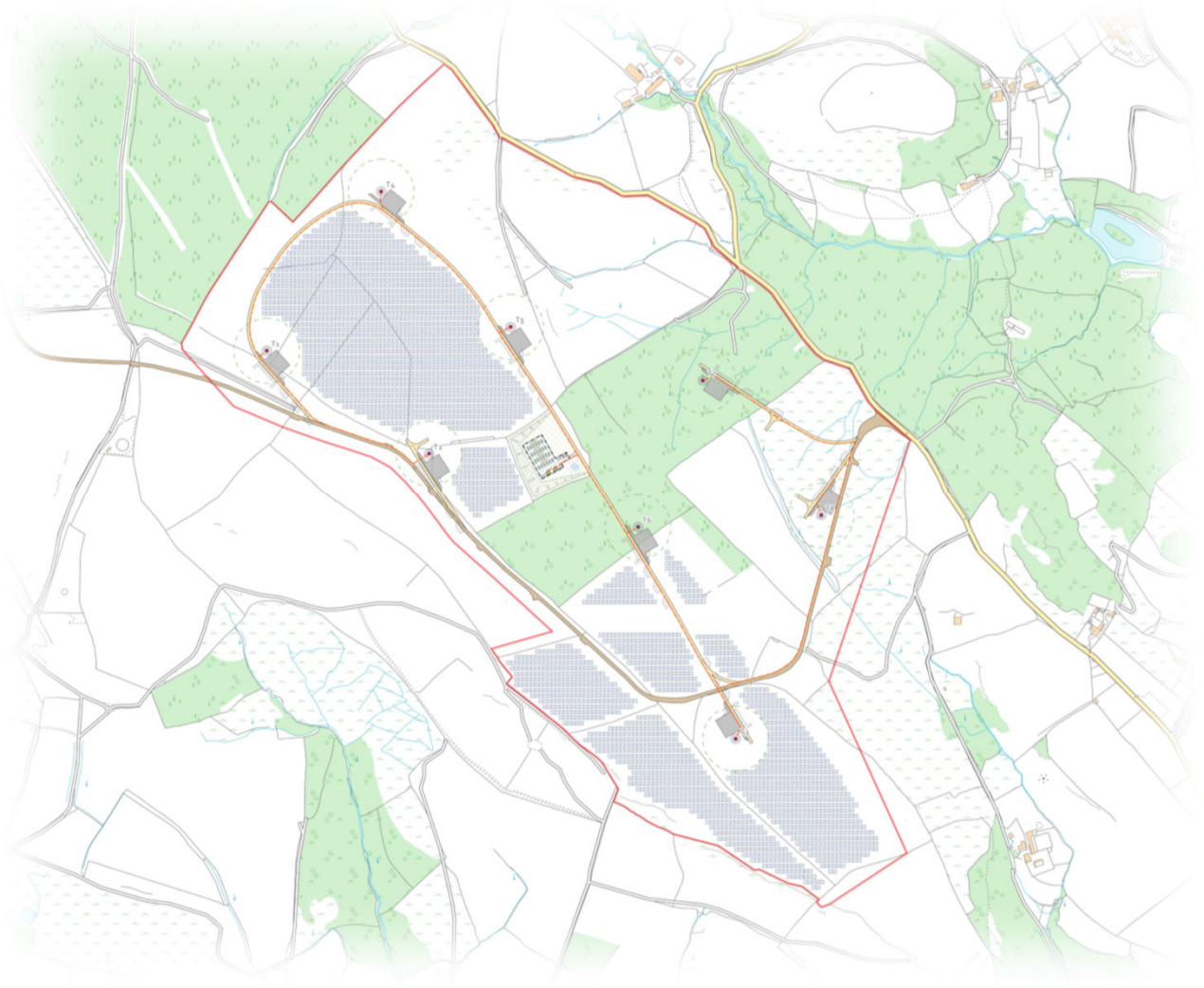
LLANWONNO ENERGY

SITE DESIGN EVOLUTION



Cenin Renewables

March 2025

LO5-2f

HWS

Hamon Wind and Solar Design

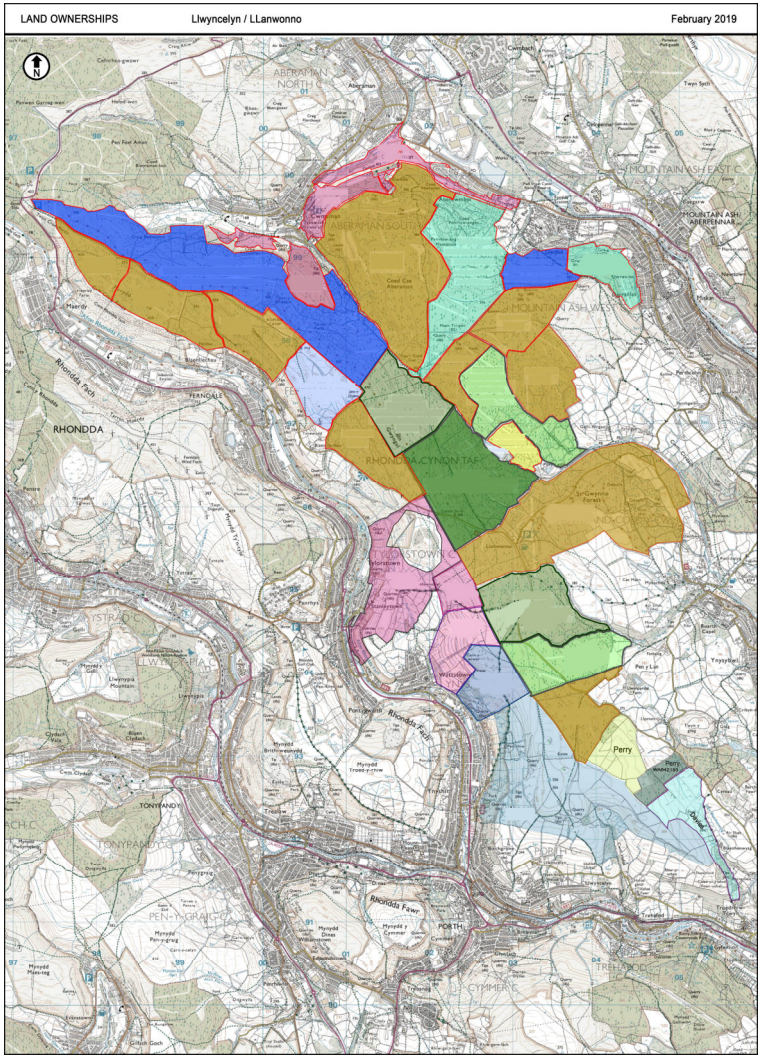
EARLY 2019

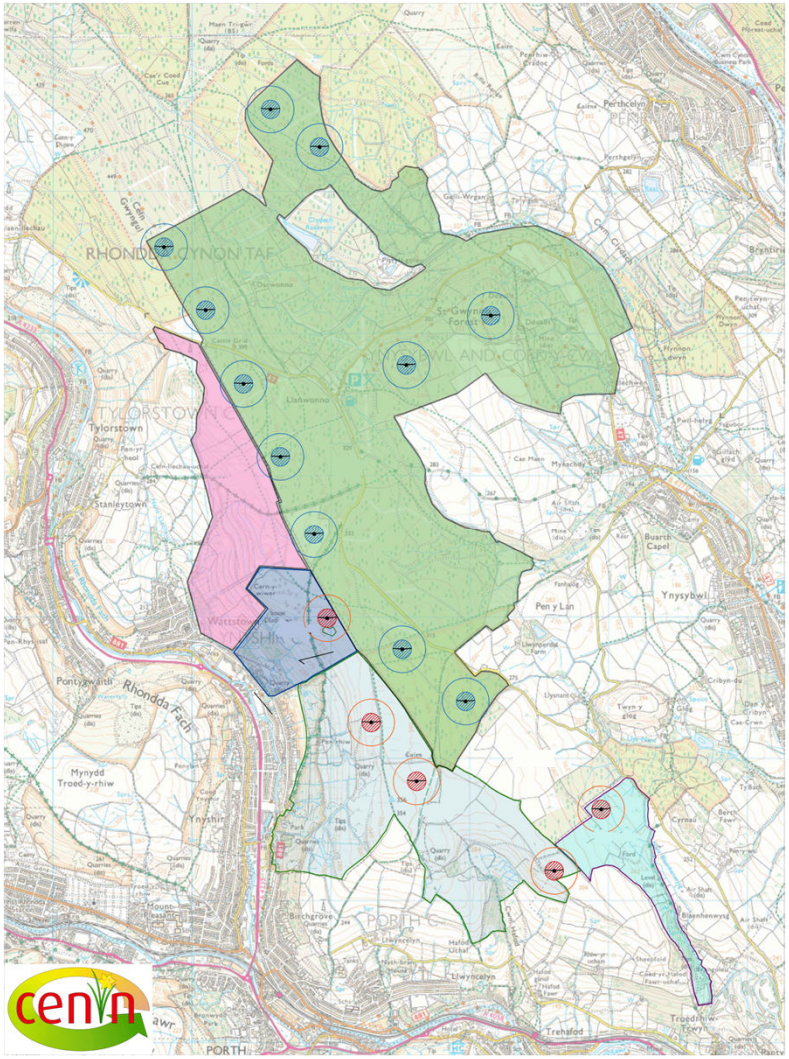
PROSPECTING FOR MOST SUITABLE SITE

Research was done to find suitable topography on land ownerships north of Llwyncelyn.

Some areas could accommodate a large wind farm. Indicative layouts were produced.

The farmland at the south was also assessed.





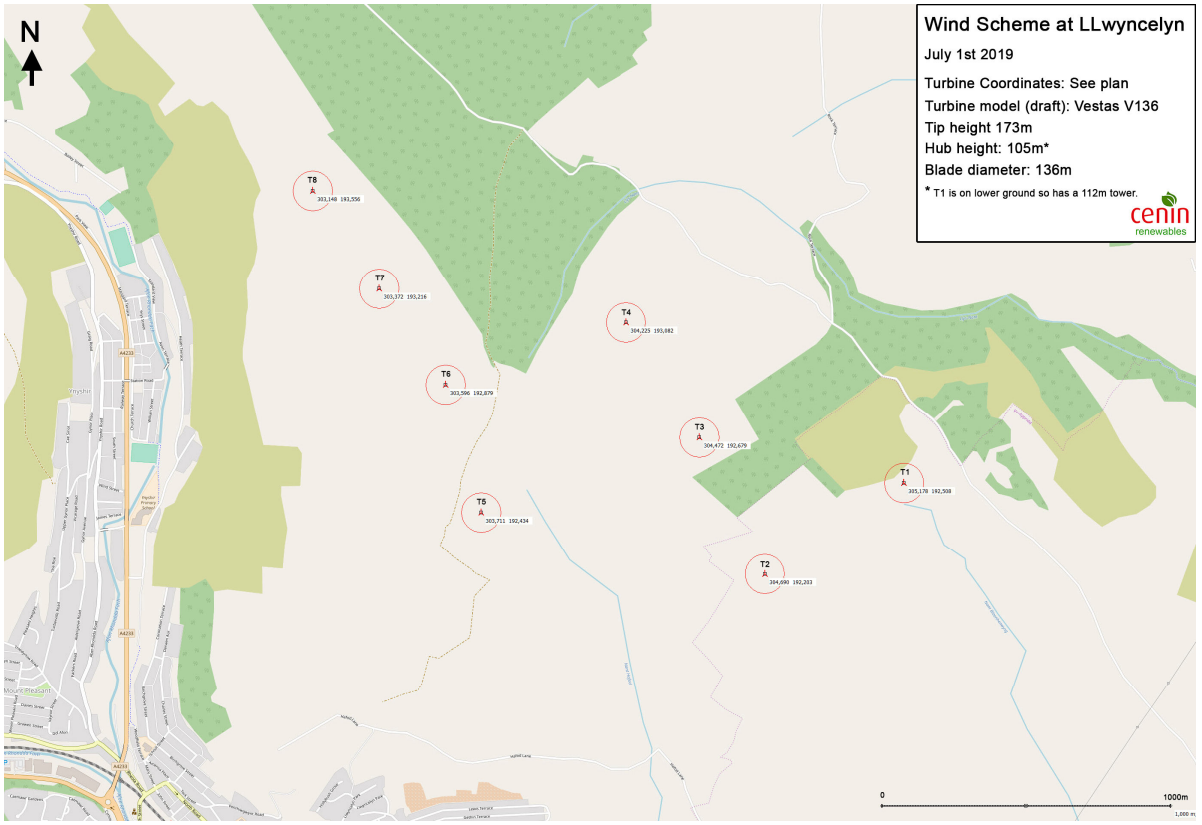
SUMMER 2019

TESTING VISUAL IMPACT OF PROPOSED SCHEME IN ADDITION TO APPROVED SCHEME

Having settled on the most suitable site for a wind farm being the pastureland to the south, Cenin's first site layout was designed to fit sensitively into the landscape while providing high yields. The visual impact was assessed by a landscape and visual consultant.

The consented Llwyncelyn wind project was integrated as part of the proposed extended scheme.

Taller towers were suggested for turbines set back lower in the landscape to keep hub heights at the same level.



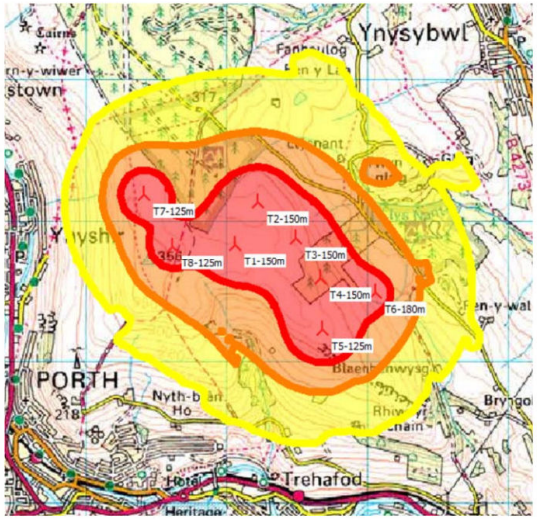
AUTUMN 2021

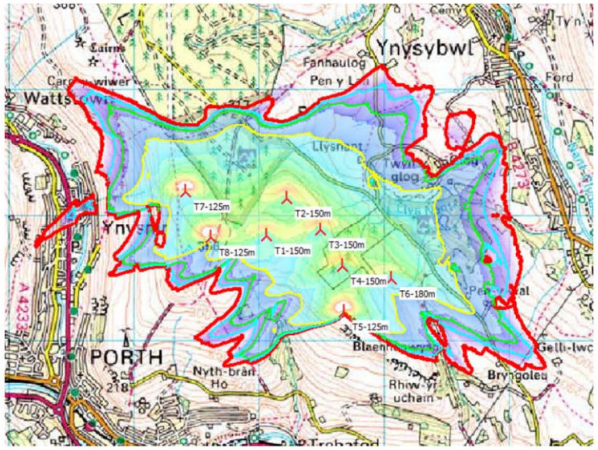
IMPACT ASSESSMENTS

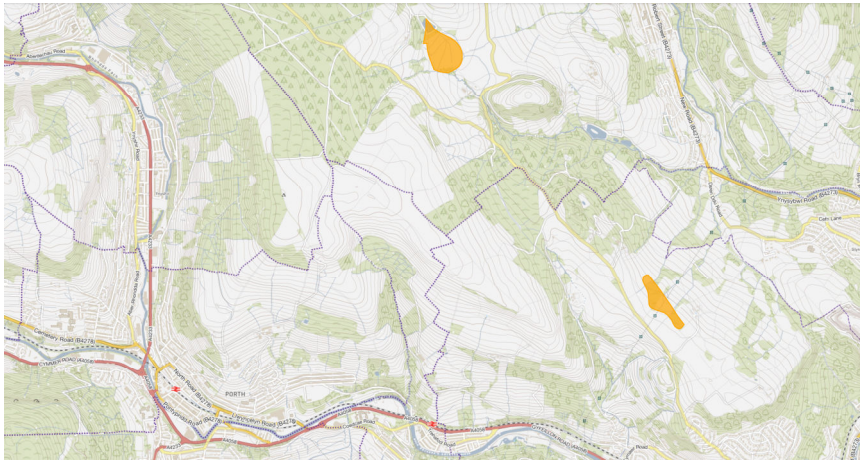
WindPro noise and shadow flicker assessments were commissioned to understand the possible impact of the scheme on the surrounding residents.

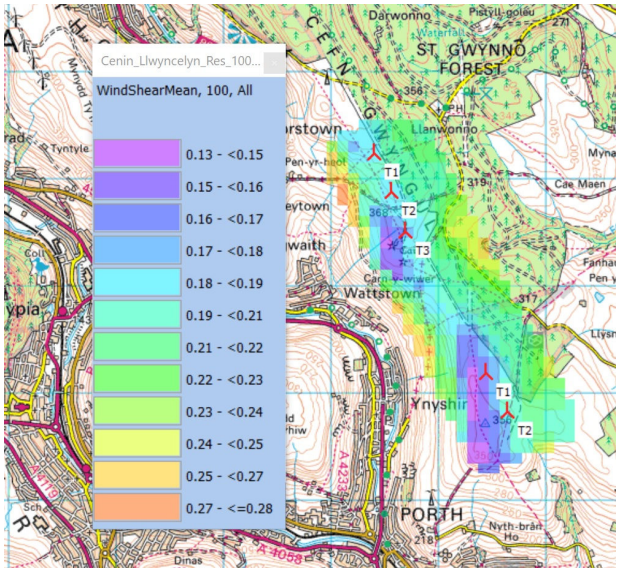
Wind shear analysis was also undertaken to assess the suitability of the ridgeline for turbine placement.

The site was checked against the national register of peatlands, no peat was found on site. Coal risk was also checked on Coal Authority records.









2022 TO 2024

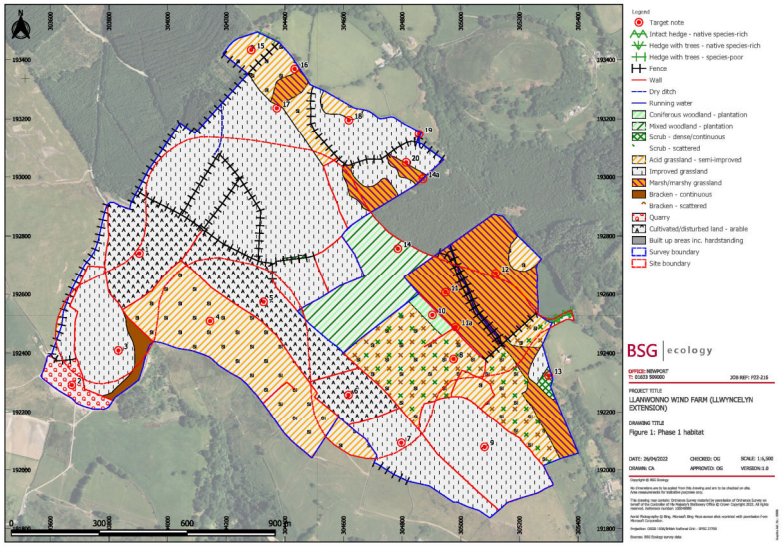
HABITAT SURVEY,WIDER SOLAR ASSESSMENTS AND FINALIZING THE DESIGN

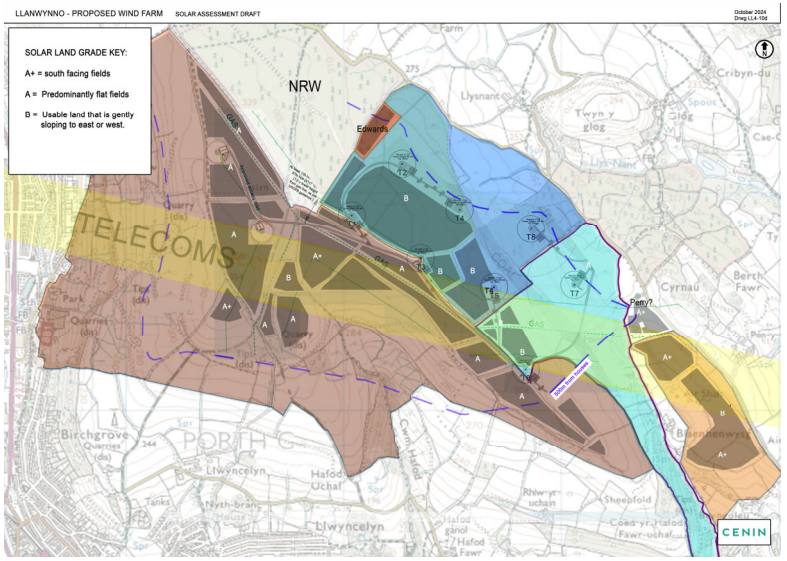
In 2022 a habitat survey of the site was completed.

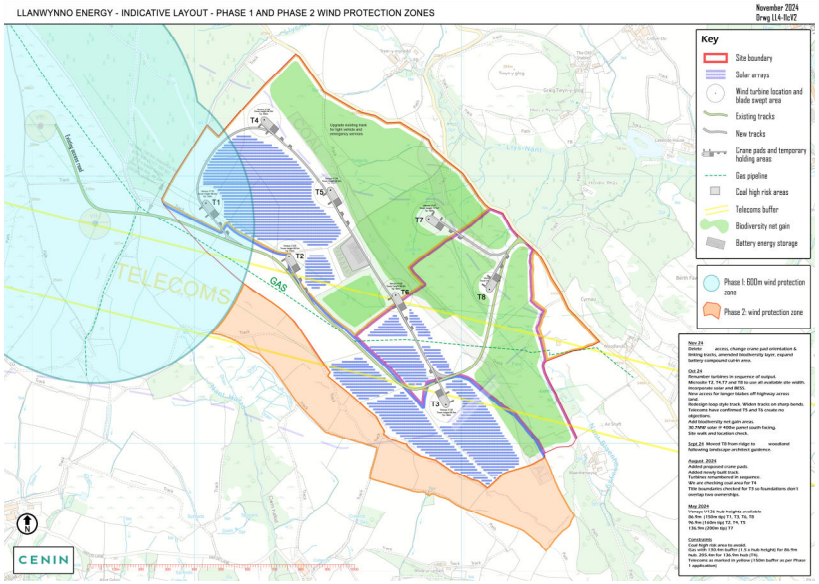
2023-2024: the wider landscape surrounding the site was assessed for viability of additional solar to increase the project's overall generation capacity. Due to local demand needs, the University of South Wales are very keen to take power from Llanwonno Energy to power their Treforest Campus towards a ground breaking net zero campus. As a result, Cenin wanted to increase the generation on site and the topography lends itself well to south facing solar photo voltaic opportunities, so this was incorporated in the design.

2024 onwards: a stand-alone scheme was designed to be entirely separate from the consented Llwyncelyn scheme but would share its trunk road for efficiency purposes.

The site layout design, went through several iterations resulting in a robust final design incorporating solar, eight wind turbines and a BESS energy storage facility.







SPRING 2025

DESIGN FREEZE

The final design freeze layout was produced in GIS format to incorporate improved solar layout, updated BESS design, improved track layout and construction compound.