



# Future Energy Llanwern Solar Farm

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Consultation brochure

# Contents

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|   |    |
|---|----|
| Welcome to the Public Consultation                                  | 3  |
| The consenting process for Future Energy Llanwern                   | 4  |
| What is Future Energy Llanwern?                                     | 5  |
| About the Developer   | 6  |
| Our existing work in the area                                       | 7  |
| Our commitment to the environment                                   | 8  |
| Why solar, and why here?  | 9  |
| Overview of the Preliminary Environmental Information Report (PEIR) | 10 |
| Ground Conditions   | 11 |
| Transport and Access  | 12 |
| Water Environment   | 13 |
| Socio-economics, Tourism and Recreation                             | 14 |
| Cultural Heritage and Archaeology                                   | 15 |
| Environmental Impact Assessment Topic Summary                       | 16 |
| Our commitment to working with the community                        | 17 |
| Upcoming events   | 18 |
| Next Steps  | 19 |

A dual-use site combining renewable energy generation and sheep pasture



# Welcome to the Public Consultation

Future Energy Llanwern (FEL) is a proposed solar farm located on land south-east of the Llanwern Steelworks and the village of Redwick. If consented and developed, FEL would be capable of generating approximately 380 megawatts (MW) of clean electricity annually, which is enough to power approximately 108,000 homes.

You can provide feedback in the following ways:



Online: complete the feedback form at [futureenergyllanwern.participatr.io](https://futureenergyllanwern.participatr.io)



By email: send your comments to [enquiries@futureenergyllanwern.co.uk](mailto:enquiries@futureenergyllanwern.co.uk)



In person: view consultation materials and collect a feedback form at our deposit locations

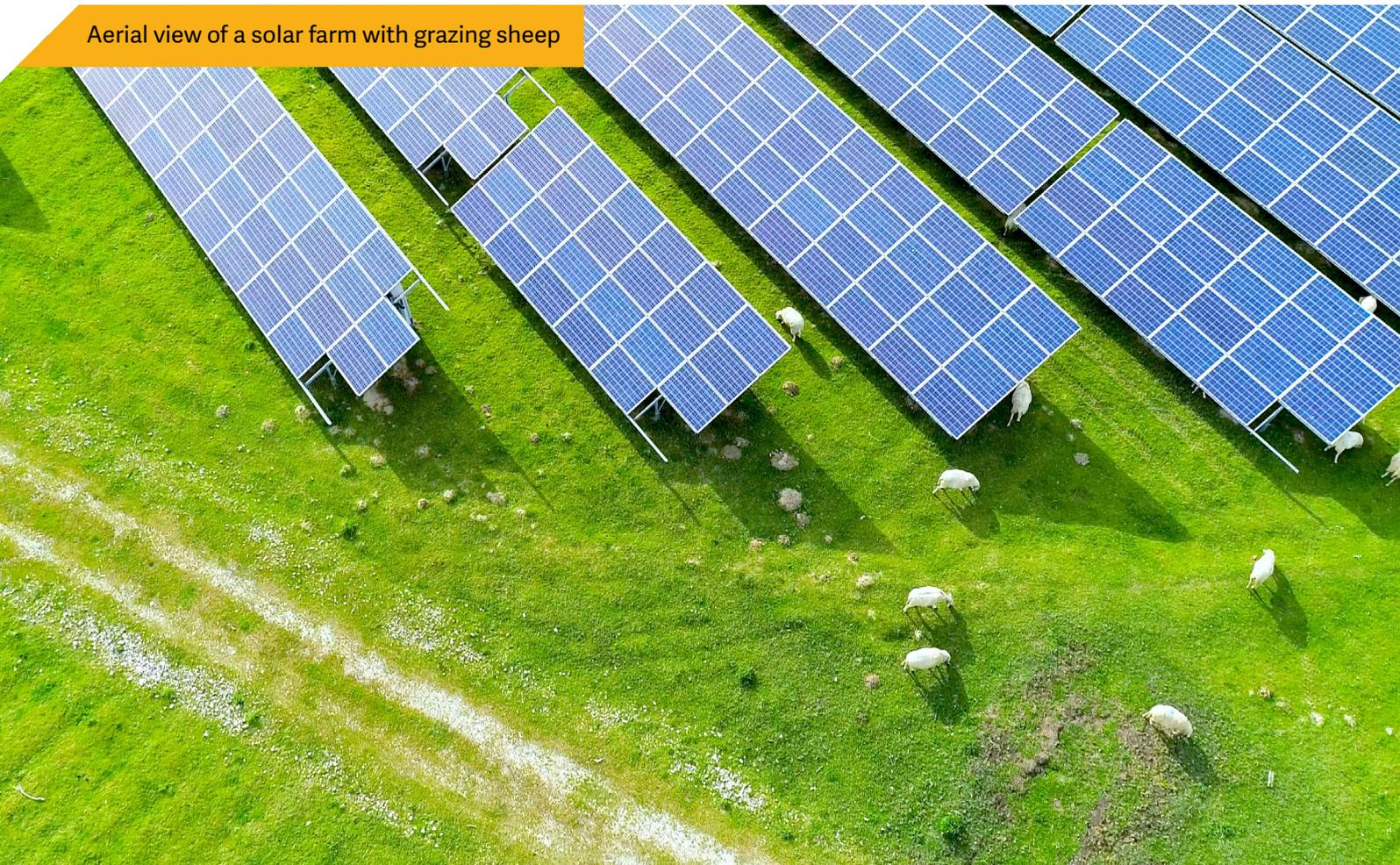


By post: return your completed feedback form to **FREEPOST FEL SOLAR FARM** (no stamp required)



All feedback must be received by **Sunday 15 February 2026 at 11:59pm** to be considered as part of the Development Consent Order application.

Aerial view of a solar farm with grazing sheep



# The consenting process for Future Energy Llanwern

**Future Energy Llanwern is a Nationally Significant Infrastructure Project (NSIP). This means it needs permission from the Secretary of State for Net Zero, through a Statutory Instrument called a Development Consent Order (DCO).**

- **Statutory consultation:** From 10 December 2025 to 15 February 2026, communities and stakeholders can review the plans and share feedback.
- **Application submission:** The DCO application will be submitted in spring 2026.
- **Examination and decision:** After submission, the application will be examined. The final decision will be made by the Secretary of State for Energy Security and Net Zero.



## Statutory consultation

- Formal public consultation led by the developer
- Includes events, feedback channels and bilingual materials
- Key opportunity for stakeholders to shape the proposal



## Application submission

- Developer submits the DCO application to the Planning Inspectorate
- Marks the transition from consultation to formal review



## Acceptance

- Planning Inspectorate checks the application for completeness and legal compliance
- Confirms whether the application can proceed to examination



## Pre-examination

- Interested parties register and prepare representations
- Preliminary meetings may occur to set the scope and timetable



## Examination

- Structured, time-limited process led by the Examining Authority
- Stakeholders present views, evidence and responses



## Decision

- Secretary of State reviews the Examining Authority's report
- Final decision issued, with potential conditions attached



## Post-decision

- Implementation begins, including discharge of requirements
- Monitoring and legacy planning may involve stakeholders



# What is Future Energy Llanwern?

**Future Energy Llanwern is designed to deliver approximately 380 MW of zero carbon electricity each year, enough to supply around 108,000 homes. The solar farm will be located on land south of the Llanwern Steelworks and has been carefully planned to minimise visual and environmental impacts while contributing to Wales’ and the UK’s renewable energy targets.**

The scheme has been informed by extensive technical, environmental, and community engagement to ensure it provides maximum benefit while protecting the surrounding landscape and habitats.

## How the design minimises visual impacts

- **Setbacks from highways:** The site boundary has been positioned away from nearby roads leading in and out of the village, reducing visibility for residents and travellers.
- **Buffers to sensitive habitats:** Dedicated separation zones have been maintained around ree and ditch habitats, protecting ecological features and softening views of the development.

## Environmental planning and benefits

The project has been **carefully planned to minimise environmental impacts** and to deliver key benefits to the local environment. This will be achieved through sensitive design and proposed land management measures that will be in place for the duration of the development.



# About the Developer

**NextEnergy Solar Fund (NESF) is the home of one of the UK's largest utility solar portfolios, together providing c.1GW of home grown green solar capacity across over 100 UK based projects. It is the funder sitting behind the Development Consent Order (DCO) application that will consent Future Energy Llanwern.**

NESF is managed by NextEnergy Capital, a specialist UK-based solar manager that has played a central role in developing, constructing and owning solar energy projects across the globe since 2007. NextEnergy Capital continues to manage the ownership/operation of the existing Llanwern solar farm.

With direct experience managing development, construction and ongoing operations on the Gwent Levels stretching back to 2017, NextEnergy Capital understands the importance of careful stewardship,

environmental sensitivity and community engagement when delivering renewable energy infrastructure that works for everyone.

We are committed to maintaining transparent communication with local communities and stakeholders throughout the development process and onwards through its operation. Our goal is to ensure the project delivers lasting benefits for the area while minimising impacts on the landscape, wildlife and local life.

**We are committed to maintaining transparent communication with local communities and stakeholders throughout the development process and onwards through its operation.**

Ribbon-cutting ceremony at another NextEnergy Capital solar farm



**NEXTEnergy**  
CAPITAL

# Our existing work in the area

For over five years, NextEnergy Capital has worked closely with local farmers and landowners to deliver and operate the existing Llanwern Solar Farm, supporting farming livelihoods, enhancing biodiversity, and building trust through Llanwern Solar Services (LSS).

Llanwern Solar Services (LSS) was established by local landowners determined to maintain their role as land managers. Together they oversee operations and maintenance of the 75 MW site near Newport. The business has been a success, creating job opportunities and providing financial stability that has enabled reinvestment in farming, improved safety standards, and upgraded equipment. With solar helping them weather market fluctuations, they have been able to maintain traditional farming practices while embracing modern standards.

Future Energy Llanwern will apply lessons learned from these existing operations by:

- Restricting noisy activities to reduce disruption.
- Protecting public rights of way to maintain community access.
- Strengthening visual screening through native planting and sensitive design to minimise impacts on the local community.

This partnership demonstrates how solar and agriculture can thrive together — securing farming livelihoods while enhancing biodiversity and environmental stewardship. It is a model we are proud of, and one we are building on as we continue investing in the area.

Tractor operating alongside solar panels at the Llanwern site



## The need for the project



**Powering 108,000 homes:** 380MW project to supply clean energy for 8% of Welsh households.



**Fighting fuel poverty:** Boosting domestic energy to cut reliance on volatile markets and protect vulnerable families.



**Creating Jobs:** FEL is expected to support around 5,000 Wales-based workers and contribute £13.5 million during construction.



**Supporting Local Farmers:** The scheme enables continued livestock grazing, improves soil and water quality, and provides a stable income for local farmers for 40 years.



**Restoring Nature and Boosting Biodiversity:** FEL will improve the ecological status of SSSI reens and deliver measurable biodiversity net-benefit.



**Driving Wales' Clean Energy Future:** Future Energy Llanwern aligns with national goals to meet 70% renewable electricity by 2030.



Further information about the project can be found at [www.futureenergyllanwern.co.uk](http://www.futureenergyllanwern.co.uk), or by scanning this QR Code.

# Our commitment to the environment

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**Environmental stewardship is a core principle of Future Energy Llanwern. The project has been designed to generate clean electricity while protecting and enhancing the natural environment.**

FEL seeks to restore the site to a 'favourable' condition and will create wildlife friendly corridors to support pollinators and biodiversity. The solar arrays are arranged to minimise visual intrusion, while native planting and the active management of watercourses across the site will provide additional ecological benefits.

The project is designed to allow continued sheep grazing, supporting local agriculture and maintaining the traditional use of the landscape. By combining clean energy production with habitat restoration and farming, Future Energy Llanwern aims to demonstrate how renewable energy can coexist with nature and the local community.

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The project is designed to allow continued sheep grazing, supporting local agriculture and **maintaining the landscape's traditional use.**



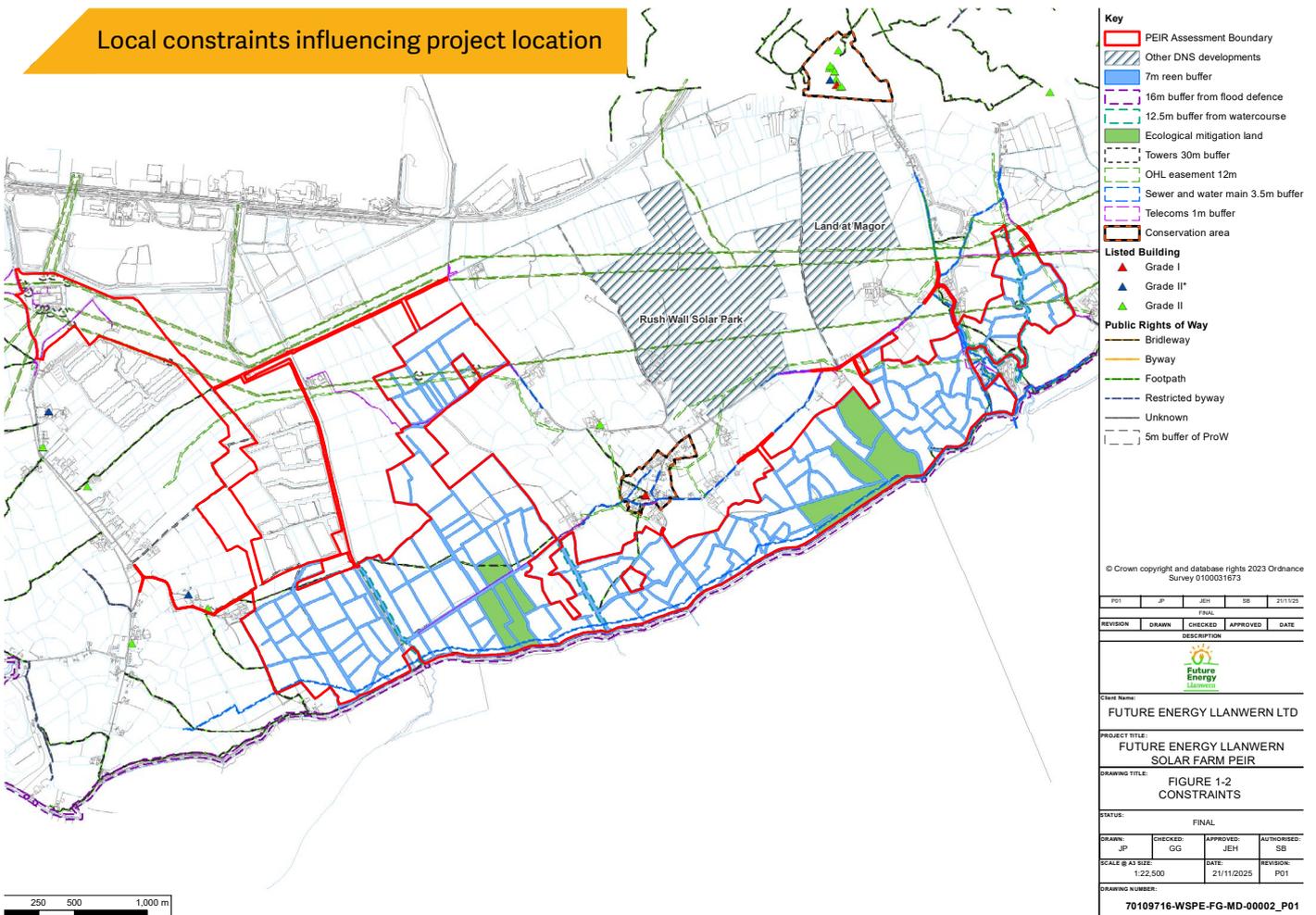
# Why solar, and why here?

Solar energy is a key part of the UK’s strategy to reduce carbon emissions, meet net zero targets by 2050, and secure a reliable domestic energy supply to meet our own energy demands. Future Energy Llanwern (FEL) will generate zero carbon electricity to support these goals and contribute to Wales’ target of generating 70% of electricity from renewables by 2030.

The site south of the Llanwern Steelworks was carefully selected for its proximity to the Whitson Substation, its low visual impact, and its ability to coexist with the environment and ongoing agricultural activity. The process of site selection has considered technical, environmental, and social factors, ensuring that the project is sensitively designed and utilises existing electricity infrastructure.

By choosing this location, FEL supports a reliable, low carbon energy supply for the region while enhancing biodiversity and providing community benefits.

Local constraints influencing project location



# Overview of the Preliminary Environmental Information Report (PEIR)

The Preliminary Environmental Information Report (PEIR) sets out our early findings on likely environmental effects. These effects relate to construction and operation (including maintenance) of the proposed new solar farm.

We have published the PEIR which is now subject to public consultation until 15th February 2026. Following the current consultation, we will be developing the PEIR into the Environmental Statement that will support the DCO application. To read a copy of our PEIR, please visit our website: [www.futureenergyllanwern.co.uk/](http://www.futureenergyllanwern.co.uk/)

A **Non-Technical Summary (NTS)** is also available online, outlining the key findings in accessible language.

## Topics assessed in the PEIR



### Effects on People

- Cultural heritage and archaeology
- Noise and vibration
- Socio-economics, tourism and recreation
- Transport and access



### Environmental Impacts

- Greenhouse Gas Assessment
- Ecology
- Ornithology
- Water Environment
- Landscape and visual amenity
- Glint and Glare
- Ground Conditions
- Cumulative Assessments
- Other Environmental Topics



# Ground Conditions

**The solar farm will require land for access tracks, grid connections and transformer stations. These features are small and mostly linear, meaning farming can continue between and around the panels, and overall impacts to the ground will be limited.**

- **Construction and maintenance phase:** Minor, short-term disturbance to soils may occur, but established safeguards will ensure impacts remain slight and not significant. Risks of contamination have also been assessed and, with mitigation, are negligible.
- **Operation phase:** The Proposed Development avoids Best and Most Versatile (BMV) agricultural land and only results in a modest amount of permanent soil sealing linked to grid infrastructure, transformer stations, and access routes. Farming can continue between and around the panels, meaning overall impacts to the ground will be limited.
- **Cumulative effects:** When combined with the only other major developments in the study area—a nearby solar farm—the maximum combined

permanent footprint would represent less than 0.2% of the average annual agricultural land take in Wales. This is well below the 1% threshold identified in national guidance for potentially significant cumulative effects.

- **Next steps:** The scheme would adhere to statutory guidance so that no contamination effects are expected.

Overall, the project has been designed to work alongside ongoing agricultural use while keeping impacts to the ground, land-use change, and contamination risks to a minimum. Even when considered with other projects, effects on soil resources are not significant in EIA terms.

Solar infrastructure integrated into rural landscape



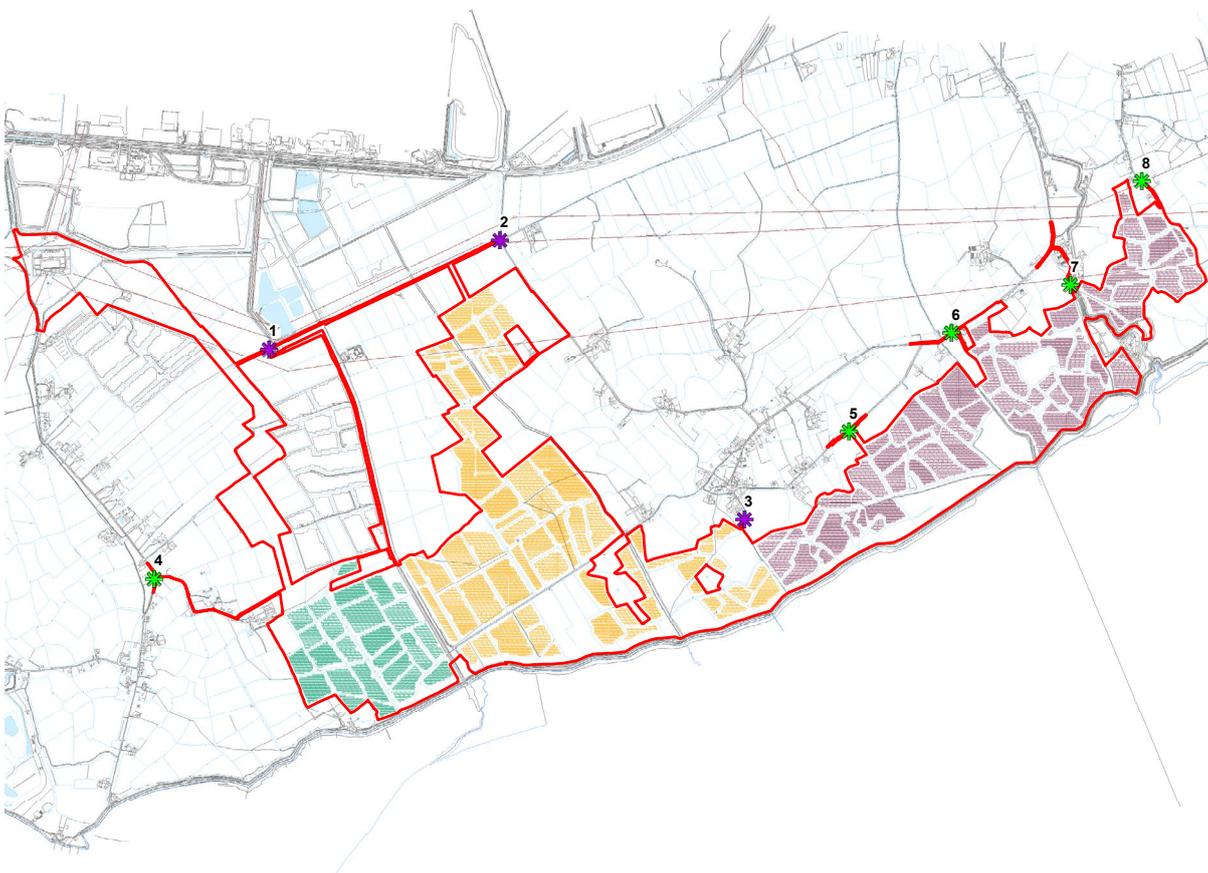
# Transport and Access

We assessed how the solar farm may affect local roads, paths, and cycle routes. This included public rights of way such as the Wales Coast Path and National Cycle Network Route 4, as well as the local highway network used by residents, businesses, and visitors.

- Construction and decommissioning phase:** Minor, short-term impacts may occur such as delays for road users or reduced amenity for walkers and cyclists. These will be carefully managed to minimise disruption.
- Operation phase:** Small delays could occur on local roads due to site activity, but these are not considered significant. Importantly, no significant effects are predicted for road safety, pedestrian safety, or severance of routes.
- Mitigation:** A draft Travel Plan has been prepared to encourage car sharing, use of minibuses for staff, and alternatives to private car travel.
- Next steps:** Further assessment will refine details of vehicle volumes, construction traffic, and mitigation, with final conclusions reported in the Environmental Statement.

Overall, we are managing transport and access responsibly by keeping local paths and cycle routes safe, minimising disruption for road users, and encouraging sustainable travel for staff and contractors.

Primary and secondary points of access



**Key**

- PEIR Assessment Boundary
- Phase 3 PV Array
- Phase 2 PV Array
- Phase 1 PV Array
- Primary access
- Secondary access

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|             |       |         |          |
|-------------|-------|---------|----------|
| PI01        | JP    | GG      | SB       |
| FINAL       |       |         |          |
| REVISION    | DRAWN | CHECKED | APPROVED |
| DESCRIPTION |       |         |          |

Client Name:  
**FUTURE ENERGY LLANWERN**

PROJECT TITLE:  
**FUTURE ENERGY LLANWEI SOLAR FARM PEIR**

DRAWING TITLE:  
**FIGURE 2-21 PRIMARY AND SECONDARY PC OF ACCESS**

STATUS:  
 FINAL

|                  |          |          |       |            |     |    |
|------------------|----------|----------|-------|------------|-----|----|
| DRAWN:           | JP       | CHECKED: | GG    | APPROVED:  | JEH | AC |
| SCALE @ A3 SIZE: | 1:22,000 |          | DATE: | 21/11/2025 |     |    |

# Water Environment

**We looked at how the solar farm could affect local watercourses, drainage features, and flood risk across the wider site area. This included reens, ditches, and low-lying land that play an important role in managing water flow and supporting biodiversity.**

- **Construction phase:** Minor, short-term effects may occur from the creation of new access tracks, reen crossings, and site activity. These will be carefully managed to protect water quality and drainage.
- **Operation phase:** Minor changes to surface water runoff may result from new infrastructure related to the solar panels. A drainage strategy will be prepared to manage the hydrological response of the development.
- **Mitigation:** Embedded measures are already in place, including development-free buffer areas observed alongside the watercourses. Further enhancements

will be developed with input from stakeholders to strengthen ecological protection and ensure locally resonant outcomes.

- **Next steps:** Detailed assessments of drainage, piling methods, and flood consequences will be reported in the Environmental Statement.

We are committed to managing water and flood risk responsibly by protecting local reens, minimising changes to runoff, and ensuring resilient water management for communities and wildlife.

## Local Reen Habitats



# Socio-economics, Tourism and Recreation

We have assessed how the solar farm may affect local rights of way and recreation routes, including the Wales Coastal Path, NCN Route 4, and the Redwick Circular Walk. The site has been deliberately configured to be set back from the local highway network, ensuring that residents can continue to travel through the landscape without direct views of the development.

- **Construction and operation phase:** The site will be visible from sections of the Wales Coastal Path and Redwick Circular Walk. Walkers and cyclists may notice changes to views and local character, though access itself will remain.
- **Temporary disruption:** During construction, compounds, traffic, and site activity may cause short-term disturbance. These will be carefully managed to minimise inconvenience.
- **Mitigation:** Additional measures are being developed to reduce impacts and enhance the experience of local routes including the maintenance of a large buffer distance to the Wales Coast Path. Details will be reported in the Environmental Statement.
- **Cumulative effects:** Other nearby solar projects may contribute to combined impacts on recreation routes, which will be assessed in more detail through the Environmental Statement.

Your feedback is vital. It helps us refine design and mitigation so that valued routes remain accessible and enjoyable for local communities and visitors.

Existing landscape of the site seen from the Wales Coast Path



# Cultural Heritage and Archaeology

**We have assessed how the solar farm may affect buried archaeology, historic features above ground, and designated heritage sites within 5 km of the site, including how the project may influence their setting and views. We are also assessing potential impacts on the Historic Landscape itself, as the site is designated as a Landscape of Outstanding Historic Interest (LOHI).**

- **Construction and operation phase:**

Some above-ground features may experience minor effects, though these will be reduced through design and mitigation. No significant direct effects are expected on designated sites such as listed buildings or scheduled monuments.

- **Designated assets:** For sites including Bishton Castle, Pencoed Castle and Wilcrick Hill Camp, combined impacts from this project would be minor adverse and not significant.

- **Cumulative effects:** Assets such as the Relict Seawall and the Redwick Conservation Area may experience minor cumulative effects alongside larger regional renewable energy proposals, but these are not considered significant.

- **Next steps:** Further consultation and design refinement will ensure that cultural heritage sensitivities are fully considered, with final conclusions reported in the Environmental Statement.

Overall, we are committed to protecting the area's historic environment. The project would maintain the historic field patterns and drainage features and seeks to respect the landscape's rich archaeology and heritage.

A view of the Gwent Levels from the Seawall



# Environmental Impact Assessment Topic Summary

The below illustrates the remaining topic areas covered in our Preliminary Environmental Information Report (PEIR).

| Topic area   | PEIR findings   |
|--|---|
|  <b>Glint and Glare</b>               | The solar farm will operate safely, with no significant risk of glare affecting visibility or amenity.  |
|  <b>Noise and Vibration</b>           | During construction, noise and vibration will be managed through a Construction Environmental Management Plan. No significant effects are predicted for homes or the Wales Coast Path following the implementation of mitigation measures to be set out within the oCEMP. Overall, impacts will be minimised and well managed.  |
|  <b>Landscape and Visual Amenity</b> | <p>Significant visual effects may occur for certain receptors within 1km of the site including nearby residents, users of the Wales Coast Path, Redwick Circular Route and local footpaths.</p> <p>The Proposed Development would bring about a change to the landscape character of the site itself, however, the site is nevertheless flat and well contained by existing hedgerows and other features of the landscape.</p>              |
|  <b>Greenhouse Gas Assessment</b>   | The Proposed Development would result in a net reduction in GHG emissions.  |
|  <b>Ecology</b>                     | We have assessed how the solar farm may affect local habitats, protected species, and the wider ecological network. The design avoids sensitive areas where possible and includes measures to protect wildlife during construction and operation. With mitigation and enhancement measures in place, the project will deliver long-term habitat benefits across the site.   |
|  <b>Ornithology</b>                 | The main impacts identified relate to disturbance and displacement of birds. Although significant effects are identified during the construction phase, in the long term land would be set aside for active management for the duration of the scheme and for certain bird species there are likely to be significant beneficial effects. For some species which prefer large, open fields there is predicted to be a minor adverse impact. |
|  <b>Cumulative Assessments</b>      | Upon consideration of the information available for the PEIR, it has been concluded there is potential for significant effect interactions as a result of the Proposed Development. Further mitigation measures will be identified through the iterative design process and the final conclusions on effect interactions will be set out in the ES.   |
|  <b>Other Environmental Topics</b>  | <p>Additional assessments were carried out in relation to the following topics:</p> <ul style="list-style-type: none"> <li>• Telecommunications, Television Reception and Utilities,</li> <li>• Waste and;</li> <li>• Heat and Radiation</li> </ul> <p>There are no significant effects predicted in relation to these matters.</p>   |

# Our commitment to working with the community

The project will deliver a **£10 million Community Benefit Fund** that will provide **£250,000 annually** over the 40-year lifetime of the project. This fund will be locally led, with money available to support local priorities. These could include:



Education and skills development



Biodiversity and nature recovery



Local well-being and community initiatives



Energy efficiency and climate resilience

We are working to ensure these benefits deliver meaningful impact.

## We need your feedback

Your feedback helps shape the project and ensures it reflects community needs. You can provide feedback by:



Completing a feedback form at one of our consultation events



Visiting our project website and submitting comments online



Writing to us directly using the contact details provided.



# Upcoming events

This statutory consultation is your opportunity to help shape our proposals before we submit a formal application. We're committed to ensuring that local communities, landowners, stakeholders and technical consultees can understand the details of what's being proposed, share feedback and ideas, and influence key aspects of the project through meaningful input.

## The following consultation events will take place:

Online: **Statutory Consultation Webinar #1** | Wednesday 17 December 2025 | 5pm-6pm

In person: **Redwick Village Hall** drop in event Church Row, Caldicot NP26 3DE | Tuesday 13 January 2026 | 4pm-8pm

In person: **Magor and Undy Community Hub** Main Rd, Caldicot NP26 3GD | Friday 16 January 2026 | 4pm-8pm

In person: **Magor and Undy Community Hub** Main Rd, Caldicot NP26 3GD | Saturday 17 January 2026 | 9am-2pm

Online: **Statutory Consultation Webinar #2** | Wednesday 28 January 2026 | 3pm-4pm

To register for a webinar please visit our website: [www.futureenergyllanwern.co.uk](http://www.futureenergyllanwern.co.uk)



# Next Steps

## Your role in the consultation

This statutory consultation is your opportunity to help shape our proposals before we submit a formal application. We're committed to ensuring that local communities, landowners, stakeholders, and technical consultees can understand the details of what's being proposed, share feedback and ideas, and influence key aspects of the project through meaningful input.

Feedback from this consultation will be used by Future Energy Llanwern to influence and shape the final designs of the solar farm and will accompany the application for a Development Consent Order (DCO).

You can provide feedback in the following ways:



Online: Complete the feedback form at [futureenergyllanwern.participatr.io](https://futureenergyllanwern.participatr.io)



By email: Send your comments to [enquiries@futureenergyllanwern.co.uk](mailto:enquiries@futureenergyllanwern.co.uk)



In person: View consultation materials and collect a feedback form at our deposit locations



By post: Return your completed feedback form to **FEL SOLAR FARM** (no stamp required)

All feedback must be received by **11:59 on Sunday February 15th 2026**, to be considered as part of the DCO application.

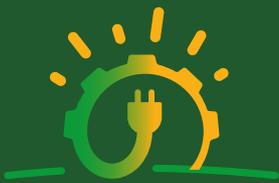


## Contact us

If you would like to talk to us about the project, you can contact our Community Relations Team using the following contact information:

- **Email:** [enquiries@futureenergyllanwern.co.uk](mailto:enquiries@futureenergyllanwern.co.uk)
- **Call:** 0800 783 5601 (9:00am to 5:30pm, Monday to Friday)
- **Write:** to the project team at **FREEPOST FEL SOLAR FARM** (no stamp required)

Consultation materials can be made available in alternative formats, such as large print, audio, or Welsh language, upon request. Please contact our Community Relations Team if you require materials in an alternative format.



**Future  
Energy**  
Llanwern