

Welcome to our public consultation on East Aberthaw Solar, a new proposed solar farm together with associated equipment, infrastructure and ancillary works on land at Fonmon, Vale of Glamorgan.

The proposed project site is located within the Vale of Glamorgan, and is situated north of Rhoose, between Aberthaw Power Station and Cardiff Airport. The site extends to approximately 40 hectares (ha) / 98 acres in size.

## Planning context

Given the nature of this application, and the fact that it will generate more than 10MW of electricity, this project is deemed a Development of National Significance (DNS) and we must apply to Planning and Environment Decisions Wales (PEDW), which will make a recommendation to Welsh Ministers on whether or not to grant planning permission.

Ultimately, Welsh Ministers will decide whether or not to approve the application, however many other parties will have the opportunity to influence the proposals, including the host local authority, Vale of Glamorgan Council, as well as local communities and interested parties.

The scheme is proposed to have an export capacity of up to 35MW – this is equivalent per year to:



**11,630**  
Homes powered



**7,161**  
Tonnes of CO<sub>2</sub>  
removed



**3,818**  
Cars off the road



## Consultation approach and timeline

We are committed to understanding the views of the local communities around the proposed site, and to incorporating these views into the development of the project.

We have already undertaken an initial phase of informal consultation on the initial proposals, and we are grateful for all the feedback we received. We are currently undertaking a formal phase of consultation on the 'Preferred Design', which has been created using feedback provided during the first, informal phase of consultation.

Further information about what has changed since we last consulted can be found on board 3.

We would be grateful for further local views on the refined design, as well as any additional comments you may have on where you think we might be able to bring some broader benefit to the community.

Following a period of analysis and any final refinement, the application will be prepared and submitted to PEDW.



Indicative red line plan of the site and cable route

East Aberthaw Solar will consist of a ground mounted photovoltaic solar farm with an electrical generating capacity of approximately 35MW, together with associated equipment, infrastructure and ancillary works. The site extends to approximately 40 hectares (ha) / 98 acres in size.



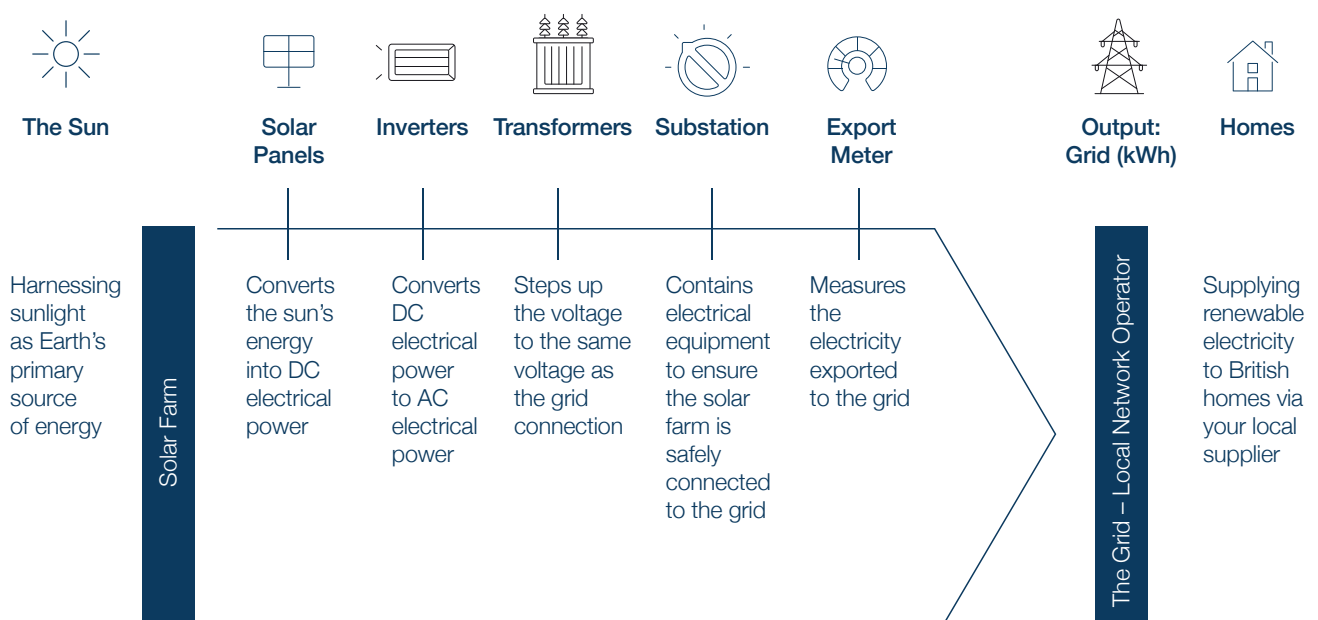
## Why here?

Low Carbon has carefully identified this site as part of a detailed feasibility process to deliver a large-scale clean energy scheme.

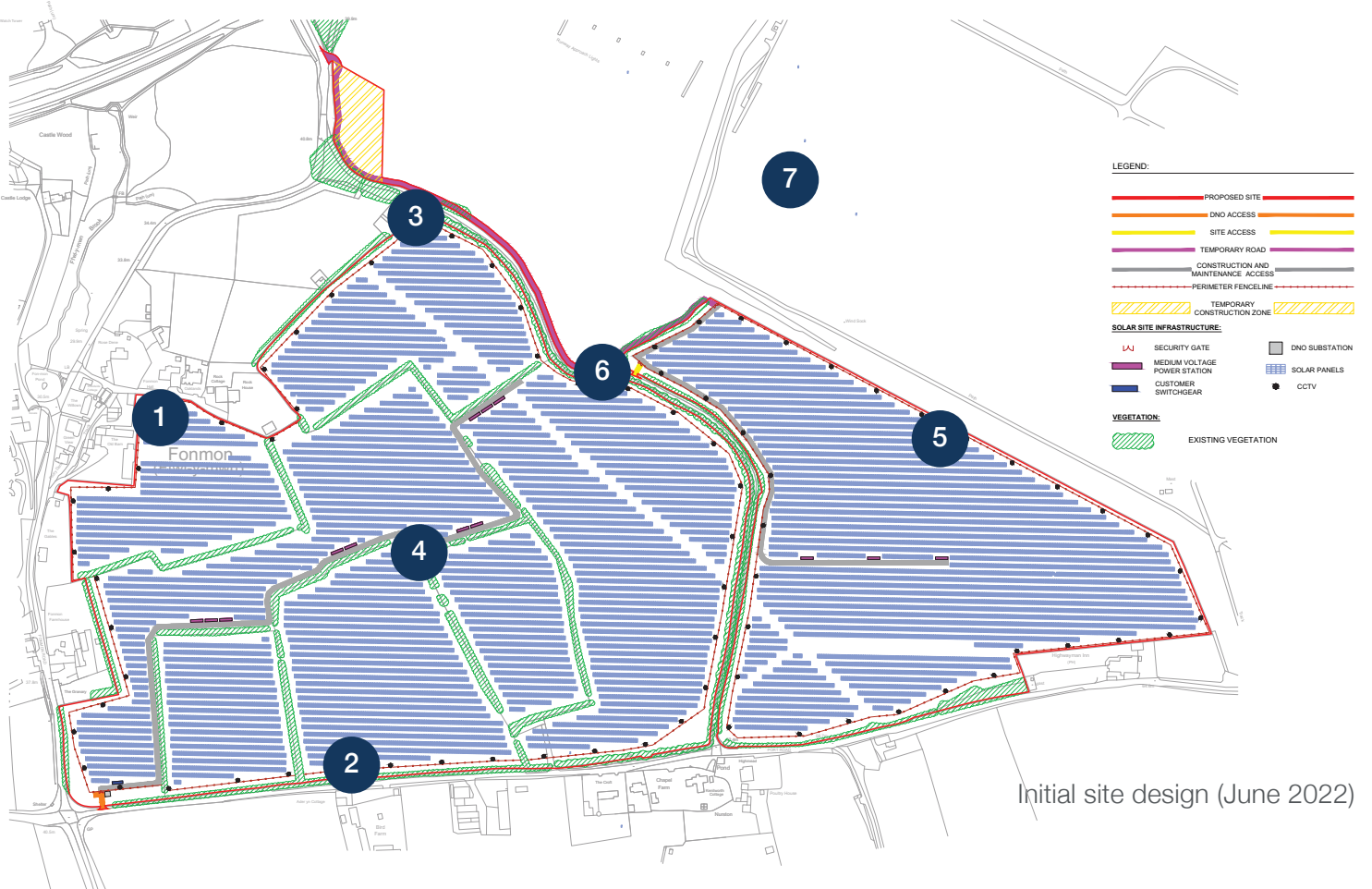
Many factors are considered by our specialists when evaluating appropriate sites for development. These include considering the available grid locally as well as various planning and environmental constraints.

## How a solar farm works

The illustration (below) is indicative of the components usually found on a solar farm.



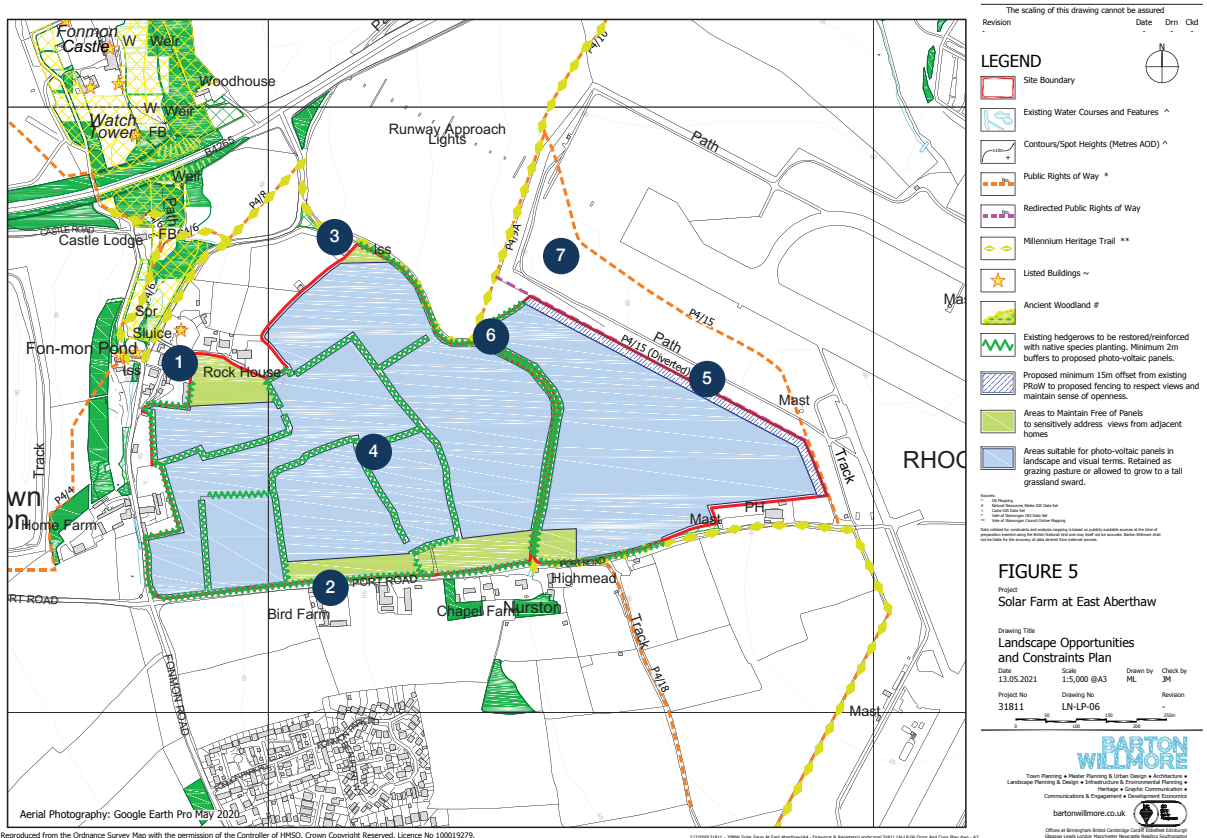
At our Phase 1 informal consultation in June 2022, we presented our initial proposals and thoughts on how the site could be designed based on a preliminary understanding of the environmental constraints and prior to engagement with local residents. This initial design is shown below.



## Changes made as a result of feedback and survey results

We've been working hard to review local feedback and have considered the results of our environmental assessments which has allowed us to develop a 'Preferred Design', which incorporates the points noted below:

- 1 This area will remain free from panels to reduce impact on views from homes, and on listed buildings in Fonmon.
- 2 Areas along the southern boundary adjacent to the residential properties on Port Road (from Bird Farm to Highmead) will also be free of panels to reduce impact on views from nearby homes to the south.
- 3 This area to the north of the site will also have panels pulled back to reduce visual impact on an adjacent property.
- 4 The existing hedgerows within and surrounding the site will be restored and/or reinforced to address potential for visual impact across the site from multiple viewpoints.
- 5 A minimum 15m offset from the existing public right of way along the eastern boundary of the site is required to maintain openness. In addition, further screening will be provided along the eastern boundary to reduce potential glint and glare impacts on the air traffic control tower at Cardiff Airport.
- 6 The access point has been amended slightly following discussion with the local authority Highways team.
- 7 Change in orientation of the panels to alleviate concerns from Cardiff Airport relating to glint and glare.



Preferred site design (Spring 2023)

This ‘Preferred Design’ has been informed by the feedback to our Phase 1 informal consultation, alongside the results of surveys and assessments which have been completed.

The specific infrastructure proposed comprises:

- Photovoltaic (PV) panels to a maximum height of 3m
- Mounting frames – matt finished small section metal structure pile driven into the ground
- Scheme of landscaping and biodiversity enhancement
- Central Inverters (inverters and transformers will be housed together in prefabricated containers to a maximum height of 3m), substations (maximum height of approximately 4m) and associated underground cabling
- Point of connection at Aberthaw Substation to the west
- Stock fencing up to a height of 2m
- Infra-red CCTV (CCTV cameras would operate using motion sensors and would be positioned inward only to ensure privacy to neighbouring land and property)
- Temporary set down areas and internal service tracks
- Site access for the construction, operational and decommissioning phases

The connection point is proposed a short distance to the west of the site at Aberthaw Substation. The cable connecting to the local electricity distribution network will run underground along Port Road.



## Technical assessments

We have undertaken a range of technical assessments to help us understand the site and local environment as the solar farm proposals have developed. These assessments will be recorded and form the evidence base we submit as part of the application.

Our final application will present the results of a detailed assessment of the potential beneficial or adverse environmental effects and impacts arising from the proposed development of the solar farm.

Assessments which have been undertaken include:

- Transport
- Ecology including Biodiversity Net Gain
- Heritage including Geophysical Survey
- Landscape and Visual Impact including photomontages
- Flood Risk and Drainage
- Arboricultural Assessment
- Agricultural Land Classification Survey
- Glint and Glare Assessment
- Alternative Site Assessment



## Environmental considerations

We have undertaken an assessment of the potential ecological effects and proposed mitigation measures required to address any impacts of our proposals on the local environment. This work covers the main site, as well as the cable route corridor.

Wherever possible, we have looked at how we can provide additional benefits through ecological enhancement and mitigation, which allows us to improve biodiversity across the site. Examples of how this could be achieved include enhancement of existing site features such as hedgerows as well as additional planting and management of wildflower areas and grassland on field margins and between panels.

Throughout the lifetime of the project, the site ecology and environmental impacts will be monitored, and revisions to planned mitigation will be assessed and agreed upon with the relevant statutory bodies.

Further detail about these assessments and our approach to mitigation can be found in the documentation we have prepared as part of this application. A full list of draft documents, surveys and assessments is available to view on the project website:

**[www.east-aberthaw-solar.co.uk](http://www.east-aberthaw-solar.co.uk)**

## Landscape and visual assessment (LVA)

We appreciate that for many local residents, what the scheme looks like is a key consideration. To assess the impact of the proposed solar farm on the local area, a Landscape and Visual Assessment (LVA) has been undertaken. This has helped to inform the 'Preferred Design' of the site.

Visualisations of the proposed site from various viewpoints can be seen on this board. The full LVA and further visualisations can be found on the project website.



Indicative Viewpoint from junction of Port Road and Rockshead Lane, one year post construction



Indicative Viewpoint from junction of Port Road and Rockshead Lane, 15 years post construction



## Why here?

Low Carbon has carefully identified this site as part of a detailed feasibility process to deliver a large-scale clean energy scheme. Many factors are considered by our specialists when evaluating appropriate sites for development. These include considering the available grid locally as well as various planning and environmental constraints. **This site is close to an available connection point to the local electricity network at Aberthaw and has good access for construction and ongoing maintenance.**

## Will the impacts to agricultural land be taken into consideration?

Yes. Understanding the nature and quality of the land (Agricultural Land Classification – ALC) within the site has been an important assessment for us to undertake as we developed the scheme design. This helps us ensure that lower grade land is prioritised for use, and that ‘Best and Most Versatile’ (BMV) agricultural land is avoided.

Initial assessment has shown that this site does not contain high quality agricultural land (it has been assessed to be Grade 3b). We intend to continue to use the land for grazing as part of the management of the grassland within the site, and the construction and decommissioning of the infrastructure will have little impact on the land quality due to the nature of the proposals and construction methods utilised.

## Will the site increase flood risk in the area?

Solar panels are mounted on frames which are driven into the ground on spikes. Very little concrete is used on solar farms, generally limited to the bases for the transformers and the substation and switchgear building. Extensive assessment has been undertaken, with mitigation provided to ensure that there is no net increase in flood risk. **This site is not expected to result in any impact to existing drainage, however surface water run-off has been assessed and appropriate mitigation considered to ensure that there is no change in water drainage from the site.**

## Will the solar panels be visible from my house?

Visibility of the site from surrounding areas has been a key design consideration. The height of the panels will be relatively low lying meaning much of the site won't be visible from local residential areas in Rhoose, however we know that there are some properties closer to the site at Fonmon and Nurston which we have considered very carefully. **Provision of additional screening planting and enhancing the hedgerows throughout the site will also improve screening from local roads and properties.**

## Will panels cover the whole area?

**No. There will be lots of green space all over the site.** There will be gaps of at least 2.5m between each row of solar panels which will remain grass, and grass will grow underneath each row of panels.

Existing hedgerows and trees will be maintained, with buffers to allow for landscaping and there will also generally be 5 metres of open field space between security fencing and solar panels throughout the whole site and a similar distance between the site fence line and existing boundaries (as a minimum). There will also be new areas of wild meadow planting, new trees and hedgerows will be planted, and there will be farm-style tracks between the fields of panels.



## Construction

A Construction Traffic Method Statement has been developed as part of the planning application. This provides details of proposed access arrangements, the anticipated programme, construction vehicle numbers and type, construction worker numbers, and the proposed construction hours.

A Construction Environmental Management Plan (CEMP) will also be prepared prior to development works commencing on site.

These documents are subject to consultation and agreement with relevant consultees and the local authority.

## Ongoing operation

Given the nature of the proposed scheme, there will not be a significant amount of traffic required during the operational lifetime of the project. Solar farms generally require little maintenance (when compared to other energy generating facilities) and so traffic to the site will consist of a single vehicle, 3-4 times per week on average.

## Decommissioning

The project lifetime is 40 years, meaning that we would be looking at decommissioning the site in the 2060s. Whilst the exact details of the process will be agreed closer to the time, the decommissioning activity will likely mirror the construction process in duration and activity.

The site will continue to be designated as 'Agricultural Land' meaning that the inclusion of solar panels for the lifetime of the project will not change the classification of the land. Agricultural practices (such as sheep grazing) can continue through the lifetime of the project.







## Welsh Government targets

The Welsh Government has acknowledged that there is a climate emergency and has committed to decarbonisation as a means of tackling the causes of climate change over the coming years. Generating renewable energy is a key part of that commitment and the Welsh Government has set ambitious targets for the generation of renewable energy including for **70% of electricity consumption to be generated from renewable by energy 2030.**

In January 2023, the Welsh Government announced that it would seek to increase these targets, **so that by 2035, 100% of energy generated will be through renewable means.**

Through the development and delivery of East Aberthaw Solar, we hope to provide a significant contribution towards these targets.

## Security of supply

Solar power generated in the UK reduces the need to import electricity from abroad. This not only creates energy industry jobs in the UK, but makes our energy supply and prices more secure, since imported energy can vary in price as supply and demand changes.

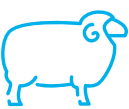


## Benefits



### Biodiversity

It is important that the site is improved for nature and shows a biodiversity net gain, thus helping to protect and improve new and existing habitat. We are therefore creating a species rich haven for wildlife.



### Sheep grazing

We work in partnership with the landowner or local shepherds to provide a unique and innovative space for sheep to graze amongst the solar panels which provide protection in both summer and winter.



### Beehives

We encourage the siting of beehives within the solar farm, which not only helps to pollinate nearby crops and plants but provides a secure environment with readily available food sources. The hives are tended by trained local beekeepers to ensure the health and welfare of the bees.



### Planting

Our sites are designed around existing hedgerows and trees. We look to enhance the site with additional planting of native species of hedgerows, trees, pasture-mix grasses and wildflowers.

This project presents a significant opportunity to deliver clean, renewable energy. It will offer a valuable contribution to the region's drive to decarbonise and reduce emissions, as well as helping reduce the UK's reliance on foreign fuel imports.

## Statutory Consultation

This project is committed to ongoing public engagement, and we have sought a pro-active role in undertaking pre-application consultation on the proposals.

This second phase of consultation is the formal phase of statutory consultation which is being undertaken in line with the Developments of National Significance (Procedure) (Wales) Order 2016.

All required draft documents, plans and reports related to this application can be viewed and downloaded from the project website.

Feedback can be provided in a number of ways including via email, freepost, freephone, or by completing a form in person at an event.

**The closing date for comments is 28th March 2023.**

## Let us know your views

If you have any further questions or comments about the proposals or the consultation process currently underway, you can get in touch with us and provide your feedback via:



### Project website

Project documents and plans detailing the nature and location of the project are available at <https://east-aberthaw-solar.co.uk>



### Email

Written feedback can be provided utilising the project email address – [info@east-aberthaw-solar.co.uk](mailto:info@east-aberthaw-solar.co.uk)



### Feedback forms

Available at the consultation event and online via the project website. Alternatively, get in touch to request a hard copy and we will post it to you.



### Freepost

Written feedback can be provided utilising the project freepost address **FREEPOST LOW CARBON UK SOLAR DEVELOPMENT** (no further address or stamp required)



### Freephone

**0800 151 0220** (Monday to Friday 9am to 5pm excluding public holidays)

## Timeline:

**Early 2022**  
Pre-planning  
and project  
inception

**June 2022**  
Informal  
community  
consultation

**March 2023**  
Statutory  
consultation on  
draft application

**Summer 2023**  
Application  
submission

## About Low Carbon

Low Carbon is a privately owned company, founded in the UK in 2011.

We are committed to making a positive and significant impact on climate change by investing in large-scale

renewable energy projects such as East Aberthaw Solar.

Further information can be found at: [www.lowcarbon.com](http://www.lowcarbon.com)