

# Esgair Ddu Energy Park

**GALILEO empower is pleased to present its plans for the proposed Esgair Ddu Energy Park. Thank you for taking the time to visit today's event.**

## Leave your feedback

**This is our first round of consultation events, giving you the chance to view our current plans for the site, meet the project team, and provide feedback.**

We would very much value your feedback as we seek to review and refine our plans.

Please take a few minutes to share your views and comments on our proposal by completing our feedback form:



**on the website**  
**[esgairddu-energy-park.co.uk](http://esgairddu-energy-park.co.uk)**



**hard copies are available at the event today.**  
**Please return to:**

- **the return box at the event**
- **FREEPOST Grasshopper Consult**  
(no stamp or further address required)

## Keeping in touch

If you have any questions after today, please get in touch at any time by:



emailing **[EsgairDdu@galileoenergy.uk](mailto:EsgairDdu@galileoenergy.uk)**



calling **01650 570 025**



**Deadline for initial feedback:**  
**Tuesday 3 December 2024**

# How is GALILEO empower tackling the climate emergency

GALILEO empower was established to support the once in a lifetime global transition to low carbon renewable energy.



The proposal for Esgair Ddu is set in response to the climate emergency, which the Welsh Government declared in April 2019. In addition, it will help to transition to renewable energy sources and reduce greenhouse gas emissions.

We want to further address the risks of over-reliance on imported fossil fuels, with the rising cost of gas and oil driving the huge increase in energy bills.

Over the next decade, Wales needs to quadruple its wind power capacity – from both onshore and offshore sources. A clean energy future will:

- ✓ **safeguard our energy security**
- ✓ **provide lower-cost electricity to ease the cost of living for households**
- ✓ **boost the competitiveness of Welsh businesses and supply chains**
- ✓ **support thousands of jobs nationwide.<sup>1</sup>**

Onshore wind is one of the cheapest sources of new-build electricity generation in the UK, and already makes an important contribution to the renewables mix.

<sup>1</sup> RUK-Cymru-Manifesto-2024.pdf (renewableuk-cymru.com)



## About us

**GALILEO empower is a fast-growing European, multi-technology, renewable energy developer, owner and operator with a mission to drive and expedite building a sustainable energy system for the next generation.**

We aim to do this by developing smart, efficient, high quality and integrated green energy projects to support the global transition to low carbon renewable energy.

GALILEO empower has a number of projects in development in both Wales and Scotland. Our Cardiff-based project team is committed to developing projects which deliver substantial and tangible benefits locally and foster strong community relations. GALILEO's funders are long-term international infrastructure and pension funds.

**More information about GALILEO empower is available at: [galileoempower.com](https://galileoempower.com)**

# Esgair Ddu Energy Park



## Site Location

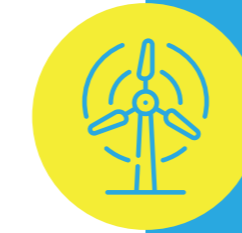
**Esgair Ddu Energy Park is located in a very rural, sparsely populated area in the north of Powys, on land used for moorland grazing.**

The site is not located in any nationally or internationally designated areas.

- 3 km north east of Cwmllinau
- 3 km south of Dinas Mawddwy
- Immediately to the north and west of the operational Cemmaes Wind Farm

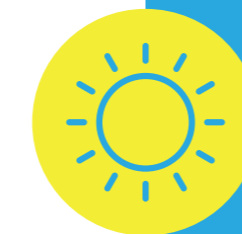
The site benefits from excellent wind resource and suitable ground conditions for solar, and is an ideal location for a new renewable energy park to provide clean, carbon-free electricity.

## The Proposals



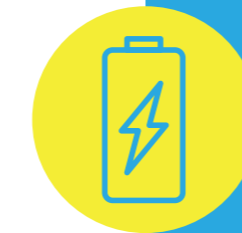
### Wind

- Up to **13 turbines** with a maximum tip height of 230m.
- Up to **91 megawatts** (MW) of renewable energy generation.
- Enough to power over **75,000 homes** a year.<sup>2</sup>
- Offsetting some **100,000 tonnes** of carbon dioxide emissions a year.<sup>3</sup>



### Solar

- Solar photovoltaic (PV) panels mounted on a frame
- Set in rows maximising the opportunity to collect light and generate renewable energy from the sun throughout the year



### Battery Energy Storage System (BESS)

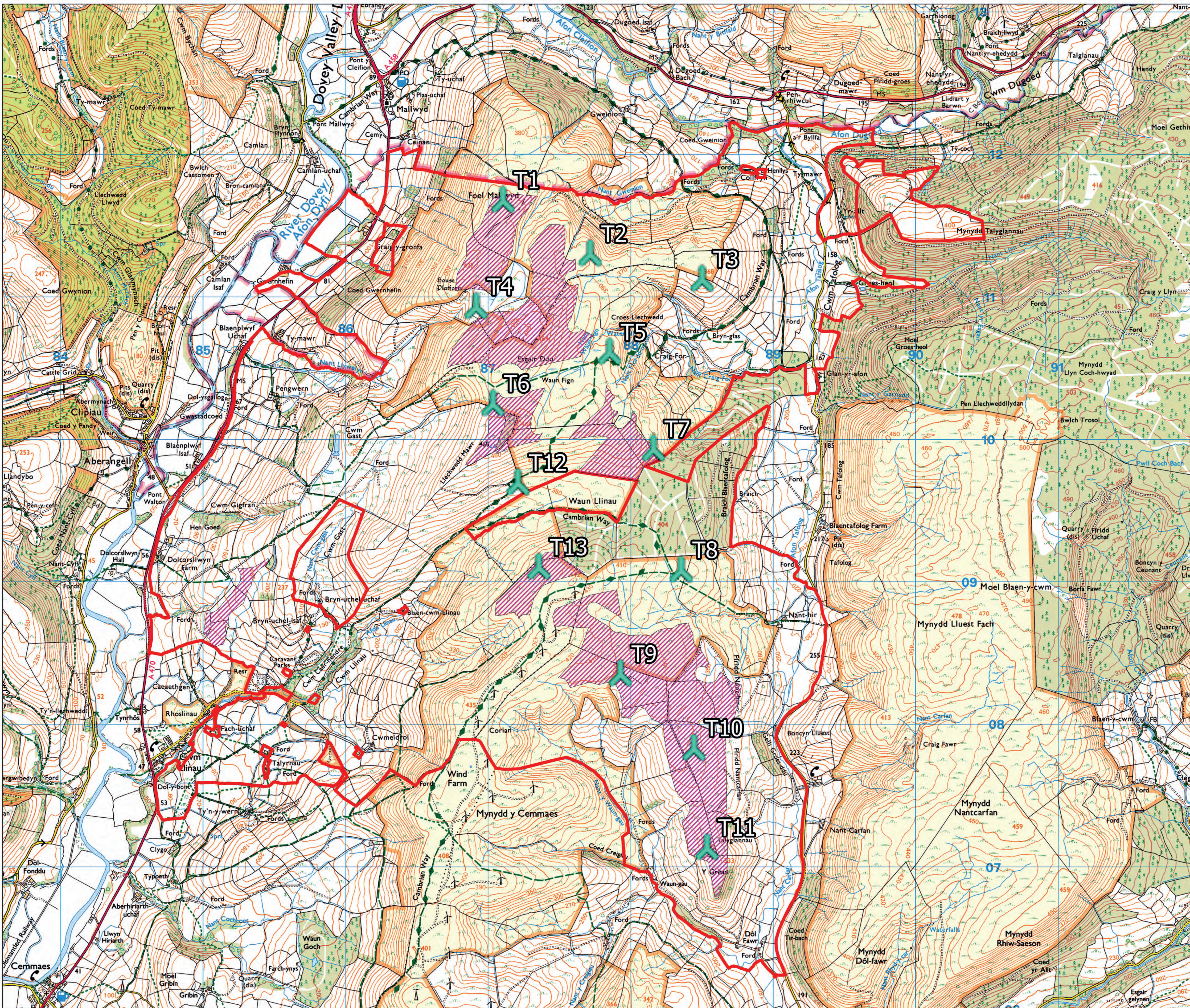
- Stores the excess energy that is produced during high winds or sunny days and then exports that stored energy back to the grid when generation is low and energy is needed.
- Provides a vital 'balancing role', helping to ensure that the grid remains stable at all times.

## Grid Connection

The connection from Esgair Ddu Energy Park to the National Grid will form a separate planning application which would not be made by GALILEO empower.




2. Based on DESNZ statistics for Annual GB average household consumption: <https://assets.publishing.service.gov.uk/media/65b12dfff2718c000dfb1c9b/subnational-electricity-and-gas-consumption-summary-report-2022.pdf>

3. Based on DESNZ's "all non-renewable fuels" emissions statistic of 437 tonnes of carbon dioxide per GWh of electricity supplied: <https://www.gov.uk/government/statistics/electricity-chapter-5-digest-of-united-kingdom-energy-statistics-dukes>




Project:  
**Esgair Ddu Energy Park**

Title:  
**Lleoliad y safle  
Site Location**

- Key:
-  Tyrbin gwynt dangosol / Indicative Wind Turbines
  -  Lleoliad y safle / Site Location
  -  Ardal Chwilio Solar Ddangosol / Indicative Solar Search Area

Scale: 1:12,500

0 0.5 1 km



Date: 08/11/2024	Prepared By: RU	Checked By: LE
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# Environmental Considerations

## We've got a team of expert environmental and technical consultants helping us develop our proposals, led by Aberystwyth-based Natural Power Consultants.

The planning application process requires an Environmental Impact Assessment (EIA) to be undertaken to assess the potential environmental effects of the project. We have started in-depth studies which will help us refine our proposals to avoid, reduce and mitigate any potential environmental impacts. The findings will be presented as an Environmental Statement (ES).

## We will assess the following:

### Wildlife

Surveys will be conducted to determine the project's potential impact on local wildlife and habitats, including bird surveys (key species which will be considered include Peregrine, Merlin, Hen Harrier, Red Kite and Nightjar) over a two-year period and habitat and specialist wildlife surveys (bats, otter, water vole and badger). Potential impacts on the nearby statutory sites designated for nature conservation including the Berwyn Special Protection Area will also be considered.

Opportunities will be explored for biodiversity enhancement to achieve an overall Net Benefit for Biodiversity on the site.



### Cultural Heritage

Non-designated historic assets within the site boundary and the settings of designated assets such as listed buildings and scheduled monuments within the wider surrounding area will be considered.



### Water, soils and peat

Surveys will be undertaken to gather information about watercourses, groundwater, soil and peat conditions.

### Noise

A comprehensive assessment on predicted noise levels from the proposed turbines will be completed. The noise from turbines would meet the strict requirements of national guidance and be within the appropriate limits set. Planning conditions will be imposed on any consent that will adequately control noise levels generated to an acceptable level at the nearby properties.

### Transport and Access

Different route options for delivery of plant and equipment are being considered, as well as construction access to the site. The site entrance is likely to be located along the A470.

### Aviation and radar

Potential impacts on aviation and radar will be assessed and consultation will be carried out with the Ministry of Defence and NATS En Route plc (NERL) to ensure that we address any potential issues. Potential impact on military low flying will be assessed for Low Flying Area 7 - known as the 'Mach Loop'.

# Landscape and Visual

**The site boundary stretches between the Dyfi Valley in the west to the Tafolog valley in the east. It is largely made up of the uplands of Mynydd y Cemmaes and Esgair Ddu, part of the Cambrian Mountains range of hills.**

A landscape and visual impact assessment (LVIA) will be undertaken, allowing us to consider the potential effect of the proposal on key views from the surrounding area and the on the character of the landscape. Key landscape designations will be considered including Eryri National Park and its International Dark Sky Reserve status. An important consideration will be the impact on visual amenity for residential property owners, as well as users of recreational areas, public footpaths and roads within the local area.

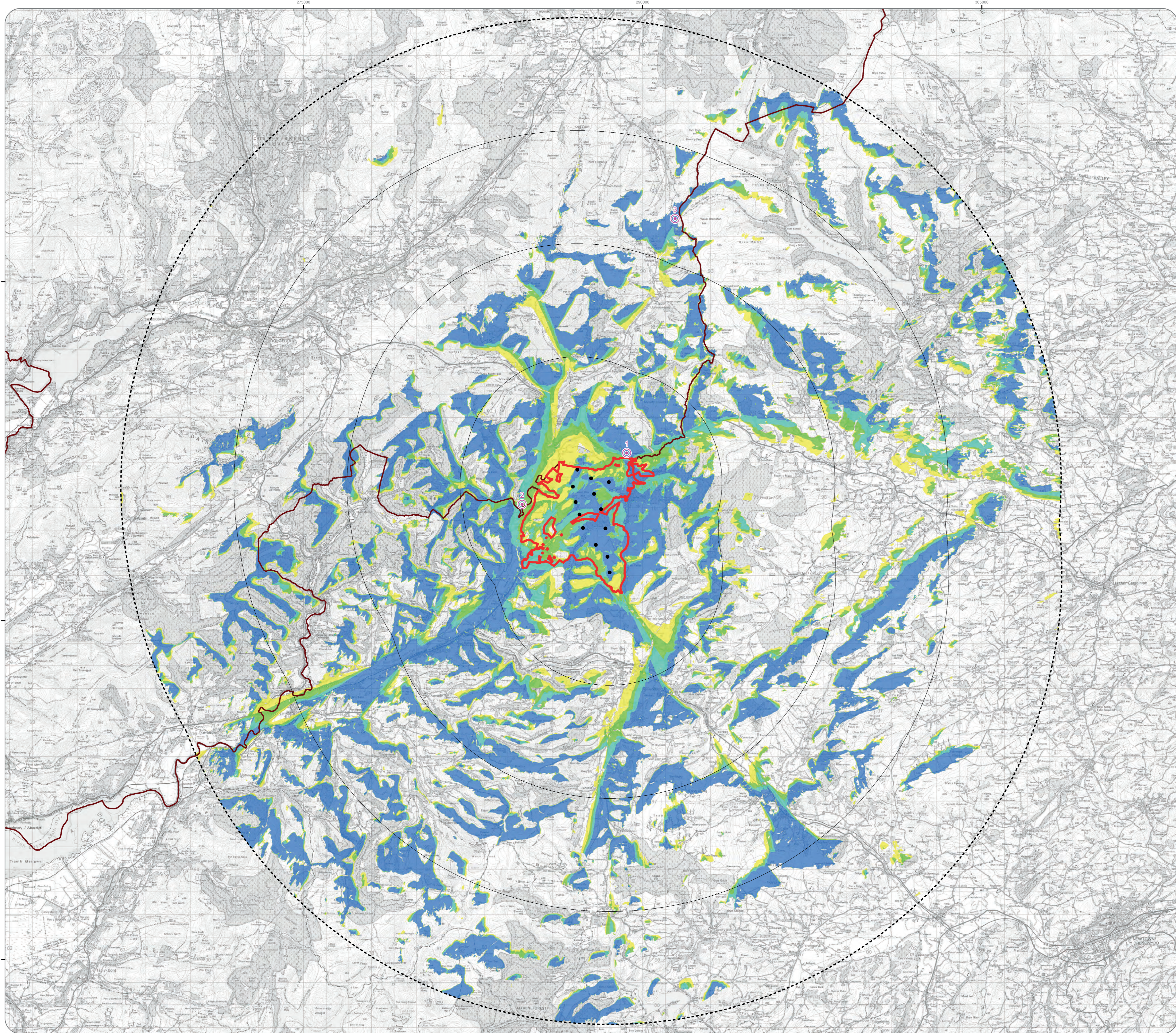
The LVIA will also assess how the energy park will look and fit in the surrounding landscape as well as illustrating this visually with the production of wirelines and photomontages.

## Zones of Theoretical Visibility (ZTV)

The ZTV indicates where the turbines could be theoretically visible. The ZTV does not take into account existing buildings, trees or anything else 'above' ground which would further restrict visibility of the proposed development.

For the purposes of this exhibition we have selected the viewpoints shown to illustrate how the Esgair Ddu Energy Park, based on the indicative layout, may appear in the surrounding area.





**Legend**

- Proposed Turbine / Tyrbin arfaethedig
- ▭ Site Boundary / Ffin y safle
- 5km Radii
- ⊖ 20km Buffer / Clustog
- ⊙ Exhibition Viewpoint / Safbwynt yr arddangosfa
  1. A458 near Pen-rwicul
  2. Aberangell
  3. Bwlch y Groes
- ▭ Eryri (Snowdonia) National Park / Parc Cenedlaethol Eryri

**Blade Tip ZTV / Blaen llafn ZTV**

No of Blade Tips Theoretically Visible / Nifer blaenau'r llafn sy'n weladwy yn ddamcaniaethol

- ▭ 1-3
- ▭ 4-6
- ▭ 7-9
- ▭ 10 - 13

Blaen llafn:	230m	Uchder y sylwedydd:	2m
DTM:	OS Terrain 5	Nodweddion wyneb:	Eithriadig
Cydraniad DTM:	5m	crymedd y ddaear:	Yn gynywysedig
Blade tip:	230m	Observer height:	2m
DTM:	OS Terrain 5	Surface features:	Excluded
DTM resolution:	5m	Earth curvature:	Included



**ESGAIR DDU ENERGY PARK/  
PARC YNNI ESGAIR DDU**

**Blade Tip ZTV with Viewpoints /  
Blaen llafn ZTV gyda Safbwyntiau**

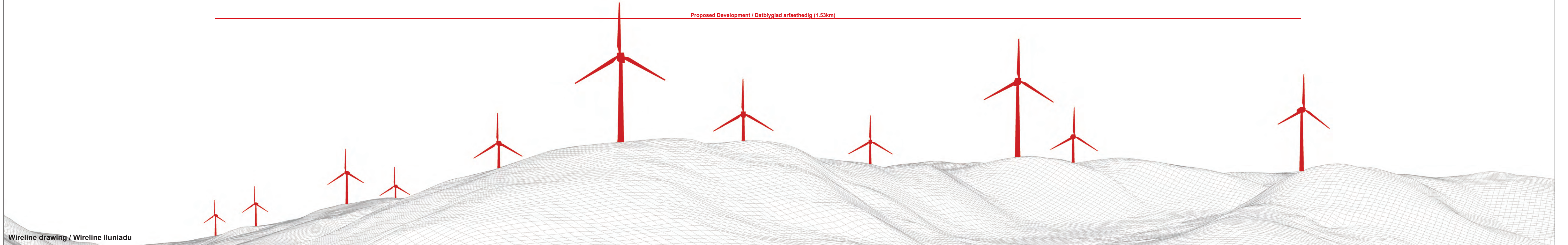
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Coordinate System/ Cyflynu system:	BNG OS GB 1936 Datum				





Baseline photograph / Ffotograff gwaelodlin

This image provides landscape and visual context only / Mae'r ddelwedd hon yn darparu tirwedd a chyd-destun gwledol yn unig



Wireline drawing / Wireline lluniadu

Proposed Development / Datblygiad arfaethedig (1.53km)

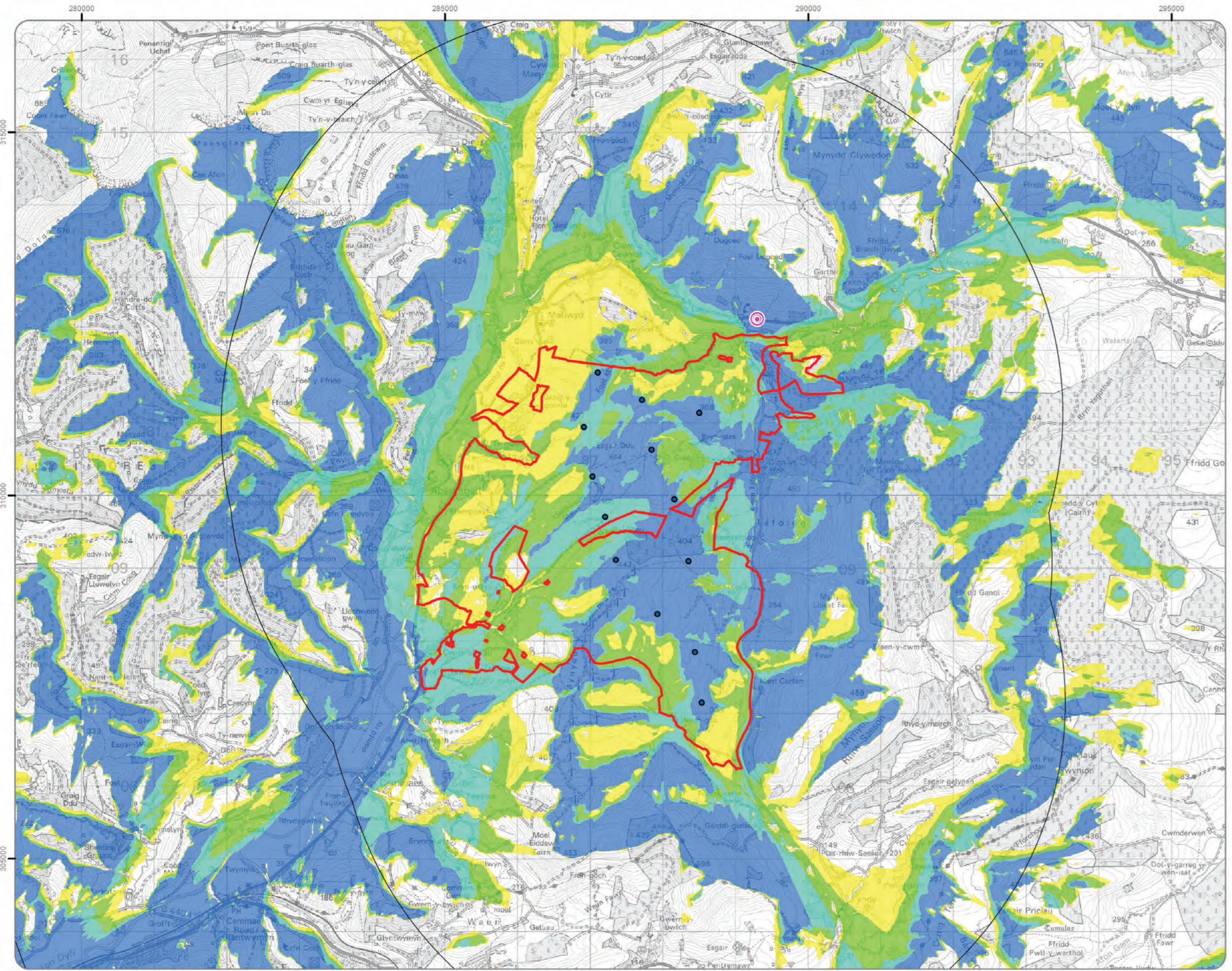
OS reference / Cyfeirnod OS: 289306 E 312430 N  
 Eye level / Lefel llygaid: 188.9 m AOD  
 Direction of view / Cyfeiriad yr olygfa: 221°  
 Nearest turbine / Tyrbin agosaf: 1.53 km

Horizontal field of view / Maes golygfa llorweddol: 90° (cylindrical projection / tafuniad silindrog)  
 Principal distance / Pellter prif: 522 mm  
 Paper size / Maint papur: 841 x 297 mm (half A1/ hanner A1)  
 Correct printed image size / Maint delwedd printiedig cywir: 820 x 130 mm

Camera: Nikon D610  
 Lens: 50mm f/1.8  
 Camera height / Uchder camera: 1.5 m  
 Date and time / Dyddiad ac amser: 12/09/2024 15:42

Viewpoint / Safbwynt 1: A458 near / ger Pen-rwicu  
 Esgair Ddu Energy Park / Parc Ynni Esgair Ddu

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**Legend Chwedi**

- Proposed Turbine / Tyrbin arfaethedig
- Site Boundary / Ffin y safle
- 5km Radii
- Viewpoint / Safbwynt
- Panorama with Wireline (90°HFOV) / Panorama gyda Wireline (90°HFOV)

**Blade Tip ZTV / Blaen llafn ZTV**

No of Blade Tips Theoretically Visible / Nifer blaenau'r llafn sy'n weladwy yn ddamcaniaethol

- 1-3
- 4-6
- 7-9
- 10 - 13

Blade tip: 230m	Observer height: 2m
DTM: OS Terrain 5	Resolution system: Eithriadig
Cylindrical DTM: 5m	Projection / Sgôr: Yn gwyngwsg
Blade tip: 230m	Observer height: 2m
DTM: OS Terrain 5	Surface features: Excluded
DTM resolution: 5m	Earth curvature: Included

**ESGAIR DDU ENERGY PARK / PARC YNNI ESGAIR DDU**

Viewpoint Plan / Cynllun Safbwynt: VP 1  
 A458 near Pen-rwicu

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Scale / Graddfa: 1:50,000	Drawing Size / Maint lluniadu: A3	Date / Dyddiad: 07/11/2024
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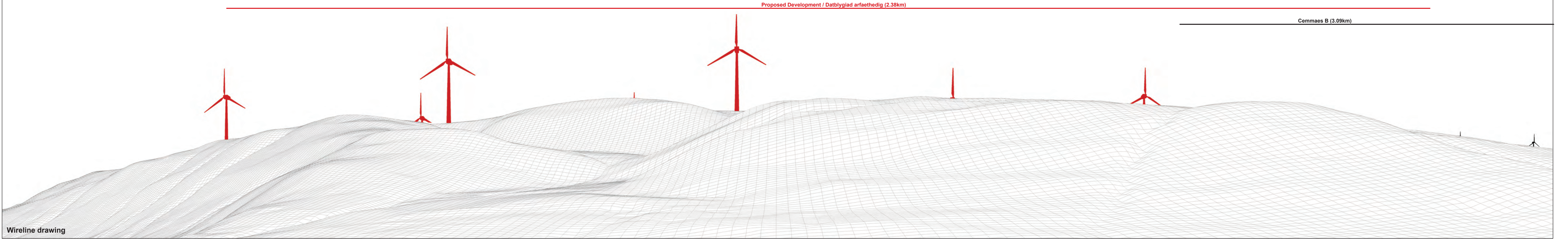


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Baseline photograph

This image provides landscape and visual context only



Wireline drawing

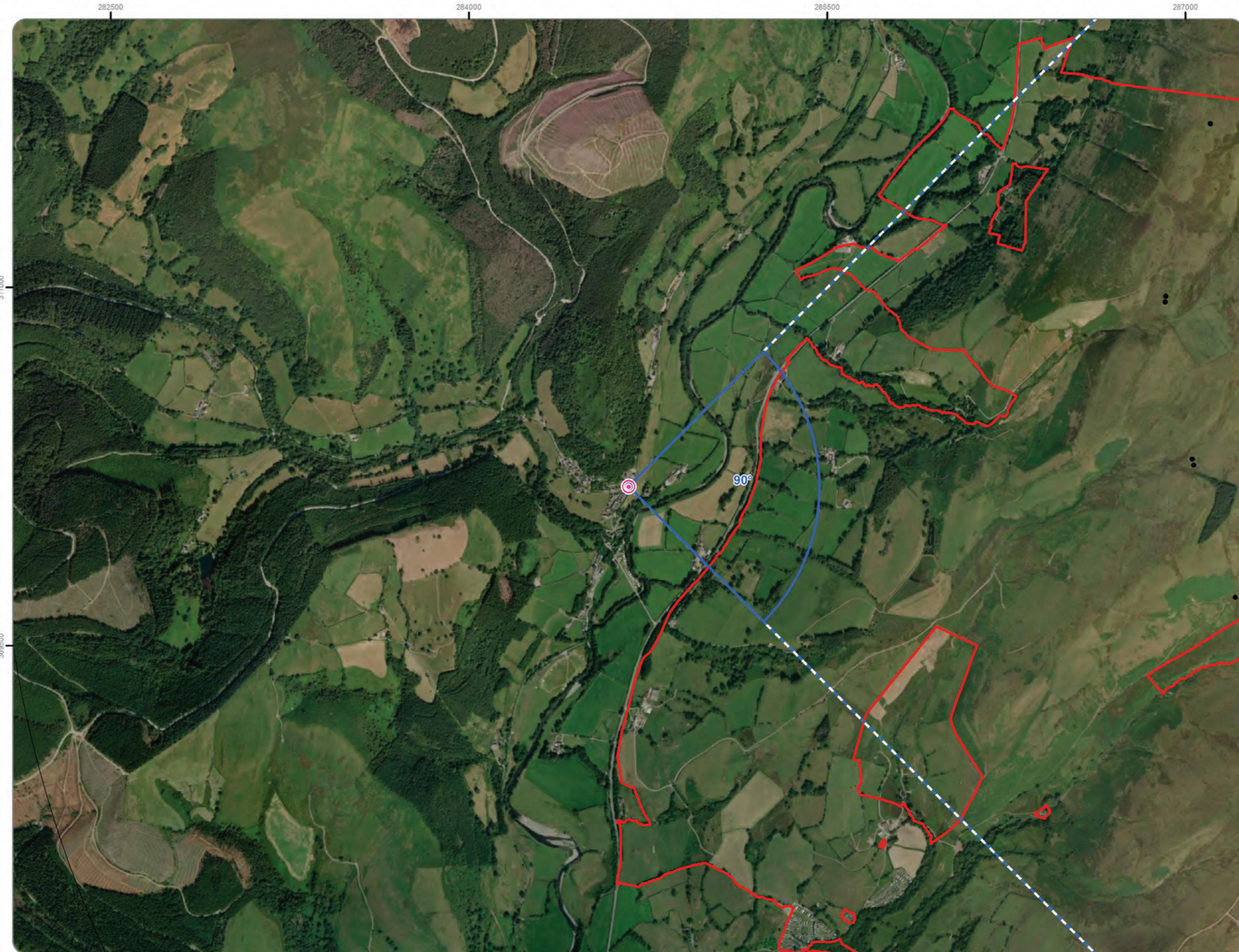
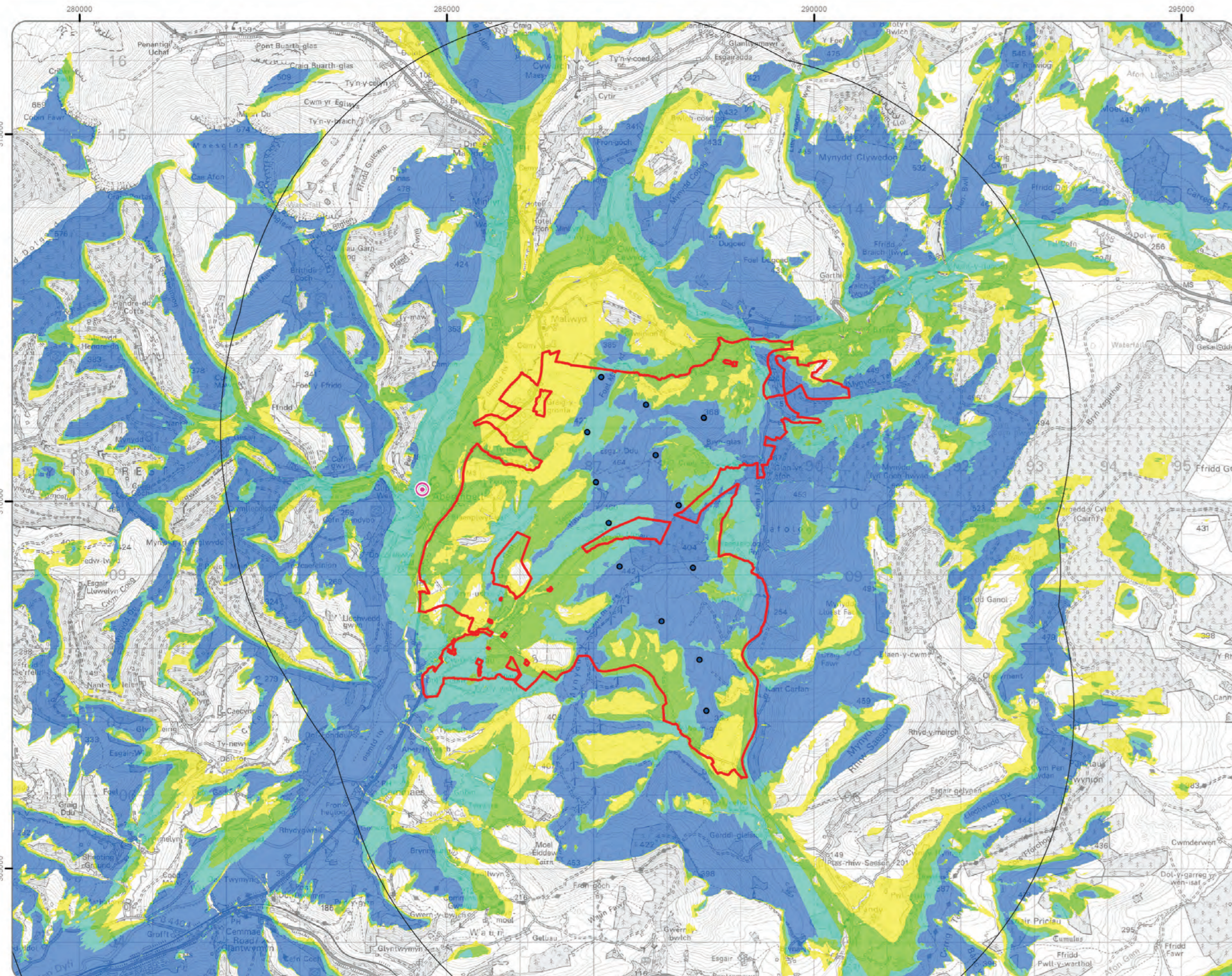
OS reference / Cyfeirnod OS: 284660 E 310159 N  
 Eye level / Lefel llyfgald : 76.1 m AOD  
 Direction of view / Cyfeiriad yr olygfa: 90°  
 Nearest turbine / Tyrbín agosaf: 2.38 km

Horizontal field of view / Maes golygfa llorweddol: 90° (cylindrical projection / tafuniad silindrog)  
 Principal distance / Pellter prif: 522 mm  
 Paper size / Maint papur: 841 x 297 mm (half A1/ hanner A1)  
 Correct printed image size / Maint delwedd printiedig cywir: 820 x 130 mm

Camera: Nikon D610  
 Lens: 50mm f/1.8  
 Camera height / Uchder camera: 1.5 m  
 Date and time / Dyddiad ac amser: 12/09/2024 15:00

Viewpoint / Safbwynt 2: Aberangell  
 Esgair Ddu Energy Park / Parc Ynni Esgair Ddu

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**Legend Chwedd**

- Proposed Turbine / Tyrbín arfaethedig
- Site Boundary / Ffin y safle
- 5km Radii
- Viewpoint / Safbwynt
- Panorama with Wireline (90°HFOV) / Panorama gyda Wireline (90°HFOV)
- Blade Tip ZTV / Blaen llafr ZTV

No of Blade Tips Theoretically Visible / Nifer blaenau'r llafr sy'n weladwy yn ddamcaniaethol

- 1-3
- 4-6
- 7-9
- 10 - 13

Blade Tip:	235m	Observer height:	2m
DTM:	OS Terrain 5	Surface features:	Excluded
Cylindrad DTM:	5m	Earth curvature:	Included

**ESGAIR DDU ENERGY PARK / PARC YNNI ESGAIR DDU**

Viewpoint Plan / Cynllun Safbwynt: VP 2  
 Aberangell

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Scale:	1:50,000	Drawing Size:	A3	Date:	07/11/2024
Coordinate System:	BNG OS GB 1936 Datum				

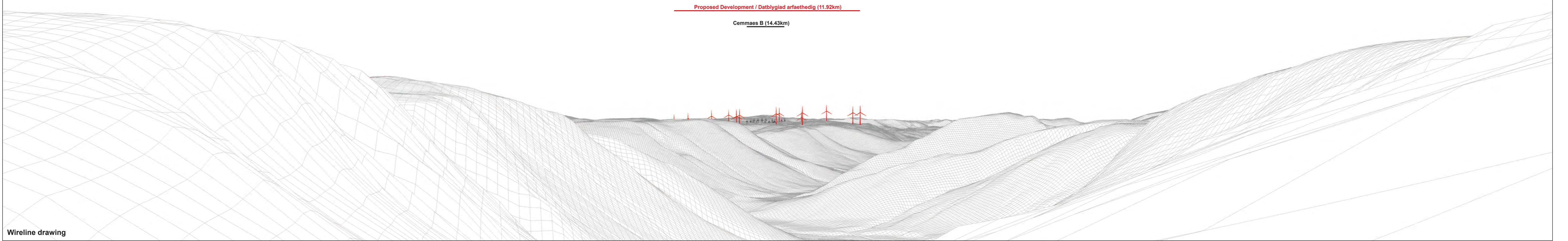


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Baseline photograph

This image provides landscape and visual context only



Proposed Development / Datblygiad arfaethedig (11.92km)

Cemmaes B (14.43km)

Wireline drawing

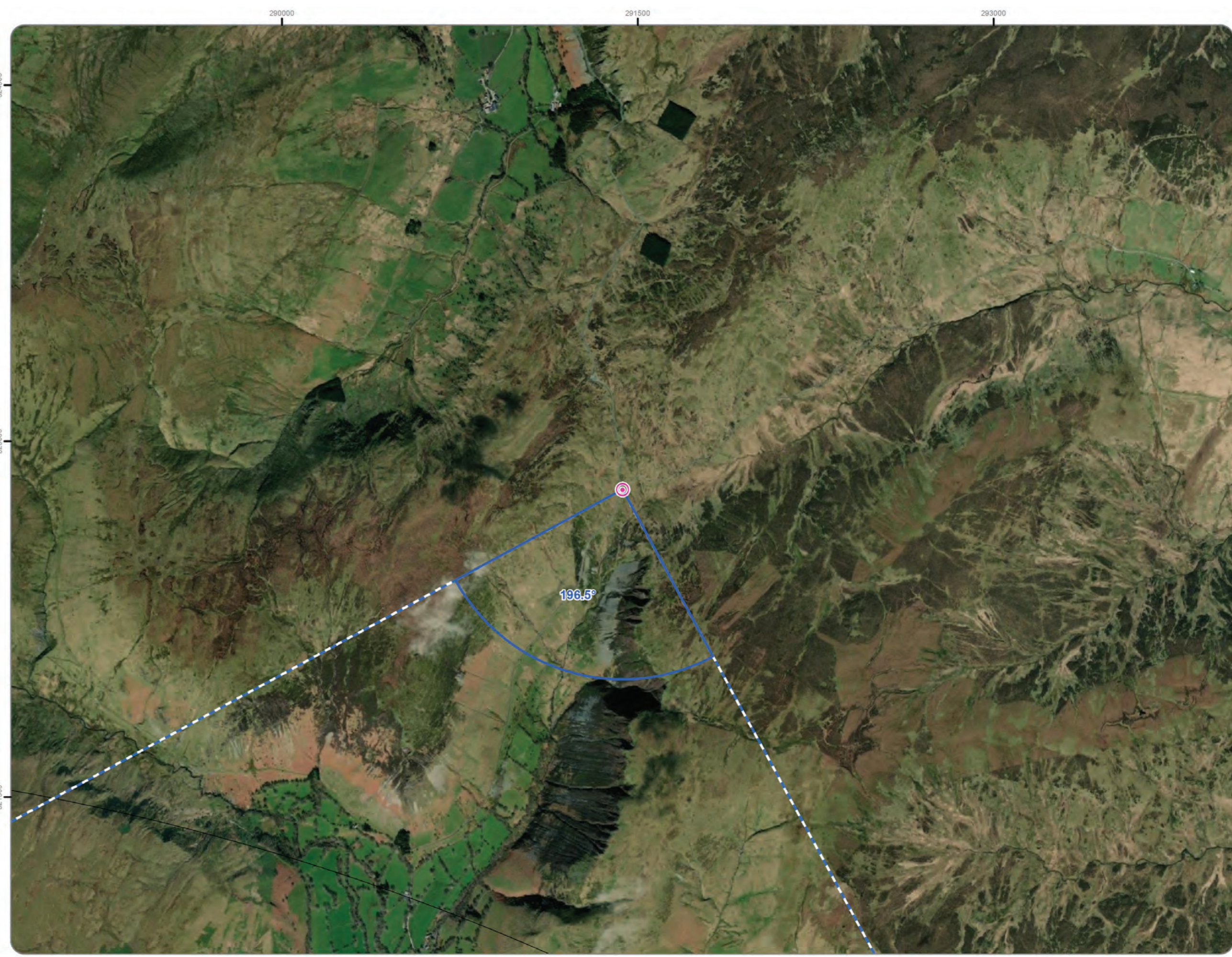
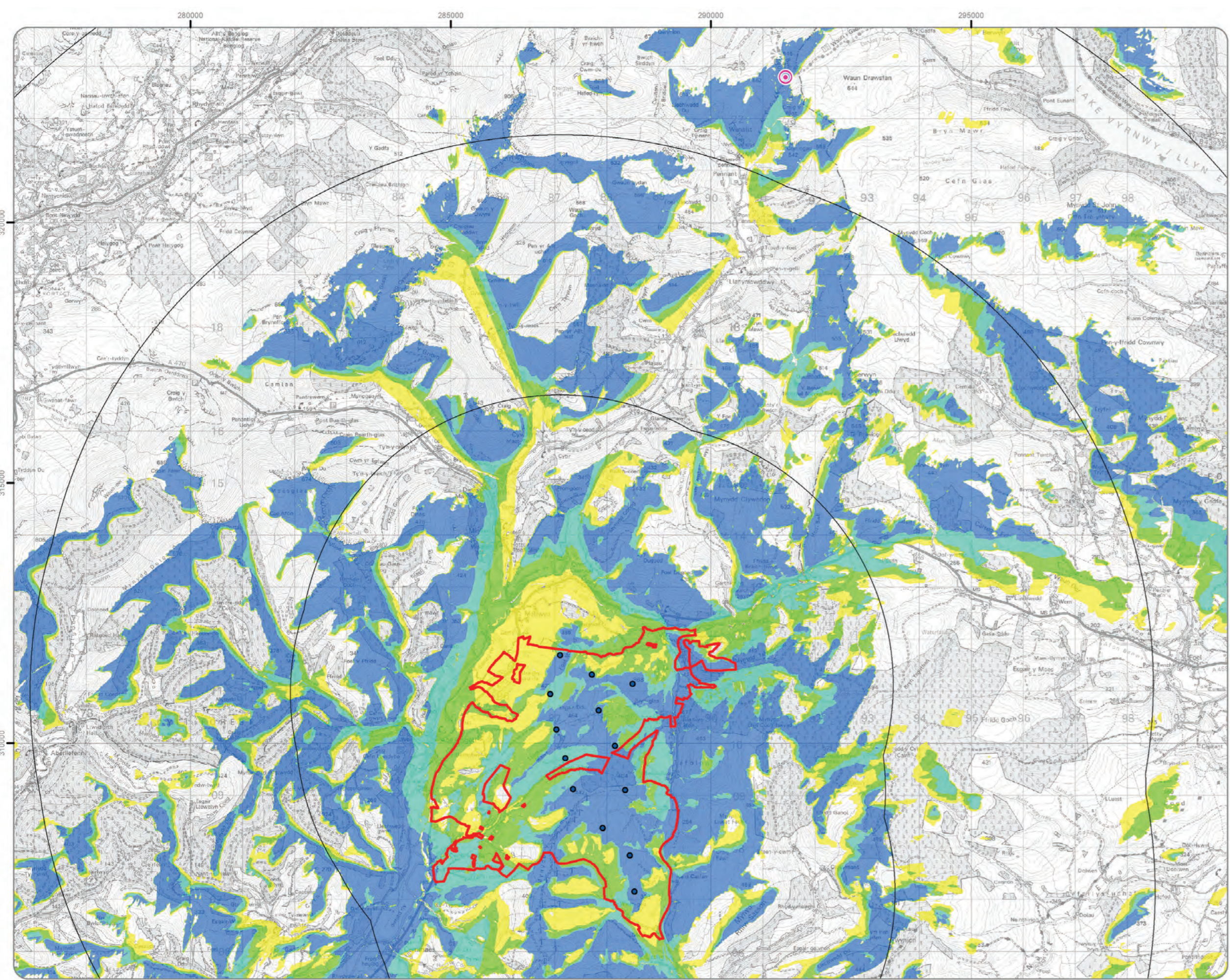
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 Eye level / Lefel llygaid: 482.9 mAOB  
 Direction of view / Cyfeiriad yr olygfa: 196.5°  
 Nearest turbine / Tyrbín agosaf: 11.92 km

Horizontal field of view / Maes golygfa llorweddol: 90° (cylindrical projection / tafuniad silindrog)  
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 Correct printed image size / Maint delwedd printiedig cywir: 820 x 130 mm

Camera: Nikon D610  
 Lens: 50mm f/1.8  
 Camera height / Uchder camera: 1.5 m  
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Viewpoint / Safbwynt 3: Bwlch y Groes  
 Esgair Ddu Energy Park / Parc Ynni Esgair Ddu

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- Legend Chwedi**
- Proposed Turbine / Tyrbín arfaethedig
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- Blade Tip ZTV / Blaen Iafn ZTV
- No of Blade Tips Theoretically Visible / Nifer blaenau' iafn sy'n wela'dwy yn ddarncaiaethol
- 1-3
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  - 10 - 13

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Blade tip:	230m	Observer height:	2m
DTM:	OS Terrain 5	Surface features:	Excluded
DTM resolution:	5m	Earth curvature:	Included

**ESGAIR DDU ENERGY PARK / PARC YNNI ESGAIR DDU**

Viewpoint Plan / Cynllun Safbwynt: VP 3  
 Bwlch y Groes

Ref No/ Cyfeirnod:	242002	Created By/ Crewyd gan:	RH	Rev No/ Cyfeirnod:	1
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# GALILEO empower Community Offering



**GALILEO empower is committed to developing projects that deliver substantial and tangible benefits locally and foster strong community relations.**

Our responsible approach towards project development will ensure that Esgair Ddu Energy Park is delivered in a way that's good for our neighbours, the surrounding environment, and the local community.



**Examples of these can be found here:**

## **Community Wealth Fund**

If consented the project will offer £5,000 per installed MW (index linked) each year for the lifetime of the energy park.

We will work with local community groups and potential local delivery partners to explore how this fund could be set up and delivered.

## **Shared Ownership**

Welsh Government has a target for 1.5 GW of renewable energy generation to have local and shared ownership by 2035.

We will support the Welsh Government's target by offering ownership options in Esgair Ddu Energy Park of up to 10% – where the profits generated by an ownership stake can be used to benefit the community.

## **Renewable Energy Discount Scheme**

Local electricity discount schemes can be designed to provide an annual discount on the electricity bills of consumers living near renewable energy projects. We are keen to explore the potential for discounting energy bills for those properties in communities closest to the energy park.

## **Construction Community Fund**

A fund will be available to local groups and organisations to help offset any inconvenience caused during the construction period.

## **Local Supply Chain**

We are keen to work with the local supply chain wherever possible to deliver the services, components and materials we need for this project. If you are a local business interested in being a potential supplier to us, please get in touch.

# Indicative Timeline

As Esgair Ddu Energy Park will have a capacity greater than 10 MW it is classed as a Development of National Significance (DNS) under the Planning (Wales) Act 2015.

The planning application will be made to Planning and Environment Decisions Wales (PEDW). PEDW will examine the application and make a recommendation to Welsh Ministers, who will then take the final decision.

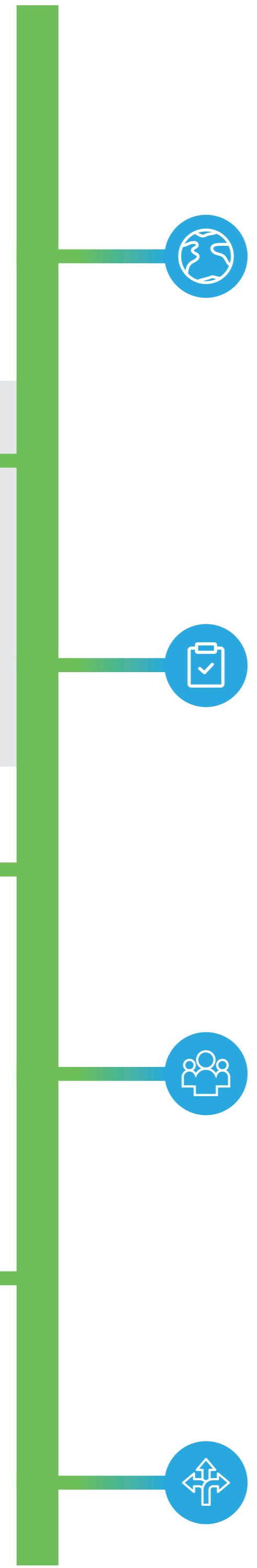
Although Powys County Council will not determine the planning application, they are a key statutory consultee and will prepare a Local Impact Report.



**Autumn 2024**  
Informal Consultation  
Community consultation on early-stage indicative plans from Tuesday 29 October to Tuesday 3 December 2024.

**Spring/Summer 2025**  
Review feedback, undertake further surveys and assessments and refine initial site design.

**Spring 2026**  
Submit planning application to Planning and Environment Decision Wales (PEDW).



**Spring 2023 – ongoing**  
Environmental surveys underway

**Winter 2024**  
Environmental Impact Assessment (EIA) Scoping Request submission to PEDW\*.

**Autumn/Winter 2025**  
Statutory pre-application consultation on the draft planning application and Environmental Statement.

**2027**  
Decision expected by Welsh Ministers.

Please note: These dates may be subject to change.

A Scoping Request will be submitted to PEDW in Winter 2024. The response from this, together with the feedback collected during this consultation, will inform how the proposal evolves.

There will be a second consultation event in 2025 to update you on the project before we submit a planning

application. The Draft Environmental Statement will be presented at the next consultation. This will contain the results of all the surveys and studies carried out as part of the Environmental Impact Assessment and will outline our plans to mitigate potential impacts. There will be an opportunity for the public to submit comments to Welsh Ministers once the application has been submitted.

\*A Scoping Request seeks to obtain from PEDW the scope and level of detail of information that needs to be provided in the Environmental Statement.

# Thank you for taking your time to visit and read the information at this exhibition for Esgair Ddu Energy Park.

## Leave your feedback

**The project is at its early stages, and we want to hear from you. We would very much value your feedback as we seek to review and refine our plans.**

 **Deadline for feedback:  
Tuesday 3 December 2024**

All feedback will be reviewed and considered by GALILEO empower. Your comments may be published in the consultation report. All comments will be anonymised, and care will be taken to ensure individuals cannot be identified.

**If you want to make comments on the proposal, please fill in the feedback form and leave it in the box provided, or**

 go online and submit feedback through our website  
**[www.esgairddu-energypark.co.uk](http://www.esgairddu-energypark.co.uk)**

 or by post to  
**FREEPOST Grasshopper Consult**

## Keeping in Touch

If you have any questions, want more information on the plans or if you would like to discuss the project with the Esgair Ddu Energy Park team, please get in touch:

 **[www.esgairddu-energypark.co.uk](http://www.esgairddu-energypark.co.uk)**

 **[esgairddu@galileoenergy.uk](mailto:esgairddu@galileoenergy.uk)**

 **01650 570 025**

 **FREEPOST Grasshopper Consult**