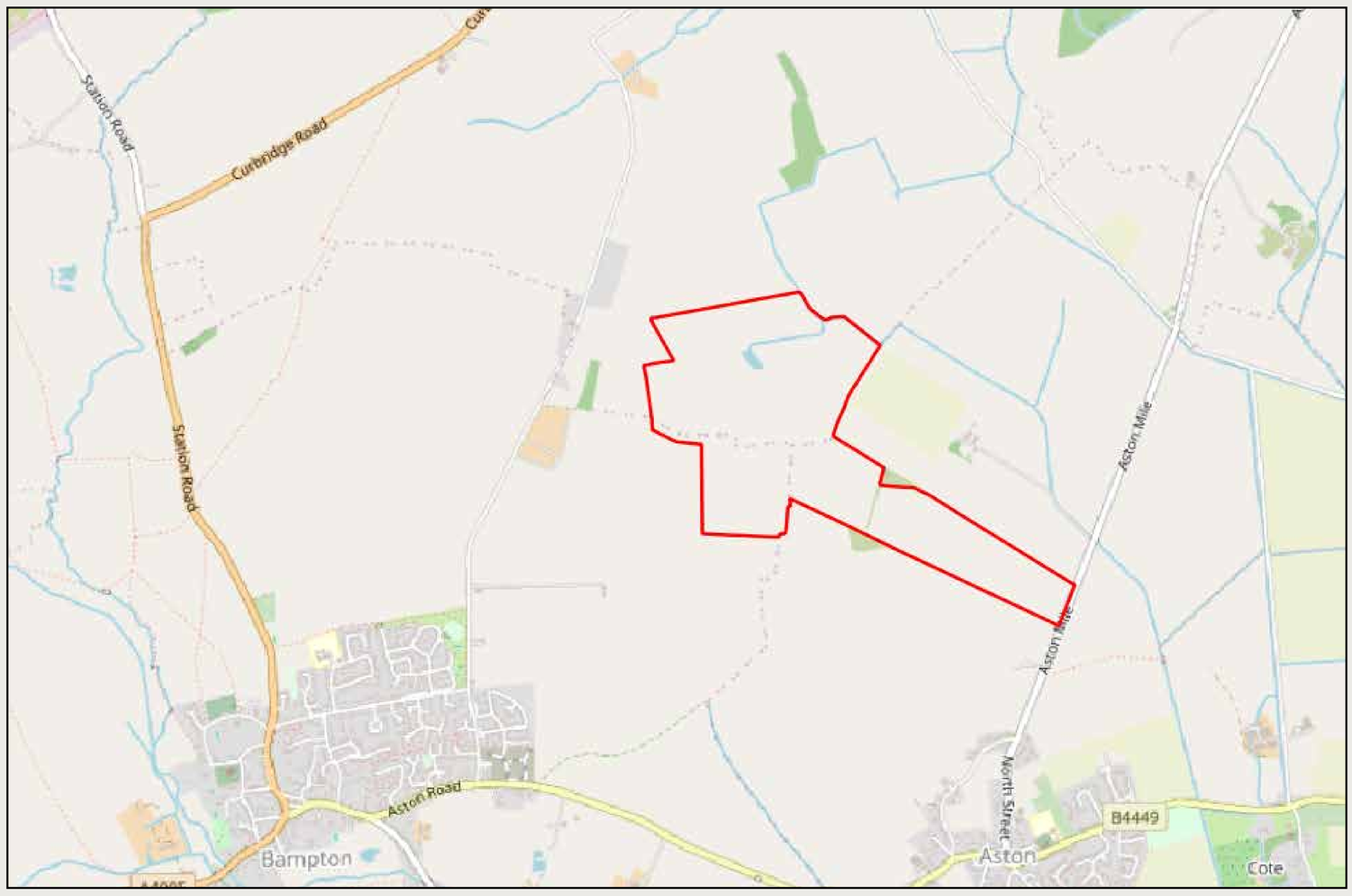
Welcome to our public consultation on Mount Field Solar Farm.

Ampyr Solar Europe (ASE) is developing a proposal for a solar farm and battery energy storage system located on land between the villages of Bampton, Aston and Lew in West Oxfordshire. The proposed solar farm will cover 69.8 hectares.

We anticipate the solar farm being able to supply the electricity needs of approximately 16,000 homes a year, which is the equivalent to around a third of the households in West Oxfordshire.

The clean energy generated will save on average 17,000 tonnes of CO_2 per year, which adds up to over 650,000 tonnes of CO_2 over the next 40 years (the design life of the solar farm).

Mount Field Farm site location



Mount Field Solar Farm site as it is currently, looking northwest

Why do we need the solar farm?

The UK is transitioning to zero and low carbon sources of power. All coal-fired power stations have to close by 2025, meaning the amount of energy generated from renewable sources needs to increase. The UK's climate change ambitions are amongst the highest in Europe and the aim to achieve net-zero carbon emissions by 2050 is set in law.

By 2050 the UK is expected by National Grid to be using double the amount of electricity than we do today. For example, the growth in electric vehicle ownership has grown thirty-fold and is set to rise with the abolition of new diesel and petrol cars by 2035.

Currently the UK's electricity price is among the highest in Europe, meaning that we need to find ways of generating more affordable, renewable and clean electricity. Energy security for the country is also of paramount importance.

About us

ASE is the developer of this project and was created in 2021 through the merger of NaGa Solar with the existing Ampyr Energy UK joint venture between AGP Group and Hartree Partners. Ampyr Solar Europe operates across Germany, UK and the Netherlands, with a 7+ GW (Gigawatt) solar portfolio in development.

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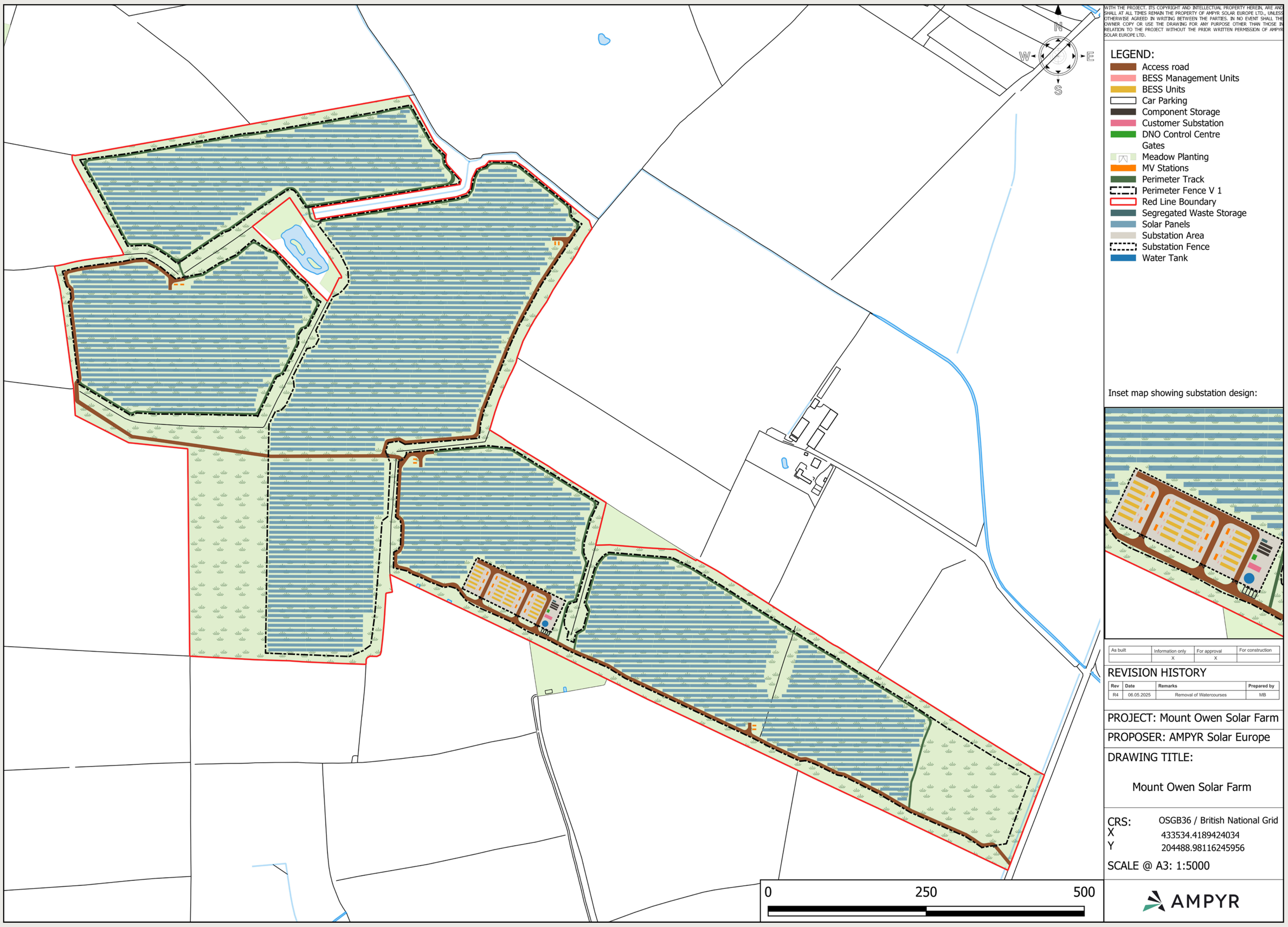
Our proposal

Our proposal is for a new solar farm and battery energy storage system at Mount Field Solar Farm, located between the villages of Bampton, Aston and Lew, with an expected export capacity of up to 40 megawatts (MW). The solar panels would cover 69.8 hectares across the seven fields in the site.

The layout of the site has been designed to avoid disruption to the local community. As part of this, we are developing a landscaping approach that includes enhancing and improving the network of hedgerows around and within the site.



The solar farm

- Fixed-tilt solar photovoltaic panels. This means that they are fixed in position facing south and do not move during the day.
- Solar panels set on lightweight frames in rows spaced 3m apart, with a minimum ground clearance of 0.6m and a maximum panel height of 3m.
- Power will be converted from Direct Current to Alternating Current, and the voltage stepped up suitable for the UK national electricity network ("the grid") via onsite inverters and transformers.
- An on-site substation and site facility, which includes a control room and components storage.
- Battery Energy Storage System (BESS) which includes commercial-scale batteries and transformers.
- A security fence up to 2.4m high, and CCTV cameras and a thermal imaging detection system located on 3m high poles, set at approximately 100m intervals on average around the site perimeter and pointed inwards. No permanent lighting is required for this proposal.
- Internal access tracks through the field to enable operation and maintenance.
- Hedgerows planted around the site, with existing hedgerows maintained, to screen it from external views, and also provide biodiversity benefits. Where there are existing gaps in the hedgerow, additional infill planting with native hedgerow species would be considered to improve screening and enhanced biodiversity benefit. Any further landscaping requirements would be proposed by a project landscape architect following completion of a landscape and visual appraisal.
- Ecology mitigation and enhancement areas to protect the ecology and habitats of the site.
- The substation, batteries, and transformers have been located away from potential noise receptors.

Mount Field Solar Farm

How will it look and how does it work?

The overall look of Mount Field Solar Farm is likely to be a key point of interest for the local community.

As the site is located within the countryside, we have been mindful of situating it carefully to reduce the overall impact on both the environment and the community. This board explains how the solar farm may look, as well as how the solar panels would work.

How will it look?

We have carefully considered how Mount Field Solar Farm will fit into the landscape in order to reduce any visual effects on the community and impacts on local wildlife.

Height: The solar development will range from 0.6m in height at the base of the panel, to no more than 3m above the ground. This means that the visual effects of the solar farm will be limited for the communities surrounding the site.

Glint and glare: Glint and glare are visual effects that can sometimes affect nearby motorists or homes. Solar panels are designed to maximise the absorbency of the sun's rays, and this means that glint and glare levels will be lower compared to surfaces such as window glass, water, or snow. We are also undertaking a Glint and Glare assessment that will cover a 1km radius of the site and consideration of aviation receptors further afield.

Screening: Existing hedgerows and trees will be maintained, and new hedgerow will be planted to screen the development from external views and also provide wildlife benefits. We will be developing a landscaping plan informed by a Landscape and Visual Assessment, which will be submitted with our planning application.

How does it work?

Solar panels are made of photovoltaic cells (which is why generating electricity with solar panels is also called solar PV) that convert the sun's energy into electricity.

Photovoltaic cells are sandwiched between layers of semi-conducting materials such as silicone. Each layer has different electronic properties that energise when hit by photons from sunlight, creating an electric field. This is known as the photoelectric effect, and this creates the electrical current.

Solar panels generate a Direct Current of electricity. This is then passed through an inverter to convert it into an Alternating Current, which can then be fed into the National Grid, or directly to large local power users. See the diagram on this board for an illustration of this process.

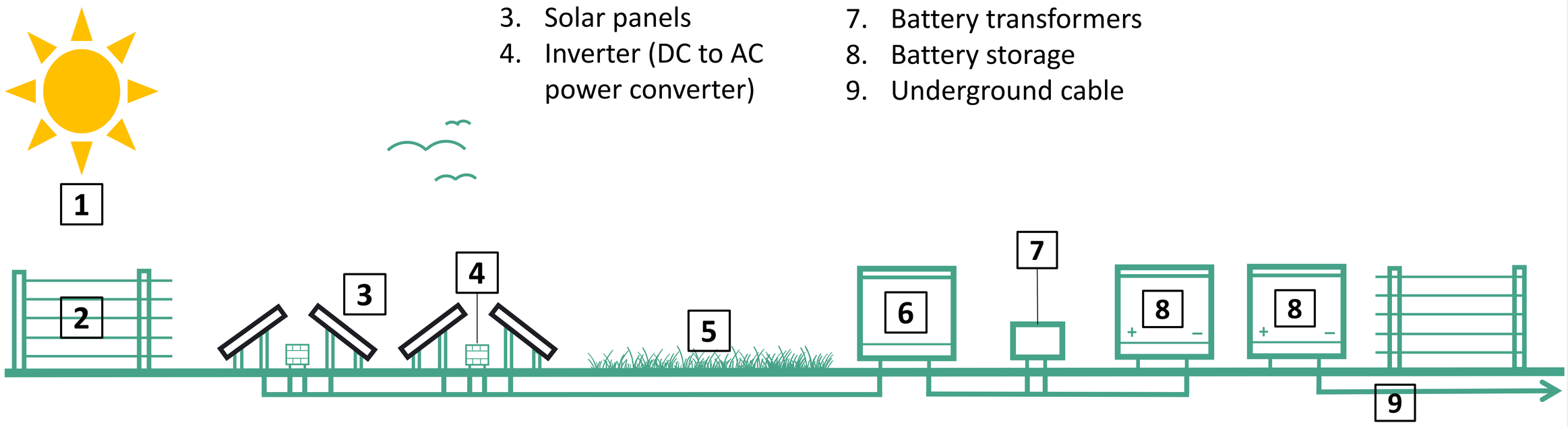
Solar panels need daylight and sunshine, not high temperatures, so solar panels can and do work well in England.

The site will also have a Battery Energy Storage System (BESS). BESS are devices that enable solar energy to be stored and then released when the power is needed most. The battery storage at Camp Farm Solar would facilitate the storage of solar energy and supply power even when the sun doesn't shine. The battery storage uses computerised control systems to release energy during times of peak demand, helping to keep electricity flowing.

Example diagram of the solar power process

Components of a typical solar farm

1. Solar energy
2. Fencing
3. Solar panels
4. Inverter (DC to AC power converter)
5. Landscape area
6. Substation / solar site transformer
7. Battery transformers
8. Battery storage
9. Underground cable



Site selection

We have carefully considered the best location for the solar farm, both operationally and in terms of minimising impacts on the community and environment. The steps we have followed are set out below.

1. Securing connection agreement. A 40MW connection agreement was secured with National Grid at the nearby Ducklington Substation. This will be the point of connection with the grid and a separate application will be made at a later date by Ampyr or the District Network Operator for a buried cable route between the National Grid Substation and the solar farm site. The default position is a connection fully within the highway via Section 50 License application, which would be viable for the site.

2. Conduct a desktop assessment. Desktop assessments have been carried out to find suitable areas for the solar panels. This considered a number of things including national and local designations, heritage, ecology, flood risk, agricultural land grading, neighbouring land uses, visual impacts, and proximity to homes and other committed developments.

3. Identify land options in the search area. Based on the search area identified during the desktop assessment, we then engaged with landowners to find suitable sites.

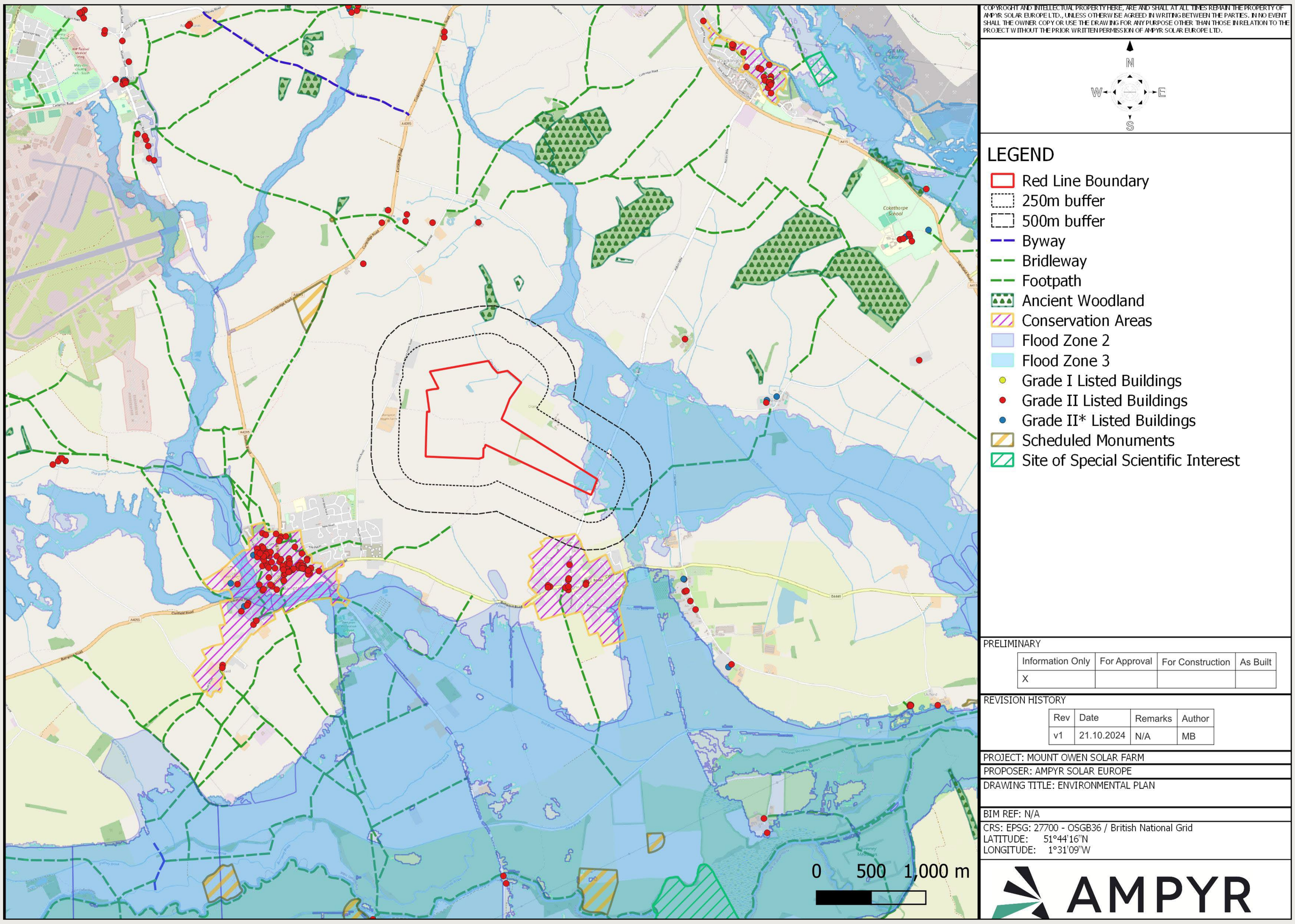
4. Carry out a detailed assessment on suitability of the land. Once we had identified a site in the right area, we conducted a detailed assessment of its suitability, including environmental surveys.

Mount Field Solar Farm

Environment

We are mindful of the existing environmental context of the site. We are undertaking a number of surveys to make sure we understand any of the impacts the proposed solar farm may have.

Some of the key environmental features and conditions within and around the site are shown on this board. Further to this, surveys are being carried out to assess Mount Field Solar Farm's likely effects on the environment, landscape, heritage and local community. We are also looking at ways to enhance local ecology and biodiversity through the project.



Environmental constraints map

Ecology and biodiversity

Conserving and enhancing the biodiversity around Mount Field Solar Farm is important to us. We are undertaking surveys to understand if there are any protected wildlife and habitats at the site, as well as to identify any mitigation required to minimise impacts on them. These surveys have concluded that the solar farm will not have a significant impact on the local ecology, wildlife or habitats of the area.

The site will have a combination of solar panels and areas of ecological mitigation to protect the ecology of the site and its ecological value to the wider area.

We will also be working to enhance the natural environment through our work at Mount Field Solar Farm. Some options we are considering include:

- Ecological mitigation area
- Maintenance and planting of hedgerows

We are required to deliver a minimum 10% biodiversity net gain through habitat enhancement onsite, and it is currently expected that this can be substantially bettered through hedge and tree planting, bird mitigation and enhancement areas, and the planting of species rich grassland under the solar PV areas.

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Mount Field Solar Farm

Environment

Agriculture

We know that food security is important. The next big challenge to our food supply is expected to be caused by climate change, so addressing this, including by using solar energy, will improve our food security.

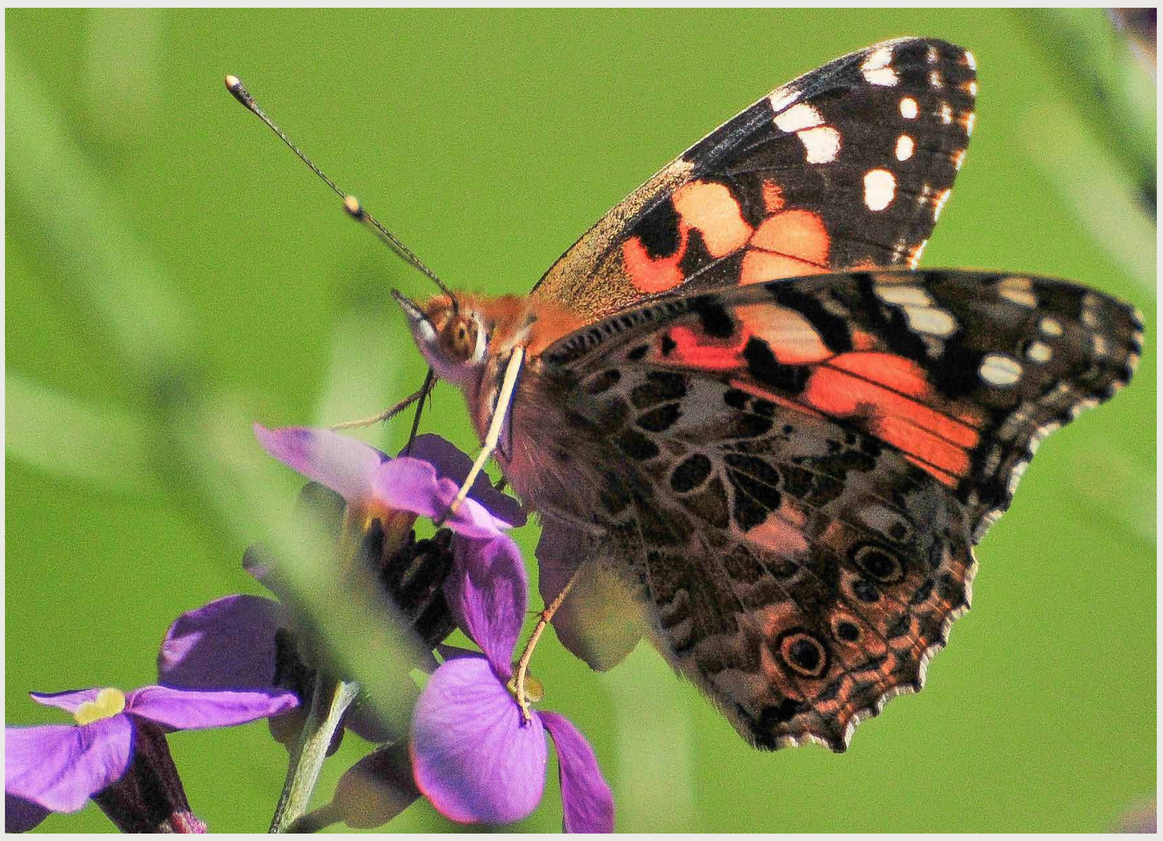
The land proposed for the Mount Field Solar Farm site is currently agricultural land. Indicative mapping shows the land to be a mix of Grade 3 and Grade 4 land. We will carry out a detailed soil survey to determine what proportion of the site is classed as Best and Most Versatile (BMV) agricultural land.

After 40 years, the solar farm will be decommissioned, and the land returned to the landowner ready for arable use. It is expected that the soil condition will be much improved following 4 decades of sensitive management.

Noise

Solar panels themselves do not make any noise. When the solar farm is operational, low levels of noise can be generated by the electrical system, such as from the Battery Energy Storage System (BESS), transformers and inverters, which can sound like a quiet buzz or fan noise, which decreases rapidly with distance from this infrastructure. The BESS and MVS will be located away from nearby properties, at a distance confirmed by acoustic specialists and/or assessment as required, to minimise noise impacts.

The construction of the solar farm will take place quickly, as minimal digging is required. The potential effects of noise and vibration during construction will be limited to specific locations within the site and only for short periods. We will make the community aware when works are likely to take place and details of our limited working hours will be set out in our planning application.



Traffic

During construction, there is likely to be more traffic due to materials being delivered to the site but, when the solar farm is operational, additional traffic would be limited to maintenance vehicles less than once a week on average.

During the construction phase, access to the site will be directly from Aston Road to east of the site. Construction traffic will come off the A40, travel along the A415 and turn down Aston Road. No traffic will pass through any of the surrounding villages or residential areas.

Site traffic will consist of HGVs, light goods vehicles and cars. Movements during the construction phase are expected to have a minimal impact on local network. Traffic management measures may be implemented for cable installation works, however these will be short-term and are not likely to cause significant disruption. We will also consider any cumulative impacts from other nearby works.

Flooding

Drains and water courses near the development will not be impacted by the solar farm's development. Maintaining the grass below the panels wherever possible will ensure that the land will remain permeable, meaning surface water can pass through easily.

As part of our planning application, we will submit a Flood Risk Assessment and Drainage Strategy, which will demonstrate that the site will not be affected by flood risk, nor affect flood risk elsewhere.

Heritage

Direct impacts on the heritage of the area are unlikely. The planning application will include a Heritage Assessment that assesses any potential impacts on the setting and character of heritage sites, and the potential for undiscovered archaeological remains.

How will the solar farm connect to the grid?

An export cable will run from the solar farm to the existing substation east of Ducklington, approximately 4km north of the Site. The export cable will be located in the existing road network. A separate Section 50 of the Highways Act application will be sought for the cable route. The plan shows the location of Mount Field Solar Farm and the cable route.

Mount Field Solar Farm

Community benefits and next steps

This consultation is your opportunity to shape our proposal before we submit a planning application later this year.

This consultation is your opportunity to fully understand our proposal, ask us questions, and share your feedback on our proposal for a solar farm at Mount Field Solar Farm. We will consider all feedback received and use it to inform our proposal. We would also like to hear suggestions on how we can deliver community benefits through the scheme.

This consultation is running until 23:59 on 15 June 2025. You can share your views on the project in one of the following ways.

Online: using the online form at **www.mountfieldsolar.co.uk**
Email: using the scheme email address **contact@ampyrsolareurope.com**
Post: using the scheme Freepost address, **Freepost ASE**
At the event: by filling in a hard copy form and submitting it to a member of the project
team

We will stay in touch through the development of the scheme, including through our scheme website: **www.mountfieldsolar.co.uk**

Community benefits

We are looking at ways to help ensure the local community benefits from the development of the solar farm. This could include:

- A Community Benefit Fund to support local projects, initiatives, or community cooperative electricity
- A Community Energy Co-operative, to enable locals to benefit from long-term savings from a local green source.
- Creating opportunities for local businesses in the supply chain

We are currently doing surveys and assessments, which will inform our proposal alongside the outputs from this consultation. We will then submit a planning application to West Oxfordshire District Council later this year.

Once the planning application is submitted, West Oxfordshire District Council will carry out a statutory consultation, where you will be able to comment further, directly to the council. At this point, we will also share an update with the local community on how feedback has influenced our proposal.

If the project is granted planning permission by West Oxfordshire District Council, Mount Field Solar Farm would take approximately 6 months to be constructed with an operational lifespan of up to 40 years.

Timeframes and next steps

Decommissioning

The development will not be permanent, with an initial operational period of 40 years. At the end of the development's lifespan, the site will be decommissioned with the land returned to the landowner in a state ready for arable use, with improved soil quality following 4 decades of sensitive soil management.