



Parc Ynni Calon y Gwynt

ENVIRONMENTAL STATEMENT

Appendix 7L: Residential Visual Amenity Assessment





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INTRODUCTION

OVERVIEW

The purpose of the Residential Visual Amenity Assessment (RVAA) is to identify potential effects of the Proposed Development on the visual component of residential amenity.

The assessment of residential amenity is a planning matter that involves consideration of a number of effects (such as noise and shadow flicker), of which residential visual amenity is one component. The RVAA is limited to the consideration of potential visual effects and change to the visual amenity of residents' properties. Visual amenity is defined in the Guidelines for Landscape and Visual Assessment Third edition¹ (GLVIA3) as:

“the overall pleasantness of the views available to people of their surroundings which provide an attractive visual setting or backdrop for the enjoyment of activities of those living, working and recreating, visiting or travelling through an area”¹.

The Landscape Institute's Technical Guidance Note (TGN) 2/19 Residential Visual Amenity Assessment² expands this further, with Residential Visual Amenity being defined as:

“the overall quality, experience and nature of views and outlook available to occupants of residential properties, including views from gardens and domestic curtilage. It represents the visual component of Residential Amenity.”²

TGN 2/19² is founded on the principles and processes set out in GLVIA3. It advises that the “aim is to identify those residential properties whose visual amenity has the potential to be affected to the largest magnitude of impact. Properties with the highest magnitude of effect are assessed further culminating in a professional judgement as to whether the Residential Visual Amenity Threshold is likely to be reached at this property or not”². This is a separate although related consideration from the assessment of visual effects resulting from the Proposed Development and is restricted to residential properties only.

Other factors affecting residential amenity such as noise and shadow flicker are not considered as part of this assessment and can be found in **Chapter 11: Noise** and **Chapter 13: Shadow Flicker of Volume 2 – Main Text** respectively.

The RVAA for the Proposed Development is set out in this Appendix and should be read in conjunction with **Chapter 7: Landscape and Visual** of **Volume 2 – Main Text** and the ZTVs in **Figures 7.14 and 7.15 of Volume 3 - Figures**. Wireline visualisations of the Proposed Development from the properties considered in this RVAA are contained in **Annex 7L.1** of this Appendix.

¹ Landscape Institute and the Institute of Environmental Management and Assessment, (2013). Guidelines for Landscape and Visual Impact Assessment. 3rd edition. London. Routledge

² Landscape Institute (2019), Residential Visual Amenity Assessment Technical Guidance Note 2/19. <https://landscapeinstitute.org/technical-resource/rvaa/>

PLANNING CONTEXT

Planning law contains a widely understood principle that the outlook or view from a private property is a private issue and not therefore controlled by the planning system. However, the planning system recognises situations where the effects of private interests are affected to such an extent that they are a matter of public interest. This issue has been examined at a number of public inquiries in the UK where the key determining issue was not the identification of significant effects on views, but whether the proposed development would have an effect on the residential visual amenity through an 'overbearing' and / or 'dominating' effect resulting in unsatisfactory living conditions, leading to a property being regarded, objectively, as an unattractive (as opposed to a less attractive) place in which to live. The effects on residential amenity are subsequently considered as part of the planning balance as part of the consent process.

Consequently, the RVAA methodology provides for a much more detailed assessment of the closest residential properties to the Proposed Development. This allows the assessor and consequently the determining authority to make a judgement as to whether the residents at these residential properties would be likely to sustain unsatisfactory living conditions which it would not be in the public interest to create. Reviews of decisions demonstrate that significant visual effects or changes to the views available from a residential property and its curtilage are not the decisive consideration, rather it is the residential amenity and, in this case, residential visual amenity that is determinate.

METHODOLOGY

OVERVIEW

The methodology for the RVAA is set out in **Appendix 7A** and accords with the advice in GLVIA3¹, and the Landscape Institute's *Residential Visual Amenity Assessment* Technical Note 2/19², which advises that the “*purpose of carrying out a Residential Visual Amenity Assessment (RVAA) is to form a judgement, to assist decision makers, on whether a proposed development is likely to change the visual amenity of a residential property to such an extent that it becomes a matter of ‘Residential Amenity’.*”

It involves a four-step process as follows:

- “*Step 1: Define study area and Identify properties to be assessed.*
- *Step 2: Evaluate baseline visual amenity of properties to be included having regard to the landscape and visual context and the development proposed.*
- *Step 3: Assessment of likely change to visual amenity of included properties in accordance with GLVIA3 principles and processes.*
- *Step 4: Further assessment of predicted change to visual amenity of properties to be included forming a judgement with respect to the Residential Visual Amenity Threshold.”*

STEP 1: ESTABLISHING THE RVAA SCOPE

Based on the above guidance a study area of 2 km distance from the proposed turbines has been selected for the RVAA. Only those properties within the study area, which can be identified on the Ordnance Survey 1:25,000 scale map, and are overlapped by the blade tip Zone of Theoretical Visibility (ZTV) are included in the assessment. This study area and approach has been used in other similar wind farm planning applications (of similar blade tip heights) and appeal decisions in Wales and the UK.

The scope of the RVAA has therefore included all individual or small groups of residential properties within 2 km of the Proposed Development that are overlapped by the blade tip ZTV (excluding settlements) as illustrated in **Figures 7.14 & 15**. Wirelines are illustrated for each property in **Figures 7L.1 – 7L.24**.

A total of 44 individual properties were identified within 2 km of the Proposed Development. Where considered appropriate by the assessor, individual properties have been grouped together for assessment purposes when it is judged their outlook and/ or views of the Proposed Development are the same or very similar. To keep the RVAA proportionate, a filtering process has been undertaken to exclude any properties outside of the ZTVs within the 2 km study area. Given the very limited visibility, properties shown on the ZTV to have visibility of between 1-3 turbines (blade tip and hub height) would not be significantly affected by the Proposed Development and have also been excluded from the assessment, as noted in **Table 7L-1**. Following this filtering process, a total of 28 properties / groups of properties within 2 km are carried forward to the assessment.

Table 7L-1 – Filtering Process of Residential Properties within 2 km

Residential Group Reference and Property Names	Total Number of Properties	Distance from nearest turbine to property	Number of blade tips theoretically visible ³	Number of hubs theoretically visible	Scoped in / out	Justification for exclusion ⁴
Residential Properties within 0.5 km						
1 – Lluest Uchaf	1	T4 at 248 m	7-9	7-9	Out	This property is under the ownership of the Applicant and the site is not anticipated to comprise a residential property at the commencement of construction of the Proposed Development.
Residential Properties within 0.5-1 km						
2 – Llyn Mawr	1	T2 at 542 m	10-11	10-11	In	
3 – Lakeside View	1	T1 at 742 m	10-11	10-11	In	
4 – Panty Gesail	1	T5 at 768 m	1-3	0	Out	Using wireline verification, two blades would be theoretically visible with intervening landform providing screening to the majority of the Proposed Development resulting in no significant effects, therefore this property has been excluded from the assessment.
5 – Blaen y Cwm	1	T7 at 821 m	7-9	4-6	In	

³ As shown in the colour banding on the ZTVs in the Figures 7.3 – 7.5

⁴ As informed by the ZTVs and draft wirelines

Residential Group Reference and Property Names	Total Number of Properties	Distance from nearest turbine to property	Number of blade tips theoretically visible ³	Number of hubs theoretically visible	Scoped in / out	Justification for exclusion ⁴
6/7 – Parc y Rhiw & The Annexe	2	T5 at 949 m	0	0	Out	This property lies outside the ZTV. Landform would screen the Proposed Development resulting in no significant effects, therefore this property has been excluded from the assessment.
Residential Properties within 1-2 km						
8 – Cwm Gerwyn	1	T5 at 1,020 m	1-3	1-3	In	Whilst 1-3 turbines are typically scoped out of the assessment as outlined in paragraph 2.2.3, a review of the wireline from this property informed the decision for this property's inclusion in the assessment.
9 – Ty Uchaf	1	T11 at 1,017 m	10-11	7-9	In	
10 – Clogau	1	T1 at 1,039 m	1-3	0	Out	Using wireline verification, only one blade would be theoretically visible from this property with intervening landform providing screening of the majority of the Proposed Development resulting in no significant effects, therefore this property has been excluded from the assessment.
11 – New House	1	T1 at 1,090 m	10-11	7-9	In	
12 – Lluast	1	T1 at 1,225 m	4-6	1-3	Out	Using wireline verification, two blades and two hubs would be theoretically visible just above the horizon resulting in no significant effects, therefore this property has been excluded from the assessment.

Residential Group Reference and Property Names	Total Number of Properties	Distance from nearest turbine to property	Number of blade tips theoretically visible ³	Number of hubs theoretically visible	Scoped in / out	Justification for exclusion ⁴
13 – Pen y Banc	1	T7 at 1,277 m	0	0	Out	Using wireline verification, one blade tip would be theoretically visible from this property, with likely screening from woodland. The remaining turbines would be screened by landform resulting in no significant effects, therefore this property has been excluded from the assessment.
14 – Ael y Bryn	1	T5 at 1,291 m	4-6	1-3	In	
15 – Cwmclys	1	T3 at 1,326 m	0	0	Out	This property lies outside the ZTV. Landform would screen the Proposed Development resulting in no significant effects, therefore this property has been excluded from the assessment.
16 – Bronffynon	1	T1 at 1,366 m	4-6	1-3	Out	Using wireline verification, only one hub would be theoretically visible just above the horizon with three appearing as blades and one appearing as blade tips resulting in no significant effects, therefore this property has been excluded from the assessment.
17 – Ty Gwyn	1	T5 at 1,377 m	4-6	4-6	In	
18 – Gilfach-hir	1	T3 at 1,420 m	1-3	1-3	In	Whilst 1-3 turbines are typically scoped out of the assessment as outlined in paragraph 2.2.3, a review of the wireline from this property

Residential Group Reference and Property Names	Total Number of Properties	Distance from nearest turbine to property	Number of blade tips theoretically visible ³	Number of hubs theoretically visible	Scoped in / out	Justification for exclusion ⁴
						informed the decision for this property's inclusion in the assessment.
19 – Carreg Ateb	1	T1 at 1,475 m	7-9	1-3	In	
20 – Dol y Llin	1	T5 at 1,505 m	1-3	1-3	In	Whilst 1-3 turbines are typically scoped out of the assessment as outlined in paragraph 2.2.3, a review of the wireline from this property informed the decision for this property's inclusion in the assessment.
21 – Gelli	1	T1 at 1,532 m	0	0	Out	This property lies outside the ZTV. Landform would screen the Proposed Development resulting in no significant effects, therefore this property has been excluded from the assessment.
22 – Pen y Bryn	1	T5 at 1,546 m	7-9	4-6	In	
23 – Groffydd Cottage	1	T5 at 1,563 m	4-6	1-3	In	
24 – Pant y Gwalia 27 – Slate House	2	T1 at 1,597 m T1 at 1,632 m	7-9	4-6	In	
25 – Wyddol	1	T1 at 1,613 m	7-9	4-6	In	
26 – Cwm yr Annel	1	T7 at 1,613 m	0	0	Out	This property lies outside the ZTV. Landform would screen the Proposed Development resulting in no significant effects, therefore this

Residential Group Reference and Property Names	Total Number of Properties	Distance from nearest turbine to property	Number of blade tips theoretically visible ³	Number of hubs theoretically visible	Scoped in / out	Justification for exclusion ⁴
						property has been excluded from the assessment.
28 – Groffydd 29 – Yr Hen Stabal	2	T5 at 1,642 m T5 at 1,654 m	4-6	4-6	In	
30 – Tany y Bwlch	1	T1 at 1,681 m	10-11	4-6	In	
31 – Capel Bach	1	T1 at 1,690 m	10-11	4-6	In	
32 – Maes y Pandy	1	T5 at 1,694 m	1-3	1-3	Out	Using wireline verification, only one blade would be theoretically visible from this property with intervening landform providing screening to the majority of the Proposed Development resulting in no significant effects, therefore this property has been excluded from the assessment.
33 – Coed Cae	1	T3 at 1,713 m	0	0	Out	This property lies outside the ZTV. Landform would screen the Proposed Development resulting in no significant effects, therefore this property has been excluded from the assessment.
34 – Cysgod y Dderwen	1	T5 at 1,726 m	1-3	1-3	Out	Using wireline verification, two blades and one hub would be theoretically visible just above the horizon from this property resulting in no significant effects, therefore this property has been excluded from the assessment.

Residential Group Reference and Property Names	Total Number of Properties	Distance from nearest turbine to property	Number of blade tips theoretically visible ³	Number of hubs theoretically visible	Scoped in / out	Justification for exclusion ⁴
35 – Cerrig y Brain	1	T1 at 1,780 m	10-11	4-6	In	
36 – Pant y Crasty	1	T5 at 1,795 m	4-6	4-6	In	
37 – Troed y Garth 39 – Ger-y-waun	2	T5 at 1,876 m T5 at 1,904 m	4-6	4-6	In	
38 – Pandy Bach	1	T5 at 1,897 m	4-6	1-3	Out	Using wireline verification, two blades, one blade tip and one hub would be theoretically visible just above the horizon from this property resulting in no significant effects, therefore this property has been excluded from the assessment.
40 – Fuches Goch	1	T10 at 1,939 m	10-11	7-9	In	
41 – Oerffrwd Cottage 43 – Oerffrwd Mill	2	T5 at 1,965 m T5 at 1,980 m	4-6	1-3	In	
42 – Pantybryn	1	T1 at 1,975 m	10-11	10-11	In	
44 – Wtrawen	1	T1 at 1,986 m	1-3	0	Out	Using wireline verification, only one blade would be theoretically visible from this property with intervening landform providing screening to the majority of the Proposed Development resulting in no significant effects, therefore this property has been excluded from the assessment.

STEP 2: EVALUATION OF BASELINE VISUAL AMENITY

Each property included in the RVAA has been described in terms of the type, nature, extent and quality of the views that may be experienced ‘in the round’ from the dwelling itself and the domestic curtilage which includes the main living areas (usually the ground floor) and the main garden and immediate driveway. The relationship of the property with the surrounding landscape and a description of the views in terms of whether they may be considered as primary, secondary or peripheral views is included in the assessment.

The baseline assessment for Step 2 is recorded for each property under the heading ‘Description’ on the survey forms which includes details such as:

- Each property's location, geographical extent and curtilage, and landscape and visual context;
- The type of property: whether detached, semi-detached or terraced and whether the property is single-storey or two-storey;
- Orientation of the property (i.e. its main entrance and its main façade);
- Main external recreational and amenity spaces and views including their character and scenic quality, and any specific qualities or elements that are key to the property's amenity;
- Secondary locations, including utilitarian spaces and associated views; and
- Details of any restrictions on views or other limitations.

The RVAA guidance advises that the assessment can be undertaken from publicly accessible locations and that this is usually appropriate at this stage. Best practice dictates that where required, visits to private property should only be conducted with the occupier's consent and arranged between the parties along with the involvement of the determining / competent authority. In this case, no private properties, were visited.

The baseline assessment takes account of the likely views from the ground floors of the properties and main garden areas but excludes the upper floors and other land that may relate to the property as it does not form part of the main living areas.

In accordance with GLVIA3 (paragraph 6.33A), residents at home are considered amongst those ‘visual receptors’ to be the most ‘susceptible’ to change and likely to attach most value to their private views and visual amenity. The sensitivity of individual residential receptors is therefore assessed as *High* in each case.

FIELD SURVEYS

The assessment has been informed by field surveys, observing the majority of the properties from the nearest publicly accessible locations and through the examination of available aerial and ground level photography as well as map-based data, the production of ZTV plots and visualisations such as wirelines. As such, the assessment represents an informed judgement of the likely visual effects and the consequential effects on residential visual amenity.

PREPARATION OF VISUALISATIONS

Wireline visualisations based on a bare ground digital terrain model (OS Terrain 5) have been generated using Resoft Wind Farm software from all individual properties and property groups that have been scoped into the RVAA. The wirelines are centred on the Proposed Development and illustrate a 53.5° angle of view (or multiple 53.5° included angle of view where turbines occupy a wider horizontal extent) and are presented in **Annex 7L.1**.

The wireline visualisations comprise the following:

- The wireline visualisations show the proposed turbines only, with turbines numbered for ease of reference.
- The wireline visualisations do not show other ancillary development or access tracks, although these are considered in the assessment where relevant.
- The wirelines also do not include features such as buildings and trees that may provide screening or filtering of views and therefore represent a ‘maximum visibility scenario’ which may potentially be experienced from the property or its curtilage.
- The wireline visualisations are focused on views towards the Proposed Development and are therefore not necessarily representative of the primary outlook of the property. The principal/primary outlook of residential properties is discussed in the assessment tables for each property in **Section 3**.

CUMULATIVE WIND FARM DEVELOPMENT

LI TGN 2/19² states “As a rule, future cumulative visual effects are not assessed in RVAA, the focus of which concerns effects on existing visual amenity. Existing cumulative development will form part of the baseline visual amenity considered in Step 2 of RVAA; future cumulative development is generally not a RVAA consideration. However, in certain circumstances, it may be appropriate to consider a particular cumulative proposal which is effectively already part of the existing landscape baseline. For example: where an extension to an existing development is consented, or under construction, but not yet built; or where two developments are proposed simultaneously.”

There are no cumulative wind farm developments (as detailed in **Chapter 7 Landscape and Visual** and shown on **Figure 7.12**) which may contribute to potentially overbearing effects on residential visual amenity or would exceed the Residential Visual Amenity Threshold for properties included within this RVAA. Therefore, consideration of cumulative effects on residential visual amenity does not form part of the RVAA.

STEP 3: VISUAL ASSESSMENT

The RVAA guidance advises that the “third step in the process assesses the magnitude and significance of likely visual effect at the included properties” and that the “aim of Step 3 is to identify those properties requiring further assessment in Step 4 in relation to the Residential Visual Amenity Threshold judgement.” Step 3 is recorded for each property under the heading ‘Magnitude’ on the survey forms for each property and the visual assessment for each property is summarised under the heading ‘Assessment’ and Cumulative Assessment.

Factors considered in determining the magnitude of change include:

- “Distance of property from the proposed development having regard to its size / scale and location relative to the property (e.g. on higher or lower ground);

- *Type and nature of the available views (e.g. panoramic, open, framed, enclosed, focused etc.) and how they may be affected, having regard to seasonal and diurnal variations;*
- *Direction of view / aspect of property affected, having regard to both the main / primary and peripheral / secondary views from the property;*
- *Extent to which development / landscape changes would be visible from the property (or parts of) having regard to views from principal rooms, the domestic curtilage (i.e. garden) and the private access route, taking into account seasonal and diurnal variations of any screening from buildings / structures, landform and vegetation;*
- *Scale of change in views having regard to such factors as the loss or addition of features and compositional changes including the proportion of view occupied by the development, taking account of seasonal and diurnal variations;*
- *Degree of contrast or integration of new features or changes in the landscape compared to the existing situation in terms of form, scale and mass, line, height, colour and texture, having regard to seasonal and diurnal variations;*
- *Duration and nature of the changes, whether temporary or permanent, intermittent or continuous, reversible or irreversible etc.; and*
- *Mitigation opportunities – consider implications of both embedded and potential further mitigation.”*

In considering the screening effects of vegetation the following caveats have also been applied:

- Forestry screening is subject to forestry management, and the assessment allows for either no forestry screening or maximum forestry screening, representing the two extremes likely to affect the view during the 40-year operational period of the Proposed Development;
- Woodland and hedgerow screening - Where this includes mature, long standing mixed or broadleaved woodland, a degree of permanence has been assumed in the assessment;
- Individual trees - Where these are mature a degree of permanence has been assumed in the assessment. However, this is subject to the long-term retention of individual trees that would need to be assessed on a case-by-case basis; and
- Garden vegetation has been assumed to have a degree of permanence. If it is removed and replanted, most garden shrubs / hedges are reasonably quick to re-establish or are replaced on a piecemeal basis.

The visual assessment is completed in accordance with GLVIA3¹ and the methodology set out in **Appendix 7A** which combines the sensitivity of the receptor (High) with the magnitude of change to produce a level of effect and significance. Whilst all properties within 2 km scoped into the RVAA have been assessed through to Step 4 regardless of the level of visual effect, those properties in particular which are assessed as significant should be assessed further (Step 4) in terms of whether the Residential Visual Amenity Threshold will be reached.

As described in Step 1, a total of 28 properties / groups of properties have been carried forward to the assessment as shown on **Table 7L-1**.

DESIGN AND MITIGATION

The design of the Proposed Development has taken account of the views from local residential properties. T7 would be located at a distance of 779 m from 5) Blaen y Cwm and due to its prominence has been reduced in height from 200 m to 180 m to lessen the effect of this turbine within the view.

The design process has ensured that none of the residential properties would be located closer than 546 m of the Proposed Development. Despite this, the Proposed Development forms a prominent new feature of views resulting in some significant visual effects from some properties.

Lluest Uchaf located at a distance of 248 m will be purchased by the Applicant and will not be a residential property at the start of construction of the Proposed Development. It has therefore been excluded from the assessment.

Although not a factor in this assessment, there are three other financially involved properties including:

- 2 – Llyn Mawr;
- 4 – Pant y Gesail; and
- 5 – Blaen y Cwm.

DAY-TIME VISUAL ASSESSMENT

Of the remaining 28 properties included within the 2 km assessment, significant visual effects would be limited to 24 of the properties as indicated in **Table 7L-2**. These include:

- 2) Llyn Mawr;
- 3) Lakeside View;
- 5) Blaen y Cwm;
- 9) Ty Uchaf;
- 11) New House;
- 14) Ael y Bryn;
- 17) Ty Gwyn;
- 19) Carreg Ateb (Winter);
- 20) Dol y Llin;
- 22) Pen y Bryn;
- 23) Grofydd Cottage (Winter);
- 24) Pant y Gwalia;
- 27) Slate House;
- 25) Wyddol;
- 28) Grofydd;
- 29) Yr Hen Stable;
- 30) Tan y Bwlch;
- 31) Capel Bach;
- 35) Cerrig y Brain;
- 36) Pant y Crasty;
- 37) Troed y Garth;
- 39) Ger-y-waun;
- 40) Fuches Goch; and
- 42) Pantybryn.

The views from the remaining four properties assessed would not be significantly affected due to the screening effects of landform and vegetation. These properties include:

- 8) Cwm Gerwyn;
- 18) Gilfach-Hir;

- 41) Oerffrwd Cottage; and
- 43) Oerffrwd Mill.

NIGHT-TIME VISUAL ASSESSMENT

The Aviation Lighting Strategy illustrated in **Figure 7M.1**, allows for a reduced number of four lit turbines (T1, T5, T7, T10). Each of these would be dimmed to 10% of the peak intensity (200 cd) during periods of good visibility (exceeding 5 km from the lit turbines). In addition, angle intensity mitigation would further reduce the perceived light intensity from lower lying areas, whilst maximum light intensity would be visible from elevated areas as indicated in **Figure 7M.6b**. The Night-time Assessment is set out in **Appendix 7M** and the further night-time assessment for each residential property has been provided in **Table 7L-2**. This assessment draws from the wireframes for each property and **Figure 7M.6b** which illustrates the Light Intensity ZTV for the Proposed Development.

The night-time assessment concludes that the majority of the properties within 2 km would potentially view between one and four of the aviation warning lights subject to intervening screening. Out of all the 28 individual properties within 2 km, no properties would experience significant night-time visual effects when the aviation warning lights are dimmed to 10% of the peak intensity (200 cd) during periods of good visibility (exceeding 5 km from the lit turbines). Angle intensity mitigation would reduce the light intensity further when the visibility is >5 km in all directions.

STEP 4: RVAA

The final Step 4 considers the residential visual amenity. The RVAA guidance advises that there is an important distinction between Steps 3 and 4 noting that in *“Step 3 the assessor has reached a conclusion with respect to magnitude and (EIA) significance of visual effect, and the change in visual amenity at the property. In this final step, and only for those properties where the largest magnitude of effect has been identified, a further judgement is required. This concluding judgement should advise the decision maker whether the predicted effects on visual amenity and views at the property are such that it has reached the Residential Visual Amenity Threshold, therefore potentially becoming a matter of Residential Amenity.”* Building on the preceding assessment of magnitude and significance of visual effect, Step 4 should conclude the RVAA, explaining why the Residential Visual Amenity Threshold has or has not been reached.

The Landscape Institute guidance provides some examples which might be used, including *“blocking the only available view from a property”*, or *“overwhelming views in all directions”*; and *“unpleasantly encroaching”* or being *“inescapably dominant from the property.”*

For properties where residents would experience a low or medium magnitude of change, it is considered that there is no potential for ‘living conditions’ to be affected, and this final stage is therefore not undertaken.

As noted previously, the experience of a significant view of the Proposed Development is not the same as reaching the Residential Visual Amenity Threshold.

VISUAL ASSESSMENT AND RVAA

A summary of the visual assessment is provided in **Table 7L-2** and a detailed assessment record for each of these properties is provided in **Table 7L-3 to Table 7L-24**.

The RVAA has concluded that there would be no instances where the Residential Visual Amenity Threshold (RVAT) would be reached and no instances where the visual effects, (although significant at day and night in several cases) would be so severe as to be considered as “*overwhelming views in all directions*”; “*unpleasantly encroaching*” or being “*inescapably dominant from the property*” as exemplified in the RVAA guidance. This is due largely to embedded mitigation within the Proposed Development including intervening distance and combinations of partial screening, and use / orientation of the property, such that the living standards would not be affected, and the residential property would not be adversely affected to the extent that it would become an unattractive place to live when judged objectively and in the public interest, on an individual basis or cumulatively.

Table 7L-2 – Levels of Effect on Residential Visual Amenity

Residential Property / Groups of Properties	Number of properties	Distance of property / group from nearest turbine	Day-time Effects (Significant effects in bold and dark grey)			Night-time Effects		
						Number of Aviation Warning Lights*	Aviation warning lights: 10% dimming (200 cd)	Angle Intensity Mitigation – 10% of Maximum & Minimum Luminous Intensity (cd)
			Magnitude	Level of Effect and Significance	RVAT reached? (Yes / No)		Magnitude	
2 – Llyn Mawr	1	T2 at 542 m	High	Substantial and Significant	No	4	Low	20-13 cd
3 – Lakeside View	1	T1 at 742 m	High	Substantial and Significant	No	4	Low	20-13 cd
5 – Blaen y Cwm	1	T7 at 821 m	High	Substantial and Significant	No	2	Low - Very Low	9-4 cd
8 – Cwm Gerwyn	1	T5 at 1,020 m	Low	Moderate and Not Significant	No	2	Low - Very Low	9-4 cd
9 – Ty Uchaf	1	T11 at 1,017 m	High-Medium (Winter) Medium (Summer)	Substantial to Major and Significant (Winter) Major and Significant (Summer)	No	2	Low - Very Low	9-4 cd

Residential Property / Groups of Properties	Number of properties	Distance of property / group from nearest turbine	Day-time Effects (Significant effects in bold and dark grey)			Night-time Effects		
						Number of Aviation Warning Lights*	Aviation warning lights: 10% dimming (200 cd)	Angle Intensity Mitigation – 10% of Maximum & Minimum Luminous Intensity (cd)
			Magnitude	Level of Effect and Significance	RVAT reached? (Yes / No)		Magnitude	
11 – New House	1	T1 at 1,090 m	High-Medium	Substantial to Major and Significant	No	3	Low	20-13 cd
14 – Ael y Bryn	1	T5 at 1,291 m	High-Medium (Winter) Medium (Summer)	Substantial to Major and Significant (Winter) Major and Significant (Summer)	No	2	Low - Very Low	9-4 cd
17 – Ty Gwyn	2	T5 at 1,377 m	High	Substantial and Significant	No	2	Low - Very Low	9-4 cd
18 – Gilfach Hir	1	T3 at 1,420 m	Low (Winter) Very Low (Summer)	Moderate and Not Significant (Winter) Minor and Not Significant (Summer)	No	1	Very Low	9-4 cd

Residential Property / Groups of Properties	Number of properties	Distance of property / group from nearest turbine	Day-time Effects (Significant effects in bold and dark grey)			Night-time Effects		
						Number of Aviation Warning Lights*	Aviation warning lights: 10% dimming (200 cd)	Angle Intensity Mitigation – 10% of Maximum & Minimum Luminous Intensity (cd)
			Magnitude	Level of Effect and Significance	RVAT reached? (Yes / No)		Magnitude	
19 – Carreg Ateb	1	T1 at 1,475 m	Medium-Low (Winter) to Low (Summer)	Major to Moderate and Significant (Winter) Moderate and Not Significant (Summer)	No	1	Very Low	9-4 cd
20 – Dol y Llin	1	T5 at 1,505 m	Medium	Major and Significant	No	2	Low - Very Low	9-4 cd
22 - Pen y Bryn	1	T5 at 1,546 m	High	Substantial and Significant	No	2	Low - Very Low	9-4 cd
23 – Groffydd Cottage	1	T5 at 1,563 m	Medium (Winter) Low (Summer)	Major and Significant (Winter) Moderate and Not Significant (Summer)	No	2	Low - Very Low	9-4 cd
24 - Pant y Gwalia and	2	T1 at 1,597 m T1 at 1,632 m	High-Medium	Substantial to Major and Significant	No	1	Very Low	9-4 cd

Residential Property / Groups of Properties	Number of properties	Distance of property / group from nearest turbine	Day-time Effects (Significant effects in bold and dark grey)			Night-time Effects		
						Number of Aviation Warning Lights*	Aviation warning lights: 10% dimming (200 cd)	Angle Intensity Mitigation – 10% of Maximum & Minimum Luminous Intensity (cd)
			Magnitude	Level of Effect and Significance	RVAT reached? (Yes / No)		Magnitude	
27 - Slate House								
25 – Wyddol	1	T1 at 1,613 m	Medium (Winter) and Medium – Low (Summer)	Major and Significant (Winter) Major to Moderate and Significant (Summer)	No	2	Low - Very Low	9-4 cd
28 - Grofydd & 29 - Yr Hen Stabal	2	T5 at 1,642 m T5 at 1,654 m	Medium	Major and Significant	No	2	Low - Very Low	9-4 cd
30 -Tan y Bwlch	1	T1 at 1,681 m	Medium	Major and Significant	No	2	Low - Very Low	20-13 cd
31- Capel Bach	1	T1 at 1,690 m	Medium	Major and Significant	No	1	Very Low	9-4 cd
35 – Cerrig y Brain	1	T1 at 1,780 m	Medium	Major and Significant	No	3	Low	20-13 cd

Residential Property / Groups of Properties	Number of properties	Distance of property / group from nearest turbine	Day-time Effects (Significant effects in bold and dark grey)			Night-time Effects		
						Number of Aviation Warning Lights*	Aviation warning lights: 10% dimming (200 cd)	Angle Intensity Mitigation – 10% of Maximum & Minimum Luminous Intensity (cd)
			Magnitude	Level of Effect and Significance	RVAT reached? (Yes / No)		Magnitude	
36 – Pant y Crasty	1	T5 at 1,795 m	Medium	Major and Significant	No	2	Low - Very Low	9-4 cd
37 – Troed y Garth and 39 – Ger-y-waun	2	T5 at 1,876 m T5 at 1,904 m	Medium (Troed y Garth) Medium-Low (Ger-y-waun)	Major and Significant (Troed y Garth) Major to Moderate and Significant (Ger-y-waun)	No	2	Low - Very Low	9-4 cd
40 – Fuches Goch	1	T10 at 1,939 m	High-Medium	Substantial to Major and Significant	No	4	Low	20-13 cd
41 – Oerffrwd Cottage 43 – Oerffrwd Mill	2	T5 at 1,965 m T5 at 1,980 m	Low (Winter) Very Low (Summer)	Moderate and Not Significant (Winter) Minor and Not Significant (Summer)	No	1	Very Low	9-4 cd

Residential Property / Groups of Properties	Number of properties	Distance of property / group from nearest turbine	Day-time Effects (Significant effects in bold and dark grey)			Night-time Effects		
						Number of Aviation Warning Lights*	Aviation warning lights: 10% dimming (200 cd)	Angle Intensity Mitigation – 10% of Maximum & Minimum Luminous Intensity (cd)
			Magnitude	Level of Effect and Significance	RVAT reached? (Yes / No)		Magnitude	
42 – Pantybryn	1	T1 at 1,975 m	High-Medium	Substantial to Major and Significant	No	4	Low	20-13 cd

Note: Significant effects are shaded grey and bold.

*The number of visible aviation warning lights ignores vegetative screening and built-form.

Table 7L-3 – Residential Property 2: Llyn Mawr

Residential Property 2: Llyn Mawr			
Representative Wireline visualisation: Figure 7L.1			
Nearest turbine to property:	T2 at 542 m		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	10	
	Blades visible	11	
	Aviation lights visible	4 (T1, T5, T7 and T10)	
Description	This property comprises a two-storey farmhouse located to the north of Llyn Mawr. Access is via a private drive leading to a minor road to the south of the property. There are some scattered trees planted alongside the driveway. The Proposed Development lies to the north-east to west-north-west of the property. The property is orientated south-east with its principal elevation facing away from the Proposed Development. There is a small garden located to the south-east of the property with some tree and shrub garden planting. The property is part of a working farm and there is a large agricultural building adjoining the property to the north and further agricultural buildings positioned west to north-west of the property which would restrict views, particularly from ground floor windows on the north-west elevation. The landform rises towards the slopes of Craig y Llyn-mawr to the north-west and Waun y Llyn to the north where the land is characterised by pastoral fields with stone wall boundaries on the lower slopes and upland heathland on the upper slopes. There is very little vegetation other than a single deciduous tree on the northern property boundary. To the north-north-west there are views towards Tirgwynt Wind Farm located beyond a ridgeline with hubs and blades visible on the skyline.		
Magnitude of Change (Proposed Development only)	Whilst in Operation: All 11 turbines would be theoretically visible from the north-west elevation of the property, affecting approximately 120° of the horizontal field of view as illustrated on the wireline in Figure 7L.1. The closest turbine T2 is located approximately 542 m to the north-north-west and would appear prominent and clearly visible on the skyline with the turbine base and lower part of the tower screened by intervening landform from the north-western elevation of the property. From the north-west elevation the hubs and towers of T9, T10 and T11 would be visible between the gap in the large outbuildings with the hub of T3 and the blades of T4 and T5 appearing above the agricultural buildings with the remaining turbines screened. From the garden to the east of property T1 would also appear prominent on the skyline. From the driveway to the south of the property all turbines would be visible with T3 and T4 appearing as full turbines on the skyline and there would also be visibility of access tracks leading to these turbines. The substation, BESS compound and control building would be screened by the agricultural buildings. The magnitude of change would be <i>High</i>.		

Residential Property 2: Llyn Mawr

	Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities and crane activity would be visible from this property. The upper parts of the temporary compound area may be visible from within the curtilage of the property. The access road to the Site is located to the east and there would be visibility of construction traffic along this road. The magnitude of change would range from <i>Very Low to High</i> .	
Assessment	Sensitivity	High
	Magnitude	High
	Level of Effect	Substantial and Significant
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to four nacelle aviation warning lights (T1, T5, T7 and T10) would be theoretically visible. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Visibility of the aviation lights of T1 would be from the garden to the east and from the driveway. From the north-west elevation of the property the aviation lights of T5 and T7 would be screened by the agricultural buildings, however the lights of T10 would be visible further in the distance between gaps in the agricultural buildings. All four aviation lights would be visible from the driveway, extending across a wide horizontal angle of view. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 20-13 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% would be <i>Low</i> .	
Residential Visual Amenity	The visual effect from Llyn Mawr would be significant due to proximity and extent of turbines visible on the skyline with the nearest turbine T2 occupying an elevated position on the northerly horizon, at a minimum distance of approximately 542 m and T1 which would be visible from the garden and driveway. In terms of residential visual amenity large outbuildings serve to restrict visibility of the Proposed Development with the hubs and towers of T2, T9, T10 and T11, the hub of T3 and the blades of T4 and T5 visible from the north-west elevation. The principal elevation of the property faces south-east and therefore would be unaffected by the Proposed Development. All 11 turbines would be visible from the driveway. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

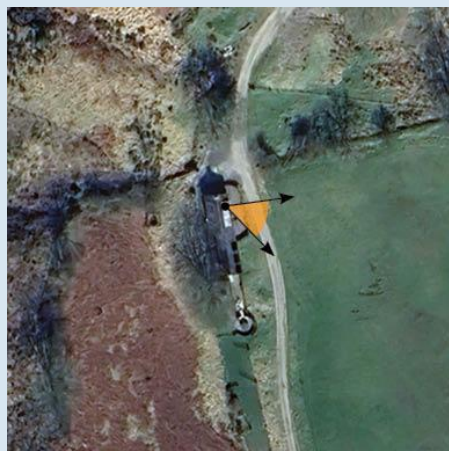
Table 7L-4 – Residential Property 3: Lakeside View

Residential Property 3: Lakeside View		
Representative Wireline visualisation: Figure 7L.2		
Nearest turbine to property:	T1 at 742 m	
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	11
	Blades visible	11
	Aviation lights visible	4 (T1, T5, T7 and T10)
		
Description	This property comprises a single-storey bungalow located to the east of Llyn Mawr. Access is off a minor road located to the east of the property. The Proposed Development lies to the north-north-east to north-west of the property. The assumed principal orientation of the property is south-west to take in views over the lake of Llyn Mawr. The garden is positioned to the east, south and west with linear belts of deciduous tree planting along the northern and eastern boundaries which in the Summer months restricts views from the property. Along the southern boundary there is some deciduous and coniferous planting with some gaps providing filtered views out towards pastoral fields beyond. Views to the north-west extend over Llyn Mawr and the surrounding pastoral fields and upland heath vegetation, with some coniferous woodland located on the skyline in the distance. To the west there are distant views towards Carno I Wind Farm on the skyline and to the north-north-west there are views towards Tirgwynt Wind Farm located beyond a ridgeline with some hubs and blades visible on the skyline. There are also some low voltage electricity lines within the view.	
Magnitude of Change (Proposed Development only)	Whilst in Operation: All 11 turbines would be theoretically visible from the north-west elevation of the property, affecting approximately 87° of the horizontal field of view as illustrated on the wireline in Figure 7L.2. The closest turbine T1 is located approximately 742 m to the north-north-east and would appear prominent and clearly visible on the skyline. There would also be views of the westernmost turbines from the south-west principal elevation. T3 and T4 would appear as full turbines within the view with the remaining turbines visible beyond landform with the towers screened to varying degrees. Several access tracks would also be visible across the view. The upper parts of the substation and control building may be visible above intervening landform. The turbines would be visible beyond the overhead lines in the foreground and in the context of existing turbines of Tirgwynt Wind Farm visible on the skyline further in the distance. Views of some turbines from parts of the garden to the east would be screened in the Summer months due to intervening tree planting. The magnitude of change would be <i>High</i>. Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities and crane activity would be visible from this property. The upper parts of the temporary compound may be visible above intervening landform. The access road to the Site passes along the minor road to the east of the property. To provide clearance for the wide loads, trees within the	

Residential Property 3: Lakeside View

	eastern garden boundary would need to be removed. The magnitude of change would range from <i>Very Low to High</i> .	
Assessment	Sensitivity	High
	Magnitude	High
	Level of Effect	Substantial and Significant
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to four nacelle aviation warning lights (T1, T5, T7 and T10) would be theoretically visible. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). From the principal orientation of the property, it is likely only the aviation lights of T5 and possibly T7 (viewed at an oblique angle) would be visible. All four aviation lights would be visible from the north-western elevation extending across a wide horizontal field of view. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 20-13 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low</i>.	
Residential Visual Amenity	The visual effect from Lakeside View would be significant due to the proximity and prominence of T1, T2 and T3 which would occupy elevated positions on the northerly horizon at a minimum distance of 742 m (T1). In terms of residential visual amenity only the eastern most turbines predominantly T5 and T6 with the possibility of T3, T4 and T7 (viewed at an oblique angle) would be visible from the principal orientation. All the turbines would be visible from the north-west elevation. Views of some turbines from parts of the garden to the east would be screened in the Summer months due to intervening tree planting. <u>The Proposed Development would not reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

Table 7L-5 – Residential Property 5: Blaen y Cwm

Residential Property 5: Blaen y Cwm			
Representative Wireline visualisation: Figure 7L.3			
Nearest turbine to property:	T7 at 821 m.		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	6	
	Blades visible	9	
	Aviation lights visible	2 (T5 and T7)	
Description	This property comprises a detached two-storey house located north-west of the lower slopes of Garreg-hir. Access to the property is via a private track off a minor road located south-south-east of the property. The property access has the slopes of Cryniarth immediately to the west and open views of the surrounding landscape and hillsides through north to south-east. There is a parking area on the north-east elevation. Opposite the properties east elevation within a neighbouring field is a line of deciduous trees with the upper slopes of Garreg Hir visible above them. To the north-north-east are two mature deciduous trees and vegetation filtering views in this direction from the property. The Proposed Development lies to the east-south-east to south-south-east of the property. The property is orientated south-east with its principal elevation facing the Proposed Development, where it has open views over the surrounding landscape and hillsides. To the south-south-east of the property there are oblique long-distance views across a valley with distant hills framed by the valley slopes. There is no garden located at the property, however there is a patio area bound by garden fencing on the south-east elevation facing the Proposed Development. The north-west elevation of the property would have little in terms of views as the landform immediately rises with the slopes of Cryniarth to the properties rear. The north-east elevation of the property comprises a single-storey glazed porch with views onto the parking area and to the east-south-east. There is a large stone outbuilding adjoining the south-west elevation of the property ensuring no views from within the property in this direction. The landform immediately rises through the south-west to the north-north-east with the slopes of Cryniarth. To the south-east the landform falls away from north to south before rising on the slopes of Garreg-hir after ~0.5 km where the land is characterised by pastoral fields and upland heathland on the upper slopes. Turbines within Llandinam Wind Farm are visible between the valley slopes on the skyline in long-distance views south-south-east from the property.		
Magnitude of Change (Proposed Development only)	Whilst in Operation: Up to nine turbines would be theoretically visible from the south-east elevation of the property, affecting approximately 54° of the horizontal field of view as illustrated on the wireline in Figure 7L.3. The closest turbine T7 is located approximately 821 m to the north-east where the tower, hub and blades would be visible beyond landform on the skyline. Turbine T6 would be seen in full on the skyline. The hub and blades of T5 would be visible on the skyline with a small section of the lower part of tower screened by		

Residential Property 5: Blaen y Cwm

	landform. The hubs and blades of T3, T4 and T8 would be visible above the horizon with landform screening the towers and rotator sweep to varying degrees. Turbines T1, T2 and T9 would be visible as blades. T7 has been reduced in height to 180 m in order to reduce the prominence of this turbine from the property and to appear more balanced with the other turbines. Access tracks are likely to be visible particularly associated with T6 where the turbine base would be visible from the property. Ancillary infrastructure would be screened by landform. The magnitude of change would be <i>High</i>. Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities and crane activity would be visible from this property. The magnitude of change would range from <i>Very Low to High</i>.	
Assessment	Sensitivity	High
	Magnitude	High
	Level of Effect	Substantial and Significant
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to two nacelle aviation warning lights (T5, T7) would be theoretically visible with T1 and T10 screened by landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low-Very Low</i>.	
Residential Visual Amenity	The visual effect from Blaen y Cwm would be significant due to the proximity and prominence of T6 and T7 which would occupy an elevated position on the east to south-east horizon, at a minimum distance of approximately 821 m. In terms of residential visual amenity, T7 has been reduced in height to 180 m in order to reduce the prominence of this turbine from the property and to appear more balanced with the other turbines. Whilst the turbines would appear prominently on the skyline from the principal orientation the turbines would appear well balanced both vertically and horizontally in a wider landscape where long-distance open views are available. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

Table 7L-6 – Residential Property 8: Cwm Gerwyn

Residential Property 8: Cwm Gerwyn			
Representative Wireline visualisation: Figure 7L.4			
Nearest turbine to property:	T5 at 1,020 m.		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	3	
	Blades visible	3	
	Aviation lights visible	2 (T5 and T7)	
Description	Due to limitations in accessing the property during the site visit, confirmation of the type of property, number of storeys, presence of windows and principal orientation could not be ascertained and therefore a worst-case scenario has been assumed based on a wireline as illustrated in Figure 7L.4 and aerial photography. This property is a detached farmhouse within a working farm located north-east of Carno on the lower slopes of Garreg-Hir. Access to the property is via a private track bound by deciduous trees located off a minor road to the south-south-west. The Proposed Development lies to the north-east of the property. The property is orientated north-north-west with aerial photography suggesting its principal elevation appears to be facing away from the Proposed Development. There appears to be no gardens associated with the property. To the north and immediately north-east of the property there are two belts of deciduous woodland. There are several agricultural outbuildings to the south of the property. The property sits on the lower slopes of Garreg-hir with landform rising immediately to the north-east where deciduous woodland is present. Garreg-hir is characterised by pastoral fields and on the upper slopes there is upland heathland.		
Magnitude of Change (Proposed Development only)	Whilst in Operation: Three turbines would be theoretically visible from the north-east elevation of the property as direct views and from the north-north-western elevation as oblique views, affecting approximately 32° of the horizontal field of view as illustrated on the wireline in Figure 7L.4. The closest turbine T5 is located approximately 1,020 m to the north-east where the upper elements of the tower, hub and blades would be visible beyond landform on the skyline. The towers, hubs and blades of T6 and T7 would be theoretically visible beyond landform on the skyline. In reality, views of the turbines would be screened by the neighbouring woodlands immediately north-east of the property. Views in the Winter months would still be heavily filtered once the leaves are off the trees. Access tracks and ancillary infrastructure would be screened by landform. Existing telegraph poles and overhead lines are present to the north-east beyond the first line of trees and the Proposed Development would be seen in the context of this infrastructure if visible beyond the trees. The magnitude of change would be <i>Low</i>. Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities and crane activity would be visible from this property. The magnitude of change would range from <i>Very Low to Low</i>.		

Residential Property 8: Cwm Gerwyn

Assessment	Sensitivity	High
	Magnitude	Low
	Level of Effect	Moderate and Not Significant
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to two nacelle aviation warning lights (T5, T7) would be theoretically visible with T1 and T10 screened by landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). In reality, given the dense woodland to the north-east of the property these would be heavily filtered even during the Winter months. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low-Very Low</i>.	
Residential Visual Amenity	The visual effect from Cwm Gerwyn would not be significant and <u>the Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u> This is mainly to the dense and close proximity deciduous woodland to the property which would screen the turbines in the Summer months and heavily filter them in the Winter months.	

Table 7L-7 – Residential Property 9: Ty Uchaf

Residential Property 9: Ty Uchaf

Representative Wireline visualisation: Figure 7L.5		
Nearest turbine to property:	T11 at 1,017 m.	
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	8
	Blades visible	10
	Aviation lights visible	2 (T1 and T10)
Description	This property comprises a detached single storey cottage located in a valley between Esgair Cwmowen and Mynydd Clogau. Access to the property is via a track (approximately 0.5 km long) off a minor road located north-east of the property. There are open views of the surrounding landscape and hillsides available in all directions from the northern end of the property access track. As the track proceeds south into the lower valley area, views become more enclosed as surrounding vegetation and mixed tree planting increase, heavily filtering views out to the surrounding landscape,	



Residential Property 9: Ty Uchaf

	particularly in the Summer months. In the Winter months, views would remain filtered but to a lesser degree. The Proposed Development lies to the south to east-south-east of the property. The property is orientated south-east with its principal elevation facing away from the Proposed Development. Views from within the property would be oblique. There is a large garden surrounding the property containing small garden plants, shrubs and specimen trees. The entire garden and property is bound by mixed vegetation (mainly deciduous) in all directions, causing views of the wider landscape to be heavily filtered in Summer months. There are two outbuildings to the south-east of the property. The landform rises both to the south-west and the south-east, creating the valley area the property sits within. There are no operational wind farms located in views from the property however Mynydd Clogau Wind Farm is visible in the middle distance (~1.0 km) beyond the rising landform to the south-east from the access track when approaching the property.	
Magnitude of Change (Proposed Development only)	Whilst in Operation: Up to 10 turbines would be theoretically visible from the south-west elevation of the property, affecting approximately 62° of the horizontal field of view as illustrated on the wireline in Figure 7L.5. The closest turbine T11 is located approximately 1,017 m to the north-east where the upper elements of the tower, hub and blades would be visible beyond landform on the skyline. T7 would be screened by landform. T5 would be visible as blades and T6 as blade tips with the remaining turbines visible on the skyline with the towers screened to varying degrees. Views of the turbines would be heavily filtered in the Summer months by the adjacent vegetation and trees with views in the Winter months remaining filtered but to a lesser degree. Access tracks and ancillary infrastructure would be screened by landform. The magnitude of change would be <i>High-Medium</i> (Winter) and <i>Medium</i> (Summer). Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities and crane activity would be visible from this property. The magnitude of change would range from <i>Very Low to High-Medium</i> (Winter) and <i>Very Low to Medium</i> (Summer).	
Assessment	Sensitivity	High
	Magnitude	High-Medium (Winter) Medium (Summer)
	Level of Effect	Substantial to Major and Significant (Winter) Major and Significant (Summer)
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to two nacelle aviation warning lights (T1, T10) would be theoretically visible with T5 and T7 screened by landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Dense vegetation and trees would filter views of these aviation lights in both the Summer and Winter months. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4 cd coinciding with periods when the visibility is >5 km in all directions.	

Residential Property 9: Ty Uchaf

	The magnitude of change when the lights are dimmed to 10% (200 cd) would be Low-Very Low.
Residential Visual Amenity	The visual effect from Ty Uchaf would be significant due to the proximity and prominence of T11 and T1 which would occupy a position on the south-west and south-south-west horizon, at a minimum distance of approximately 1,017 m. In terms of residential visual amenity, intervening landform and boundary vegetation would reduce the visibility of the turbines and filter views from this property and garden, particularly in Summer months when the trees are in leaf. Views available in the Winter months would remain filtered but to a lesser degree. The principal elevation of the property faces south-east, away from the Proposed Development. The principal elevation of the property would be unaffected by the Proposed Development. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>

Table 7L-8 – Residential Property 11: New House

Residential Property 11: New House

Representative Wireline visualisation: Figure 7L.6			
Nearest turbine to property:	T1 at 1,090 m.		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	8	
	Blades visible	10	
	Aviation lights visible	3 (T1, T5 and T7)	
Description	This property comprises a 1.5 storey farmhouse located between the hillsides of Mynydd y Gelli to the east and Gilfach-hir to the west. Access is via a private driveway leading off a minor road located to the west of the property. The Proposed Development lies to the north to north-west of the property. The principal orientation of the property is to the south away from the Proposed Development with open views out over the surrounding countryside. There are no windows on the north elevation and immediately adjacent is a large agricultural building and a belt of coniferous trees on the slope further north which restrict views from the curtilage. There is a single-storey lean-to extension on the west elevation with no windows and a small porthole window on the storey above. The garden is positioned to the south of the property. Rising landform to the north and west along with roadside hedges restricts views in this direction. Within the view to the north, south and west are telegraph poles and overhead electricity lines. Llandinam Wind Farm is visible on the skyline in the distance to the south.		
Magnitude of Change (Proposed)	Whilst in Operation: Up to 10 turbines would be theoretically visible from the curtilage of the property, affecting approximately 71° of the horizontal field of view as illustrated on the wireline in		

Residential Property 11: New House

Development only)	Figure 7L.6 with T11 screened by landform. The closest turbine T1 is located approximately 1,090 m to the north and would appear behind landform with the hub and blades visible on the skyline. There would be no views from the north elevation of the property due to lack of windows and from the northern curtilage due to the position of the outbuilding. Hubs and blades of turbines T5, T6 and T7 may be visible from the first-floor porthole window on the west elevation but viewed at an oblique angle. Coniferous trees may filter views of T1 from the eastern part of the garden with potential for views of the upper parts of T2 and T9 with the property screening the majority of the turbines. From the curtilage to the west of the property all turbines would be visible as hubs and blades with the exception of T10 which would be visible only as blades. Access tracks and ancillary infrastructure would be screened by landform. The magnitude of change would be <i>High-Medium</i> (from the curtilage primarily to the west of the property). Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The access road to the Site is located to the west of the property and there would be visibility of construction traffic along this road. The magnitude of change would range from <i>Very Low</i> to <i>High-Medium</i>.	
Assessment	Sensitivity	High
	Magnitude	High-Medium
	Level of Effect	Substantial to Major and Significant
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to three nacelle aviation warning lights (T1, T5, T7) would be theoretically visible with T10 screened by landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 20-13 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low</i> (from western elevation but primarily the driveway to the west of the property).	
Residential Visual Amenity	The visual effect from New House would be significant due to the proximity and extent of turbines visible on the skyline with the nearest turbine T1 which would occupy an elevated position on the northerly horizon, at a minimum distance of approximately 1,090 m as illustrated on the wireline in Figure 7L.6. In terms of residential amenity, there are no windows on the northern elevation and only a small porthole first floor window on the western elevation. The principal elevation of the property faces south and would therefore be unaffected by the Proposed Development. Intervening built form, landform and a line of mature coniferous trees serves to restrict visibility of the Proposed Development from areas of the garden to the south with views primarily obtained from the curtilage to the west of the property and would be seen in the context of telegraph poles and overhead electricity lines. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

Table 7L-9 – Residential Property 14: Ael y Bryn

Residential Property 14: Ael y Bryn

Representative Wireline visualisation: Figure 7L.7			
Nearest turbine to property:	T5 at 1,291m.		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	3	
	Blades visible	5	
	Aviation lights visible	2 (T5 and T7)	
Description	This property comprises a detached bungalow located south-west of the lower slopes of Garreg-hir. Access to the property is off a minor road located immediately east of the property. The property access has a stone wall on the south-east side with a hedge on the north-east side to the south of the property. Directly opposite the property's north-east elevation on the eastern side of the minor road is a line of mature deciduous roadside vegetation which heavily filters views towards the wider landscape in this direction, particularly in the Summer months. Winter months would remain filtered but to a lesser degree. The Proposed Development lies to the north-north-east to north-east of the property. The property is orientated south-east with its principal elevation facing away from the Proposed Development. There is a garden located to the south-east of the property, and another to the north-west. The southern garden contains shrubs and a deciduous tree in the south-west corner and has views south-east towards the wider landscape and hillsides. The northern garden has boundary vegetation to the north and west with views north-west screened by large agricultural outbuildings. There is an outbuilding to the north of the property. The landform rises both to the north-west and the north-east. Past the boundary trees to the north-east the land rises towards the lower slopes of Garreg-hir where the land is characterised by pastoral fields and on the upper slopes there is upland heathland. There are no operational wind farms located in views from the property.		
Magnitude of Change (Proposed Development only)	Whilst in Operation: Five turbines would be theoretically visible from the north-east elevation of the property, affecting approximately 32° of the horizontal field of view as illustrated on the wireline in Figure 7L.7. The closest turbine T5 is located approximately 1,291 m to the north-east where the tower, hub and blades would be visible beyond landform on the skyline. The towers, hubs and blades of T6 and T7 would visible beyond landform on the skyline with T8 appearing only as blades and T4 as blade tips. Views of the turbines would be heavily filtered in the Summer months by the deciduous roadside vegetation and trees immediately north-east of the property, views in the Winter months would remain filtered but to a lesser degree. Access tracks and ancillary infrastructure would be screened by landform. Existing telegraph poles are present in the property curtilage to the east. The magnitude of change would be <i>High-Medium</i> (Winter) and <i>Medium</i> (Summer). Whilst Under Construction and Decommissioning:		

Residential Property 14: Ael y Bryn		
	Ground based construction and decommissioning activities and crane activity would be visible from this property. The magnitude of change would range from <i>Very Low to High-Medium</i> (Winter) and <i>Very Low to Medium</i> (Summer).	
Assessment	Sensitivity	High
	Magnitude	High-Medium (Winter) Medium (Summer)
	Level of Effect	Substantial to Major and Significant (Winter) Major and Significant (Summer)
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to two nacelle aviation warning lights (T5, T7) would be theoretically visible with T1 and T10 screened by landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Views towards the aviation lights would be heavily filtered in Summer and in Winter but to a lesser degree. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low-Very Low</i>.	
Residential Visual Amenity	The visual effect from Ael y Bryn would be significant due to the proximity and prominence of T5 and T6 which would occupy an elevated position on the north-east horizon, at a minimum distance of approximately 1,291 m. In terms of residential visual amenity, intervening landform and deciduous roadside vegetation and trees reduce visibility of the turbines and filter views from this property, particularly in Summer months when the trees are in leaf. Views available to the north-east in the Winter months would remain filtered but to a lesser degree. The principal elevation of the property faces south-east, away from the Proposed Development. The principal elevation of the property would be unaffected by the Proposed Development. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

Table 7L-10 – Residential Property 17: Ty Gwyn

Residential Property 17: Ty Gwyn			
Representative Wireline visualisation: Figure 7L.8			
Nearest turbine to property:	T5 at 1,377 m.		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	4	
	Blades visible	5	
	Aviation lights visible	2 (T5 and T7)	
Description	This property comprises a two-storey farmhouse located south-west of the lower slopes of Garreg-hir. Access to the property is via a private driveway off a minor road located north-east of the property. The driveway is bordered to the south by a combination of post and rail / post and wire fencing and to the north by a deciduous hedgerow. Opposite the driveway entrance is a line of mature deciduous roadside vegetation which filters views from the driveway entrance towards the wider landscape to the north-east to east, particularly in the Summer months. Winter months would remain filtered from the driveway entrance but to a lesser degree. Due to access restrictions, it is unclear which is the principal elevation for Ty Gwyn, in addition confirmation of the presence of ground floor windows on all four elevations could not be ascertained and therefore ground floor windows are assumed to be present on all sides as a worst-case scenario. The Proposed Development lies to the north-north-east to north-east of the property. The deciduous hedge bordering the driveway to the north-east may restricts views. There is a large garden wrapping around the west and south elevations of the property. The garden contains some specimen trees with closely grouped mixed trees north-west of the property. There appears to be views from the garden to the south and the west. Any views to the east appear to be screened by large agricultural outbuildings or the property itself. There are multiple large agricultural outbuildings to the east of the property and one to the south-south-west. These appear to screen views looking east through to the south-east from the property, however, are unlikely to screen views from the north-east elevation looking towards the Proposed Development to the north-east. The landform rises both to the north-west and the north-east towards the lower slopes of Garreg-hir where the land is characterised by pastoral fields and on the upper slopes there is upland heathland.		
Magnitude of Change (Proposed Development only)	Whilst in Operation: Five turbines would be theoretically visible from the north-east elevation of the property, affecting approximately 32° of the horizontal field of view as illustrated on the wireline in Figure 7L.8. The closest turbine T5 is located approximately 1,377 m to the north-east where the tower, hub and blades would be visible beyond landform on the skyline. The towers, hubs and blades of T6, T7 and T8 would be visible beyond landform on the skyline with T4 appearing on as blades. Views of the turbines would be available above the hedgerow adjacent to the driveway from the north-east elevation of the property with T5 and T6 being prominent and elevated from this location. Access tracks and ancillary infrastructure would be screened by landform. Existing telegraph poles and overhead		

Residential Property 17: Ty Gwyn

	lines are present within the property curtilage in the near distance when looking to the north-east towards the Proposed Development where they cross over the private driveway. The magnitude of change would be <i>High</i>. Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities and crane activity would be visible from this property. The magnitude of change would range from <i>Very Low to High</i>.	
Assessment	Sensitivity	High
	Magnitude	High
	Level of Effect	Substantial and Significant
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to two nacelle aviation warning lights (T5, T7) would be theoretically visible with T1 and T10 screened by landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low-Very Low</i>.	
Residential Visual Amenity	The visual effect from Ael y Bryn would be significant due to the proximity and prominence of T5 and T6 which would occupy an elevated position on the north-east horizon, at a minimum distance of approximately 1,377 m. In terms of residential visual amenity, intervening landform reduces visibility of the lower elements of the visible turbines from this property with access tracks and associated infrastructure screened by landform. Existing telegraph poles within the property curtilage, crossing the private driveway, would be visible in the near distance for views towards the Proposed Development from the north-east elevation. The deciduous hedgerow alongside the driveway may help to reduce or filter views of the lower elements of the turbines from the ground floor of the property on the north-east elevation, particularly in Summer months. Due to access restrictions, it is unclear which is the principal elevation for Ty Gwyn, in addition confirmation of the presence of ground floor windows on all four elevations could not be ascertained and therefore ground floor windows are assumed to be present on all sides as a worst-case scenario. On this basis, the principal elevation, should it be the north-eastern elevation of the property may be affected by the Proposed Development. All other elevations, should they be the principal elevation, and the garden would be unaffected by the Proposed Development. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

Table 7L-11 – Residential Property 18: Gilfach-hir

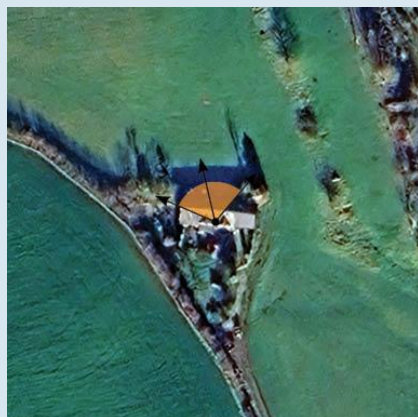
Residential Property 18: Gilfach-hir			
Representative Wireline visualisation: Figure 7L.9			
Nearest turbine to property:	T3 at 1,420 m.		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	1	
	Blades visible	2	
	Aviation lights visible	1 (T5)	
Description	This property comprises a detached two-storey house located on the south-eastern slopes of Bryn y Llys. Access to the property is via a private track located south and west of the property. The Proposed Development lies to the north-east to north-west. The principal orientation of the property is the south away from the Proposed Development. Landform rises steeply to the north-east to north-west where views are curtailed by mixed woodland. The view to the south overlooks the garden, access track and a large outbuilding located at a lower elevation. There are no windows on the western elevation and windows are assumed to be present on the northern elevation.		
Magnitude of Change (Proposed Development only)	Whilst in Operation: Up to two turbines would be theoretically visible from the north elevation of the property and western curtilage, affecting approximately 7° of the horizontal field of view as illustrated on the wireline in Figure 7L.9. The closest turbine T3 is located approximately 1,420 m to the north-east however, it is screened by landform. T5 would be theoretically visible on the skyline at an oblique angle with landform screening part of the tower and rotator sweep. T6 would be visible as blades only and the remaining turbines would be screened by landform. Given the intervening woodland to the north and north-west of the property the turbines are likely to be screened in the Summer months and heavily filtered in the Winter months. The magnitude of change would be <i>Low</i> (Winter) and <i>Very Low</i> (Summer). Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The magnitude of change would range from <i>Very Low to Low</i> (Winter) and <i>Very Low to Very Low</i> (Summer).		
Assessment	Sensitivity	High	
	Magnitude	Low (Winter) Very Low (Summer)	
	Level of Effect	Moderate and Not Significant (Winter) Minor and Not Significant (Summer)	
	Type of Effect	Long term (reversible) and adverse	

Residential Property 18: Gilfach-hir

Aviation warning lights	One nacelle aviation warning light (T5) would be theoretically visible. This would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). In reality the aviation light would likely be screened in the Summer months and heavily filtered in the Winter months due to intervening woodland. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Very Low</i>.
Residential Visual Amenity	The visual effect from Gilfach-hir would not be significant and <u>the Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u> This is due mainly to the narrow horizontal field of view due to screening provided by landform and intervening woodland to the north to north-west.

Table 7L-12 – Residential Property 19: Carreg Ateb

Residential Property 19: Carreg Ateb

Representative Wireline visualisation: Figure 7L.10			
Nearest turbine to property:	T1 at 1,475 m.		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	3	
	Blades visible	7	
	Aviation lights visible	1 (T1)	
Description	This property comprises a two-storey house located on the eastern slopes of Bryn y Llys. Access is via a private driveway to the south of the property leading to a minor road located to the south-east. The Proposed Development lies to the north to north-west of the property. The principal orientation of the property is to the south away from the Proposed Development where there are open views over pastoral fields and a small garden. There is dense evergreen and deciduous tree and shrub garden vegetation surrounding the property to the north and west which restricts views towards the pastoral fields beyond. Landform also rises in these directions with hedgerows present along the field boundaries which further restrict views. Due to limitations in accessing the property during the site visit, confirmation of the presence of windows on the north and west elevations could not be ascertained and therefore windows are assumed to be present as a worst-case scenario. There are some low voltage overhead lines within the view.		
Magnitude of Change (Proposed)	Whilst in Operation: Seven turbines would be theoretically visible from the curtilage of the property, affecting approximately 63° of the horizontal field of view as illustrated on the wireline in Figure		

Residential Property 19: Carreg Ateb

Development only)	7L.10. The closest turbine T1 is located approximately 1,475 m to the north and would be visible on the skyline with the lower part of the tower screened by landform. Turbines T7, T9, T10 and T11 would be screened by landform. The hubs of T3 and T4 would theoretically be visible just above the horizon with T2, T5, T6 and T8 appearing only as blades. In reality given the dense vegetation immediately adjacent to the north and west elevations, views of the Proposed Development would be heavily screened particularly in the Summer months when vegetation is in leaf. Access tracks and ancillary infrastructure would be screened by landform. The magnitude of change would be <i>Medium-Low</i> (Winter) to <i>Low</i> (Summer). Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The access road to the Site is along the minor road located south-east to north-east of the property and there would be visibility of construction traffic along this road. The magnitude of change would range from <i>Very Low</i> to <i>Medium-Low</i> (Winter) to <i>Very Low</i> to <i>Low</i> (Summer).	
Assessment	Sensitivity	High
	Magnitude	Medium-Low (Winter) Low (Summer)
	Level of Effect	Major to Moderate and Significant (Winter) Moderate and Not Significant (Summer)
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	One nacelle aviation warning light (T1) would be theoretically visible with T5, T7 and T10 screened by landform. This light would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Due to the dense vegetation immediately north of the property this aviation warning light is likely to be heavily filtered particularly during the summer months. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Very Low</i>.	
Residential Visual Amenity	The visual effect from Cerreg Ateb would be significant due to the proximity and prominence of T1, which would occupy an elevated position on the northerly horizon, at a minimum distance of approximately 1,475 m. In terms of residential visual amenity, intervening landform and garden vegetation particularly in the Summer months serve to restrict visibility of T1 and the other turbines which are shown as being theoretically visible in Figure 7L.10. The principal elevation of the property faces south with visibility of T1 occurring in northerly views. The principal elevation of the property would be unaffected by the Proposed Development. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

Table 7L-13 – Residential Property 20: Dol y Llin

Residential Property 20: Dol y Llin			
Representative Wireline visualisation: Figure 7L.11			
Nearest turbine to property:	T5 at 1,505 m.		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	3	
	Blades visible	3	
	Aviation lights visible	2 (T5 and T7)	
Description	This property comprises a detached two-storey house with a single storey flat roof extension on the north elevation and a single storey pitched roof extension on the north-east elevation which also comprises a carport and garage. The property is located to the north-west of Clatter. Access is via a private drive which is located to the south-east of the property with an adjoining tall evergreen hedge to the south of the property. The northern end of the driveway finishes at the pitched roof single storey extension / carport / garage. There is deciduous tree planting along the south-eastern to northern boundary, which becomes more wooded as it extends north which filter views towards the wider landscape. The Proposed Development lies to the north-north-east to north-east of the property. The property is orientated south-south-east with its principal elevation facing away from the Proposed Development. There is a garden located to the front of the property to the south, and another to the south-east with a stream running along its eastern edge. The gardens contain small garden plants and some specimen trees. There are outbuildings to the east of the property and a further outbuilding positioned north to the rear of the property. The landform begins to rise past the boundary trees to the north-east towards the lower slopes of Garreg-hir where the land is characterised by pastoral fields and on the upper slopes there is upland heathland. To the west-north-west, there are views towards Carno I and Carno II Wind Farm filtered by intervening foreground vegetation.		
Magnitude of Change (Proposed Development only)	Whilst in Operation: Three turbines (hubs and blades) would be theoretically visible from the north-east elevation of the property, affecting approximately 20° of the horizontal field of view as illustrated on the wireline in Figure 7L.11. The closest turbine T5 is located approximately 1,505 m to the north-east where the hub and blades would appear beyond landform and visible on the skyline. The blades and hubs of T6 and T7 would be visible beyond landform on the skyline. Views of the turbines would be heavily filtered in the Summer months by the deciduous tree belt on the north and north-east boundary. Access tracks and ancillary infrastructure would be screened by landform. The turbines would be visible beyond the existing telegraph pole and overhead lines in the middle ground. The magnitude of change would be <i>Medium</i> (Winter). Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during		

Residential Property 20: Dol y Llin

	the erection and removal of the turbines. The magnitude of change would range from <i>Very Low to Medium</i> .	
Assessment	Sensitivity	High
	Magnitude	Medium
	Level of Effect	Major and Significant
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to two nacelle aviation warning lights (T5, T7) would be theoretically visible with T1 and T10 screened by landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Visibility of the aviation lights of T5 and T7 would be mainly visible from the rear of the property and associated curtilage on the northern side. The lights would be heavily filtered in the Summer months by the deciduous tree belt on the north and north-east boundary and visibility of the aviation lights would be filtered through the same tree belt during Winter months. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low-Very Low</i>.	
Residential Visual Amenity	The visual effect from Dol y Llin would be significant due to the proximity and prominence of T5 and T6, which would occupy an elevated position on the north-north-eastern horizon, at a minimum distance of approximately 1,505 m. In terms of residential visual amenity, intervening landform and deciduous tree belt serves to restrict visibility of T5, T6 and T7 from the north-north-west elevation. The principal elevation of the property faces south-south-west and therefore would be unaffected by the Proposed Development. Views of the turbines from the driveway would be restricted by the pitched roof of the property extension / garage at the northern end of the driveway and the tree belt extending along the north and north-east boundary. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

Table 7L-14 – Residential Property 22: Pen y Bryn

Residential Property 22: Pen y Bryn			
Representative Wireline visualisation: Figure 7L.12			
Nearest turbine to property:	T5 at 1,546 m.		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible		5
	Blades visible		8
	Aviation lights visible	2 (T5 and T7)	
Description	This property comprises a detached bungalow located on elevated land, part way down the slopes of Allt Fawr, south-west of the lower slopes of Garreg-hir. Access to the property is via a private track (approximately 0.4 km) off a minor road to the north-east. The property access has post and wire fencing on the southern side with woodland edge on the northern side. The Proposed Development lies to the north-east of the property. The property is orientated south-east with its principal elevation facing away from the Proposed Development. There is a garden located to the south-east of the property, and a parking area to the north-west. The south-eastern garden is bound by a deciduous hedgerow and has elevated views south-west to north-east towards the wider landscape and hillsides. The northern corner of the garden, opposite the north-east elevation of the property, has a large conifer which would screen / filter views in this direction from the garden. There is an outbuilding to the north-west of the property. The landform rises steadily to the north-west, up the slopes of Allt Fawr. To the north-east the landform falls away before rising again on the slopes of Garreg-Hir. At Garreg-hir where the land is characterised by pastoral fields and on the upper slopes there is upland heathland.		
Magnitude of Change (Proposed Development only)	Whilst in Operation: Eight turbines would be theoretically visible from the north-east elevation of the property, affecting approximately 36° of the horizontal field of view as illustrated on the wireline in Figure 7L.12. The closest turbine T5 is located approximately 1,546 m to the north-east where the tower, hub and blades would be visible beyond landform on the skyline. The towers, hubs and blades of T6, T7 and T8, the hubs and blades of T4 and the blades of T3, T9 and T10 would be visible beyond landform on the skyline. There would be oblique views of the Proposed Development from the property as direct views are to the south-east. There would be direct views of Proposed Development available from the garden. Access tracks and ancillary infrastructure would be screened by landform. Existing telegraph poles and overhead lines are present in views to the north-east although these lie at a lower elevation than the property in these views. The magnitude of change would be <i>High</i>. Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities and crane activity would be visible from this property. The magnitude of change would range from <i>Very Low to High</i>.		
Assessment	Sensitivity	High	

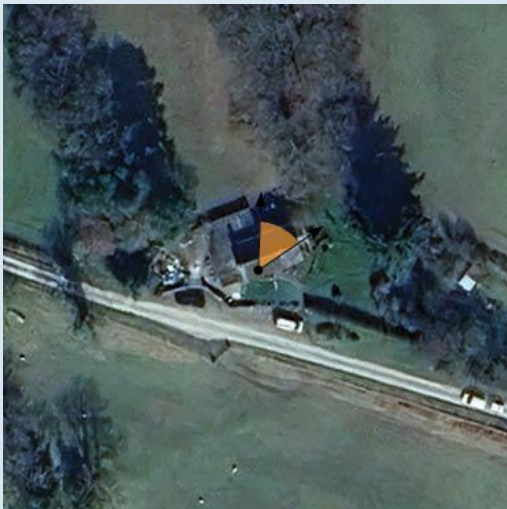
Residential Property 22: Pen y Bryn

	Magnitude	High
	Level of Effect	Substantial and Significant
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to two nacelle aviation warning lights (T5, T7) would be theoretically visible with T1 and T10 screened by landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low-Very Low</i>.	
Residential Visual Amenity	The visual effect from Pen y Bryn would be significant due to the proximity and prominence of T5 and T6 which would occupy an elevated position on the north-east horizon, at a minimum distance of approximately 1,546 m. In terms of residential visual amenity, intervening landform helps to reduce visibility of the turbines and available views from within the property are oblique. Direct views are available from the garden towards the Proposed Development, however, other views over the wider landscape are also available from the garden to the south-west to south-east. The principal elevation of the property faces south-east, away from the Proposed Development. The principal elevation of the property would be unaffected by the Proposed Development. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

Table 7L-15 – Residential Property 23: Groffydd Cottage

Residential Property 23: Groffydd Cottage

Representative Wireline visualisation: Figure 7L.13		
Nearest turbine to property:	T5 at 1,563 m.	
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	3
	Blades visible	4
	Aviation lights visible	2 (T5 and T7)

An aerial photograph showing a property with a house, a driveway, and a road. The house has a dark roof and a yellow section. There are trees and a green field in the background.

Residential Property 23: Groffydd Cottage

Description	This property comprises a detached two-storey house with a single storey L-shaped flat roof / balcony on the south-west to north-westerly elevations. The property is located to the north-west of Clatter. Access is via a minor road to the south of the property. The property is bordered to the south by a low stone wall and adjoining deciduous hedge. The Proposed Development lies to the north-east to north-north-east of the property. The property is orientated south-east with views of the surrounding landscape and hillsides in this direction. The property's principal elevation faces away from the Proposed Development. There is a garden rounding the southern and eastern elevations of the property which is bounded by hedgerow, shrubs and trees. There is a large conifer tree on the boundary, east of the property. There are two tree belts next to the property, one tree belt begins west of the property and runs north and the second begins east of the property and also runs north. These tree belts filter views of the wider landscape to the north-east and north-west. There are no outbuildings present at the property. The landform begins to rise past the boundary trees and shrubs to the north-east towards the lower slopes of Garreg-hir where the land is characterised by pastoral fields and on the upper slopes there is upland heathland. There are no operational wind farms located in views from the property.	
Magnitude of Change (Proposed Development only)	Whilst in Operation: Four turbines would be theoretically visible from the property, affecting approximately 23° of the horizontal field of view as illustrated on the wireline in Figure 7L.13. The closest turbine T5 is located approximately 1,563 m to the north-east where the upper elements of the wind turbine hub and blades would appear beyond landform and visible on the skyline. The blades and hubs of T6 and T7 would be visible beyond landform on the skyline with T8 visible as blade tips only. Due to limitations in access during the site visit, confirmation of the presence of windows on the north-east elevation (towards the Proposed Development) could not be ascertained and therefore windows are assumed to be present as a worst-case scenario. Views of the turbines would be filtered in the Summer months by the deciduous tree belt on the north-east boundary with views from the garden additionally restricted by the large conifer tree. Views from the balcony area on the north-west elevation towards the Proposed Development would also be filtered by the existing tree belt. Access tracks and ancillary infrastructure would be screened by landform. The turbines would be visible beyond the existing telegraph pole and overhead lines in the middle ground. The magnitude of change would be <i>Medium</i> (Winter) and <i>Low</i> (Summer). Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The magnitude of change would range from <i>Very Low to Medium</i> (Winter) and <i>Very Low to Low</i> (Summer).	
Assessment	Sensitivity	High
	Magnitude	Medium (Winter) Low (Summer).
	Level of Effect	Major and Significant (Winter) Moderate and Not Significant (Summer)

Residential Property 23: Groffydd Cottage

	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to two nacelle aviation warning lights (T5, T7) would be theoretically visible with T1 and T10 screened by landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Visibility of the aviation lights of T5 and T7 would be mainly visible from the north-east elevation of the property, garden and balcony area on the north-west elevation. Visibility of the aviation lights would be filtered through the tree belt to the north-east, with Summer months providing some additional filtering of views. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low-Very Low</i> .	
Residential Visual Amenity	The visual effect from Groffydd Cottage would be significant due to the proximity and prominence of T5 and T6, which would occupy an elevated position on the north-north-eastern horizon, at a minimum distance of approximately 1,563 m. In terms of residential visual amenity, intervening landform, deciduous tree belt and the large conifer tree serves to restrict visibility of T5, T6, T7 and T8 from the north-east elevation and garden. The principal elevation of the property faces south-east and therefore would be unaffected by the Proposed Development. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

Table 7L-16 – Residential Property 24 & 27: Pant y Gwalia & Slate House

Residential Property 24 & 27: Pant y Gwalia & Slate House

Representative Wireline visualisation: Figure 7L.14		
Nearest turbine to property:	T1 at 1,597 m – Pant y Gwalia T1 at 1,632 m – Slate House	
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	4 – Pant y Gwalia 5 – Slate House
	Blades visible	7 – Pant y Gwalia 8 – Slate House
	Aviation lights visible	1 (T1)
Description	The residential properties at Pant y Gwalia (Property 24) and Slate House (Property 27) comprise two properties located on the south-eastern slopes of Bryn y Llys. Pant y Gwalia is a detached 1.5-storey farmhouse and Slate House is detached 2-storey property with a single storey extension to the north. Access is via a minor road and private driveways located to the east of the properties. The Proposed Development lies to the north-north-east to north-west of the properties. The principal orientation of Pant y Gwalia is to the east and Slate House to the south.	



Residential Property 24 & 27: Pant y Gwalia & Slate House

	Slate House is positioned in close proximity to the south of Pant y Gwalia with a small single storey outbuilding separating the two properties. There is one small window to the east of the northern elevation of Slate House facing on to the small outbuilding and two Velux windows. There is an outbuilding on the southern part of the west elevation on Slate House. Due to limitations in accessing the properties during the site visit, confirmation of the presence of windows on the northern and west elevations of the properties could not be ascertained and therefore windows are assumed to be present as a worst-case scenario. Land rises to the north, south and west of the properties where there are hedgerows with occasional trees along the pastoral field boundaries with a hedgerow bordering the properties to the west, which restricts views. To the east of the properties there is a small field with used for sheep grazing with a mature line of coniferous trees separating the property from the road heavily filtering views beyond. To the north-east of Pant y Gwalia there is a large barn. There are low voltage overhead lines within the view towards the Proposed Development.	
Magnitude of Change (Proposed Development only)	Whilst in Operation: Up to eight turbines would be theoretically visible from the north and west elevations of the properties, affecting approximately 45° of the horizontal field of view as illustrated on the wireline in Figure 7L.14. The closest turbine T1 is located approximately 1,597 m (Pant y Gwalia) and 1,632 m (Slate House) to the north and would be visible on the skyline with the lower part of the tower screened by landform. Turbines T6, T7 and T10 would be screened by landform for both properties and T11 for Pant-y-Gwalia. The hubs of T2, T3, T4, T8 would be theoretically visible above the horizon with T5, T9 appearing only as blades and T11 appearing as blade tips. For Pant-y Gwalia T8 would appear as blades only. Views of the Proposed Development would primarily be from the north elevation of Pant y Gwalia. The hedgerows and rising landform to the west of the properties would restrict views towards the Proposed Development from ground floor windows. Intervening vegetation in the form of hedgerows would likely screen T5, screen the hub of T8 and reduce visibility of the towers of T3 and T4. Cerreg Ateb (Property 19) located on the hillside to the north would screen the hub of T2. Access tracks and ancillary infrastructure would be screened by landform. Due to screening provided by Pant y Gwalia from Slate House views of the Proposed Development would be from the curtilage to the east. The magnitude of change would be <i>High- Medium</i>. Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The access road to the Site passes along the minor road to the east of the property. To provide clearance for the wide loads, trees within the eastern garden boundary would need to be removed. The magnitude of change would range from <i>Very Low to High-Medium</i>.	
Assessment	Sensitivity	High
	Magnitude	High-Medium
	Level of Effect	Substantial to Major and Significant
	Type of Effect	Long term (reversible) and adverse

Residential Property 24 & 27: Pant y Gwalia & Slate House

Aviation warning lights	One nacelle aviation warning light (T1) would be theoretically visible with T5, T7 and T10 screened by landform. This light would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Due to the dense vegetation immediately north of the property this aviation warning light is likely to be heavily filtered particularly during the summer months. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Very Low</i>.
Residential Visual Amenity	The visual effect from Pant y Gwalia and Slate House would be significant due to the proximity and prominence of T1, which would occupy an elevated position on the northerly horizon, at a minimum distance of between approximately 1,597 m to 1,632 m. In terms of residential visual amenity, T1 would be visible from Pant y Gwalia but would be screened from ground floor windows. Visibility would be limited to the eastern curtilage of Slate House due to the intervening built form of a small outbuilding and Pant y Gwalia. The principal elevation of Pant y Gwalia faces east with visibility of T1 occurring obliquely in north-north-easterly views. The principal elevation of the properties would be unaffected by the Proposed Development. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>

Table 7L-17 – Residential Property 25: Wyddol

Residential Property 25: Wyddol			
Representative Wireline visualisation: Figure 7L.15			
Nearest turbine to property:	T1 at 1,613 m.		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	5	
	Blades visible	8	
	Aviation lights visible	2 (T1 and T5)	
Description	This property comprises a 1.5-storey detached cottage located between the hillsides of Bryn y Llys to the north-west and Ddified to the south-east. Access to the property is via a private driveway leading to a lane located to the west. The Proposed Development lies to the north to north-west of the property. The principal orientation of the property is to the south-east away from the Proposed Development, which overlooks the garden with view towards the pastoral fields beyond. Views extend towards a large outbuilding located to the south-western corner of the property. The garden continues around the property with rising landform towards the lane to the rear. There is a mature line of deciduous tree planting along the northern and western boundaries of the property with further hedge and tree planting along the lane which		

Residential Property 25: Wyddol

	restrict views out in these directions. There are low voltage electricity lines and an electricity pole within the garden.	
Magnitude of Change (Proposed Development only)	Whilst in Operation: Up to eight turbines would be theoretically visible from the north-west elevation of the property, affecting approximately 52° of the horizontal field of view as illustrated on the wireline in Figure 7L.15. The closest turbine T1 is located approximately 1,613 m to the north and would be theoretically visible on the skyline with the lower part of the tower screened by landform. The hubs of T2, T3, T4 and T5 would theoretically be visible above the horizon with landform screening the towers and rotator sweep to varying degrees. T6, T8, T9 would be visible only as blades and T11 would be screened by landform. Due to rising landform along with garden vegetation, trees and hedges on the northern boundary, views from ground floor windows would likely be screened. There would be filtered views from the curtilage of the property particularly from the garden to the north during the Summer months when the trees are in leaf. Access tracks and ancillary infrastructure would be screened by landform. The magnitude of change would be <i>Medium</i> (Winter) to <i>Medium – Low</i> (Summer) from the northern curtilage of the property. Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The magnitude of change would range from <i>Very Low to Medium</i> (Winter) to <i>Very Low to Medium – Low</i> (Summer).	
Assessment	Sensitivity	High
	Magnitude	Medium (Winter) Medium – Low (Summer)
	Level of Effect	Major and Significant (Winter) Major to Moderate and Significant (Summer)
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to two nacelle aviation warning lights (T1, T5) would be theoretically visible with T7 and T10 screened by intervening landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). In reality, due to intervening trees and hedges the turbines would be heavily filtered particularly in the Summer months. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low – Very Low</i> (from the northern curtilage).	
Residential Visual Amenity	The visual effect from Wyddol would be significant due to the proximity and prominence of T1, which would occupy an elevated position on the northern horizon, at a minimum distance of approximately 1,613 m. In terms of residential visual amenity, due to rising landform to the north of the property, along with garden vegetation, trees and hedges on the northern boundary, views from ground floor windows would likely be screened. There would be filtered views from the	

Residential Property 25: Wyddol

	curtilage of the property particularly from the garden to the north during the Summer months when the trees are in leaf. The principal elevation of the property faces south-east with visibility of T1 occurring in northerly views. The principal elevation of the property would be unaffected by the Proposed Development. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>
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Table 7L-18 – Residential Property 28 & 29: Groffydd & Yr Hen Stabal

Residential Property 28 & 29: Y Groffydd and Yr Hen Stabal

Representative Wireline visualisation: Figure 7L.16			
Nearest turbine to property:	T5 at 1,642 m – Y Grofydd T5 at 1,654 m – Yr Hen Stabal		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	4	
	Blades visible	4	
	Aviation lights visible	2 (T5 and T7)	
Description	The properties Y Grofydd and Yr Hen Stabel comprise two, two-storey detached houses located east-north-east of Carno. Access to the properties is via private parking areas to the west of each property leading from a minor road located to the south. There is mixed tree planting along the north to south-eastern boundary, which filters views towards the wider landscape. The Proposed Development lies to the north-east of both properties. Y Grofydd is orientated south-west with its principal elevation facing away from the Proposed Development. There is a garden located to the rear of the property to the north, and another to the south-east. The garden contain garden plants, shrubs and some specimen trees. The northern edge of the northern garden is bounded by mixed tree planting. The southern edge of the south-eastern garden is bounded by mixed hedgerow with some individual hedge trees. Yr Hen Stabel is orientated west with its principal elevation facing away from the Proposed Development. There is a garden located to the front of the property to the west. The north-east edge of the garden is bounded by mixed tree planting, the north-west edge is bounded by post and wire fencing, and the southern garden edge is bounded by a combination of post and rail fencing and a single row of tall deciduous trees. Both properties have small outbuildings / sheds within the curtilage, and a garage is located in the gap between the two properties. The landform begins to rise past the boundary trees to the north-east towards the lower slopes of Garreg-hir where the land is characterised by pastoral fields and on the upper slopes there is upland heathland. From the south-east garden of Y Grofydd, looking to the south-west there are distant views towards Carno I Wind Farm located beyond intervening vegetation with hubs and blades visible on the skyline. There are no operational wind farms located in views from Yr Hen Stabel.		

Residential Property 28 & 29: Y Grofydd and Yr Hen Stabal

Magnitude of Change (Proposed Development only)	Whilst in Operation: Four turbines would be theoretically visible from the properties, affecting approximately 24° of the horizontal field of view as illustrated on the wireline in Figure 7L.16. The closest turbine T5 is located approximately 1,642 m to the north-east where the upper elements of the wind turbine hub and blades would appear beyond landform and visible on the skyline. The blades and hubs of T6 and T7 would be visible beyond landform on the skyline, with the hub of T8 visible on the horizon. Due to limitations in access during the site visit, confirmation of the presence of windows on the north-east elevation of Y Grofydd (towards the Proposed Development) and north-north-west elevation of Yr Hen Stabal (oblique views towards the Proposed Development) could not be ascertained and therefore windows are assumed to be present as a worst-case scenario. Views of the turbines would be filtered by the mixed tree planting on the north to south-eastern boundary. Access tracks and ancillary infrastructure would be screened by landform. The turbines would be visible beyond the existing overhead lines in the middle ground. The magnitude of change would be <i>Medium</i>. Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The magnitude of change would range from <i>Very Low to Medium</i>.	
Assessment	Sensitivity	High
	Magnitude	Medium
	Level of Effect	Major and Significant
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to two nacelle aviation warning lights (T5, T7) would be theoretically visible with T1 and T10 screened by landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Visibility of the aviation lights of T5 and T7 would be mainly visible from the north-east elevation of Y Grofydd, obliquely from the north-west elevation of Yr Hen Stabal and from the gardens of both properties. Visibility of the aviation lights would be filtered through the mixed tree planting on the north to south-eastern boundary. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low-Very Low</i>.	
Residential Visual Amenity	The visual effect would be significant due to the proximity and prominence of T5 and T6, which would occupy an elevated position on the north-eastern horizon, at a minimum distance of approximately 1,642 m. In terms of residential visual amenity, intervening landform and the mixed tree planting on the north to south-eastern boundary serves to restrict visibility of T5, T6, T7 and T8 from the properties and gardens. The principal elevation of Y Grofydd faces south-west and the principal elevation of Yr Hen Stabal faces west and therefore both would be unaffected by the Proposed Development. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

Table 7L-19 – Residential Property 30: Tan y Bwlch

Residential Property 30: Tan y Bwlch			
Representative Wireline visualisation: Figure 7L.17			
Nearest turbine to property:	T1 at 1,681 m.		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	6	
	Blades visible	10	
	Aviation lights visible	2 (T1 and T5)	
Description	This property comprises a single-storey bungalow located between the hillsides of Bryn y Llys to the north-west and Ddified to the south-east. Access to the property is off a lane located to the north. The Proposed Development lies to the north to north-west of the property. The principal orientation of the property is to the north where views are curtailed by the two outbuildings east and west of the property and the tall beech hedge to the north-west. There are views which extend along the driveway and out along the lane to the north where there is a deciduous hedge running alongside the lane further restricting views. Land rises to the west of the property and there are no windows on this elevation. A small garden is positioned close to the rear of the house to the south. There are telegraph lines in the views to the north and overhead electricity lines to the south.		
Magnitude of Change (Proposed Development only)	Whilst in Operation: Up to 10 turbines would be theoretically visible from the north elevation of the property, affecting approximately 52° of the horizontal field of view as illustrated on the wireline in Figure 7L.17. The closest turbine T1 is located approximately 1,681 m to the north and would be visible on the skyline with the lower part of the tower screened by landform. T11 would be screened by landform. The hubs of T2, T3, T4, T5 and T6 would theoretically be visible above the horizon with landform screening the towers and rotator sweep to varying degrees. T7, T8, T9 and T10 would be visible only as blades. Views of T5, T6 and T7 from the western side of the north elevation would likely be screened by the outbuilding to the west. Views of T1 may be partially screened by the outbuilding to the east from windows to the eastern side of the north elevation. The hedge to the north-west may also filter views of the lower parts of T3 and T4. Access tracks and ancillary infrastructure would be screened by landform. The magnitude of change would be <i>Medium</i>. Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The magnitude of change would range from <i>Very Low to Medium</i>.		
Assessment	Sensitivity	High	
	Magnitude	Medium	
	Level of Effect	Major and Significant	

Residential Property 30: Tan y Bwlch

	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to two nacelle aviation warning lights (T1, T5) would be theoretically visible with T7 and T10 screened by landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Due to intervening outbuilding views would be confined to mainly the central windows with the northern elevation. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 20-13 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low-Very Low</i>.	
Residential Visual Amenity	The visual effect from Tan y Bwlch would be significant due to the proximity and prominence of T1, which would occupy an elevated position on the northern horizon, at a minimum distance of approximately 1,681 m. In terms of residential visual amenity, the principal elevation of the property faces north in the direction of the Proposed Development, however T1 may be partially screened by the outbuilding to the east from windows to the eastern side of the north elevation. Turbines T5, T6 and T7 from the western side of the north elevation would be restricted by the outbuilding. The Proposed Development would only be visible across the view from the central part of the north elevation. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

Table 7L-20 – Residential Property 31: Capel Bach

Residential Property 31: Capel Bach

Representative Wireline visualisation: Figure 7L.18		
Nearest turbine to property:	T1 at 1,690 m.	
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	5
	Blades visible	11
	Aviation lights visible	1 (T1)
		
Description	This property comprises a two-storey house located between the hillsides of Bryn y Llys to the north-west and Ddified to the south-east. Access to the property is off a lane located to the north. The Proposed Development lies to the north to north-west of the property. The property is currently under renovation with a two-storey extension being constructed on the south-west corner. The principal orientation of the property is to the south-west where beyond intervening trees along the south-east garden boundary there are views out towards the undulating fields beyond. To the north the view overlooks the lane, which is	

Residential Property 31: Capel Bach

	bound by a hedgerow with hedgerow trees, beyond which landform rises towards a grassed rocky outcrop and pastoral fields. There are no ground floor windows on the north-west elevation of the original building however there are ground and first floor windows located on the extension. There are telegraph lines within the view to the north and west and electricity lines in views within fields to the west.	
Magnitude of Change (Proposed Development only)	Whilst in Operation: All 11 turbines would be theoretically visible from the north-west elevation of the property, affecting approximately 54° of the horizontal field of view as illustrated on the wireline in Figure 7L.18. The closest turbine T1 is located approximately 1,690 m to the north and would be visible on the skyline with the lower part of the tower screened by landform. The hubs of T2, T3, T4 and T8 would theoretically be visible above the horizon with T5, T7, T9 appearing only as blades and T10 and T11 appearing as blade tips. Hedgerow trees may filter views of T1 in the Summer months. Access tracks and ancillary infrastructure would be screened by landform. The magnitude of change would be <i>Medium</i>. Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The magnitude of change would range from <i>Very Low to Medium</i>.	
Assessment	Sensitivity	High
	Magnitude	Medium
	Level of Effect	Major and Significant
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	One nacelle aviation warning light (T1) would be theoretically visible with T5, T7 and T10 screened by landform. This light would be dimmed to 10% when visibility is >5 km from the turbine (reducing from 2000 cd to 200 cd). Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Very Low</i>.	
Residential Visual Amenity	The visual effect from Capel Bach would be significant due to the proximity and prominence of T1, which would occupy an elevated position on the northern horizon, at a minimum distance of approximately 1,690 m. In terms of residential visual amenity, a hedgerow tree may filter views of T1 in the Summer months. Intervening landform would screen the towers of five turbines to varying degrees with only blades theoretically visible for the remaining turbines as shown in Figure 7L.18. The principal elevation of the property faces south-west with visibility of T1 occurring in northerly views. The principal elevation of the property would be unaffected by the Proposed Development. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

Table 7L-21 – Residential Property 35: Cerrig y Brain

Residential Property 35: Cerrig y Brain			
Representative Wireline visualisation: Figure 7L.19			
Nearest turbine to property:	T1 at 1,780 m.		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	7	
	Blades visible	11	
	Aviation lights visible	3 (T1, T5 and T7)	
Description	This property comprises a detached 1.5-storey farmhouse located between the hillsides of Bryn y Llys to the north-west and Ddified to the south-east. Access to the property is via a private drive leading to a minor road located to the west. The Proposed Development lies to the north to north-west of the property. The principal orientation of the property is to the south away from the Proposed Development which overlooks a large barn and towards rising pastoral fields beyond. Views to the west look out onto the drive and towards an agricultural shed and views to the north and east overlook pastoral fields. To the north and west there are high voltage overhead electricity lines and trident poles in the view.		
Magnitude of Change (Proposed Development only)	Whilst in Operation: Up to 10 turbines would be theoretically visible from the north and west elevations of the property, affecting approximately 51° of the horizontal field of view as illustrated on the wireline in Figure 7L.19. The closest turbine T1 is located approximately 1,780 m to the north and would be visible on the skyline with the lower part of the tower screened by landform. The hubs of T2, T3, T4, T5, T7 and T8 would theoretically be visible above the horizon with landform screening the towers and rotator sweep to varying degrees. T6, T9 and T10 would be visible as blades and T11 as blade tips. Views to the north and west are generally open with the potential for a small number of individual trees and hedges to filter views of some of the turbines. The tips of T11 would likely be screened by intervening vegetation. Access tracks and ancillary infrastructure would be screened by landform. The magnitude of change would be <i>Medium</i>. Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The magnitude of change would range from <i>Very Low to Medium</i>		
Assessment	Sensitivity	High	
	Magnitude	Medium	
	Level of Effect	Major and Significant	
	Type of Effect	Long term (reversible) and adverse	

Residential Property 35: Cerrig y Brain

Aviation warning lights	Up to three nacelle aviation warning lights (T1, T5, T7) would be theoretically visible with T10 screened by intervening landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 20-13 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low</i>.
Residential Visual Amenity	The visual effect from Cerrig y Brain would be significant due to proximity and extent of turbines visible on the skyline with the nearest turbine T1 visible at a minimum distance of approximately 1,780 m. In terms of residential visual amenity, the turbine hubs would be visible above the horizon with landform screening the towers and rotator sweep to varying degrees. The Proposed Development would also be seen in the context of a high voltage overhead line. The principal elevation of the property faces south and would be unaffected by the Proposed Development. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>

Table 7L-22 – Residential Property 36: Pant y Crasty

Residential Property 36: Pant y Crasty

Representative Wireline visualisation: Figure 7L.20			
Nearest turbine to property:	T5 at 1,795 m.		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	4	
	Blades visible	5	
	Aviation lights visible	2 (T5 and T7)	
Description	This property comprises a detached two-storey farmhouse located to the north-east of Carno. Access is via a private drive with two access points which are both located to the south-east of the property. The driveway is bounded along its southern edge by topiary planting and a lawn. The southern boundary consists of a retaining wall topped with decorative low metal fencing. A tall evergreen hedge is situated along the eastern boundary. The northern boundary comprises mixed trees and vegetation. The Proposed Development lies to the north-east of the property. The property is orientated south with its principal elevation facing away from the Proposed Development. There are gardens located to the front of the property to the south, west and another the north. The gardens contain small garden plants, shrubs, topiary and some specimen trees. There are two outbuildings within the curtilage to the west of the property, and a large agricultural outbuilding positioned further west.		

Residential Property 36: Pant y Crasty

	There is a rise in landform immediately north of the property, within the northern curtilage. The wider landform begins to steadily rise past the boundary trees to the north-east towards the lower slopes of Garreg-hir where the land is characterised by pastoral fields and on the upper slopes there is upland heathland. There are no operational wind farms located in views from the property.	
Magnitude of Change (Proposed Development only)	Whilst in Operation: Five turbines would be theoretically visible from the north elevation of the property, affecting approximately 24° of the horizontal field of view as illustrated on the wireline in Figure 7L.20. The closest turbine T5 is located approximately 1,795 m to the north-east where the tower, hub and blades would appear beyond landform and visible on the skyline. The tower, hub and blades of T6 and the hubs and blades of T7 and T8 would be visible beyond landform on the skyline. The blade tips of T4 would be visible beyond landform on the skyline. Views of the turbines from the property would be screened by the tall evergreen hedge on the eastern boundary and filtered by the mixed vegetation on the northern boundary. Views of the Proposed Development would be more accessible from the curtilage of the property above the boundary vegetation, although the same vegetation would filter these views. Access tracks and ancillary infrastructure would be screened by landform. The turbines would be visible beyond the existing telegraph pole and overhead lines in the middle ground. The magnitude of change would be <i>Medium</i>. Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The magnitude of change would range from <i>Very Low to Medium</i>.	
Assessment	Sensitivity	High
	Magnitude	Medium
	Level of Effect	Major and Significant
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to two nacelle aviation warning lights (T5, T7) would be theoretically visible with T1 and T10 screened by landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Visibility of the aviation lights of T5 and T7 would be mainly visible from the rear of the property and associated curtilage on the northern side. The lights would be filtered by the mixed vegetation on the northern boundary and screened by the tall evergreen hedge on the eastern boundary. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low-Very Low</i>.	
Residential Visual Amenity	The visual effect from Pant y Crasty would be significant due to the proximity and prominence of T5 and T6, which would occupy an elevated position on the north-north-eastern horizon, at a minimum distance of approximately 1,795 m. In terms of residential visual amenity, a combination of rising landform, evergreen hedgerow and mixed vegetation serves to restrict visibility of all the turbines from the	

Residential Property 36: Pant y Crasty

	northern elevation. The principal elevation of the property faces south and therefore would be unaffected by the Proposed Development. Views of the turbines from the curtilage would be more available over the surrounding vegetation. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>
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Table 7L-23 – Residential Property 37 & 39: Troed y Garth and Ger-y-waun

Residential Property 37 & 39: Troed y Garth and Ger-y-waun

Representative Wireline visualisation: Figure 7L.21		
Nearest turbine to property:	T5 at 1,876 m – Troed y Garth T5 at 1,904 m – Ger-y-waun	
	Hubs visible	4
	Blades visible	5
Aviation lights visible	2 (T5 and T7)	

Residential Property 37 & 39: Troed y Garth and Ger-y-waun

	On the northern side of the minor road, opposite both properties is a large agricultural outbuilding. This would screen views to the north and north-north-east. To the north-east is Pant-y-Crasty (Property 36) and its associated vegetation which is more elevated and would restrict and filter views looking to the north-east. There are no operational wind farms located in views from these properties.	
Magnitude of Change (Proposed Development only)	Five turbines would be theoretically visible from the properties, affecting approximately 24° of the horizontal field of view as illustrated on the wireline in Figure 7L.21. The closest turbine T5 is located approximately 1,876 m to the north-east where the tower, hub and blades would appear beyond landform and visible on the skyline. The tower, hub and blades of T6, T7 and T8 would appear beyond landform and visible on the skyline, with the rotator sweep of T8 intercepted by landform. The blade tips of T4 would be visible beyond landform and on the skyline. Views of the Proposed Development from the eastern elevation of Troed y Garth would be filtered by the mixed vegetation (more in the Summer months) on its eastern boundary and somewhat restricted by Pant-y-Crasty (Property 36) and its associated vegetation which would screen / filter the lower elements of the visible turbines. Where turbines would be seen from this property, views would be framed between the agricultural outbuilding to the north of Troed y Garth and vegetation to the east, with the turbines visible above and beyond Pant-y-Crasty. Views from the southern curtilage of Pant-y-Crasty would be heavily filtered by the vegetation on the eastern boundary of the property, particularly in Summer months. The magnitude of change would be <i>Medium</i>. Views of the Proposed Development from Ger-y-waun would be largely screened by Troed y Garth and filtered by its associated boundary vegetation, particularly in Summer months. The magnitude of change would be <i>Medium-Low</i> as views from this property are limited and would only be available from windows on the south-eastern most corner of the property between Troed y Garth and its associated vegetation. Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The magnitude of change would range from <i>Very Low to Medium</i> (Troed y Garth) and <i>Very Low to Medium-Low</i> (Ger-y-Waun).	
Assessment	Sensitivity	High
	Magnitude	Medium (Troed y Garth) Medium-Low (Ger-y-waun)
	Level of Effect	Major and Significant (Troed y Garth) Major to Moderate and Significant (Ger-y-waun)
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to two nacelle aviation warning lights (T5, T7) would be theoretically visible with T1 and T10 screened by landform. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low-Very Low</i>.	

Residential Property 37 & 39: Troed y Garth and Ger-y-waun

Residential Visual Amenity

The visual effect from these properties would be significant due to the prominence of T5 and T6 which would occupy an elevated position on the north-eastern horizon, at a minimum distance of approximately 1,876 m.

In terms of residential visual amenity, intervening landform, vegetation and existing built form serves to restrict and filter visibility of the turbines from both properties, particularly Ger-y-waun. However, there would still be framed views available from the eastern elevation of Troed y Garth with filtered views from its southern curtilage looking north-east.

The principal elevation of both properties would be unaffected by the Proposed Development.

The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the properties an unattractive place to live when judged objectively, in the public interest.

Table 7L-24 – Residential Property 40: Fuches Goch

Residential Property 40: Fuches Goch

Representative Wireline visualisation: Figure 7L.22

Nearest turbine to property:

T10 at 1,939 m.

Number of turbines and visible aviation lights theoretically visible from property:

Hubs visible	8
Blades visible	11
Aviation lights visible	4 (T1, T5, T7 and T10)



Description

This property comprises a detached bungalow located south of Tan y Foel Quarry. Access is via a private drive leading off a track / bridleway which descends from the more elevated minor road to the north. The access track is bound by a combination of vegetation and post and wire fencing. At its northern end the track has elevated views of the surrounding landscape to the south-east to south-west, these views become more filtered by boundary vegetation as the track proceeds downwards to the property.

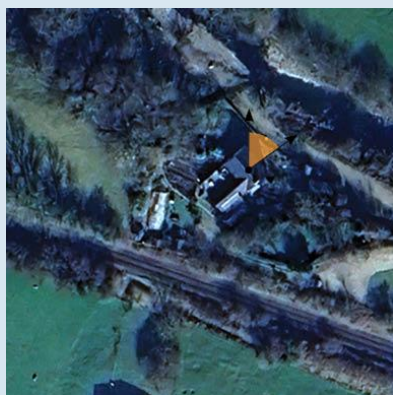
The Proposed Development lies to the south-south-west of the property. The property is orientated south with its principal elevation facing towards the Proposed Development. There is a garden located on the southern elevation of the property. The garden contains trees on the south-west corner which will filter oblique views of the landscape to the south-west from any windows on the south-western corner. The northern elevation of the property also has specimen trees filtering any views to the north.

South of the property there is a line of deciduous trees bordering the adjacent field. There is a stone outbuilding to the north-west of the property, next to the driveway. There is a rise in landform immediately north and west of the property. To the south the landform slopes gently west to east before rising towards the slopes of Esgair Cwmowen where the land is characterised by pastoral fields and on the upper slopes there is upland heathland.

Residential Property 40: Fuches Goch

	The operational turbines of Mynydd Clogau Wind Farm are visible on the landform located in views ~2.5 km south-east from the property.	
Magnitude of Change (Proposed Development only)	Whilst in Operation: All turbines would be theoretically visible from the south elevation of the property, affecting approximately 42° of the horizontal field of view as illustrated on the wireline in Figure 7L.21. The closest turbine T10 is located approximately 1,939 m to the south-south-west where the tower, hub and blades would appear beyond landform and visible on the skyline. The tower, hub and blades of T8 and the hubs and blades of T1, T4, T5, T6, T7 and T9 would be visible beyond landform on the skyline. The blades of T2, T3 and T11 would be visible beyond landform on the skyline. Deciduous trees to the south and trees within the south-western curtilage of the property may help to filter some of the turbine hubs and the lower parts of the towers of T8 and T10 particularly in Summer months. Access tracks and ancillary infrastructure would be screened by landform. The magnitude of change would be <i>High-Medium</i>. Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The magnitude of change would range from <i>Very Low to High-Medium</i>.	
Assessment	Sensitivity	High
	Magnitude	High-Medium
	Level of Effect	Substantial to Major and Significant
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	All four nacelle aviation warning lights (T1, T5, T7 and T10) would be theoretically visible. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Deciduous trees to the south and trees within the south-western curtilage of the property may help to filter some of the aviation lights of T1, T5 and T7. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 20-13 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low</i>.	
Residential Visual Amenity	The visual effect from Fuches Goch would be significant due to the prominence of T10, which would occupy an elevated position on the south-south-western horizon, at a minimum distance of approximately 1,939 m. In terms of residential visual amenity, rising landform serves to restrict visibility of some of the turbines from the southern elevation. The principal elevation of the property faces south and therefore would be affected by the Proposed Development. Views of the turbines from the property and garden would be available over or filtered through intervening vegetation. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

Table 7L-25 – Residential Property 41 & 43: Oerffrwd Cottage & Oerffrwd Mill

Residential Property 41 & 43: Oerffrwd Cottage & Oerffrwd Mill			
Representative Wireline visualisation: Figure 7L.23			
Nearest turbine to property:	T5 at 1,965 m – Oerffrwd Cottage T5 at 1,980 m – Oerffrwd Mill		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible		1
	Blades visible		4
	Aviation lights visible	1 (T5)	
Description	These two properties are semi-detached properties located between the hillsides of Gilfach-hir to the north-east and Allt y Genlli to the south-west. Access to the properties is via a private drive leading to a minor road to the east. The Proposed Development lies to the north to north-east. Oerffrwd Cottage is a three-storey property positioned to the north with its principal orientation to the north-east towards the Proposed Development. There are windows at ground, first and second floor in the direction of the Proposed Development. Oerffrwd Mill is positioned to the south of Oerffred Cottage with its principal orientation facing away from the Proposed Development. The properties are located to the south of the Afon Carno and to the north of the Cambrian railway line. There are trees surrounding the properties on all sides with further deciduous trees along the Afon Carno and on the hillsides further to the north and north-east which restrict views.		
Magnitude of Change (Proposed Development only)	Whilst in Operation: Up to four turbines would be theoretically visible from the north-east elevation of Oerffrwyd Cottage and the curtilage of Oerffrwd Mill affecting approximately 43° of the horizontal field of view as illustrated on the wireline in Figure 7L.23. The closest turbine T5 is located between approximately 1,965 m to 1,980 m to the north-north-east and would be theoretically visible on the skyline with landform screening part of the tower and rotator sweep. T3 and T6 would be visible as blades and T1 as blade tips with the remaining turbines screened by landform. Given the intervening woodland to the north to north-east of the properties the turbines are likely to be screened in the Summer months and heavily filtered in the Winter months. Access tracks and ancillary infrastructure would be screened by landform The magnitude of change would be <i>Low</i> (Winter) and <i>Very Low</i> (Summer) Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The magnitude of change would range from <i>Very Low to Low</i> (Winter) and <i>Very Low to Very Low</i> (Summer).		
Assessment	Sensitivity	High	
	Magnitude	Low (Winter) Very Low (Summer)	

Residential Property 41 & 43: Oerffrwd Cottage & Oerffrwd Mill

	Level of Effect Moderate and Not Significant (Winter) Minor and Not Significant (Summer)
	Type of Effect Long term (reversible) and adverse
Aviation warning lights	One nacelle aviation warning light (T5) would be theoretically visible with T1, T7 and T10 screened by landform. This would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). In reality the aviation light would likely be screened in the Summer months and heavily filtered in the Winter months due to intervening woodland. Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 9-4 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Very Low</i>.
Residential Visual Amenity	The visual effect from Oerffrwd Cottage and Oerffrwd Mill would not be significant, and the Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest. This is mainly due to screening provided by landform and intervening woodland to the north.

Table 7L-26 – Residential Property 42: Pant y bryn

Residential Property 42: Pant y bryn

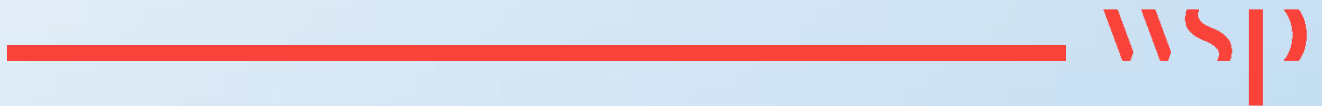
Representative Wireline visualisation: Figure 7L.24			
Nearest turbine to property:	T1 at 1,975 m.		
Number of turbines and visible aviation lights theoretically visible from property:	Hubs visible	10	
	Blades visible	11	
	Aviation lights visible	4 (T1, T5, T7 and T10)	
Description	This property comprises a detached two-storey house located in an elevated position on the western slopes of Ddified. Access to the property is off a minor road to the south. The Proposed Development lies to the north to north-west of the property. The principal orientation of the property is to the west where there are views over the garden and small rock outcrop along the northern boundary with more distant views towards the pastoral landscape further to the west. A small shed and an outbuilding are positioned in the view to the south-west. Views to the north are open towards pastoral fields. There is a garden positioned to the east of the property with scattered trees along the northern boundary, and more dense tree planting along the eastern and southern boundaries which restrict views. There is an electricity pole adjacent to the north-west corner of the property with overhead lines visible to the north and south and telegraph poles are		

Residential Property 42: Pant y bryn

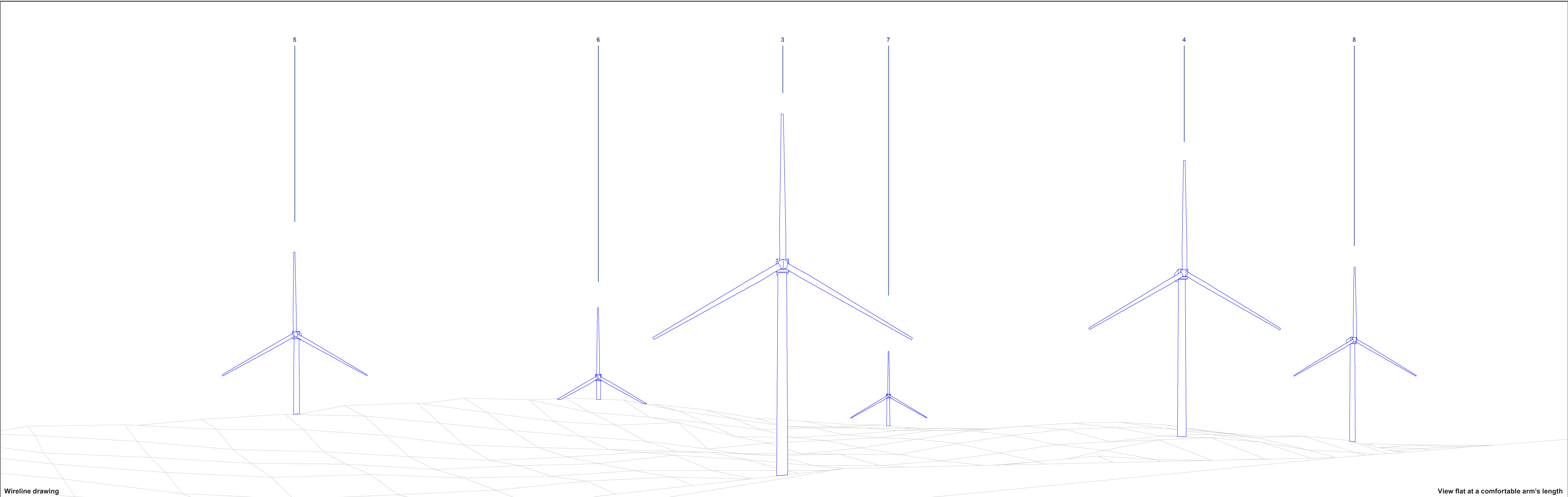
	visible to the west and south. Carno I & II Wind Farm is visible on the skyline in distant views to the west.	
Magnitude of Change (Proposed Development only)	Whilst in Operation: All 11 turbines would be theoretically visible from the north elevation of the property, affecting approximately 48° of the horizontal field of view as illustrated on the wireline in Figure 7L.24. The closest turbine T1 is located approximately 1,975 m to the north and would be visible on the skyline with the lower part of the tower screened by landform. The remaining turbines would be visible as hubs with the towers visible to varying degrees with the exception of T11 which would be visible as a blade. There may be oblique views from the western principal elevation of the easternmost turbines where the rock outcrop and scrub planting do not screen the view. The rocky outcrop would screen the lower parts of some turbines within the garden to the west. Trees when in leaf would filter views of the Proposed Development from the garden to the east. Access tracks and ancillary infrastructure would be screened by landform. The Proposed Development would be seen in context with overhead electricity lines. The magnitude of change would be <i>High-Medium</i> Whilst Under Construction and Decommissioning: Ground based construction and decommissioning activities would be screened by intervening landform from this location although crane activity would be visible during the erection and removal of the turbines. The magnitude of change would range from <i>Very Low to High-Medium</i>.	
Assessment	Sensitivity	High
	Magnitude	High-Medium
	Level of Effect	Substantial to Major and Significant
	Type of Effect	Long term (reversible) and adverse
Aviation warning lights	Up to four nacelle aviation warning lights (T1, T5, T7 and T10) would be theoretically visible. Each of these would be dimmed to 10% when visibility is >5 km from the turbines (reducing from 2000 cd to 200 cd). Using Figure 7M.6B Lighting Intensity Zone of Theoretical Visibility (ZTV) within 10 km (Appendix 7M). Angle intensity mitigation would reduce the light intensity further to between 20-13 cd coinciding with periods when the visibility is >5 km in all directions. The magnitude of change when the lights are dimmed to 10% (200 cd) would be <i>Low</i>.	
Residential Visual Amenity	The visual effect from Pant y bryn would be significant due to proximity and extent of turbines visible on the skyline with the nearest turbine T1 visible at a minimum distance of approximately 1,975 m. In terms of residential visual amenity, views of the Proposed Development would be largely from the north elevation of the property with only potentially partial oblique views of the easternmost turbines from the principal elevation. The Proposed Development would be seen in context with overhead electricity lines. <u>The Proposed Development would not therefore reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest.</u>	

Appendix A

WIRELINE VISUALISATIONS FIGURES 7L.1 TO 7L.24



C:\Users\Slewe\OneDrive\WSP\0385\Wind2 - Calon y Gwynt - 3B - Landscape & Visual\Drawings\InDesign\RV\AA\Figure 7L.1 - RES\02.indd Originator: User ID



Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 058, N297 332	Horizontal field of view:	53.5° (planar projection)
Eye level:	399.5m AOD	Principal distance:	522mm
Direction of view:	300°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T2 @ 542m	Correct printed image size:	820 x 130mm

Client

wind2

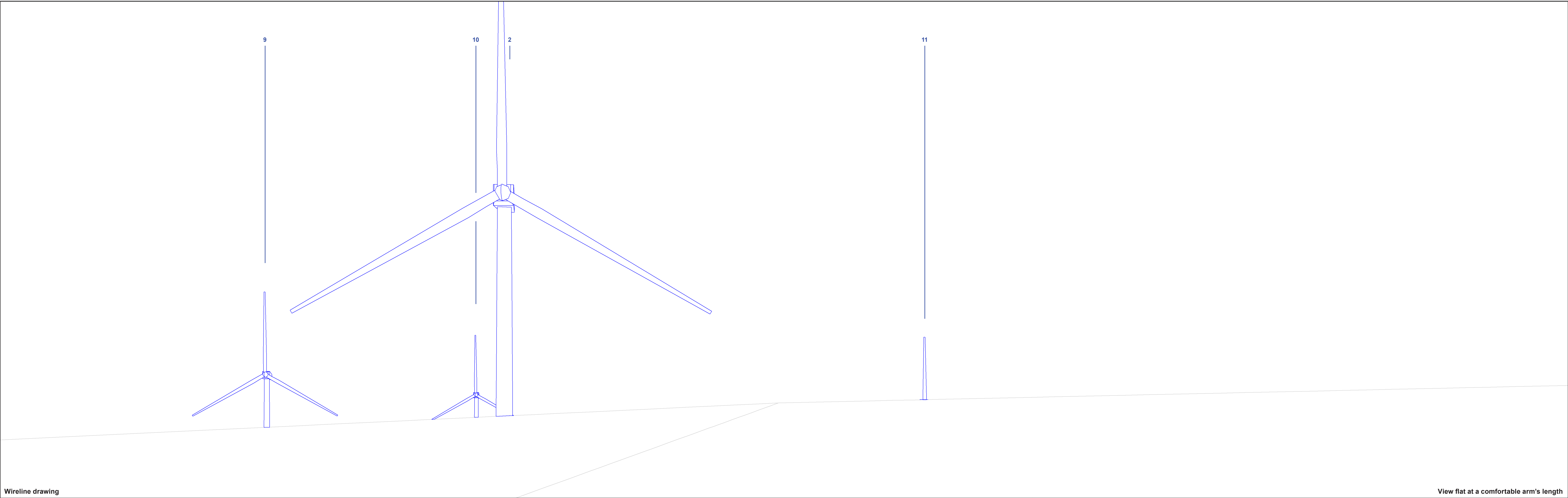
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.1a
Residential Property 2
Llyn Mawr

May 2026



C:\Users\Slewe\OneDrive\WSP\0355\Wind2 - Calon y Gwynt - 3B - Landscape & Visual\Drawings\Design\RV\AA\Figure 7L1 - RES\02.indd Originator: User ID



Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 058, N297 332	Horizontal field of view:	53.5° (planar projection)
Eye level:	399.5m AOD	Principal distance:	522mm
Direction of view:	353.5°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T2 @ 542m	Correct printed image size:	820 x 130mm

Client



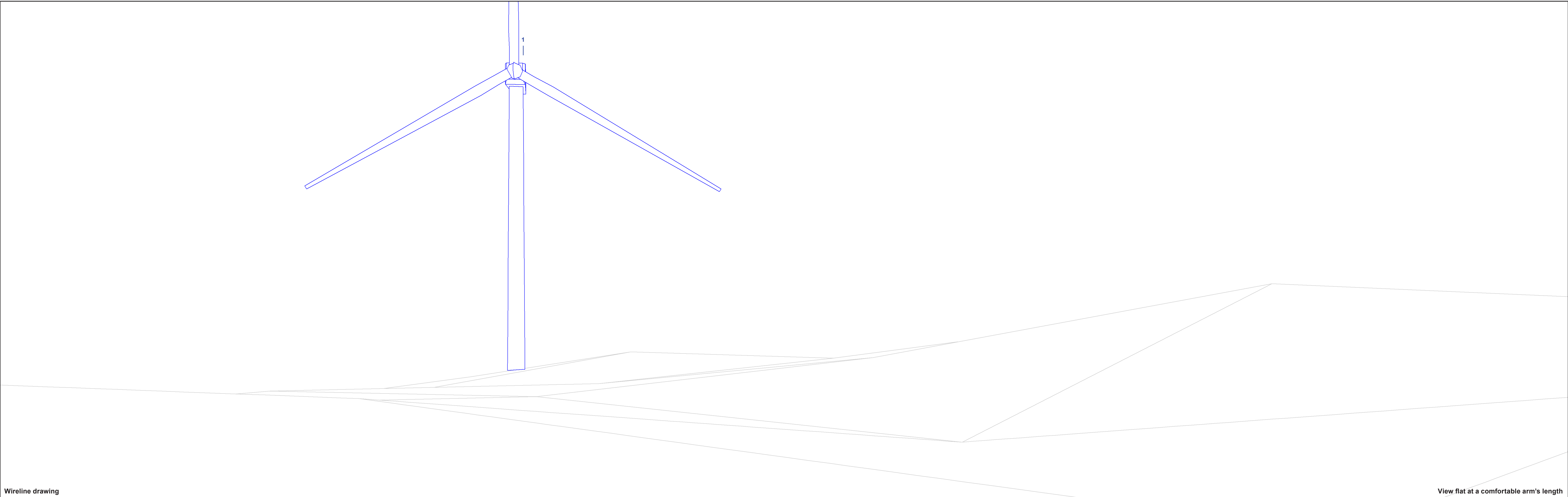
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.1b
Residential Property 2
Llyn Mawr

May 2026



C:\Users\Slewe\OneDrive\WSP\0355\Wind2 - Calon y Gwynt - 3B - Landscape & Visual\Drawings\InDesign\RV\AA\Figure 7L1 - RES\02.indd Originator: User ID



Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 058, N297 332	Horizontal field of view:	53.5° (planar projection)
Eye level:	399.5m AOD	Principal distance:	522mm
Direction of view:	47°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T2 @ 542m	Correct printed image size:	820 x 130mm

Client

wind2

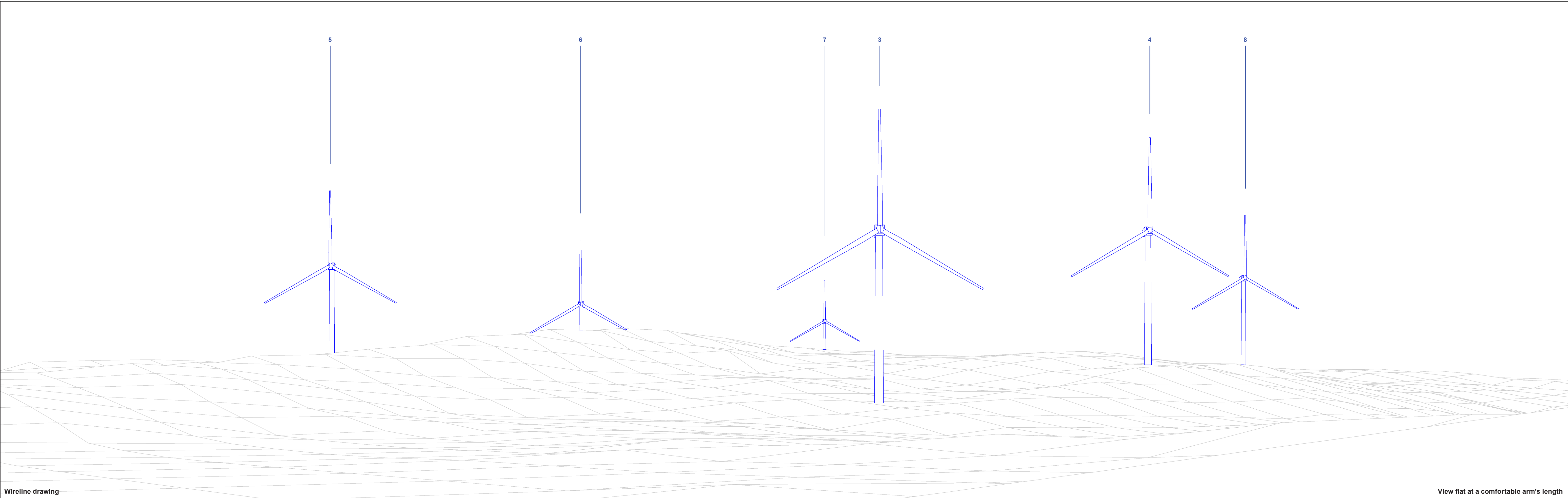
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.1b
Residential Property 2
Llyn Mawr

May 2026

wsp

C:\Users\Sleve\OneDrive\WSP\0385\Wind2 - Calon y Gwynt - 3B - Landscape & Visual\Drawings\InDesign\RV\AA\Figure 7L.2 - RES\03.indd Originator: User ID



Wireline drawing

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 137, N297 071	Horizontal field of view:	53.5° (planar projection)
Eye level:	401.5m AOD	Principal distance:	522mm
Direction of view:	306.5°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T1 @ 742m	Correct printed image size:	820 x 130mm

Client

wind2

Calon y Gwynt Energy Park
Environmental Statement

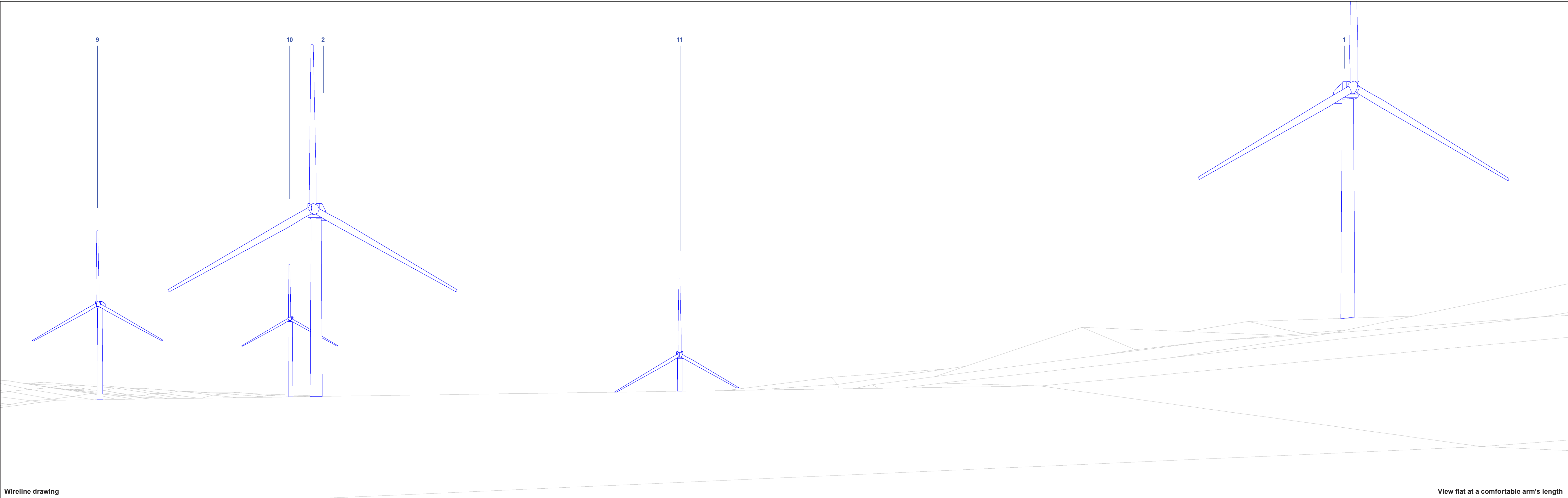
Figure 7L.2a
Residential Property 3
Lakeside View

View flat at a comfortable arm's length

May 2026



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Wireline drawing

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 137, N297 071	Horizontal field of view:	53.5° (planar projection)
Eye level:	401.5m AOD	Principal distance:	522mm
Direction of view:	360°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T1 @ 742m	Correct printed image size:	820 x 130mm

Client



Calon y Gwynt Energy Park
Environmental Statement

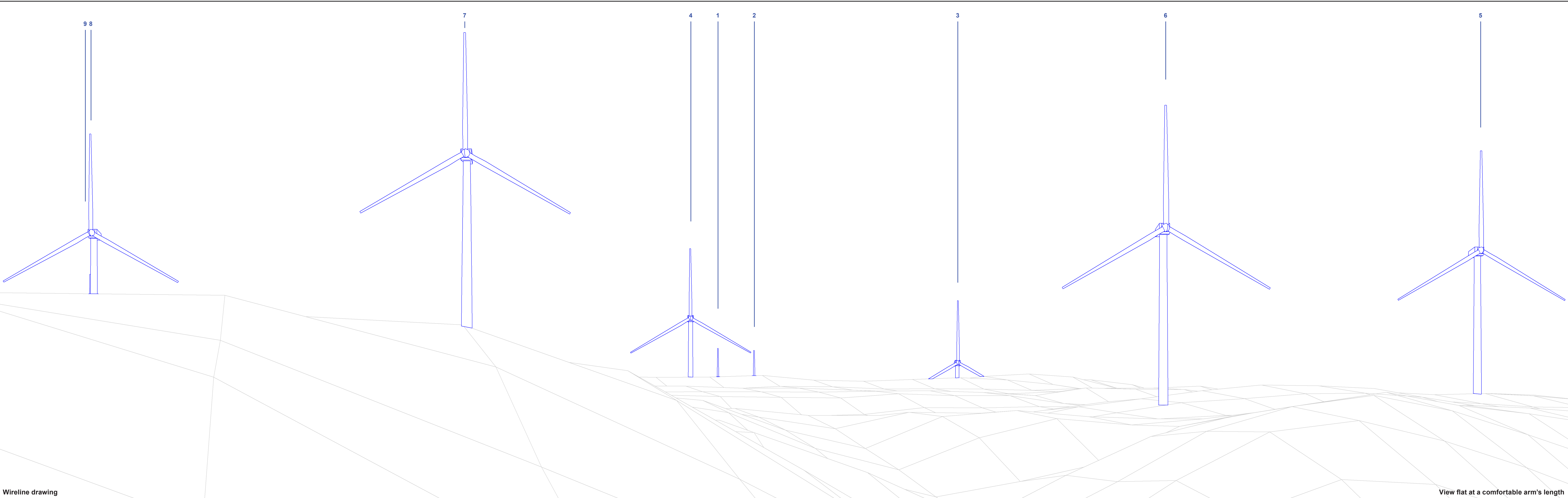
Figure 7L.2b
Residential Property 3
Lakeside View

May 2026



View flat at a comfortable arm's length

C:\Users\Slewe\Hoford\WSP\0355\Wind2 - Calon y Gwynt - 3B - Landscape & Visual\Drawings\InDesign\RV\AA\Figure 7L.3 - RES\05.indd Originator: User ID



Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E298 443, N298 646	Horizontal field of view:	53.5° (planar projection)
Eye level:	380.5m AOD	Principal distance:	522mm
Direction of view:	109°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T7 @ 821m	Correct printed image size:	820 x 130mm

Client

wind2

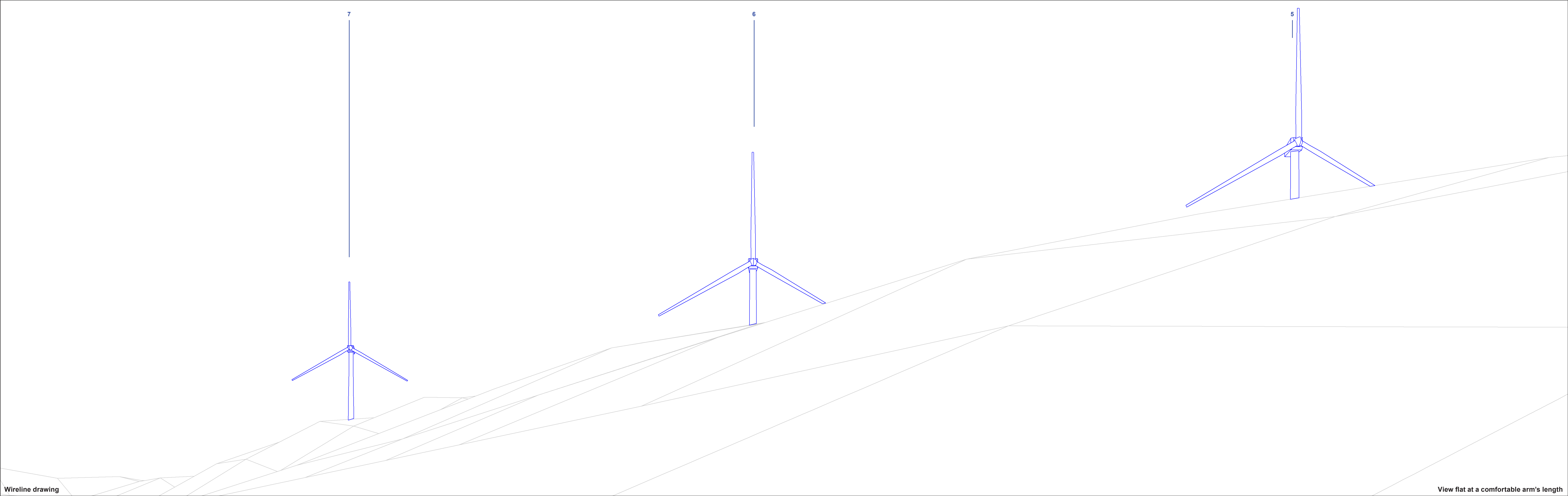
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.3
Residential Property 5
Blaen y Cwm

May 2026

wsp

C:\Users\Slewe\Documents\WSP\0355\Wind2 - Calon y Gwynt - 3B - Landscape & Visual\Drawings\Design\RV\AA\Figure 7L.4 - RES\02.indd Originator: User ID



Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E298 605, N297 168	Horizontal field of view:	53.5° (planar projection)
Eye level:	232.5m AOD	Principal distance:	522mm
Direction of view:	41°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T5 @ 1010m	Correct printed image size:	820 x 130mm

Client

wind2

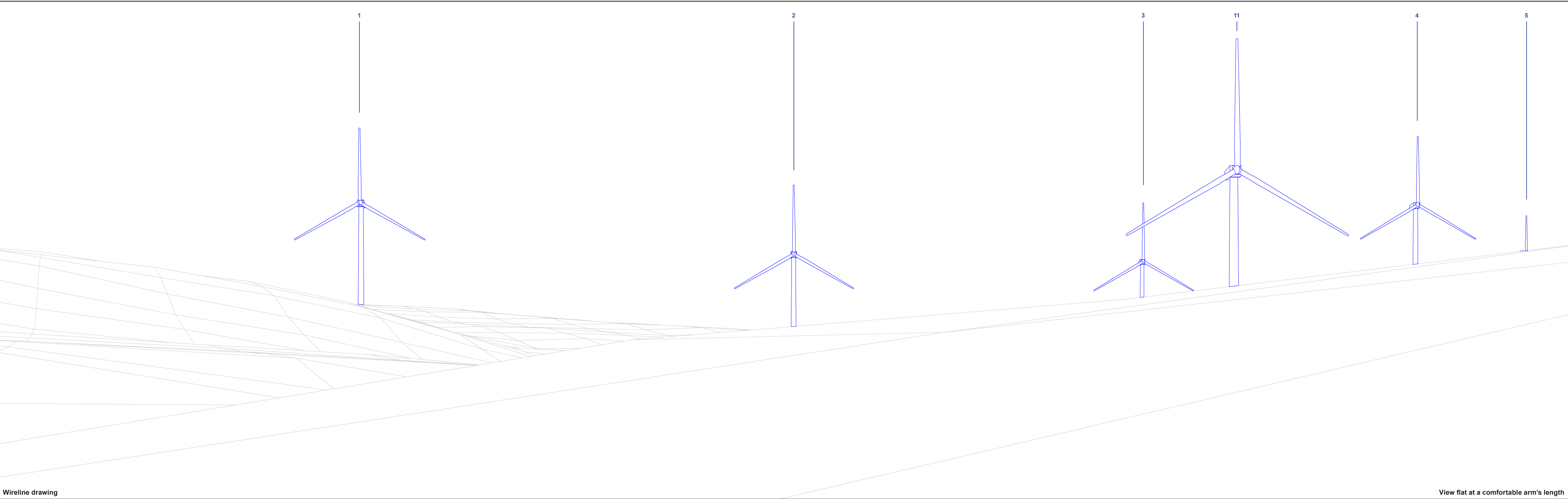
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.4
Residential Property 8
Cwm Gerwyn

May 2026

wsp

C:\Users\Slewe\OneDrive\WSP\0355\Wind2 - Calon y Gwynt - 3B - Landscape & Visual\Drawings\InDesign\RV\AA\Figure 7L.5 - RES\02.indd Originator: User ID



Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 698, N299 510	Horizontal field of view:	53.5° (planar projection)
Eye level:	314.5m AOD	Principal distance:	522mm
Direction of view:	205°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T11 @ 1017m	Correct printed image size:	820 x 130mm

Client



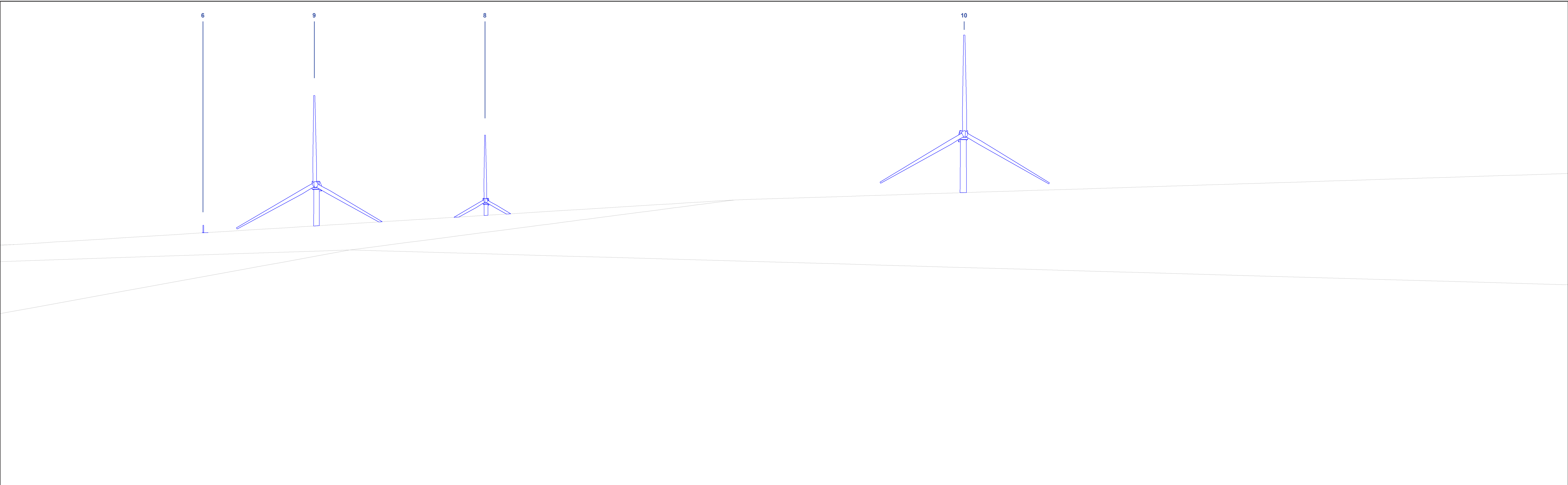
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.5a
Residential Property 9
Ty Uchaf

May 2026



C:\Users\Slewe\OneDrive\WSP\0355\Wind2 - Calon y Gwynt - 3B - Landscape & Visual\Drawings\Design\RV\AA\Figure 7L 5 - RES\02.indd Originator: User ID



Wireline drawing

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 698, N299 510	Horizontal field of view:	53.5° (planar projection)
Eye level:	314.5m AOD	Principal distance:	522mm
Direction of view:	258.5°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T11 @ 1017m	Correct printed image size:	820 x 130mm

Client



Calon y Gwynt Energy Park
Environmental Statement

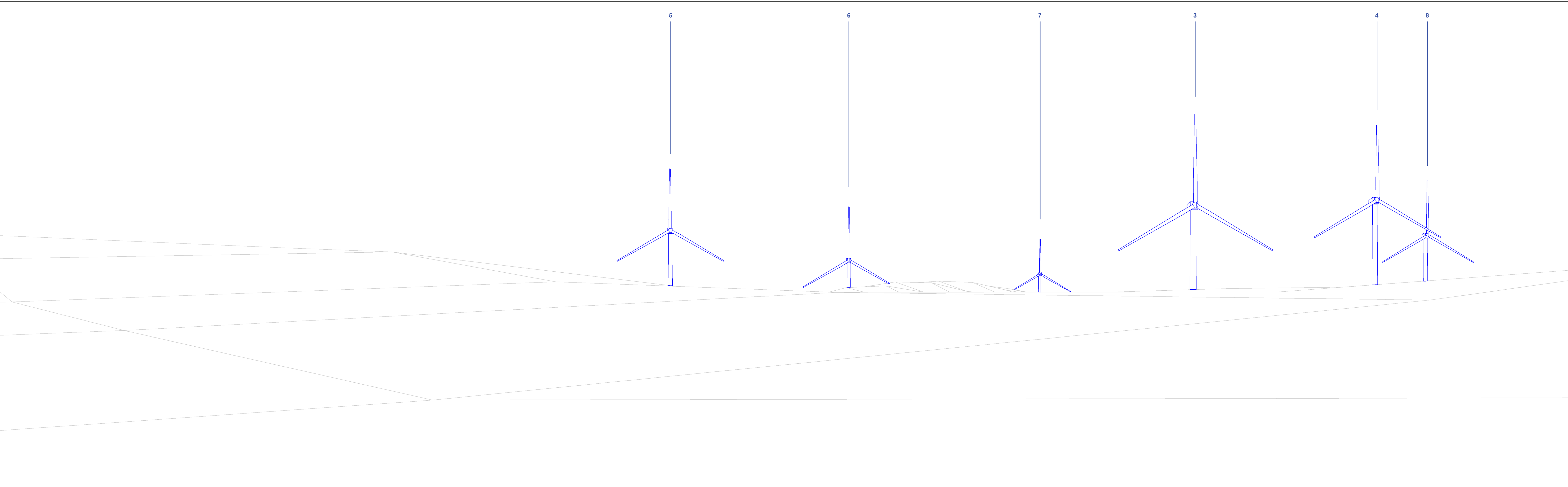
Figure 7L.5b
Residential Property 9
Ty Uchaf

May 2026

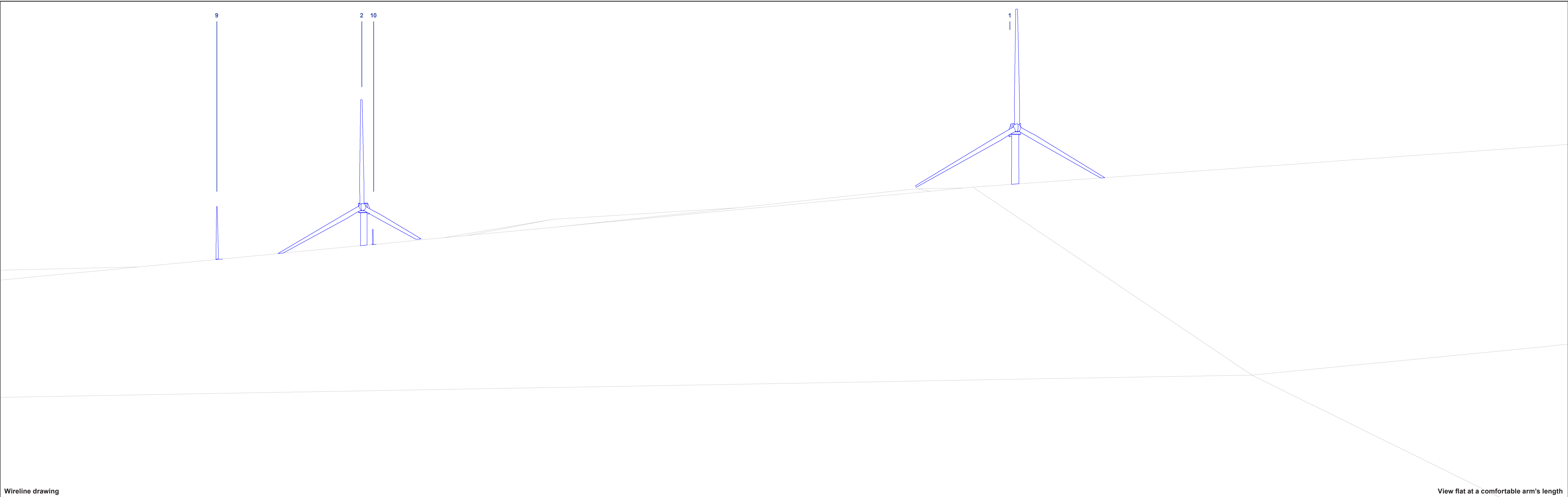


View flat at a comfortable arm's length

C:\Users\Slewe\OneDrive\WSP\0355\Wind2 - Calon y Gwynt - 3B - Landscape & Visual Drawings\InDesign\RV\AA\Figure 7L 6 - RES11.indd Originator: User ID



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Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 296, N296 683	Horizontal field of view:	53.5° (planar projection)
Eye level:	382.5m AOD	Principal distance:	522mm
Direction of view:	356.5°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T1 @ 1090m	Correct printed image size:	820 x 130mm

Client

wind2

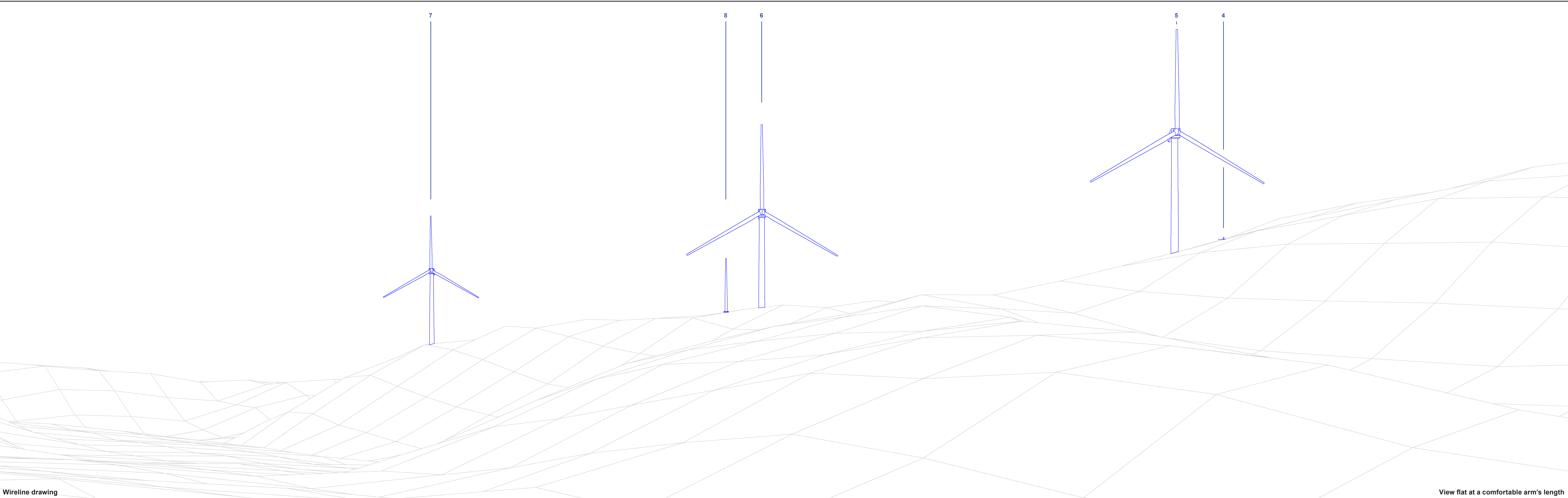
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.6b
Residential Property 11
New House

May 2026

wsp

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Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E298 427, N296 928	Horizontal field of view:	53.5° (planar projection)
Eye level:	232.5m AOD	Principal distance:	522mm
Direction of view:	40°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T5 @ 1291m	Correct printed image size:	820 x 130mm

Client

wind2

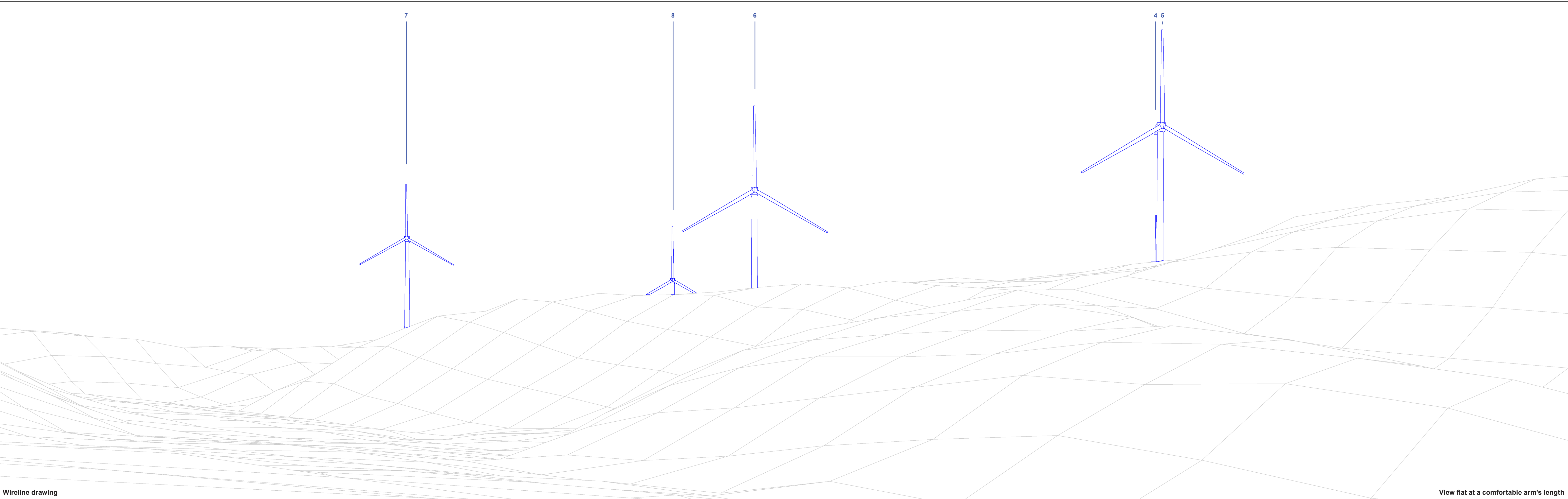
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.7
Residential Property 14
Ael y Bryn

May 2026

wsp

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Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E298 298, N296 968	Horizontal field of view:	53.5° (planar projection)
Eye level:	241.5m AOD	Principal distance:	522mm
Direction of view:	45°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T5 @ 1377m	Correct printed image size:	820 x 130mm

Client



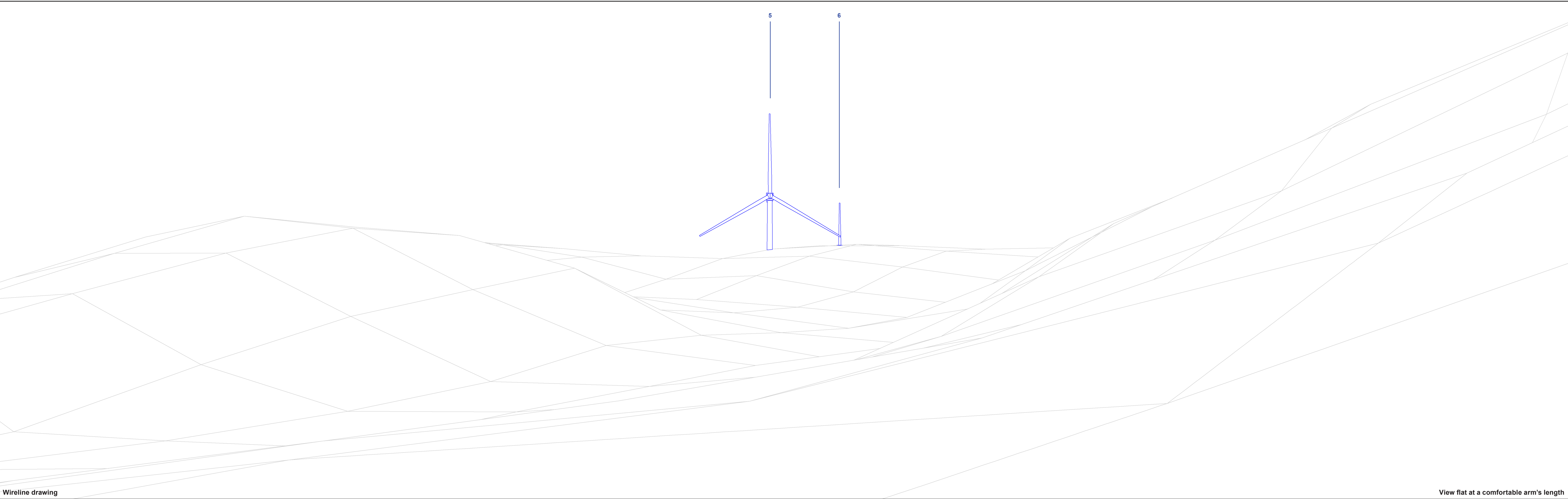
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.8
Residential Property 17
Ty Gwyn

May 2026



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Wireline drawing

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E300 268, N296 338	Horizontal field of view:	53.5° (planar projection)
Eye level:	274.5m AOD	Principal distance:	522mm
Direction of view:	330°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T3 @ 1420m	Correct printed image size:	820 x 130mm

Client



Calon y Gwynt Energy Park
Environmental Statement

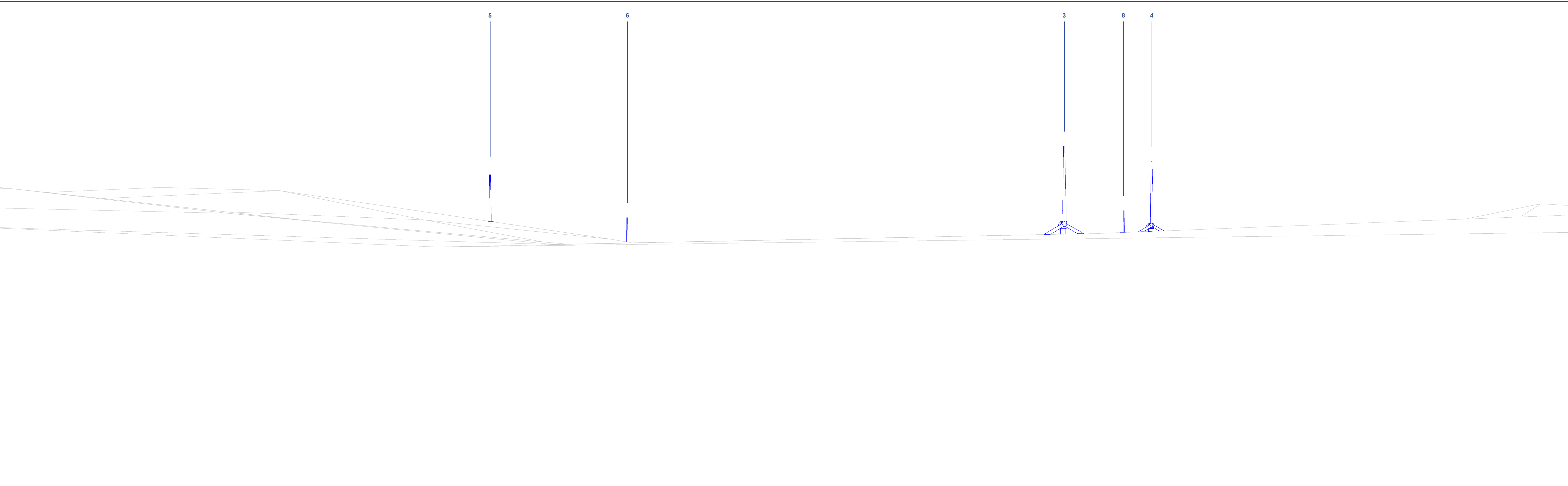
Figure 7L.9
Residential Property 18
Gilfach-hir

May 2026



View flat at a comfortable arm's length

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Wireline drawing

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 147, N296 314	Horizontal field of view:	53.5° (planar projection)
Eye level:	359.5m AOD	Principal distance:	522mm
Direction of view:	320°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T1 @ 1475m	Correct printed image size:	820 x 130mm

Client



Calon y Gwynt Energy Park
Environmental Statement

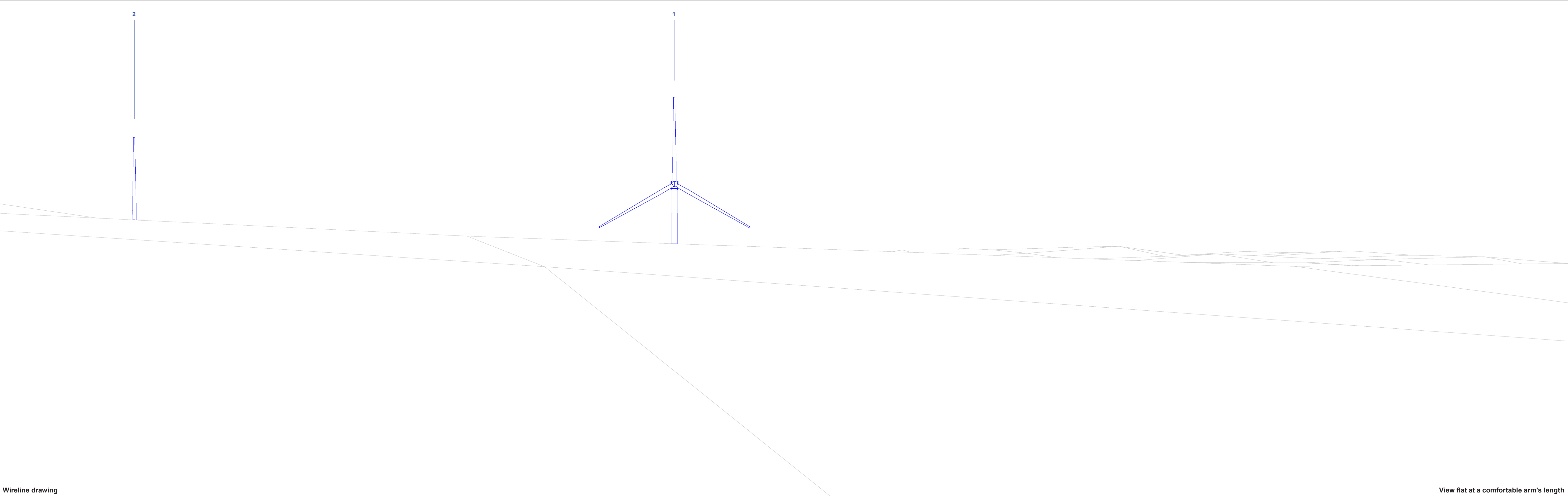
Figure 7L.10
Residential Property 19
Carreg Ateb

May 2026



View flat at a comfortable arm's length

C:\Users\Slewe\OneDrive\WSP\0355\Wind2 - Calon y Gwynt - 3B - Landscape & Visual\Drawings\Design\RV\AA\Figure 7L10 - RES19.mxd Originator: User1D



Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 147, N296 314	Horizontal field of view:	53.5° (planar projection)
Eye level:	359.5m AOD	Principal distance:	522mm
Direction of view:	13.5°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T1 @ 1475m	Correct printed image size:	820 x 130mm

Client



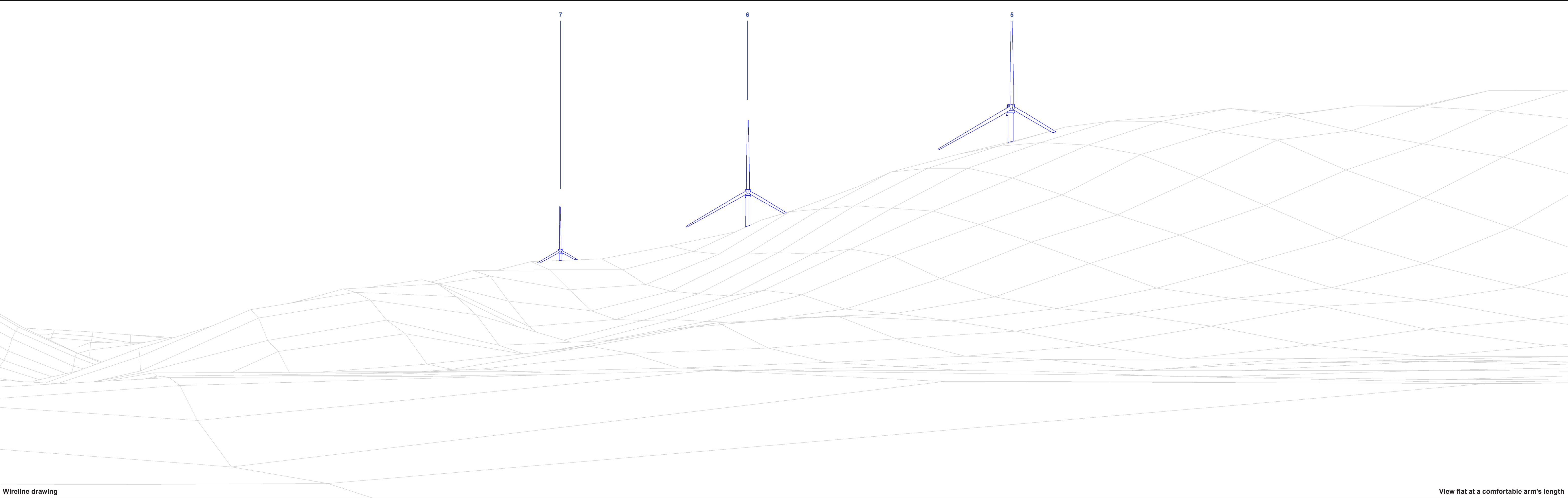
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.10
Residential Property 19
Carreg Ateb

May 2026



C:\Users\Slewe\OneDrive\WSP\0355\Wind2 - Calon y Gwynt - 3B - Landscape & Visual\Drawings\InDesign\RV\AA\Figure 7L.11 - RES\20.indd Originator: User ID



Wireline drawing

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E298 694, N296 398	Horizontal field of view:	53.5° (planar projection)
Eye level:	181.5m AOD	Principal distance:	522mm
Direction of view:	23°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T5 @ 1505m	Correct printed image size:	820 x 130mm

Client

wind2

Calon y Gwynt Energy Park
Environmental Statement

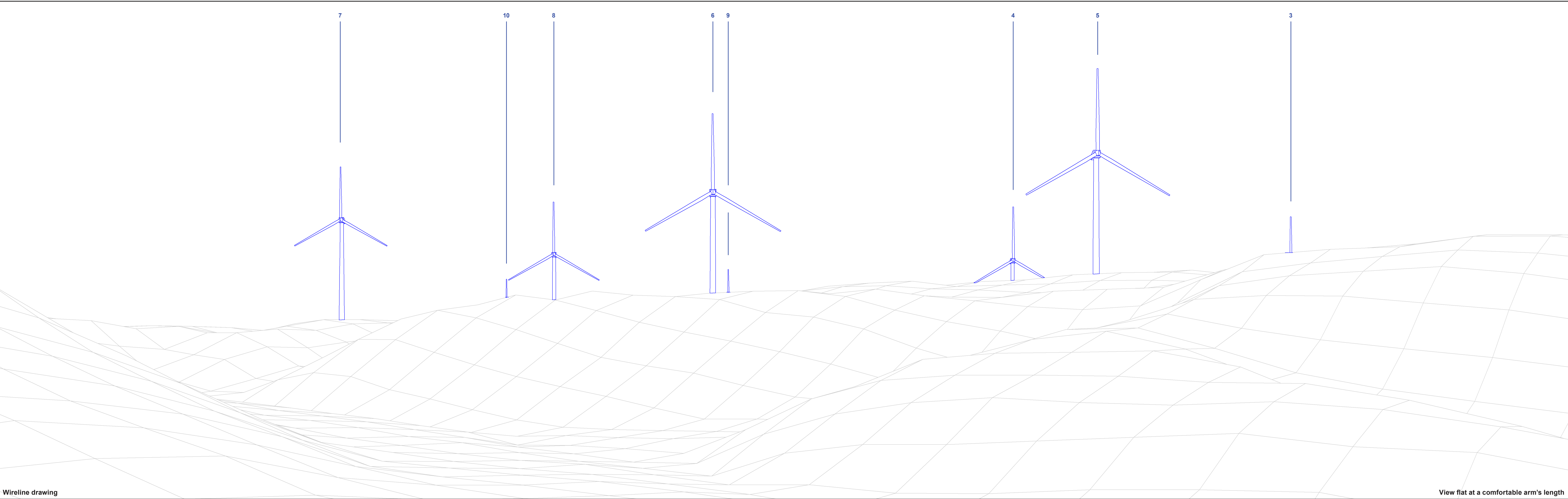
Figure 7L.11
Residential Property 20
Dol y Llin

View flat at a comfortable arm's length

May 2026



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Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E298 057, N297 065	Horizontal field of view:	53.5° (planar projection)
Eye level:	282.5m AOD	Principal distance:	522mm
Direction of view:	55°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T5 @ 1546m	Correct printed image size:	820 x 130mm

Client

wind2

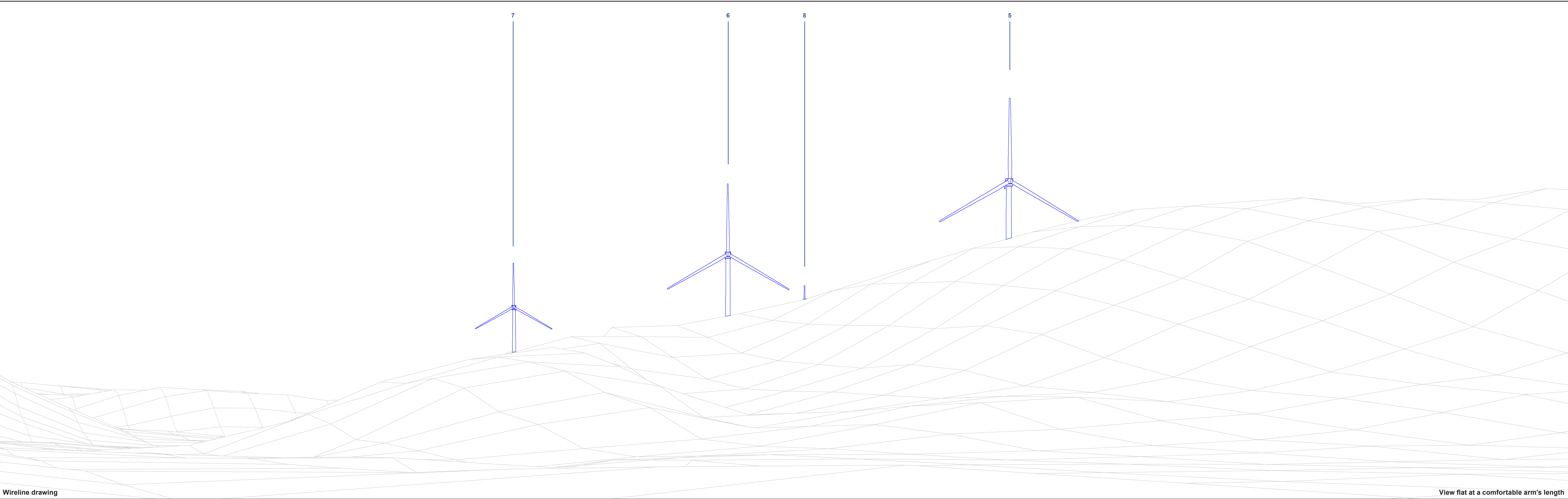
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.12
Residential Property 22
Pen y Bryn

May 2026



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Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E298 528, N296 441	Horizontal field of view:	53.5° (planar projection)
Eye level:	188.5m AOD	Principal distance:	522mm
Direction of view:	29°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T5 @ 1563m	Correct printed image size:	820 x 130mm

Client

wind2

Calon y Gwynt Energy Park
Environmental Statement

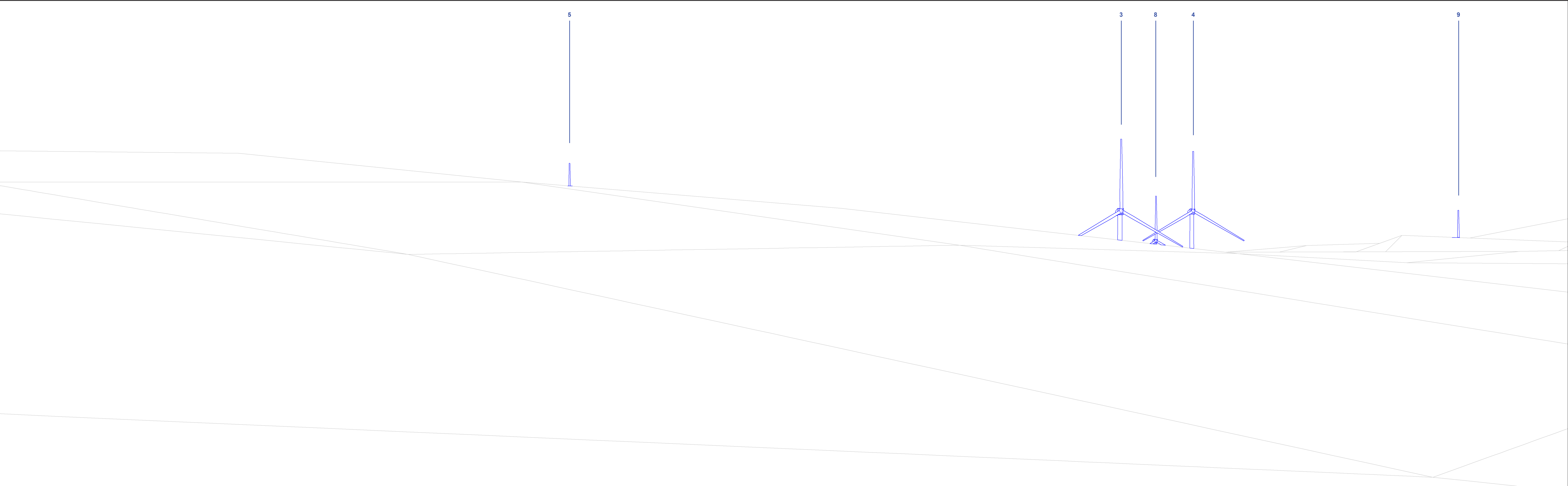
Figure 7L.13
Residential Property 23
Groffydd Cottage

May 2026

wsp

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Originator: User ID



Wireline drawing View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 165, N296 152	Horizontal field of view:	53.5° (planar projection)
Eye level:	351.5m AOD	Principal distance:	522mm
Direction of view:	320°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T1 @ 1632m	Correct printed image size:	820 x 130mm

Client



Calon y Gwynt Energy Park
Environmental Statement

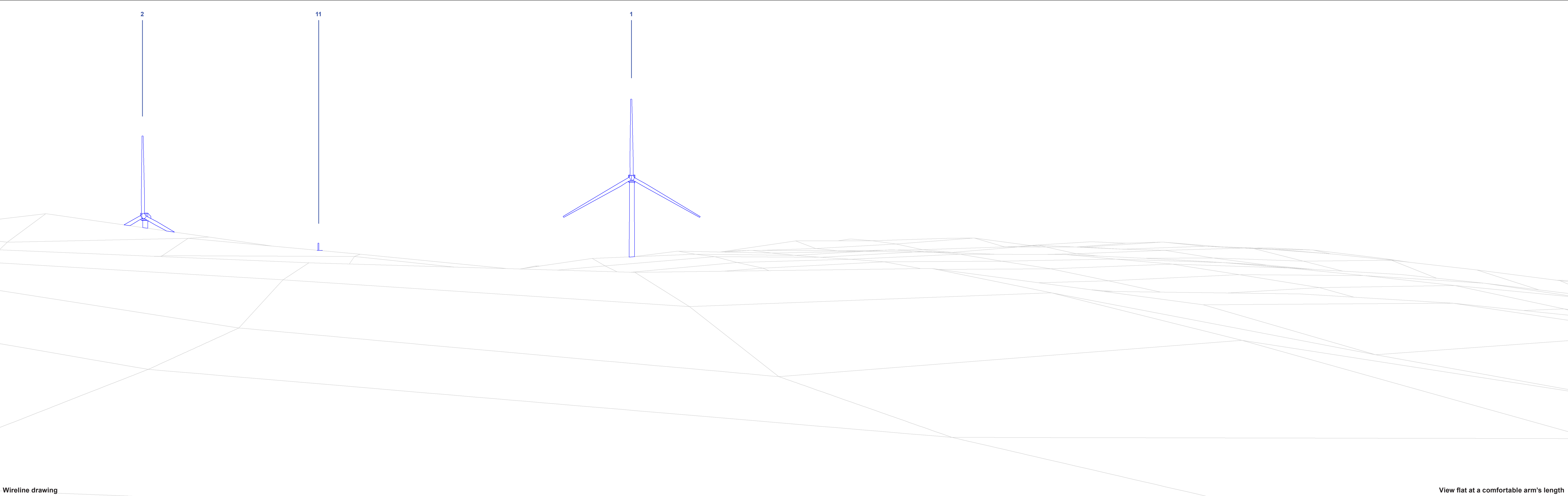
Figure 7L.14a
Residential Property 24 Pant y Gwallia
and Residential Property 27 Slate House

May 2026



C:\Users\Steve.Holford\WSP\0355\Wind2 - Calon y Gwynt - 3B - Landscape & Visual\Drawings\InDesign\RV\AA\Figure 7L.14 - RES\24 and 27.mxd

Originator: User ID



Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 165, N296 152	Horizontal field of view:	53.5° (planar projection)
Eye level:	351.5m AOD	Principal distance:	522mm
Direction of view:	13.5°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T1 @ 1632m	Correct printed image size:	820 x 130mm

Client

wind2

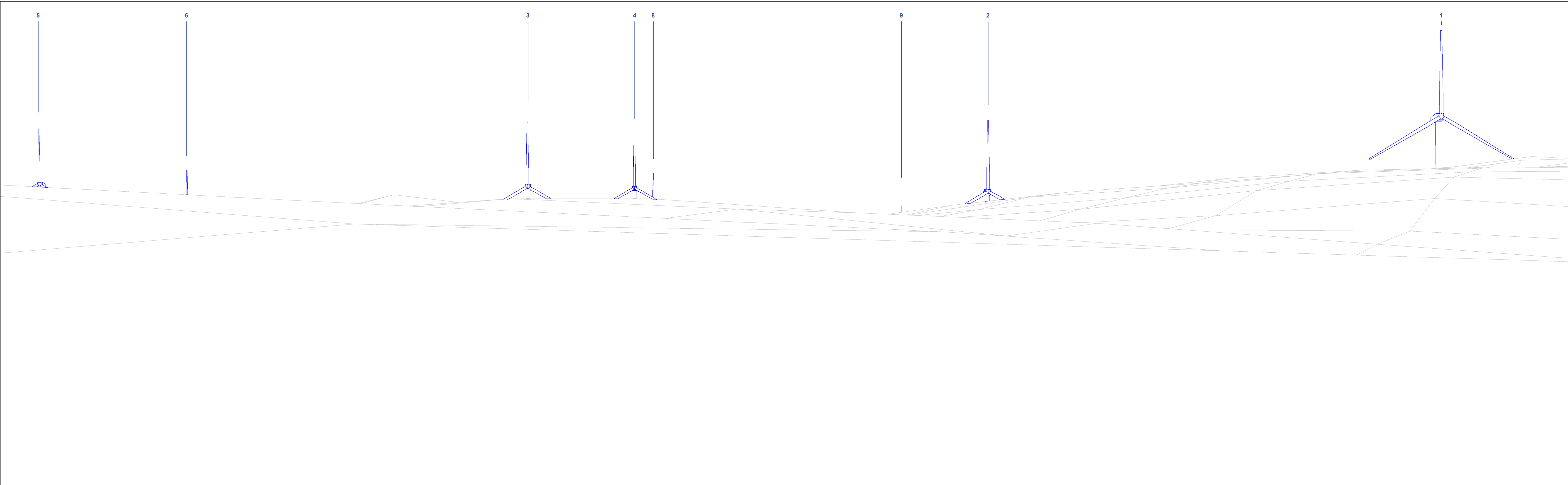
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.14b
Residential Property 24 Pant y Gwallia
and Residential Property 27 Slate House

May 2026

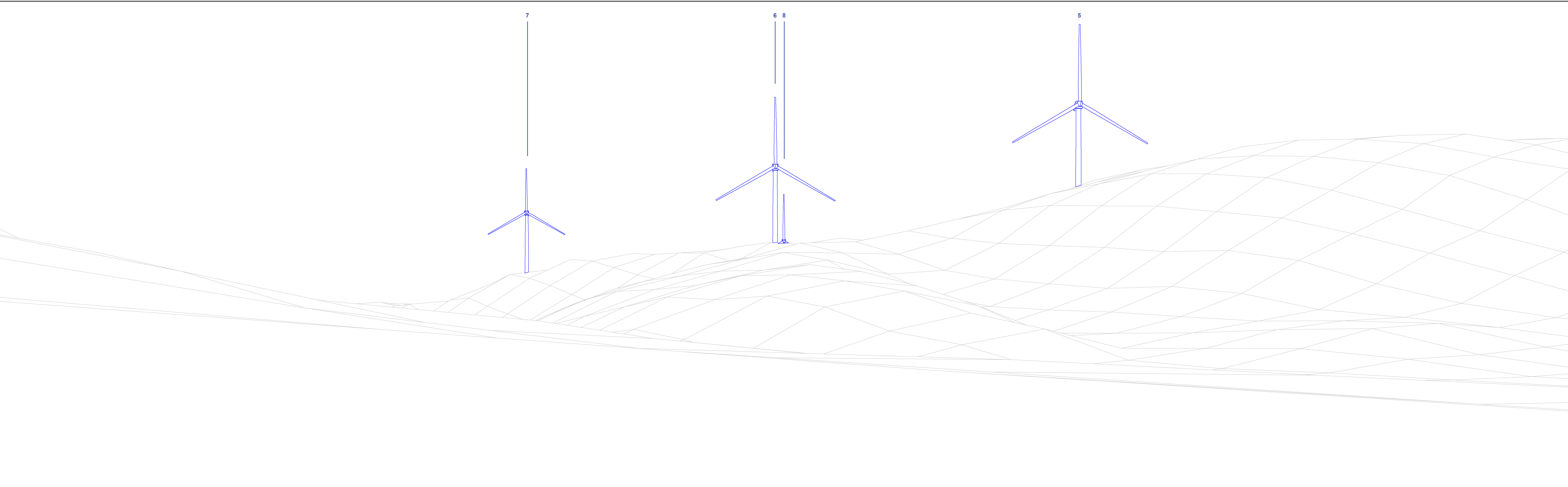
wsp

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Originator: User ID



Wireline drawing

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E298 298, N296 539	Horizontal field of view:	53.5° (planar projection)
Eye level:	192.5m AOD	Principal distance:	522mm
Direction of view:	35°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T5 @ 1642m	Correct printed image size:	820 x 130mm

Client

wind2

Calon y Gwynt Energy Park
Environmental Statement

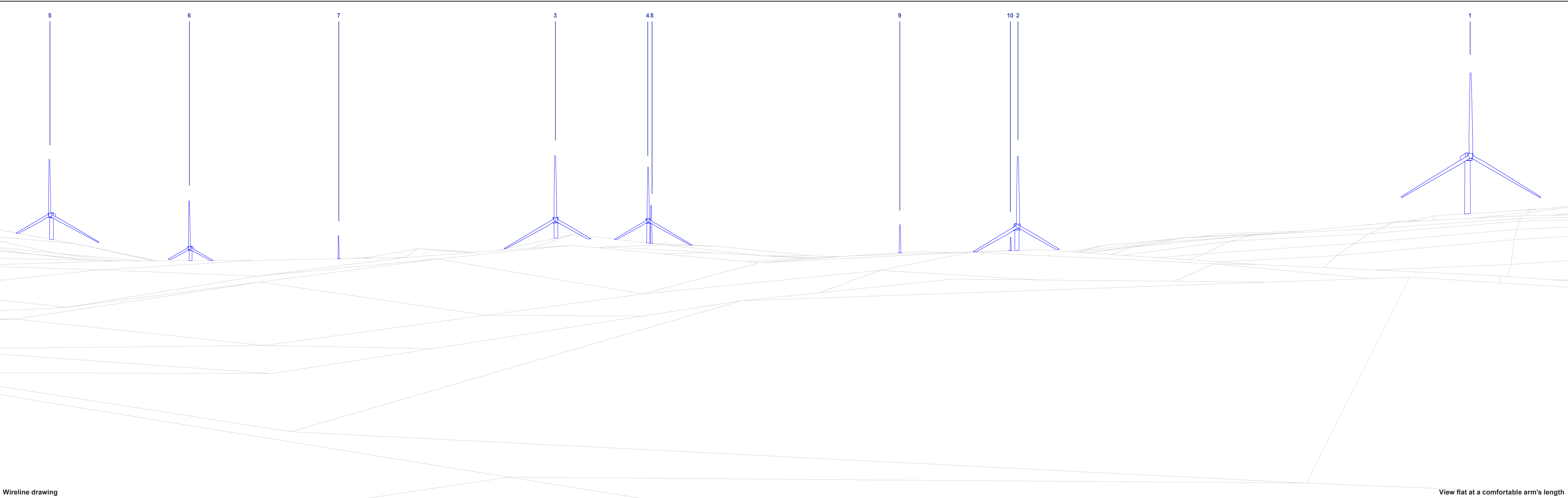
Figure 7L.16
Residential Property 28 Groffydd and
Residential Property 29 Yr Hen Stabal

May 2026

wsp

View flat at a comfortable arm's length

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Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 458, N296 089	Horizontal field of view:	53.5° (planar projection)
Eye level:	338.5m AOD	Principal distance:	522mm
Direction of view:	334°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T1 @ 1681m	Correct printed image size:	820 x 130mm

Client

wind2

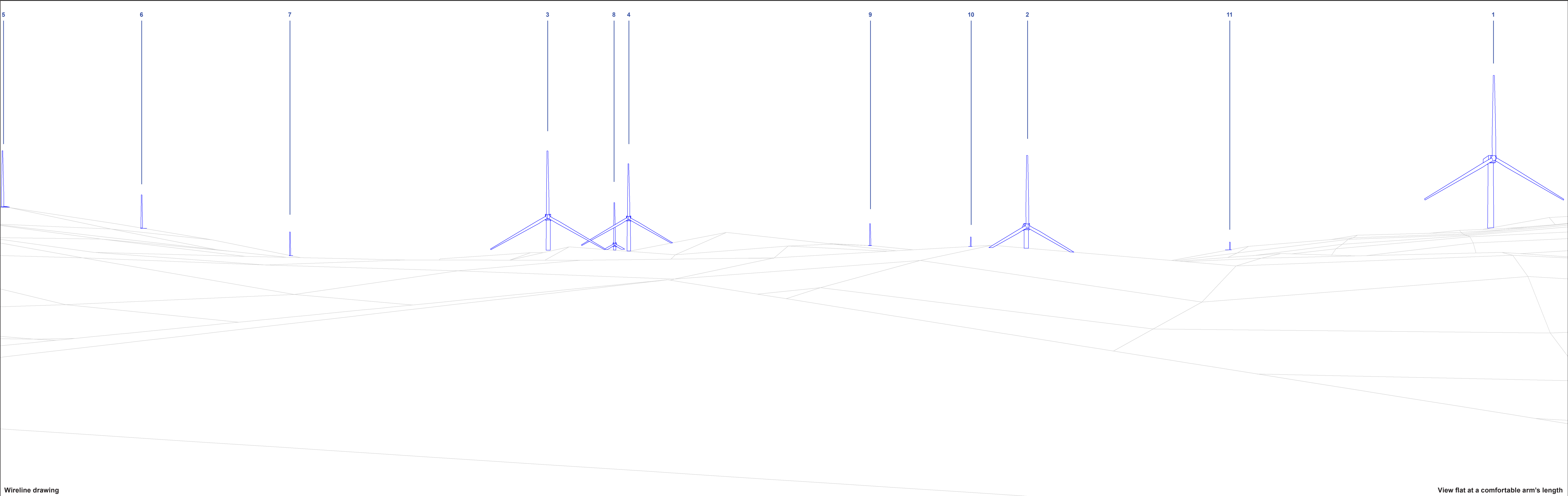
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.17
Residential Property 30
Tany y Bwlch

May 2026

wsp

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Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 336, N296 079	Horizontal field of view:	53.5° (planar projection)
Eye level:	342.5m AOD	Principal distance:	522mm
Direction of view:	337°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T1 @ 1690m	Correct printed image size:	820 x 130mm

Client

wind2

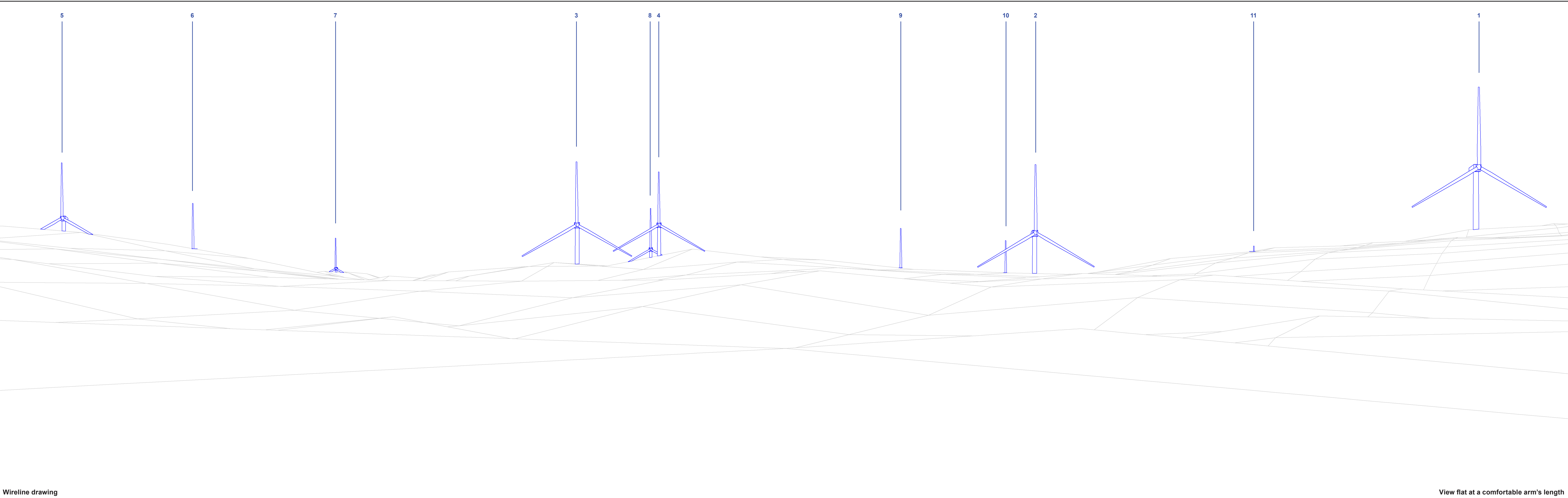
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.18
Residential Property 31
Capel Bach

May 2026

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Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 428, N295 989	Horizontal field of view:	53.5° (planar projection)
Eye level:	340.5m AOD	Principal distance:	522mm
Direction of view:	335°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T1 @ 1780m	Correct printed image size:	820 x 130mm

Client



Calon y Gwynt Energy Park
Environmental Statement

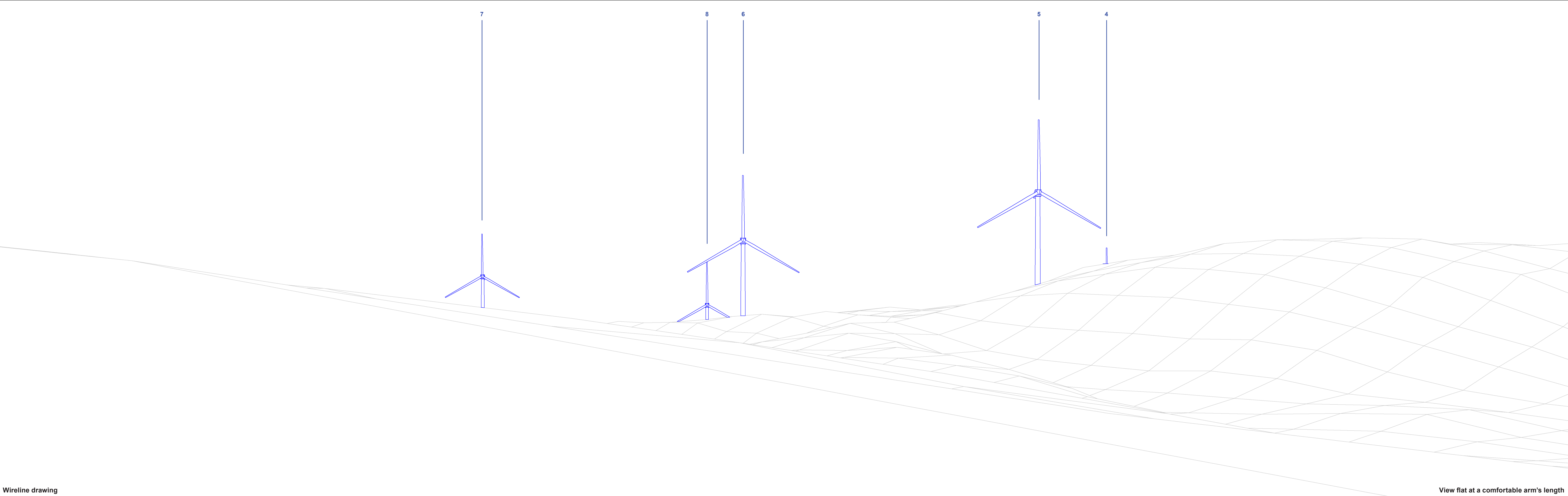
Figure 7L.19
Residential Property 35
Cerrig y Brain

May 2026



View flat at a comfortable arm's length

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Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E298 083, N296 550	Horizontal field of view:	53.5° (planar projection)
Eye level:	197.5m AOD	Principal distance:	522mm
Direction of view:	42°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T5 @ 1795m	Correct printed image size:	820 x 130mm

Client
wind2

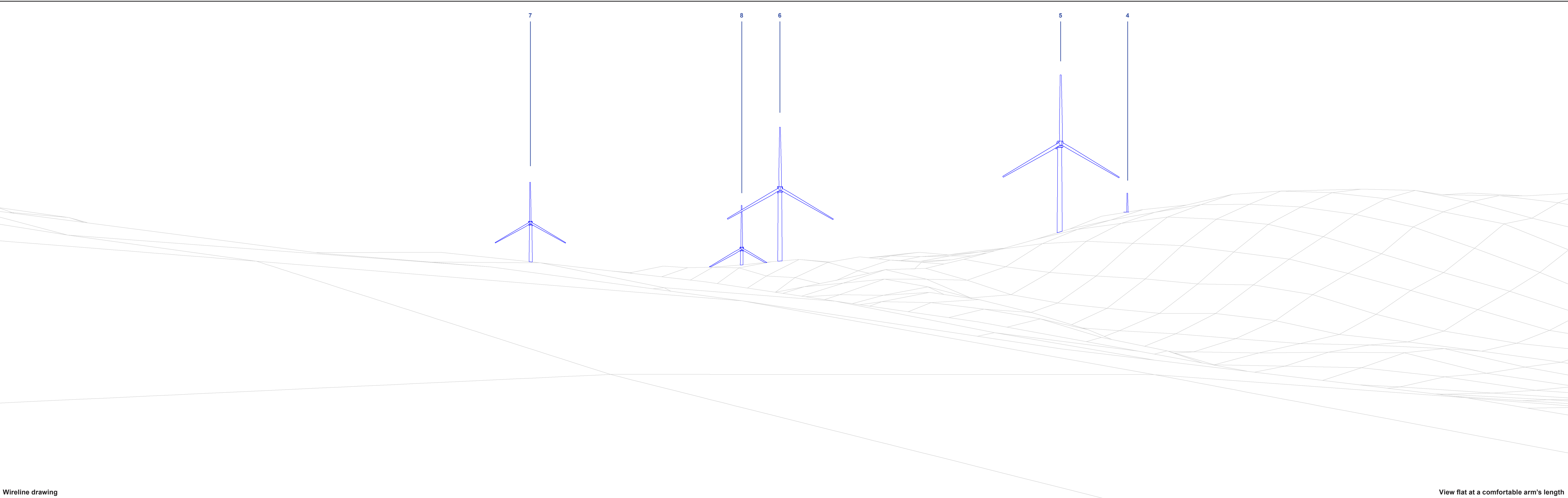
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.20
Residential Property 36
Pant y Crasty

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Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E298 001, N296 478	Horizontal field of view:	53.5° (planar projection)
Eye level:	189.5m AOD	Principal distance:	522mm
Direction of view:	41°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T5 @ 1904m	Correct printed image size:	820 x 130mm

Client



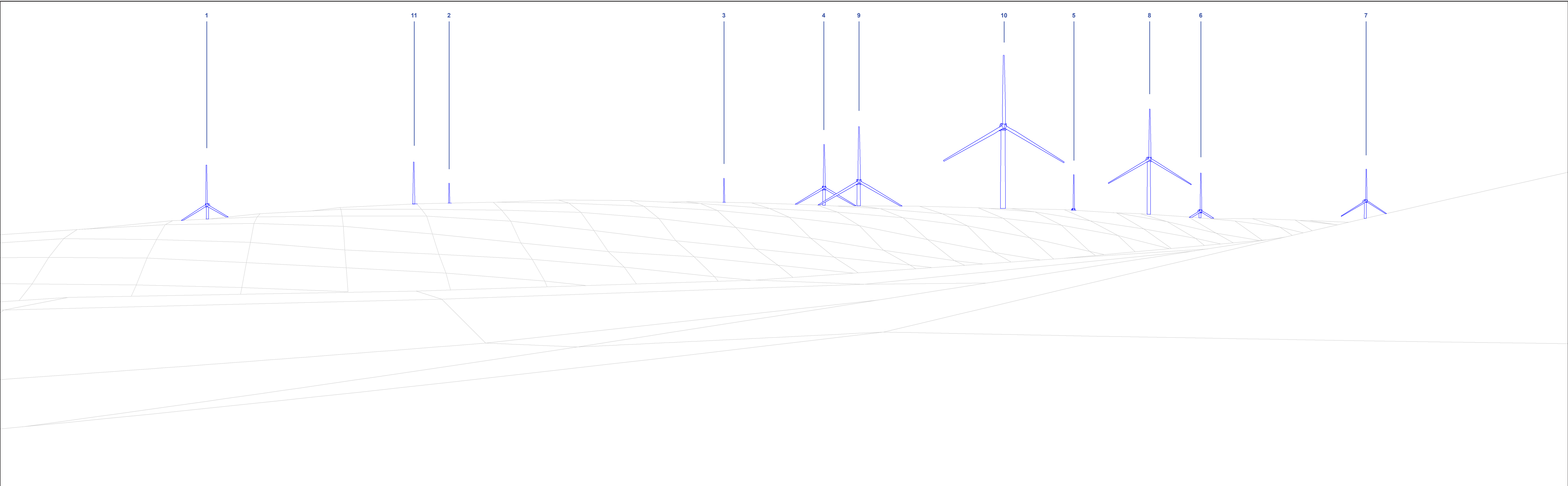
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.21
Residential Property 37 Troed y Garth
and Residential Property 39 Ger-y-waun

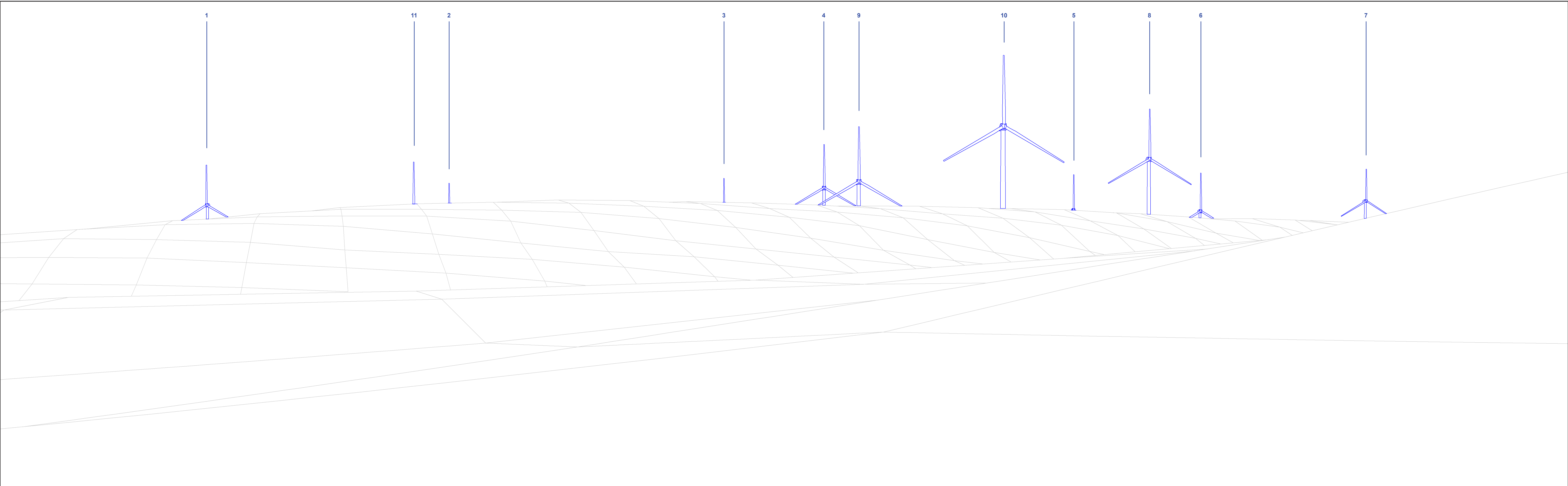
May 2026



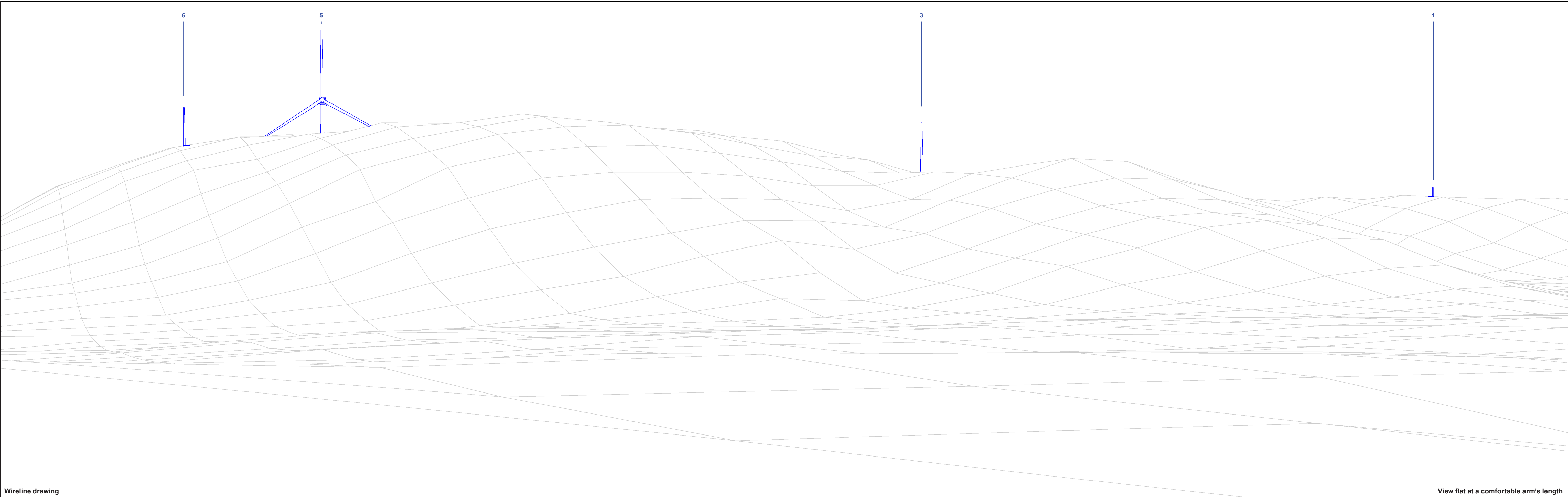
C:\Users\Slewe\OneDrive\WSP\0355\Wind2 - Calon y Gwynt - 3B - Landscape & Visual\Drawings\InDesign\RV\AA\Figure 7L.22 - RES140.indd Originator: User ID



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Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E299 106, N295 755	Horizontal field of view:	53.5° (planar projection)
Eye level:	162.5m AOD	Principal distance:	522mm
Direction of view:	27.5°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T5 @ 1965m	Correct printed image size:	820 x 130mm

Client

wind2

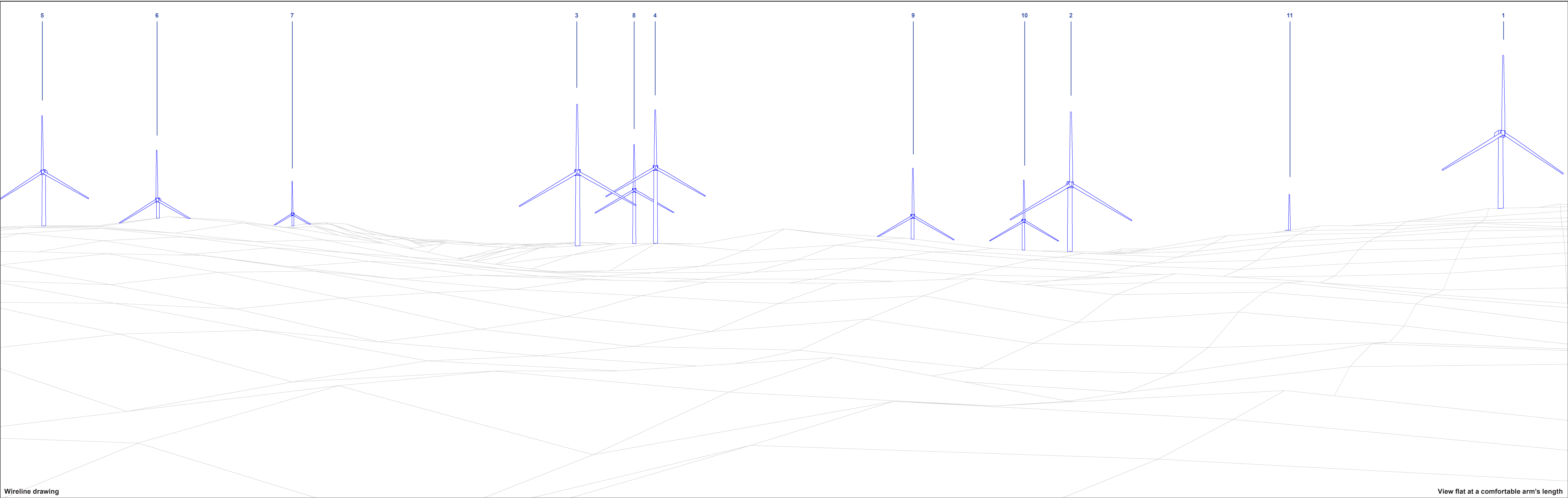
Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.23
Residential Property 41 Oerffrwd Cottage
and Residential Property 43 Oerffryd Mill

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Wireline drawing

Wind Farm Key:  Calon y Gwynt Energy Park

OS reference:	E301 444, N295 794	Horizontal field of view:	53.5° (planar projection)
Eye level:	355.5m AOD	Principal distance:	522mm
Direction of view:	337°	Paper size:	841mm x 297mm (half A1)
Nearest turbine:	T1 @ 1975m	Correct printed image size:	820 x 130mm

Client

wind2

Calon y Gwynt Energy Park
Environmental Statement

Figure 7L.24
Residential Property 42
Pant y bryn

View flat at a comfortable arm's length

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Cardiff
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