

ELGIN
ENERGY

PROPOSED SOLAR PV FARM

Pentre Bach Solar Farm

Llantarnam, Cwmbran

"Solar farms typically take up less than 5% of the ground they occupy, leaving huge scope for biodiversity enhancements in a protected space"

BRE National Solar Centre Biodiversity Best Practice Guidelines 2014

Introduction

Elgin Energy EsCo Ltd is seeking to develop a ground mounted Solar PV farm on lands north of Pentre Lane, Llantarnam, Cwbran NP44 7AR. We are seeking your views on this proposal ahead of submitting a planning application to the Planning Inspectorate. The red line plan below indicates the site boundary.

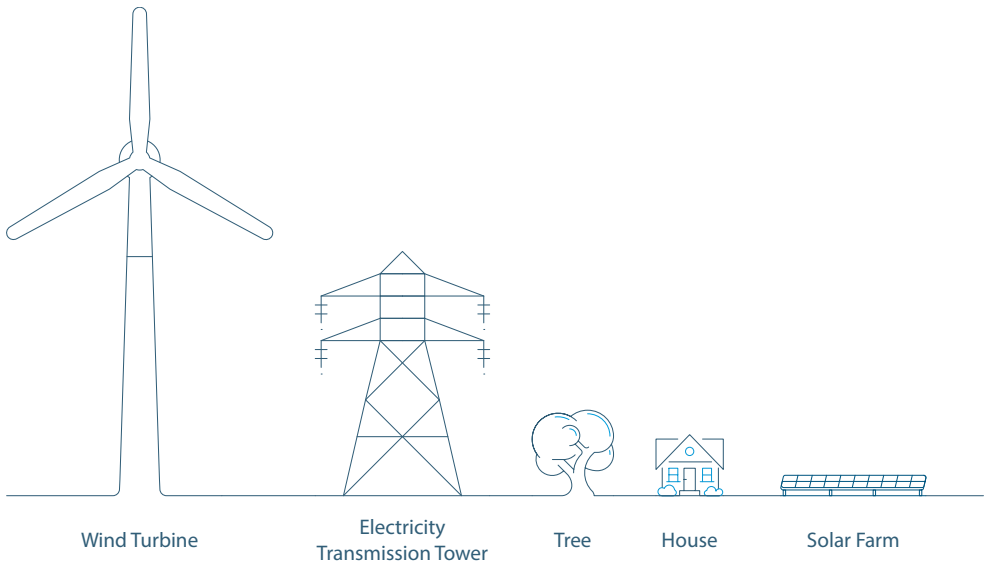


Project overview

The proposed site is located in the south of Torfaen County Borough approximately 500 metres south of Hollybush. Access to the site will be from Pentre Lane.

The proposed project covers approximately 110 acres and will accommodate approximately 20 megawatts (MW) of ground mounted solar photovoltaic (PV) panels and an energy storage facility. A project lifetime of 40 years is proposed.

The proposed solar farm will generate approximately 23,000,000 kWh per annum powering 6,000 homes or 8,000 electric vehicles (EVs) every year.



Local engagement

Elgin Energy EsCo Ltd is committed to the local communities in which we operate. We engage with communities on each project and try to identify local initiatives that we can support through a community benefit fund.

Local contractors and businesses will be engaged as far as possible during the installation phase. It is estimated that installation will take approximately 16 weeks. For the operational phase it is envisaged that local contractors and service providers will be engaged to maintain the solar farm.

If you would like to obtain further information about a community benefit fund or enquire about providing services for this project, please get in touch with us today.

Pre-planning process

A number of assessments are being conducted to establish any potential affects of the proposed development on the site and surrounding lands. These reports include ecology, archaeology & cultural heritage, construction access & traffic and flood risk. In addition, a landscape and visual impact assessment has been undertaken to establish the impact on nearby viewpoints. A glint & glare assessment will also be carried out although glint & glare effects from PV panels are rare as they are designed to absorb, not reflect, sunlight. This is evidenced by the installation of PV panels adjacent to the runways at Gatwick airport.

Existing field boundaries, trees and hedgerows will be retained as far as possible. It is intended that ecology and biodiversity will be mitigated where relevant over the 40 year operational period. A detailed tree survey will be conducted to protect higher value trees during the installation period.



Physical elements of a solar farm

The following components are proposed for this solar farm:

- Solar panels will be arranged in rows of 24-48 panels facing southwards at an inclination no greater than 25 degrees. The distance between the rows will be between 2 - 6 metres (m). The panels are set at 0.8m above ground level and increase to 2.4 - 3m approximately.
- A mounting system comprising upright galvanised steel posts which are screwed or pushed into the ground and an aluminium support frame which is bolted together.
- Inverters measuring approximately 7m x 2.5m x 3m high. They convert the DC electricity produced by the panels into grid-compatible AC current. They will be located throughout the site.
- A primary substation.
- Energy storage facility.
- Underground cabling from the panels/inverters to the substation.
- Several permeable stone tracks to facilitate access to the inverters.
- Rural 'timber & post' deer fence measuring 2 - 2.4m in height will enclose the site. A gap of 10cm at ground level will allow ecology to freely enter and exit.
- 3m high pole-mounted CCTV cameras inside the site to monitor the solar farm.

The solar farm requires no concrete foundations apart from the substation base. It is designed to be reversible and leave no trace when removed.




About Elgin Energy

Elgin Energy is a leading solar development platform with operations in the UK, Ireland, and Australia. To date, we have delivered 21 projects / 230 megawatts (MW) including the largest operational solar farms in Scotland (13MW) and Northern Ireland (46MW).

The company's initial development began in the UK in 2011, followed by Ireland in 2015 and Australian offices were opened in 2018.

Elgin Energy is committed to creating a sustainable future and is working towards this goal with our projects.

To learn more about Elgin Energy and the work we do, please visit our website.



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