Landscape and Visual Appraisal

BEDWEN ARIAN SOLAR PV AND BESS

BRIARWOOD LANDSCAPE ARCHITECTURE | ARISE RENEWABLE ENERGY UK LIMITED

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1. Introduction

1.1 This report is prepared as a Landscape and Visual Appraisal by Briarwood Landscape Architecture Limited by a Chartered Member of the Landscape Institute[1], to accompany a proposed solar farm and battery energy storage system (BESS) development at Bedwen Arian ('the site') within the planning authority of Neath Port Talbot Council, on behalf of Arise Renewables Energy UK Limited.

1.2 The description of the proposed development is:

> "Temporary ground mounted solar photovoltaic (PV) farm of 9.9MW capacity with ancillary infrastructure including 4MW BESS and security fencing, landscaping provision, ecological enhancements and associated works."

1.3 The location of the proposed development is shown on the Site Location Plan at Appendix 1. The centre of the site is located at grid coordinate SS 82150 85362.

Appendix 1 – Site Location Plan

1.4 This report assesses the potential effects of the proposed residential development on the site on :

- Landscape elements and features such as vegetation, topography and water bodies etc.,
- Landscape character and,
- Visual amenity

1.5 The primary objectives of this LVA are as follows:

- To identify, describe and evaluate the current landscape character of the site and its surrounding area
- To identify, describe and evaluate any notable individual landscape elements and/or features within the site
- To determine the sensitivity of the landscape to the type of development proposed
- To identify potential key visual receptors (i.e., people who would be able to view the proposed development) and to evaluate their sensitivity to the type of changes proposed

[1] In line with TGN 01/20, the author of this report has experience in preparing, coordinating and reviewing Landscape and Visual Impact Assessments and Appraisals.

- To identify and describe any potential effects of the proposed development in so far as they affect the landscape and/or views.

1.6 Where mention is made to heritage assets such as listed buildings, scheduled ancient monuments etc. then this is done only in the context of such assets being features of the landscape.

2. Methodology

Use of the term LVA

2.1 This report is presented as a proportionate Landscape and Visual Appraisal (LVA) rather than as an ES related Landscape and Visual Impact Assessment (LVIA). Although an LVA describes effects, it is not required to determine 'significance', which is a term with specific meaning related to formal EIA processes.

Guidance

2.2 This LVA has been undertaken with regard to the following best practice guidance:

- 'Guidelines for Landscape and Visual Impact Assessment (3rd Edition)' – Landscape Institute/Institute of Environmental Management and Assessment (IEMA).
- 'Assessing landscape value outside national designations' – Landscape Institute Technical Guidance Note 02/21.
- 'Using LANDMAP in Landscape and Visual Assessments' GN46 – Natural Resources Wales online.

Detailed Methodology

2.3 A detailed methodology is given in Appendix 2. As recommended within the published guidance, landscape (elements and character) and visual effects are assessed separately.

Appendix 2 – Detailed Methodology

Nature of an Effect

2.4 The nature, as opposed to the scale, of a particular effect on landscape, character and visual amenity can be

- adverse (negative)
- beneficial (positive) or
- neutral.

2.5 There can also be 'no effect' where the proposed development would result in no change to a particular landscape and/or view so the nature of the effect would usually always be regarded as neutral.

2.6 The neutral nature of a particular effect is one where, on balance, the existing integrity, quality or key characteristics of a landscape or view, would be maintained. The scale/level of effect and whether it will have a positive or negative (or neutral) consequence are independent of each other so that it is possible to report a major and neutral effect (i.e. an important change, but one which is neither better nor worse).

2.7 For the purposes of this assessment, unless otherwise stated, any change to the landscape and visual amenity as a result of the proposed development is considered to be permanent and non-reversible and adverse in nature.

Assessment Period

2.8 Operational effects are assessed at years 1 and 15 so as to take into account any mitigation measures such as new planting etc. Unless expressly stated otherwise, the effect, and the nature of the effect, at year 15 is considered to be the same as year 1.

Study Area

2.9 Following the preparation of a Zone of Theoretical Visibility (ZTV) an initial study area of 5km was chosen. Effects on landscape receptors and designated landscapes together with visual receptors beyond a 5km radius of the site have been 'scoped out' of this LVA.

2.10 Subsequent site visits have determined that the area in which potential landscape and visual effects would occur, would be smaller than that contained within the initial 5km radius of the site. It is noted that Natural Resources Wales, in respect of the use of LANDMAP, recommends a search area of 3km for structures under 25 metres in height and a study area of 2km^2.

Use of LANDMAP

2.11 Planning Policy Wales advocates the use of LANDMAP when undertaken landscape and visual assessments. The approach taken to using LANDMAP is based upon that suggested by Natural Resources Wales. This approach is as outlined below.

2.12 For Geological Landscape, Landscape Habitats and Cultural Landscape Services aspect areas:

- Filter 1 - Identify all LANDMAP aspect areas that overlap fully or partially or are adjacent to the development site boundary.

[2] https://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/evidence-to-inform-development-planning/using-LANDMAP-in-landscape-and-visual-impact-assessments-gn46/?lang=en

- Filter 2 - Identify Geological Landscape aspect areas from filter 1 that record a special relationship with other aspect areas in the LANDMAP survey question 2. Include any extra aspect areas identified.
- Filter 3 – With reference to the ZTV, retain all filtered aspect areas that are visible with the development.
- Filter 4 - Retaining all aspect areas in which the development is located irrespective of their evaluation, also identify and retain those aspect areas that are visible and are evaluated as outstanding or high in:
    - Geological Landscape survey question 33 and/or rarity/uniqueness question 31
    - Landscape Habitats survey question 45 and/or connectivity/cohesion question 42
- Cultural Landscape Services does not include landscape evaluation information, retain all aspect areas identified from filter 1 or 3.
- Complete landscape and visual appraisal using final filtered Geological Landscape, Landscape Habitats and Cultural Landscape Services aspect areas.

2.13 For Visual and Sensory plus Historic Landscape aspect areas:

- Filter 1- Identify all Visual and Sensory plus Historic Landscape LANDMAP aspect areas within the search area.
- Filter 2 – With reference to ZTV, retain all filtered aspect areas that are visible with the development up to the limit of the 3km search area.
- Filter 3 - Retaining all aspect areas in which the development is located irrespective of their evaluation, also identify and retain filtered aspect areas that are evaluated as outstanding or high in
    - Visual & Sensory overall evaluation (survey question 50), and/or scenic quality (question 46) and/or character (question 48) if the overall evaluation is moderate
    - Historic Landscape overall evaluation (survey question 40)
- Also identify and retain filtered aspect areas that are evaluated as moderate or low in
    - Visual & Sensory overall evaluation (survey question 50) and there is potential for a large magnitude of change and opportunities for restoration and enhancement

- Historic Landscape overall evaluation (survey question 40) and there is potential for a large magnitude of change and opportunities for restoration and interpretation

- Filter 4- Retain all filter 3 aspect areas that are within the study area plus those aspect areas outside the study area that might contain highly sensitive visual receptors within the 3km search area.
- Complete landscape and visual appraisal using final filtered LANDMAP aspect areas

Photography and Photoviews

2.14 Photographs used as part of the detailed visual assessment have been taken using a Canon E05 Mark IV, full frame sensor, digital camera with a 50mm lens. The lens has a standard focal length and is considered to best represent the human eye.

2.15 Photography took place in fair weather, with reasonable visibility, on the 13th and 14th November 2024. The camera was at a height of approximately 1.6 metres. Leaf cover was largely absent so visibility was close to a maximum. Consideration has been given to the effect on views with a full leaf cover in place and visibility at a minimum.

Caveat

2.16 It is acknowledged that by virtue of carrying out the 'visual' element of this assessment, the author has an inherent 'bias' against the proposals to which this report relates. When carrying out the site visit and taking photos from the chosen viewpoint locations (from publicly accessible areas and vantage points), the report's author is actively and deliberately 'looking' for the 'site' within the local landscape.

2.17 In reality, visual receptors such as users of the public rights of way network and motorists alike will not 'actively' be 'looking' for the site (or the development) whilst traversing the public rights of way and road network. Whilst each visual receptor will have a varying degree of appreciation for their surroundings, depending on what they are doing (playing sport, walking, driving), their efforts will typically not be concerned with 'actively' and 'deliberately' looking for any given 'site' or 'residential development'.

2.18 The photoviews were accurate at the time they were taken. Site conditions can be subject to change, for example garden and field boundary hedgerows can be cut/trimmed by landowners/farmers, trees can be felled by landowners or blown over by adverse weather, and new trees can be planted.

2.19 Therefore, the extent of visibility can potentially increase or decrease since the photoviews were taken. Such eventualities are not within the control of the report's author. The assessment of visibility within photoviews is accurate at the time of writing.

Time sensitivity

2.20 Owing to the evolving nature of the landscape, it is considered that the assessment made in this report should not be relied on beyond 24 months of final issue without a formal review.

3. Baseline Context

Description of the Site

3.1 The site is irregular in shape and comprises 15 existing fields together with part of another field and a yard with hard standing surrounding an existing modern shed/barn. The features of the site are shown in Appendix 3 – Landscape Features Plan.

Appendix 3 – Landscape Features Plan

3.2 The site boundaries are well defined. Stock proof timber post and wire and post and mesh fences defines the site boundaries.

3.3 Internally, the site consists of irregular shaped fields are currently used as horse paddocks and under grass. Trees are a feature of the site. Individual tree specimens follow field boundaries while small copses and woodland blocks occur the centre and to the edges of the site. A series of context views help to illustrate the current nature of the site (see Appendix 4 – Context Views).

Appendix 4 – Context Views

Scale and Geographic Extent of the Proposed Development

3.4 The site is considered to be of a large scale relative to its host landscape.

3.5 The proposed development in relation to the site itself is considered to be of a large scale.

3.6 Site visits have confirmed and supports the author's judgement that the extent of the physical influence of the proposals upon its surroundings would be confined to the site's redline application boundary.

The Site and Surrounding Area

3.7 The following section describes the individual elements, attributes and key characteristics of the existing site and local landscape that together contribute to an understanding of the local landscape character. The following physical landscape attributes will be described:

- Topography and Landform
- Hydrology and Water Features
- Landscape Framework - Trees and Vegetation Cover
- Land Use

- Public Rights of Way
- Public Highways and Transport Corridors
- Settlement Pattern and Built Form
- Landscape Designations

Topography and Landform

3.8 The site has an undulating landform. Across the site there is a general rise in the topography from west to east and south to north. A low point of approximately 65 metres Above Ordnance Datum (AOD) is located on the site's western boundary whilst a high point of approximately 100 metres is located on the site's northern boundary.

3.9 The topography of the site continues beyond the site boundary to the east and to the west. To the north of the site, beyond Graig-Goch farm, the topography rises sharply as a scarp and then becomes a more gently rising plateau.

3.10 To the south, the topography is undulating with areas of higher ground but with a gradual fall to the coast.

Hydrology and Water Features

3.11 The OS map identifies two watercourses/drains passing through the site. One watercourse/drain passes from north to south along the site's western edge and another watercourse/drain passes through the centre of the site on a north-east to south-west axis.

Landscape Framework – Trees and Vegetation Cover

3.12 The site is predominantly grassland but one with a substantial tree cover. The tree cover on the site has been subject to a comprehensive BS5837:2012 tree survey[3].

3.13 The tree survey identifies 340 individual tree specimens, 58 groups of trees, 7 hedgerows and 10 woodland blocks on or adjacent to the site. Except for some Sweet Chestnuts, the arboricultural items are native species.

Land Use

3.14 The predominant land use on the site is agriculture and specifically horse grazing. The site includes a modern storage barn surrounded by an area of hard standing and 2 portable cabins.

[3] Prepared by Greenwood Surveys – November 2024

Public Rights of Way

3.15 The site is currently entirely private with no public access. The closest public right of way to the site is 9/81:PT/2, which comes to within approximately 60 metres of the site's southern boundary at its closest point.

Public Highways and Transportation Corridors

3.16 The A48 main road is situated approximately 0.5km to the south of the site. The section of the A48 closest to the site connects between the town of Pyle/ Y Pil and junction 38 of the M4 motorway. The latter is situated to the west of the site at a distance of approximately 1.9km at its closest point.

Settlement Pattern and Built Form

3.17 Settlement in the local host landscape is varied. To the north and north-east of the site the settlement pattern is sparse with only occasional farmsteads and residential properties.

3.18 The new settlement of Coedhirwuan is located approximately 0.5km to the south of the site. The much larger settlement of Pyle is situated approximately 2.4km to the south-east of the site.

3.19 The Port Talbot steel works and associated settlements are approximately 4km to the west of the site.

Designations

3.20 The site is not in or in close proximity to a National Landscape or National Park. At the borough level, the site is within a Green Wedge together within a Special Landscape Area (SLA) designation. Specifically, the site and surrounding area are located in the EN3/4 Margam SLA.

3.21 The 'Replacement Local Development Plan 2023-2038 – December 2024' document includes a plan showing the extent of the SLA (see Appendix 5).

Appendix 5 – Extract plan showing the extent of the EN3/4 Margam SLA

3.22 Within 'Replacement Local Development Plan 2023-2038 – December 2024' description of the EN3/4 Margam SLA on pages 55-56 the following is noted:

> "…Cultural features in the landscape include evidence of prehistoric and later agricultural practices, rural settlements and contemporary forestry activities.
>
> It is an evolved landscape containing multi-period cultural expressions untrammelled by industrial exploitation - extensive archaeological evidence of land husbandry, now given over to forestry interspersed with some small farms and thus is a comparatively rare example of a surviving relict landscape.

The SLA, which contains Margam Park, with its exceptional examples of architecture; its history as a major Cistercian Abbey and the wider monastic landholdings, provides a combination of high-grade historic visitor attraction and a variety of multi-period pleasure grounds. It contains cultural elements dating from pre-history through every period up to the 21st century.

Whilst the SLA contains areas of forested upland these are important to the overall historical context of the area and could be managed to enhance the landscape quality of the wider area.

The scenic quality of the area is enhanced by the historic buildings of the Park and the backdrop of scarp creating a sheltered setting which link visually and provide the integrity of the whole. The sense of place for the park is initially prompted with boundary walls and entrance gates. The historic core and deer park make this area unique within the County…"

Published Landscape Character Assessments

Borough Landscape Character

3.23 Neath Port Talbot Borough Council does not have a specific published borough landscape character assessment. The Council uses LANDMAP – The national landscape character assessment for Wales.

LANDMAP

3.24 LANDMAP is a Geographical Information System GIS based landscape resource for Wales. LANDMAP records and evaluates landscape qualities, characteristics, sensitivities and influences on the landscape so as to provide a nationally consistent data set.

3.25 LANDMAP separates information into five different 'aspect layers' as outlined below:

- Geological Landscape - identifies landscape qualities connected to the control of influence exerted by surface processes, bedrock, hydrology and landforms
- Landscape Habitats – identifies the characteristics and spatial relationships of vegetation and habitats
- Visual and Sensory – identifies perceptual landscape qualities together with information on individual physical attributes of land cover and landform, and the relationships between them
- Historic Landscape – identifies those qualities of the landscape that depend on key historic land uses, patterns and features

- Cultural Landscape – outlines information on the relationship of people and places, the meaning of places to people, how landscape has shaped the action of people and how the action of people has shaped the landscape

3.26 The aspect layers are each divided into 'aspect areas' that represent the reporting units of LANDMAP. An overall evaluation score is typically provided for each aspect area. The scores are given as 'outstanding' (important at international or national level), 'high' (important at regional or county level), 'moderate' (important at a local level) and 'low' (little or no importance).

Filtering of Landscape Aspect Areas

3.27 Specific to this appraisal and proposed development, Table 3.1, given at Appendix 6, outlines the filtering of the relevant LANDMAP aspect areas in accordance with Natural Resource Wales Guidance Note 46.

Appendix 6 – Table 3.1 Filtering of LANDMAP Aspect Areas

3.28 The filtering process makes reference to the Zone of Theoretical Visibility (ZTV) prepared for each of the aspect areas (see Appendix 7). The ZTV indicated where in the landscape the proposed development would, in theory, be visible from.

Appendix 7– Aspect Areas ZTVs

3.29 Guidance Note 46 suggests that suitably scaled character-based reporting units for landscape assessment may be LANDMAP Visual and Sensory aspect areas and Historic Landscape aspect areas. This recommended approach has been applied to this LVA (with 'landscape units' having been identified based on LANDMAP Visual and Sensory aspect areas and Historic Landscape aspect areas).

3.30 With reference to the Natural Resource Wales guidance on filtering the various aspect areas, those Visual and Sensory together with Historic Landscape aspect areas highlighted in lilac with Table 3.1 have been taken forward as part of the landscape and visual appraisal.

3.31 Although available as an electronic/online resource, the baseline description of those LANDMAP Visual and Sensory aspect areas that are to be assessed is given below.

NPTVS543 - Coedhirwaun

3.32 The summary description for NPTVS543 is given as:

> "Attractive low lying mixed agriculture dominated by grazed land. The rural quality of this area is disrupted to the west, with new small-scale development and a golf course abutting the M4. Blocks of woodland and hedges (dominated by hazel) restrict large views and add to a feeling of intimacy. The new settlement of Coed Hirwaun sits low in a valley this landscape and is not widely visible although it does

not appear to be integrated into the landscape with planting. There are a scattering of smaller settlements, dwellings and commercial units through the area which are beginning to suburbanise the character in parts. The latter chiefly to the west and constructed from inappropriate materials. Settlements are connected by numerous narrow deep-set lanes and bank hedgerows, which along with disused railway lines provide green corridors through the area. The A48 runs through the area and the area is highly visible from the M4 to the west. Pockets of coarse vegetation have encroached on under managed agricultural areas although the majority of the area is well managed farmland. Power lines and further development disrupt the rural character of the area towards Pyle in the south. Change detection 2014: Quarry in east excluded."

CYNONVS955-Cribwr

3.33 The summary description for CYNONVS955-Cribwr is given as:

"Dominant landform is east/west trending ridge picked out by B4281and the associated linear settlement of Cribwr. gently undulating slopes with particularly extensive southerly views across lower farmland to the coast. M4 cuts across the landform grain with associated engineered slopes, which, together with pylons are main visual detractors and combine with urban edge to give distinct urban fringe feel. Recent housing on edge of Kenfig Hill has altered western boundary at change detection."

NPTVS837-Margam works

3.34 The summary description for NPTVS837-Margam works is given as:

"Large scale heavy industry and disused docks on coastal plain. The skyline to the area is dominated by the steel works which acts as a significant landmark in the flat landscape. Smaller industrial units lie around the docks and next to the town centre. A network of railways, both passenger and industrial, cross the area including the main London to Swansea line. The disused docks and a large reservoir within the area, although large in scale are fairly well hidden. There is no public access."

NPTHS403-Margam Country Park

"Low lying area of designed parkland, mosaic grazed land (deer grazed) and mixed woodland, the latter providing a sense of enclosure. The area is focussed on Margam Castle and Margam Abbey which dominate the landscape around. The area sits below the scarp which provides additional sense of protection. The country park is a significant tourist attraction. Dwellings are mainly located to the west of the area with buildings in the centre acting as visitor facilities. A number of minor roads enter the estate and the A48 bounds the western edge of the estate. Buildings (predominantly stone) within and boundary walls and gates provide a strong sense

of place. Parkland trees are overmature, but new planting has been carried out. Many ancillary elements within the central historic core do not sit entirely comfortably in the historic landscape (visitor centres, new enclosures, etc) and there are signs of wear around the castle although some features such as the visitor car park are well designed. Water bodies provide interest and variation as do the grazing deer. Some areas have an austere and imposing feel (gateways and dominant buildings). There is encroachment of gorse and bracken on the periphery of the park - especially at the base of scarp slope."

NPTVS897- Mynydd Bromil & Scarp tops

"Grazed upland ranging from130m to 257m AOD. The whole area is extensively sheep grazed, the ground cover predominantly pasture grasses with infestation of coarser species and infestations of bracken and gorse in places. There are only scattered individual dwellings, of natural stone or render, in these areas. Access is mainly by footpath. The areas are predominantly hedged with fences with walls which are broken down and gappy. All of the areas are enclosed to the north and east by forest, but vast views and openness to the south and west give a sense of exposure. There is minimal management input on the land so elements of the landscape ae in poor condition."

Baseline Visual Receptors

3.35 A range of visual receptors i.e. people, have been considered as part of a visual assessment. Such receptors include the occupiers of existing residential properties, users of the public highway network and users of the public right of way network.

3.36 It is from the public highway and public right of way networks where there is the greatest potential for there to be sight of the proposed development from publicly accessible vantage points.

3.37 Typically, users of the public right of way network and open access land will be most sensitive to visual changes in the landscape. For these visual receptors, the appearance of the landscape and particular views are often the primary reason for their using the public right of way or entering open access land.

3.38 Similarly, occupiers of residential properties are often sensitive to changes in the view from their habitable rooms. Users of the public highway are regarded as less sensitive to change in a particular view as their main focus is generally in the direction of travel.

Representative Views

3.39 A series of 9 representative viewpoints have been chosen to form the basis of a detailed visual assessment (see below). The representative viewpoints have been

chosen to include different types of visual receptors in different locations and at different distances from the site boundary.

3.40 It should be noted that the viewpoints are not intended to be exhaustive. In reality, there would be many more locations within the local landscape from where the proposed development would not be seen as compared to those locations chosen as representative viewpoints where a view is anticipated.

Residential Properties

3.41 The potential for any intervisibility between existing residential properties and the site is limited. The greatest potential for intervisibility is with those properties immediately adjacent or close to the site boundary. There is some intervisibility with the site from Hirwaun Farm adjacent to the site's southern boundary.

3.42 For residential properties located at greater distances than 0.5km from the site boundary, the undulating and rolling topography of the area and the presence of trees, hedgerows and woodland belts act to restrict most views of the site. Where views of the site are possible, only discrete parts can be seen rather than the entire site.

Public Highways

3.43 There are few public highways in the vicinity of the site. The greatest potential for views of and into the site is from the un-named lane that gives access to Graig Goch Farm and Ton Mawr Farm. The lane gives access onto the site and views of the western edge of the site are afforded from the lane as it passes by the site.

3.44 Elsewhere in the wider landscape, potential views of the site from the public highway network are generally restricted. Such a restriction is brought about through several factors including the distance and orientation of a particular route from the site and the screening effect of vegetation (particularly field boundary vegetation along the roadside), changes in topography or built form (either singularly or in combination) in the intervening landscape between the road users and the site boundary.

Public Rights of Way. Landscape Designations & Open Access Land

3.45 The Site Location Plan shows that there are several public rights of way routes in the close proximity to the site. Margam Country Park (closed at the time of the site visit) is adjacent to the site.

3.46 The greatest potential for intervisibility with the site is from those rights of way closest to the site boundary and from routes on high ground to the north of the site.

3.47 From large sections of the public right of way network, potential views of the site are typically restricted through factors such as the particular route's orientation, changes in

topography, and the presence of existing built form and vegetation including field hedgerow boundaries, tree belts and woodland.

4. Description of Proposed Development

4.1 This section describes the key components of the proposals, and the nature of the anticipated effects that are likely to occur. A 'mitigation by design' approach has been taken as part of the project, meaning that during the course of design evolution, landscape, visual and character considerations were considered as an integral part of the design process.

4.2 In summary, the proposed development will comprise the following:

- Ground mounted solar photovoltaic (PV) panels, which will not exceed 3 metres in height to their top edge (and a lower edge of approximately 800mm above ground level
- Battery Storage System (BESS) with storage unit heights of approximately 2.9 metres
- Substation and inverter cabins of approximately 2.5 metres width by 6.5 metres length and 2.9 metres height
- Creation of a permanent access track based upon existing access route
- Erection of a perimeter security, deer style, fence of approximately 2 metres in height
- Fixed security cameras at intervals along the site boundary
- Creation of a 5 metre wide internal access track.

4.3 The proposed development would be operational for 40 years. The proposed layout is on which this LVA assessment has been based is given at Appendix 8.

Appendix 8 – 127XP_BA (Initial PV and BESS Layout)

Likely causes of Effect

Causes of temporary effects during the construction phase

4.4 The temporary construction work that may give rise to effects on landscape features and character include:

- Site clearance and selected removal of trees in areas of the site to be developed
- Presence and movement of construction vehicles and plant

- Presence of stored materials, plant and machinery, work compound and shelters
- Construction of the proposed BESS and substation, surfacing and associated infrastructure including new access and internal access track
- The installation of 3m (maximum) high PV panels (supported by piled posts), perimeter fencing and CCTV cameras
- Implementation of soft landscape
- Temporary lighting
- Site restoration after completion of the works including the implementation of proposed planting.

Causes of effects at completion

6.1 The permanent components of the proposals that may give rise to effects on landscape elements and features and on the character of the landscape include:

- Introduction of new BESS, substation and acoustic barrier onto the site
- Creation of hard standing areas and access track
- Occasional movement of maintenance vehicles
- Erection of new boundary treatments and minor structures
- Installation of new soft landscape onto the site e.g. trees, hedgerows, shrubs and grassed areas.

6.2 Effects at completion are primarily concerned with the medium to long term change to the landscape from its current baseline context as a result of the proposed development being in place on the site.

6.3 In respect of physical changes to landscape elements and features, direct changes would be restricted to the site and its boundary. There would be no additional direct physical effects on the wider area the site.

Embedded Mitigation Measures

6.4 These mitigation measures will be implemented as part of good construction practice or have been embedded into the design of the proposed development. These embedded mitigation measures have been considered in the construction phase and from Year 1 of operational landscape and visual appraisals:

Construction Phase

- Trees and vegetation to be retained in and around the site will be fenced and protected in accordance with best practice during the construction period (BS5837).

- A dedicated set down area has been identified. Materials and machinery will be stored tidily during the works. Machinery will not be left in place for longer than required for construction purposes, in order to minimise its impact in views.
- Lighting of works sites will be restricted to agreed working hours and that which is necessary for security and health and safety.
- On completion of construction, all remaining construction materials and equipment will be removed from the site, and any disturbed areas surrounding the site and including temporary storage areas restored.

Operational Phase

- Existing vegetation within and adjacent to the site will be retained as far as possible. The retention of this vegetation will help to screen the proposed development in certain views.
- As far as possible, site won topsoil and turves will be retained and used to restore vegetation cover across the site. This will allow the restored ground cover to reflect the vegetation surrounding the site.
- The PV panels are to be mounted on posts, the underlying landcover will be restored to grass through seeding with a species-rich meadow mix of local provenance (to be grazed by sheep using a conservation grazing method)
- Existing hedgerows are to be reinforced with a range of native species and new hedgerows created where appropriate to provide additional screening, wildlife connectivity and biodiversity
- The palette of materials used for new buildings, components and fencing will respond to the hues of the local landscape (as far as practicable) using muted greens and darker recessive colours to help reduce the perceptibility of these features.

5. Planning Policy Context

Planning Policy Wales (PPW)

5.1 The PPW states in paragraph 1.15 that:

> "…Any statutory body carrying out a planning function must exercise those functions in accordance with the principles of sustainable development as defined in the Well-being of Future Generations Act…"

5.2 Paragraph 3.68 of the PPW refers to Green Wedges and says:

> "Green wedges are local designations which essentially have the same purpose as Green Belts. They may be used to provide a buffer between the settlement edge and statutory designations and safeguard important views into and out of the area. Green wedges should be proposed and be subject to review as part of the LDP process."

5.3 Paragraph 3.77 explains that certain forms of development may be appropriate in the Green Wedge and such development includes 'renewable and low carbon energy generation'.

5.4 Paragraph 5.9.20 states:

> "Planning authorities should also identify and require suitable ways to avoid, mitigate or compensate adverse impacts of renewable and low carbon energy development. The construction, operation, decommissioning, remediation and aftercare of proposals should take into account: …
>
> • the impact on the natural and historic environment…"

5.5 Under the title 'Characteristics of Local Landscapes' paragraphs 6.3.12 and 6.3.13 refer to Special Landscape Areas and state:

> "Planning authorities should provide for the conservation and, where appropriate, enhancement of local landscapes. This may include policies for landscape features, characteristics and qualities of local significance, and the designation of Special Landscape Areas (SLAs). Planning authorities should state which features, characteristics or qualities require extra protection, and explain how the policy or designation will achieve this protection. LANDMAP and any associated landscape character assessments (including the register of historic landscapes in Wales) should be used to inform local landscape policies and SPG, and to help identify or revise SLAs.

SLAs are non-statutory designations that define local areas of high landscape importance, which may be unique, exceptional or distinctive to the area. Planning authorities should apply these designations where there is good reason to believe that normal planning policies cannot provide the necessary protection."

Local Plan Policy

5.6 The site is located within the administrative area of Neath Port Talbot Borough Council. The Neath Port Talbot County Borough Council Local Development Plan (2011-2026) Adopted January 2016 provides a series of policies. The following policies are relevant to landscape and visual matters.

5.7 Policy EN2 'Special Landscape Areas'. The policy states:

"In order to protect areas of high landscape quality, the following Special Landscape Areas are designated:

Reference Special Landscape Area

EN2/1 Mynydd y Garth

EN2/2 Dulais Valley

EN2/3 Vale of Neath

EN2/4 Margam

EN2/5 Mynydd y Gelli

EN2/6 Foel Trawsnant

Development within the designated Special Landscape Areas will only be permitted where it is demonstrated that there will be no significant adverse impacts on the features and characteristics for which the Special Landscape Area has been designated."

5.8 The supporting text includes the following:

"…While development is not precluded within the SLAs, these areas will be protected as far as possible from any development that would harm their distinctive features or characteristics…

…It is anticipated that mineral and renewable energy developments are likely to be the predominant types of proposal that could have significant impacts. In the case of renewable energy developments, it will need to be demonstrated that component elements have been designed and sited to minimise visual intrusion and adverse effects on the landscape…"

5.9 Policy EN3 'Green Wedges'. The policy states:

> "In order to prevent the coalescence of settlements and to protect the setting of urban areas, Green Wedges have been designated in the following locations:
>
> Reference Green Wedge
>
> EN3/1 Alltwen / Rhos / Bryncoch / Neath
>
> Abbey / Leiros Park
>
> EN3/2 Skewen / Birchgrove
>
> EN3/3 Neath / Tonna / Cimla / Efail Fach
>
> EN3/4 Crymlyn Bog / Crymlyn Burrows /Llandarcy
>
> EN3/5 Margam
>
> Within these areas there is a presumption against inappropriate development."

5.10 The supporting text includes the following:

> "…Green Wedges differ from that of SLAs in that they are primarily a planning tool to prevent urban coalescence and protect the setting of built-up areas, rather than specifically protecting high quality landscapes…"

NB: Underlined wording is the report author's emphasis.

Supplementary Planning Guidance

5.11 Neath Port Talbot Borough Council have prepared the 'Supplementary Planning Guidance: Landscape and Seascape (May 2018)' document. The SPG gives the features and characteristics of the SLA (SL4 Margam) containing the site. The features and characteristics of SL4 Margam are:

SLA4 Margam Features and Characteristics

- Mynydd Margam is a broad, low lying plateau of NE dipping Productive Coal Formation mudstones and coals between South Wales Pennant Formation escarpment and E-W Millstone Grit ridge to the South, dissected by shallow, alluvium filled valleys of tributaries and the main Cynfig valley. It includes mine workings and the proposed deep mine.
- Cultural features in the landscape include evidence of prehistoric and later agricultural practices, rural settlements and contemporary forestry activities.
- It is an evolved landscape containing multi-period cultural expressions untrammelled by industrial exploitation - extensive archaeological evidence of land husbandry, now given over to forestry interspersed with some small farms and thus is a comparatively rare example of a surviving relict landscape.
- The SLA, which contains Margam Park, with its exceptional examples of architecture; its history as a major Cistercian Abbey and the wider monastic landholdings, provides a combination of high grade historic visitor attraction and a variety of multi-period pleasure grounds. It contains cultural elements dating from pre-history through every period up to the 21st century.
- Whilst the SLA contains areas of forested upland these are important to the overall historical context of the area and could be managed to enhance the landscape quality of the wider area.
- The scenic quality of the area is enhanced by the historic buildings of the Park and the backdrop of scarp creating a sheltered setting which link visually and provide the integrity of the whole. The sense of place for the park is initially prompted with boundary walls and entrance gates. The historic core and deer park make this area unique within the County.

Response to Policy

5.12 The assessment process has taken into account the above national and local planning policies.

6. Effect on Landscape Elements and Character

Landscape Character

6.5 This chapter describes the potential effects upon the landscape character of the site and the surrounding area, which would result from the proposed development being in place.

6.6 Tables 6.1 to 6.6 identify the scale of effect as per the detailed methodology given at Appendix 2. The tables establish the sensitivity of the landscape receptor (LANDMAP Visual and Sensory aspect area) by considering susceptibility and value, the magnitude of change (including geographical extent, scale, duration and reversibility of the effect) and then concludes the scale of effect. Consideration is given to the scale of effect at construction and during the operational phase (at year1 and year 10).

Table 6.1 NPTVS543 - Coedhirwaun

NPTVS543 - Coedhirwaun
Location and baseline description This landscape unit is at the centre of the study area, as indicated on the ZTV, and includes the site. The baseline description is given at paragraph 3.31.
Judgement of Landscape Sensitivity *Landscape susceptibility* The indicators of a lower susceptibility include: - backdrop of manmade features including wind turbines, overhead power transmission lines and towers, and the Port Talbot steel works - views of commercial units and motorway - new housing and commercial development evident The indicators of higher susceptibility include: -. predominantly more rural to the north and east - intervisibility with upland background to the north - strong pattern of woodland and tree belts

NPTVS543 - Coedhirwaun
- increasing level of tranquillity away from the M4 motorway and the A48 The overall susceptibility of the landscape unit is judged to be medium, with a balance of lower and higher susceptibility indicators. *Landscape Value* The landscape unit is within the Margam SLA and includes Margam Country Park, which would suggest a high value. However, the LANDMAP assessment for this landscape unit concludes that the scenic quality integrity and overall evaluation of the landscape unit is 'moderate'. In this context, the landscape unit is judged to have a medium value. *Landscape sensitivity* The level of landscape sensitivity is obtained through by combining the separate judgements on landscape susceptibility and landscape value. This landscape unit is judged to be of medium sensitivity. The site forms part of this landscape unit and exhibits some of the landscape's key characteristics. The site is also deemed to have a medium sensitivity to the type of development being proposed.
<u>Judgement of magnitude of change</u> *Construction Phase* The direct effect on the landscape unit will primarily be confined to the site. During the construction phase effects will occur as a result of the implementation of the proposed solar PV panels in pockets across the site. These distinct solar arrays will be enclosed by their own security fencing. Effects will also arise from the construction of a new access track that will link to all the solar arrays across the site together with the construction of a small substation and BESS. There will be some localised change to the site topography. Changes will also arise from the movement of vehicles and plant across the site, the storage of materials, partially complete elements, and the overall change of an agricultural landscape to a construction site. Retained vegetation will be protected as necessary with Heras fencing as outlined in BS5837:2012. There is the potential to implement mitigation planting on the site to increase the level of screening and to compensate for any loss of existing vegetation. *Operational phase* Direct effects at year 1 of the operational phase will arise for the extent of the site within this landscape unit as a consequence of the introduction of new energy generating infrastructure, localised changes to the site topography so as to accommodate the new access track and built structures including substation and BESS etc, and the removal of some vegetation However, the vast majority of the existing tree cover on the site would be retained. The proposed development would respect the existing field pattern, which would alter only slightly where the proposed security fencing is contained within, rather than corresponding to the existing field boundary. Where possible the proposed access road would utilise existing field entrances.

NPTVS543 - Coedhirwaun
Though the existing agricultural use would stop, the proposed development would allow for the retention of the existing grass/pastoral aspect of the fields with grass being capable of growing between and beneath the solar panels. There would be the opportunity to manage the grassland across much of the site as a species rich sward and for gazing animals such as sheep to be used as part of the management process. In respect of effects on the wider landscape unit, these would be perceptual, rather physical, and in particular visual. However, as evidenced by the ZTV, the proposed development would be seen in theory across only across a relatively small part of the wider landscape unit. In reality, the ability of the proposed development to alter the appearance of the landscape unit would be less than that suggested by the ZTV as a result of the filtering of less extensive vegetation such as hedgerows and tree belts, not picked up in the ZTV data set, present in the landscape. The proposed development would increase the presence of modern manmade influences into the landscape, and this would partially affect the remaining rural character of the landscape unit. However, the mosaic pattern of fields and small woodlands, hedges and rolling/undulating topography would remain substantially unaltered. As would the intervisibility with the more remote upland areas to the north. *Geographical extent* The extent of change to the landscape unit would be confined to the extent of the site and its immediate environs within the landscape unit. The geographic extent of any change to the character of the landscape within the unit will be small scale. *Duration/Reversibility* Changes to the site and the wider landscape unit during the construction phase will be short term and temporary. The changes arising directly from the construction activities e.g. movement of plant, storage of material etc, would be reversible. There would be an opportunity to reinstate many excavations and damaged grassland. The operational phase will be long term i.e. beyond 10 years. Some localised topographical changes on the site, associated with built infrastructure such as the substation, BESS and access road will be permanent. Much of the change brought about by the proposed development is deemed to be reversible. At the end of the operational phase, the proposed solar panels and much of the associated infrastructure would be decommissioned and removed (as part of a decommissioning phase). Any new planting would be capable of being retained as an enhancement to the character of the site and the wider landscape unit. Subject to agreement, the proposed access track could be removed or could be retained in situ so as to provide a continuation of improved access for the farmer/landowner.
<u>Magnitude of Change</u> Although the construction phase is considerably shorter than the operational phase, there is the potential for the nature of the construction activities and changes to be more detracting than the operational phase. The magnitude of change is assessed as high for the site during the construction

NPTVS543 - Coedhirwaun
phase and medium for the wider landscape unit owing to the movement of vehicles etc on and off the site. The magnitude of change on the landscape character of the site with the proposed development during the operational phase is assessed as medium. The magnitude of change on the character of the wider landscape unit, with the proposed development in place, during the operational phase is assessed as low.
Scale of effect (construction phase) With a medium sensitivity and a high magnitude of change it is assessed that the scale of effect on the landscape character of the site during the construction phase would be major adverse. The effect would be temporary. With a medium sensitivity and a medium magnitude of change it assessed that the scale of effect on the wider landscape unit during the construction phase would be moderate adverse. The effect would be temporary.
Scale of effect (operational phase) With a medium sensitivity and a medium magnitude of change, the scale of effect on the site at year 1 of the operational phase would be moderate adverse. It is assessed that the scale of effect would remain as moderate adverse at year 10. With a medium sensitivity and a low magnitude of change, the scale of effect on the wider landscape unit at year 1 is assessed as minor adverse. It is assessed that the scale of effect would remain as minor adverse at year 10.

Table 6.2 - CYNONVS955-Cribwr

CYNONVC955 - Cribwr
Location and baseline description This landscape unit is located approximately 2.2 km to the south-east of the site and is to the south-east of the NPTVS543 Coedhirwaun landscape unit. The baseline description of the landscape unit is given in paragraph 3.32.
Judgement of Landscape Sensitivity

CYNONVC955 - Cribwr
Landscape susceptibility The indicators of a lower susceptibility include: - Overhead electricity transmission lines and towers - poor quality urban form - M4 motorway corridor - peri-urban The indicators of higher susceptibility include: -. predominantly more rural to the north and south - distinctive ridge line - some intervisibility with more rural and upland areas to the north The overall susceptibility of the landscape unit to the type of development being proposed is low. *Landscape Value* The landscape unit is not within any landscape protection designation. The LANDMAP assessment gives a 'moderate' evaluation for the landscape unit's scenic quality, character and rarity and a 'low' evaluation for 'integrity'. The overall evaluation for LANDMAP is 'moderate'. In the context of the above it is assessed that the landscape unit as a low value. *Landscape sensitivity* The level of landscape sensitivity is obtained through by combining the separate judgements on landscape susceptibility and landscape value. This landscape unit is judged to be of low sensitivity to the type of development being proposed.
<u>Judgement of magnitude of change</u> *Construction Phase* The proposed development will not bring about any direct physical change to the landscape unit during the construction phase. Although the ZTV suggests that a sizable area of the landscape unit would experience views of the construction works on the site, in reality most views from publicly accessible locations are restricted through the presence of existing built form and vegetation in the intervening landscape between the potential observer and the site boundary. There would be little evident activity on the site to substantially alter the appearance of the landscape. *Operational phase*

CYNONVC955 - Cribwr
There would be no physical change to the landscape character of the landscape unit with the proposed development in place on the site. The comparatively low profile of the proposed solar panels and associated infrastructure and the retention of much of the vegetation on the site together with changes in topography, existing vegetation and built form in the intervening landscape would mean that any visual change to the landscape would be extremely limited.
Magnitude of Change Although the construction phase is considerably shorter than the operational phase, there is the potential for the nature of the construction activities and changes to be more detracting than the operational phase. The magnitude of change is assessed as low for the wider landscape unit. The magnitude of change on the character of the wider landscape unit, with the proposed development in place, during the operational phase is assessed as negligible.
Scale of effect (construction phase) With a low sensitivity and a low magnitude of change it assessed that the scale of effect on the wider landscape unit during the construction phase would be moderate adverse. The effect would be temporary.
Scale of effect (operational phase) With a medium sensitivity and a medium magnitude of change, the scale of effect on the wider landscape unit at year 1 of the operational phase would be negligible neutral. It is assessed that the scale of effect would remain as negligible neutral at year 10.

Effects upon Landscape Elements and Features

6.7 An assessment is made on the effect of the proposed development on the landscape elements and features that currently characterise the site. Effects are assessed at:

- Year 1 of the operational phase (short-term), when construction has been completed and any soft landscape treatment has been implemented but has yet to establish and grow; and
- Year 10 of the operational phase (medium term), when any soft landscape including any grass, trees, hedgerows and shrubs etc have fully established and are starting to fill out.

Topography

6.8 The topography of the site is not considered to be rare or unusual in the context of the wider landscape. The site topography has previously been reprofiled so as to accommodate the existing structures on the site and is assessed as having a low value.

6.9 No major cut or fill exercise is anticipated. Any changes to the generally level profile of the site are likely to be localised and minor. The susceptibility of the site topography to the type of development being proposed is low.

6.10 With a low value and a low susceptibility, the site's topography is assessed as being of low sensitivity to change. Although permanent, it is considered that any minor changes to the site's overall topography as a consequence of kerb installation, placing of thresholds etc, with the proposals in place would bring about a low magnitude of change.

6.11 With a low magnitude of change and a low sensitivity, the scale of effect on the site's topography at year 1 of the operational phase is assessed as negligible neutral. It is assessed that the scale of effect at year 10 of the operational phase would remain negligible neutral.

Trees and hedgerows

6.12 Without suitable protection, trees and hedgerows are judged to be of a high susceptibility to development. As a feature, the trees and hedgerows on the site are assessed as being of medium value, and contribute to the landscape character of both the site and the wider local area. The overall sensitivity of the tree and hedgerow resource on the site is assessed as high.

6.13 The majority of the existing trees, woodlands and hedgerows on the site would be retained. The proposed solar array has been designed in response to the constraints of the root protection areas of the arboricultural items identified in the tree survey.

6.14 It is anticipated that some tree specimens may need to be removed to facilitate the proposed development including access across the site. However, the magnitude of change at year 1 is assessed as negligible.

6.15 With a negligible magnitude of change and a high sensitivity, the scale of effect at year 1 of the operational phase on the site's tree and hedgerow resource is assessed as minor adverse.

6.16 It is expected that the proposed development will include some new additional planting, particularly along the site's boundaries. Such planting would be immature at year 1 of the operational phase. However, by year 10 any new planting would be fully established and would have filled out. The new planting would help to mitigate for the

loss of any existing tree or hedgerow as a result of the proposed development. By year 10 the scale of effect on the site's tree and hedgerow resource would have diminished to negligible adverse.

Other Vegetation

6.17 The site is currently under grass. The proposals would retain grassland beneath the proposed solar panels and between the rows of panels. Any damage to the grassland resource of the site during the construction phase would be made good. During the operational phase of the proposed development there would be the opportunity to manage the grassland on the site in such a way as to encourage greater species diversity. At *year 1* and year 10 of the operational it is assessed that the existing grassland vegetation on the site would experience a minor beneficial scale of effect.

Public Rights of Way

6.18 No public rights of way pass through the site. The nearest right of way used for recreational activities is adjacent to the site's southern boundary.

6.19 The proposed development would bring about no physical alteration to the local public right of way network. Any changes to the public right of way network would be experiential/perceptual ones – and primarily visual. Visual effects are dealt with in section 7 of this LVA.

Water Features

6.20 Several water features are identified on or near the site. It is anticipated that any direct effects on water features would be limited to the construction phase of the proposed development where there will be a need to cross the streams on the site to accommodate the construction of the proposals. The watercourse would not be diverted from their courses but some bridging of the channel (s) may be needed where this does not currently exist. Any changes would be negligible . With a high sensitivity (given the potentially high susceptibility and high value of the watercourses) any scale of effect is likely to be minor adverse.

Summary- Landscape Effects (Construction Phase)

The Site

6.21 There will be direct landscape effects on the site during the construction phase. There will be a high magnitude of change on the site, owing to the extensive nature of proposed development across the site. There will be a change from a largely undeveloped agricultural landscape to a construction site. The scale of effect will be major adverse but will be temporary and short-term.

6.22 Construction plant and activity will stop at the end of the construction phase and the effects will be fully reversible. Although excavations would be restored, the land may not be completely as it was previously so such excavations are partially reversible. The loss of ground cover/vegetation to allow for the construction of the proposed access track would not be reversible and would be permanent for at least the period of the operational phase. Any mitigation planting implemented as part of the construction phase would be comparatively immature.

Landscape Outside the Site

6.23 Direct physical effects on character of the landscape during the construction phase will be mostly confined to the site. Changes to the character of the landscape outside the site would be primarily perceptual and experiential. Noise and movement from the construction works will be apparent from publicly accessible locations in close proximity to the site boundary so that the comparative level of tranquillity in the area would diminish temporarily until such activity ceases at the end of the construction phase. Similarly, the appearance of the landscape close to the site would alter where taller and/or brightly coloured plant and partially constructed features of the proposed development might be seen from publicly accessible locations. The scale of effect would be moderate adverse but temporary.

Implications for the Margam SLA

6.24 The majority of the SLA would be totally unaffected during the construction phase. Any change to the character of the landscape during the construction phase would be confined to the site and to an area of only a few hundred metres from the site boundary. The nature of the changes to the landscape would largely be totally reversible and would be temporary in the short-term.

Landscape Effects (Operational Phase)

The Site

6.25 The landscape within the site is judged to have a medium sensitivity to the type of development being proposed. The proposed development would remove the existing agricultural land use from the site and would introduce with solar energy generating and storage infrastructure and uses instead. However, the other elements and features that help to characterise the site would remain substantially unaltered with the proposals in place.

6.26 The proposed development has been designed so as to retain most of the existing tree and hedgerow resource on the site throughout the operational phase. Solar energy generating and storage infrastructure would not completely cover the site but would appear as pockets of development amongst the retained tree and hedgerow cover. Similarly, the pastoral nature of the site would remain with grassland beneath the solar

panels and between rows. There would be no anticipated changes to the topography of the site during the operational phase.

6.27 The change to the landscape character of the site is judged to be moderate adverse for the operational phase, which would be long term (40 years) but ultimately reversible so not truly permanent, The proposals would also have the potential to enhance the character of the site's landscape through careful management of any grassland for improved biodiversity and through the introduction of new, initially mitigating, tree and hedgerow planting that would strengthen and reinforce the retained tree and hedgerow resource. The latter would be better managed.

Landscape Outside the Site

6.28 With the proposed development in place there would some limited alterations to the perceptual character of the landscape outside the site. The proposals will be mostly quiet and will be inert so that the comparative tranquillity of the wider landscape would be substantially unaltered. Direct physical change would be confined to the site. The greater change would be a visual one and the appearance of the landscape. However, visual change would be limited to only a few hundred metres of the site and the overall perception of the landscape as being predominantly rural would continue to prevail. With a medium sensitivity and a low magnitude of change, the scale of effect on the wider landscape outside the site during the operational phase is assessed as minor adverse.

Implications for the Margam SLA

6.29 The majority of the SLA would be totally unaffected during the operational phase. Any change to the character of the landscape during the operational phase would be perceptual or experiential would be and confined to the site and to an area of only a few hundred metres from the site boundary. The change would be long term but would be capable of being reversed so would not be truly permanent.

7. Effect on Visual Amenity

Assessment of Visual Effects

7.1 The site survey and photographic assessment was undertaken on 13th and 14th November 2024. The locations of the representative viewpoints are shown on the Photoviews Location Plan (see Appendix 9) based upon the ZTV.

Appendix 9 – Photoviews Location Plan

7.2 In line with the Guidelines for Landscape and Visual Impact Assessment - 3rd Edition, the representative viewpoints form part of a detailed visual assessment. The visual assessment has been undertaken to help determine how the proposed development might influence the visual amenity of the surrounding landscape.

7.3 The visual assessment was taken when leaf cover on the deciduous trees was almost entirely absent and visibility was very close to being at a maximum. Consideration has also been given to when leaf cover is complete and visibility is at a minimum.

Selection of Representative Viewpoints

7.4 A series of 9 viewpoints have been selected from a desk top study, and then micro-sited in the field (see Appendix 10). The representative viewpoints are all within the ZTV of the proposed development.

7.5 These viewpoints are regarded as being representative of the range of potential views and visual receptors e.g. people using the public highway, open spaces etc., from various distances and directions around the site. The views are not intended to be exhaustive.

Appendix 10 – Representative Viewpoints

Visual Commentary

Viewpoint 1
Description of Baseline View

7.6 This view is view is taken from the un-named lane that gives access to Craig-Goch and from which the site is also accessed. The view is located in the NPTVS543 – Coedhirwaun Visual and Sensory aspect area/landscape unit.

7.7 The view looks south-eastward from a field gate across a pastoral field towards the site. The site is situated beyond the hedgerow in the middle distance. Not all the site is

visible, much is screened by existing vegetation and changes in the topography on the site. The existing storage barn and area of hard standing on the site is clearly seen.

7.8 The view is representative of users of the public highway.

Sensitivity of Visual Receptor

7.9 Users of the public highway network are assessed as having a medium susceptibility to changes in the view. The view is assessed as having a medium value. The overall sensitivity of the visual receptor i.e. the person observing the view, is assessed as medium.

Predicted View at Year 1 & Magnitude of Change

7.10 With the proposed development in place there would be a change to the view. Solar panels and security fencing would be apparent in the middle to far distance. The modern storage barn would be replaced by a lower profile substation and BESS. Not all the proposed development would be seen. The retained vegetation on the site in combination with subtle variations in topography, would screen much of the proposals. The comparatively low profile of the panels would mean that the retained trees on the site would remain the dominant vertical feature in the view.

7.11 The magnitude of change at year 1 is assessed as high.

Scale of Visual Effect

7.12 With a medium sensitivity and a high magnitude of change, the scale of effect at year 1 of the operational phase is assessed as major adverse.

7.13 There is an opportunity for new tree planting along the site's western boundary and to gap up the existing hedgerow. Any such planting would by year 10 of the operational phase have fully established and filled out to an extent that further screening of the proposed development would have been provided. At year 10, the scale of effect with mitigation in place would diminish to moderate adverse.

Viewpoint 2

Description of Baseline View

7.14 This view is taken from St Illtyd's Walk beneath the Breast Plantations open access land. The location of the viewpoint is on the boundary between NPTVS811 Margam Scarp and NPTVS403 Margam Country Park. T

7.15 he view looks south-east over the deer park within the Margam Country Park towards the site. The view is a panoramic one but views of and into the site, from this elevation, are screened by existing vegetation in the intervening landscape between the observer and the site boundary.

7.16 The view is representative of users of the public right of way network.

Sensitivity of Visual Receptor

7.17 Users of the public right of way network are assessed as having a high susceptibility to change. The view is assessed as having a medium value. Overall, the sensitivity of the visual receptor i.e. the person observing the view, is assessed as high.

Predicted View at Year 1 & Magnitude of Change

7.18 With the proposed development in place on the site there will be no change to the view. Existing vegetation in the intervening landscape between the observer and the site boundary would screen the proposals during both winter and summer.

Scale of Visual Effect

7.19 With no change, there would no effect at year 1 or year 10 of the operational phase.

Viewpoint 3

Description of Baseline View

7.20 This view is taken the upper deer park of Margam Park, above the Breast Plantations open access land within the NPTVS 811 Margam Scarp aspect area/landscape unit. The view is a panoramic one and expansive, stretching to the coast but including manmade elements including wind turbines and areas of settlement. The view looks south-east towards the site which is located in the vale below but is not easily discernible and not seen its entirety but only distinguishable as discrete parts amongst woodland vegetation.

7.21 The view is representative of users of the public right of way network.

Sensitivity of Visual Receptor

7.22 Users of the public right of way network are assessed as having a high susceptibility to change. The view is assessed as having a high value. Overall, the sensitivity of the visual receptor i.e. the person observing the view, is assessed as high.

Predicted View at Year 1 & Magnitude of Change

7.23 With the proposed development in place on the site there would be a slight change in the view. Some small areas of solar panels would be discernible on the site with careful studying. The panels would not be distinct but would appear more as a change in colour (grey/blue) in the landscape.

7.24 Most of the proposals would be screened from view by existing vegetation in the landscape between the observer and the site boundary. The magnitude of change is assessed as negligible.

Scale of Visual Effect

7.25 With a high sensitivity and a negligible magnitude of change, the scale of effect at year 1 and year 10 of the operational would be minor adverse.

Viewpoint 4

Description of Baseline View

7.26 This view is taken from the junction of public rights of way 9/81PT/1 and 9/82 PT/1 on the northern edge of Coedhirwaun in the NPTVS543 Coedhirwaun aspect area/landscape unit. The view looks north across a pastoral field in the direction of the site.

7.27 The site extends across the whole view. However, views of and into the site are screened by undulations in the local topography and the presence of existing vegetation in the intervening landscape between the observer and the site boundary.

7.28 The view is representative of users of the public right of way network.

Sensitivity of Visual Receptor

7.29 Users of the public right of way network are assessed as having a high susceptibility to change. The view is assessed as having a high value. Overall, the sensitivity of the visual receptor i.e. the person observing the view, is assessed as high.

Predicted View at Year 1 & Magnitude of Change

7.30 With the proposed development in place on the site there would be no change in the view. The proposals would be screened by undulations in the local topography and the presence of existing vegetation in the intervening landscape between the observer and the site boundary.

Scale of Visual Effect

7.31 With no change, there would be no effect at year 1 of year 10 of the operational phase.

Viewpoint 5

Description of Baseline View

7.32 This view is taken from public right of way 9/81PT/1 in the NPTVS543 Coedhirwaun aspect area/landscape unit. The view looks west across a pastoral field in the direction of the site.

7.33 The site extends across the whole view. However, views of and into the site are screened by undulations in the local topography and the presence of existing vegetation in the intervening landscape between the observer and the site boundary.

7.34 The view is representative of users of the public right of way network.

Sensitivity of Visual Receptor

7.35 Users of the public right of way network are assessed as having a high susceptibility to change. The view is assessed as having a high value. Overall, the sensitivity of the visual receptor i.e. the person observing the view, is assessed as high.

Predicted View at Year 1 & Magnitude of Change

7.36 With the proposed development in place on the site there would be no change in the view. The proposals would be screened by undulations in the local topography and the presence of existing vegetation in the intervening landscape between the observer and the site boundary.

Scale of Visual Effect

7.37 With no change, there would be no effect at year 1 of year 10 of the operational phase.

Viewpoint 6

Description of Baseline View

7.38 This view is taken from a field gate off an un-named lane near to Ton Owen in the NPTVS897 Mymnydd Bromil and Scarp Upland aspect area/landscape unit. The view is an expansive one and looks south-west towards the site and to the coast.

7.39 Views of and into the site are screened by intervening landform and vegetation in the landscape between the observer and the site boundary.

7.40 The view is representative of users of the public highway.

Sensitivity of Visual Receptor

7.41 Users of the public highway network are assessed as having a medium susceptibility to changes in the view. The view is assessed as having a medium value. The overall sensitivity of the visual receptor i.e. the person observing the view, is assessed as medium.

Predicted View at Year 1 & Magnitude of Change

7.42 With the proposed development in place there would be no change in the view.

Scale of Visual Effect

7.43 With no change, there would be no effect at year 1 of year 10 of the operational phase.

Viewpoint 7

Description of Baseline View

7.44 This view is taken from Bedford Road in Cefn Cribwr and looks north-west across the vale landscape including former open cast mining operations in the direction of the site. The viewpoint is located in the CYNONVS955 Cribwr aspect area/landscape unit.

7.45 The site is not readily discernible in the landscape. The view is dominated by trees and the upland area of Mynydd Bromil.

7.46 The view is representative of users of the public highway.

Sensitivity of Visual Receptor

7.47 Users of the public highway network are assessed as having a medium susceptibility to changes in the view. The view is assessed as having a medium value. The overall sensitivity of the visual receptor i.e. the person observing the view, is assessed as medium.

Predicted View at Year 1 & Magnitude of Change

7.48 With the proposed development in place there would be a negligible magnitude of change.

Scale of Visual Effect

7.49 With a medium sensitivity and a negligible magnitude of change, there would be negligible adverse scale of effect at year 1 and year 10 of the operational phase.

Viewpoint 8

Description of Baseline View

7.50 This view is taken from public right of way COR/64/1 and looks north across the village of Pyle towards the site. The viewpoint is located in the CYNONVS825 Newton Down aspect area/landscape unit.

7.51 The site is not readily distinguishable. Craig Goch can be discerned on higher ground above the site but the site itself is hidden amongst trees and woodland.

7.52 The view is representative of users of the public right of way network.

Sensitivity of Visual Receptor

7.53 Users of the public right of way network are assessed as having a high susceptibility to change. The view is assessed as having a medium value. Overall, the sensitivity of the visual receptor i.e. the person observing the view, is assessed as high.

Predicted View at Year 1 & Magnitude of Change

7.54 With the proposed development in place on the site there would be a negligible magnitude of change.

Scale of Visual Effect

7.55 With a high sensitivity and a negligible magnitude of change, there would be minor adverse scale of effect at year 1 and year 10 of the operational phase.

Viewpoint 9

Description of Baseline View

7.56 This view is taken from public right of way COR/25/1 and looks north-east across pastoral fields and tree belts towards the site. The viewpoint is located in the CYNONVS459 Porthcawl hinterland aspect area/landscape unit.

7.57 The site is not readily distinguishable. The site itself is hidden amongst trees and woodland.

7.58 The view is representative of users of the public right of way network.

Sensitivity of Visual Receptor

7.59 Users of the public right of way network are assessed as having a high susceptibility to change. The view is assessed as having a medium value. Overall, the sensitivity of the visual receptor i.e. the person observing the view, is assessed as high.

Predicted View at Year 1 & Magnitude of Change

7.60 With the proposed development in place on the site there would be a negligible magnitude of change.

Scale of Visual Effect

7.61 With a high sensitivity and a negligible magnitude of change, there would be minor adverse scale of effect at year 1 and year 10 of the operational phase

Summary of detailed visual assessment

7.62 A summary of the effects on visual amenity of the 8 representative viewpoints is given in Table 7.1 below.

Table 7.1 – Summary of the effects on representative viewpoints

Viewpoint	Sensitivity	Magnitude of change	Scale of Effect at years 1	Scale of Effect at year 10
Viewpoint 1 - View from lane accessing Craig-Goch looking south-east	Medium	High	Major adverse	Moderate adverse
Viewpoint 2- View from St Illtyd's Walk looking south-east	High	No change	No effect	No effect
Viewpoint 3 - View from upper deer park Margam looking south-east	High	Negligible	Minor adverse	Minor adverse
Viewpoint 4 – View from the junction of public rights of way 9/81 PT/1 and 9/82 PT/1 looking north	High	No change	No effect	No effect

Viewpoint	Sensitivity	Magnitude of change	Scale of Effect at years 1	Scale of Effect at year 10
View 5 – View from public right of way 9/81 PT/1 looking west	High	No change	No effect	No effect
View 6 –View from un-named lane near Ton Owen looking south-west	Medium	No change	No effect	No effect
Viewpoint 7 – View from Bedford Road, Cefn Cribwr looking north-west	Medium	Negligible	Negligible adverse	Negligible adverse
Viewpoint 8 – View from public right of way COR/64/1 looking north	High	Negligible	Minor adverse	Minor adverse
Viewpoint 9 - View from public right of way	High	Negligible	Minor adverse	Minor adverse

Viewpoint	Sensitivity	Magnitude of change	Scale of Effect at years 1	Scale of Effect at year 10
COR/25/1 looking north-east				

7.63 One major effect (for Viewpoint 1) is identified at year 1 of the operational phase. It is assessed that there is the potential for mitigation measures such as new tree planting on the site's western boundary that would reduce the scale of effect by year 10 of the operational phase.

7.64 For the remaining representative viewpoints, the residual effects for the representative views would range from minor adverse to negligible adverse and no change.

Recreational receptors

7.65 As the above visual assessment helps to demonstrate, the opportunity to view the proposed development during the operational phase from recreational receptors, such as public rights of way and open access land, would be limited. In very close proximity to the site, there would be some filtered views of the proposals from public right of way 9/81 PT/2 on the section west of Hirwaun Farm where the footpath comes close to the site' southern boundary. The proposed development would not be seen its entirety but only as discrete elements amongst the retained vegetation on the site. There is an opportunity for further mitigation planting to be introduced onto the site's southern boundary that would further screen the proposals at this point.

7.66 Close proximity views of and into the site from the west and in particular from Margam Country Park are greatly restricted. The presence of a tall stone wall and vegetation along the western side of the lane giving access to the site and to Craig-Goch would prevent close and very close proximity views of the proposed development from within the main part of the country park.

7.67 The visual assessment indicates that there would be some visibility of the proposed development from the higher elevations of Mynydd Margam to the north of the site. Changes in topography and the presence of wooded vegetation and features such as dry stone walls etc. in the intervening landscape between a potential observer and the site boundary would restrict views of the proposals from certain sections of footpath and access land. However, from even the higher elevations the proposals would not be seen in their entirety. Where visible, only discrete elements would be seen amongst the retained tree and woodland vegetation on the site. Importantly, the proposed PV panels

will have their reflective sides orientated to the south i.e. away from the observer. The proposals will also be seen as a comparatively small component of an expansive panorama that typically extends to the coast and incorporates a wide variety of other manmade elements and features including areas of settlement, wind turbines, transmission lines etc. whilst still conveying the perception of a generally rural landscape.

7.68 To the south and east of the site, there are relatively few public rights of way within the study area. Several are orientated away from the site so that views of the proposed development would be greatly restricted. With others, changes in topography and existing features including field boundary vegetation, woodland blocks and built form would either individually or in combination restrict views of the proposed development.

Residential receptors

7.69 The number of residential receptors in very close or close proximity to the site boundary is limited. The settlement pattern to the north of the site is sparse so that there are comparatively few residential properties.

7.70 Views of the proposed development from the farmstead of Craig-Goch, one of the closest properties, would be greatly restricted in both winter and summer by existing woodland and tree belts in the intervening landscape between the property and the site boundary. Similarly, from Ton Mawr on the higher ground of Mynydd Bromil, views of the proposed development would be restricted by the intervening topography and the presence of woodland in the landscape between the property and the site.

7.71 Views of the proposed development from the new settlement of Coedhirwaun to the south of the site will be restricted by a combination of changes in landform and the presence of tree belts and woodland (both in winter and in summer) in the intervening landscape between the settlement and the site boundary.

7.72 The proposed development if visible from residential properties at a distance of 2km or over would be not be a prominent or dominant feature in the landscape. The retained tree vegetation on the site would ensure that the proposals would not be seen in their entirety but only as discrete elements. With the proposals in place there will be a barely perceptible magnitude of change and a barely perceptible effect during the operational phase.

Road Users

7.73 There is a general absence of public highways in the landscape surrounding the site. Many rural roads in the study area are enclosed by roadside hedgerows and/or embankments that constrains the intervisibility between the road user and the adjacent landscape. Typically, only those features such as uplands of Mynydd Margam and Mynydd Bromil that rise above the roadside vegetation are visible. The comparatively

low profile of the proposed development at approximately 3 metres in height will mean that changes in local topography and the presence of roadside vegetation and other vegetation in the intervening landscape between a particular highway route will greatly restrict views of the proposed development for most road users. In settlements, existing built form will restrict views of the proposals.

7.74 As the visual assessment demonstrates, the greatest potential to see the proposed development will be along a relatively short section of the un-named lane that passes by the site. Even from this section of highway, as previously identified not all the proposed development would be seen. Most of the proposals would be screen by localised changes in landform and retained vegetation on the site. Mitigation measures in the form of new site boundary planting would, once fully established and filling out, have the ability to reduce the scale of any adverse visual effect during the operational phase of the proposed development.

Implications for Margam SLA designation

7.75 The Margam SLA is a large area of landscape that extends north of the site to the edge of the settlement of Cwmafan. As demonstrated by the ZTV, the proposed development would not be visible from within or across most of the SLA. The visual assessment above, indicates that even where visible, the proposed development would give rise to only a minor adverse scale of effect during the operational phase. There would be a small difference to the extensive views experienced from the Mynydd Bromil scarp. The proposed development would introduce a low lying feature into the vale landscape but the existing mature vegetation of tree belts and woodland will help to visually accommodate the proposed development into the patchwork of fields in the lower valley. The proposals will not interfere with views to and from the historic features and built form within Margam Park.

Summary

7.76 The visual appraisal undertaken for the proposed development demonstrates that the area within the host landscape from where the proposals might be seen is limited.

7.77 The ZTV prepared for the proposed development indicates that there is a theoretical prospect of the proposals being seen across several LANDMAP Visual and Sensory aspect areas/landscape units within the 3km study area and further. In reality, the pattern of the wider local landscape, with a strong structure of well vegetated field boundaries, tree belts and undulating/rolling topography together with a well treed site, would mean that the proposed development would typically be hidden and screened from view from most potential publicly accessible viewpoints.

7.78 Even where the proposed development were to be seen, it would only be visible as discrete elements rather than in its entirety.

8. Summary and Conclusions

8.1 This report is prepared as a Landscape and Visual Appraisal by Briarwood Landscape Architecture Limited by a Chartered Member of the Landscape Institute, to accompany a proposed solar farm and battery energy storage system (BESS) development at Bedwen Arian in the administrative area of Neath Port Talbot.

8.2 The site generally well defined and is irregular in shape. The site comprises agricultural fields together with part of another field and a yard with hard standing surrounding an existing modern shed/barn. Internally, the irregular shaped fields are currently used as horse paddocks and under grass. Trees, in the form of individual specimens, belts and woodland are a feature of the site. The site is considered to be of a large scale relative to its host landscape.

8.3 The site is currently entirely private with no public access. The closest public right of way to the site is 9/81:PT/2, which comes to within approximately 60 metres of the site's southern boundary at its closest point. The site is adjacent to Margam Country Park and there is open access land to the north on higher ground. Elsewhere the public right of way network is comparatively limited within the study area of 3km prescribed by LANDMAP.

8.4 The site is not within any national landscape protection designation such as National Park or national Landscape. At the borough level the site and surrounding area are within the EN3/4 Margam Special Landscape Area (SLA).

8.5 In summary, the proposed development will comprise the following:

- Ground mounted solar photovoltaic (PV) panels, which will not exceed 3 metres in height to their top edge (and a lower edge of approximately 800mm above ground level
- Battery Storage System (BESS) with storage unit heights of approximately 2.9 metres
- Substation and inverter cabins of approximately 2.5 metres width by 6.5 metres length and 2.9 metres height
- Creation of a permanent access track based upon existing access route
- Erection of a perimeter security, deer style, fence of approximately 2 metres in height
- Fixed security cameras at intervals along the site boundary
- Creation of a 5 metre wide internal access track.

8.6 Effects on landscape character have been assessed during both the construction and operational phases of the proposed development. The proposed development would be operational for 40 years.

8.7 There will be direct landscape effects on the site during the construction phase. There will be a high magnitude of change on the site, owing to the extensive nature of proposed development across the site. There will be a change from a largely undeveloped agricultural landscape to a construction site. The scale of effect will be major adverse but will be temporary and short-term.

8.8 Construction plant and activity will stop at the end of the construction phase and the effects will be fully reversible. Although excavations would be restored, the land may not be completely as it was previously so such excavations are partially reversible. The loss of ground cover/vegetation to allow for the construction of the proposed access track would not be reversible and would be permanent for at least the period of the operational phase. Any mitigation planting implemented as part of the construction phase would be comparatively immature.

8.9 Direct physical effects on character of the landscape during the construction phase will be mostly confined to the site. Changes to the character of the landscape outside the site would be primarily perceptual and experiential. Noise and movement from the construction works will be apparent from publicly accessible locations in close proximity to the site boundary so that the comparative level of tranquillity in the area would diminish temporarily until such activity ceases at the end of the construction phase. Similarly, the appearance of the landscape close to the site would alter but only within a few hundred metres of the site boundary and not from all locations. The greater part of the Margam SLA would be totally unaffected during the construction phase.

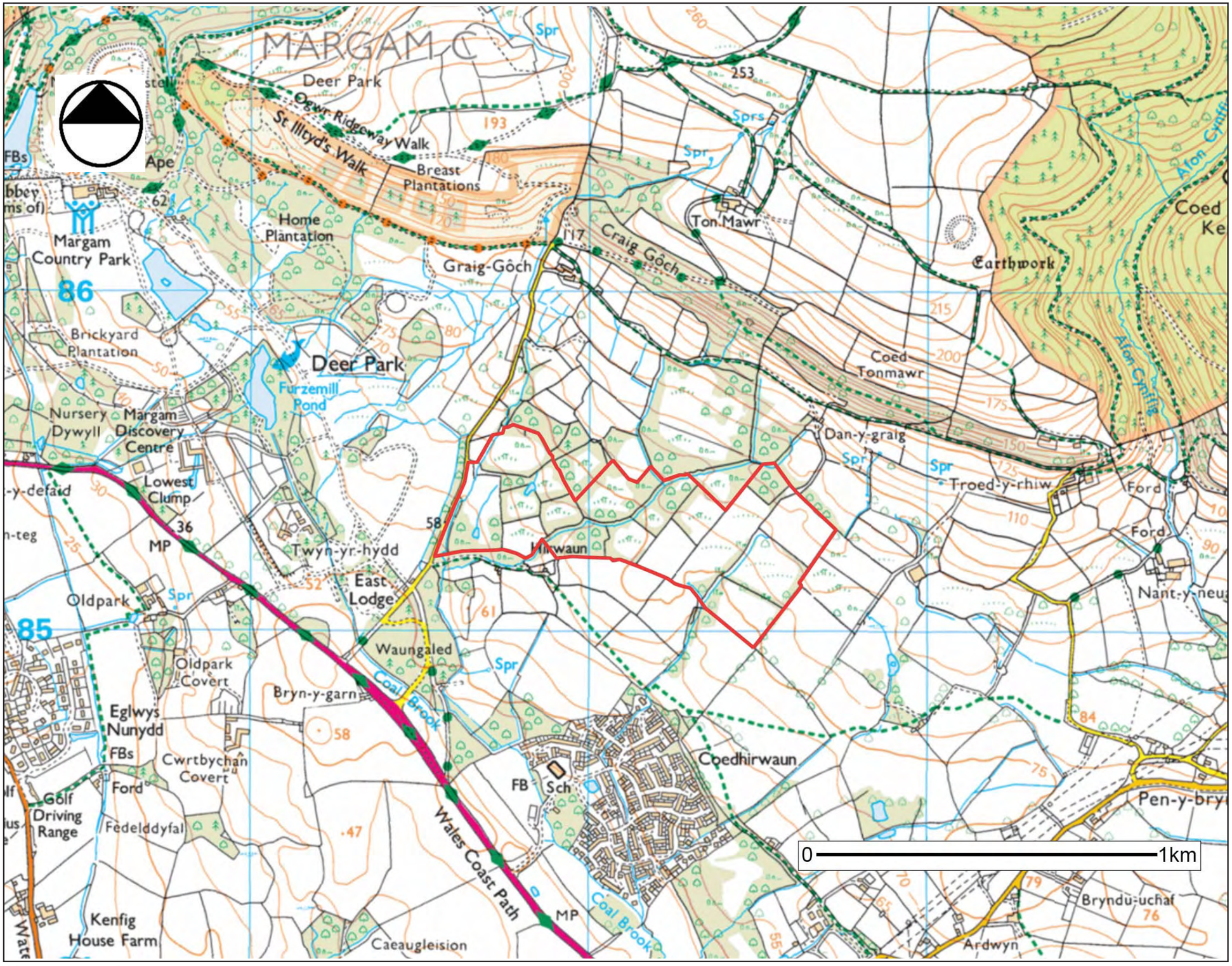
8.10 During the operational phase, the proposed development would remove the existing agricultural land use from the site and would introduce with solar energy generating and storage infrastructure and uses instead. However, the other elements and features that help to characterise the site would remain substantially unaltered with the proposals in place. The proposals would also have the potential to enhance the character of the site's landscape through careful management of any grassland for improved biodiversity and through the introduction of new tree and hedgerow planting.

8.11 With the proposed development in place there would some limited alterations to the perceptual character of the landscape outside the site. The proposals will be mostly quiet and will be inert so that the comparative tranquillity of the wider landscape would be substantially unaltered. Direct physical change would be confined to the site. The greater change would be a visual one and the appearance of the landscape. Once again, the majority of the Margam SLA would be totally unaffected. Any, visual change would be limited to only a few hundred metres of the site and the overall perception of the landscape as being predominantly rural would continue to prevail.

8.12 The ZTV prepared for the proposed development indicates that there is a theoretical prospect of the proposals being seen across several LANDMAP Visual and Sensory aspect areas/landscape units within the 3km study area and further. In reality, the pattern of the wider local landscape, with a strong structure of well vegetated field boundaries, tree belts and undulating/rolling topography together with a well treed site, would mean that the proposed development would typically be hidden and screened from view from most potential publicly accessible viewpoints. Even where the proposed development were to be seen, it would only be visible as discrete elements rather than in its entirety.

9. Appendices

Appendix 1 – Site Location Plan



OS Map Licence - AC0000855696

KEY TO PLAN

Site boundary

Revisions:

-

Briarwood
Landscape Architecture

DRAWING Site Location Plan			
PROJECT Bedwen Arial Solar PV and BESS			
SCALE As shown	DATE April 2025	DRAWN SW	
DRAWING NUMBER BLA402-01		REVISION -	

Appendix 2 – Detailed Methodology

DETAILED METHODOLOGY

Introduction

1. This Landscape and Visual Appraisal (LVA) has been undertaken with reference to best practice, as outlined in the following published guidance:
    - Guidelines for Landscape and Visual Impact Assessment (3rd edition) - Landscape Institute/ Institute of Environmental Management and Assessment (2013)
    - Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment Third Edition (GLIVA3) – LITGN- 2024-01 (August 2025) - The Landscape Institute
    - An Approach to Landscape Character Assessment – Natural England (2014)
    - Landscape Institute Technical Guidance Note 02/21 – Assessing landscape value outside national designations – The Landscape Institute
2. The proposed scheme is assessed for the purposes of the landscape and visual analysis. Landscape and visual effects are assessed through professional judgements on the sensitivity of landscape elements, landscape character, visual receptors and representative viewpoints combined with the predicted magnitude of change arising from the proposed development.
3. The landscape and visual effects of the proposals have been assessed in the following sections:
    - Effects on landscape elements;
    - Effects on landscape character; and
    - Effects on visual amenity.
4. As outlined in paragraph 1.11 of GLVIA3, though the processes used to undertake them are very similar, the term Landscape and Visual Appraisal (LVA) has been used to distinguish this standalone report from a Landscape and Visual Impact Assessment (LVIA) which often constitutes part of a larger, formal, EIA document.

5. Whilst the processes and principles are fundamentally the same for an 'appraisal' as an LVIA, Technical Guidance Note LITGN-2004-01 explains:
6. *"In carrying out an LVA, the same principles and process as set out in GLVIA3 may be applied to report on effects (identifying the relative importance/ levels of the effects on a scale with reference to sensitivity and magnitude of effect), but it is not required to establish whether the effects arising are or are not significant."*

Study Area

7. The initial study area for the LVA is taken to be a 5km radius from the site. Unless otherwise stated, the main focus of the assessment is taken as a radius of 2km from the site as it is considered that beyond this distance, even with good visibility, the proposed development would not be perceptible in the composite landscape.
8. The effects on settings of heritage assets or ecological/environmental assets are not considered within this LVA.

Nature of Effects

9. An impact is an action e.g. building a wall. An effect is the consequence of a particular action on the integrity of the landscape, feature or view.
10. The nature of any effect will be adverse, beneficial or neutral and are summarised as:
    - Adverse - where on balance there is a negative effect on the quality, integrity or key characteristics of the landscape or visual receptor
    - Beneficial - where on balance there is a positive effect on the quality, integrity or key characteristics of the landscape or visual receptor
    - Neutral – where on balance the effect would maintain the quality, integrity or key characteristics of the landscape or visual receptor or where the change is different but represents neither a deterioration nor enhancement
11. Unless expressly noted, effects are deemed to be adverse in nature. NB 'Significance' is not determined.

Landscape Elements and Character Assessment Methodology

12. A baseline landscape assessment is carried out to determine the current elements and character of the landscape within and surrounding the site. This involved an initial desktop study of but not necessarily limited to:

    - Ordnance survey maps at 1:50,000, 1:25,000 scales
    - Aerial photographs of the site and surrounding area
    - Datasets for rural designations from the MAGIC website (Multi Agency Geographic Information for the Countryside)
    - Relevant planning policy
    - National and local scale landscape character assessments

Visual Assessment Methodology

13. The assessment of visual effects is undertaken on the basis of viewpoint analysis as recommended in best practice guidelines. The viewpoints which are in different directions from the site and are at varying distances and locations were selected to represent a range of views and visual receptor types.
14. The viewpoints are representational and not exhaustive. They are taken from publicly accessible land and not from any third party, private, land.
15. The viewpoints were used as the basis for determining the effects of visual receptors within the entire study area. The viewpoints were photographed at 1.6 metres above ground level.

Sensitivity of Landscape Elements and Features

16. The sensitivity attributed to a landscape element or feature is determined by a combination of the value that is attached to a particular landscape element feature and the susceptibility of the landscape element/feature to changes that would arise as a result of the Proposed Development as outlined in pages 88-90 of GLVIA3.

Susceptibility

17. Within GLVIA3, Susceptibility is defined as: ‘The ability of a defined landscape or visual receptor to accommodate the specific proposed development without

undue negative consequences' (p158). Susceptibility is further defined in accordance with Technical Guidance Note LITGN-2024-01 and the Oxford English Dictionary as being:

'The quality or condition of being susceptible; capability of receiving, being affected by, or undergoing something'.

"This definition would imply that a higher susceptibility would mean more liable to be harmed by a particular thing…"

18. Both value and susceptibility are assessed as high, medium or low.

Table 1: Value of Landscape Elements and Features

Low	Ones that: • have no or little rarity and/or, • make no and/or make only a limited contribution to the character and local visual and amenity value and/or • are of such poor condition that the element/feature has lost its ability to contribute effectively to the character of the landscape
Medium	Ones that: • are notable in the landscape, with some visual and/or amenity interest but, • do not make a particularly strong or important contribution to the character of the landscape and/or, • ones that are an intrinsic element of landscape but in poor condition
High	Ones that: • make an important contribution to the character of the landscape and/or • have particular historical or cultural reference and/or • are distinctive or rare and typically of good condition

Table 2: Susceptibility of Landscape Elements and Features

Susceptibility to change	Criteria
High	A very limited ability of the landscape element of feature to accommodate the type of development being proposed – a particular susceptibility. Few opportunities for mitigation and enhancement.
Medium	A moderate ability of the landscape element of feature to accommodate the type of development being proposed – some susceptibility. Some opportunities for mitigation and enhancement .
Low	A well-defined ability of the landscape element of feature to accommodate the type of development being proposed – little susceptibility. Good opportunities for mitigation and enhancement .

Susceptibility of Landscape Elements and Features

19. The susceptibility criteria of landscape elements and features is given in Table 2 but a judgement has been made by linking back to the evidence gathered at the baseline stage.

Table 3: Sensitivity of Landscape Elements and Features

	VALUE			
SUSCEPTIBILITY		HIGH	MEDIUM	LOW
	HIGH	High	High	Medium
	MEDIUM	High	Medium	Low
	LOW	Medium	Low	Low

Magnitude of Change on Landscape Elements and Features

20. Professional judgement, using the criteria given in Table 4 , and also considering geographic extent and the duration and reversibility of the effect, has been used to determine the magnitude of direct physical impacts on individual existing landscape elements and features. NB Alterations may include the addition of new elements and features.

Table 4: Criteria for magnitude of change for landscape elements and features

Negligible	No loss or very minor alteration to part of an existing landscape element and/or feature
Low	Minor loss or alteration to part of an existing landscape element and or feature
Medium	Some loss or alteration to part of an existing landscape element and/or feature
High	Total/major loss or alteration of an existing landscape element and/or feature

Sensitivity of Landscape Character

21. Sensitivity is determined by a combination of the value that is attached to a landscape and the susceptibility of the landscape to changes that would arise as a result of the Proposed Development as outlined in pages 88-90 of GLVIA3. Both value and susceptibility are assessed as high, medium or low.

22. Table 5 below provides the potential levels of 'value' attributable to a particular landscape. In assessing the relative value of a particular landscape a range of factors are considered based upon Box 5.1 on page 84 of GLVIA3 and Technical Guidance Note 02/21.

Table 5: Value of Landscape Character

Low	An area that is in a recognisably poor condition/quality and/or with a weak strength of character that typically has a clear indication of being damaged and/or contains a high number of detractors, and/or is of limited visual cohesion; rare or distinctive elements and features are not a notable component that contribute to the character of the area. No known associations with cultural/historic people.

Medium	An area is recognisable as being in reasonable condition/quality and/or with a strength of character but likely to exhibit some damage or deterioration and/or some visual cohesion and interest; rare or distinctive elements and features make some contribution to the character of the area. Possible or limited associations with cultural/historic people.
High	Areas with international or national landscape designations, i.e. National Parks and Areas of Outstanding Natural Beauty or occasionally landscapes non-designated landscape in particularly good condition/quality and/or strong strength of character or of particular local value and/or with few visual detractors; rare or distinctive elements and features are likely to be a key component that contribute to the character of the area. Recorded associations with cultural/historic people may be present.

Table 6: Susceptibility of Landscape Character

Susceptibility to change	Criteria
High	A very limited ability of the landscape to accommodate the type of development being proposed – a particular susceptibility. Few opportunities for mitigation and enhancement.
Medium	A moderate ability of the landscape to accommodate the type of development being proposed – some susceptibility. Some opportunities for mitigation and enhancement .
Low	A well-defined ability of the landscape to accommodate the type of development being proposed – little susceptibility. Good opportunities for mitigation and enhancement .

Susceptibility of Landscape Elements and Features

23. The susceptibility criteria of landscape elements and features is given in Table 6 but a judgement has been made by linking back to the evidence gathered at the baseline stage.

Table 7: Sensitivity of Landscape Character

	VALUE			
SUSCEPTIBILITY		HIGH	MEDIUM	LOW
	HIGH	High	High	Medium
	MEDIUM	High	Medium	Low
	LOW	Medium	Low	Low

Magnitude of Change on Landscape Character

24. Professional judgement using Table 8, and also considering geographic extent and the duration and reversibility of the effect, has been used to determine the magnitude change on landscape character

Table 8: Criteria for magnitude of change for landscape character

Negligible	No notable introduction of new elements into the landscape or change to the scale, landform, land cover or pattern of landscape
Low	Introduction of minor new elements into the landscape or some minor change to the scale, landform, land cover or pattern of landscape
Medium	Introduction of some notable elements into the landscape or some notable change to the scale, landform, land cover or pattern of landscape
High	Introduction of major elements into the landscape or some major change to the scale, landform, land cover or pattern of landscape

Sensitivity of Visual Receptors

25. Sensitivity is determined by a combination of the value that is attached to a view and the susceptibility of the receptor to changes in that view that would arise as a result of the Proposed Development as outlined in pages 113-114 of GLVIA3. Both value and susceptibility are assessed as high, medium or low.

26. GLVIA3 says a judgement should be made as to the value of a particular view being experienced. In making a professional judgement as to the value attached to a view, the following criteria have helped guide the process. Not all the criteria have to apply to a particular view and the criteria are not in a hierarchy.

Table 9: Criteria for judging levels of visual value

Low	• Views from within, across or towards undesignated landscapes and/or features of either importance to the site only or of no wider importance • View has little aesthetic merit e.g. has numerous visual detractors, is badly degraded etc. • View makes a limited contribution to the understanding of the function or wider pattern of the landscape • Views with no known social, cultural or historic associations • Views from locations that are not necessarily destination points or that are infrequently visited
Medium	• Views from within, across or towards undesignated landscapes and/or features of local importance • View with some limited aesthetic appeal • View makes a reasonable contribution to the understanding of the function or wider pattern of the landscape • Views with some known local social, cultural or historic associations • Views from locations that are locally popular destination points or that are frequently visited by locals but not necessarily by visitors from further afield

High	• Views from within, across or towards designated landscapes and/or features of importance at district level and above • View with great aesthetic appeal • View makes an important contribution to the understanding of the function or wider pattern of the landscape • Views with some known national or international social, cultural or historic associations especially to art and literature • Views from locations that are popular regional, national or international destination points or that are frequently visited by large numbers of visitors from further afield

Susceptibility of Visual Receptors

27. GLIVA3 advises (on page 113) that susceptibility of a particular visual receptor (observer) to change in a view is mainly a function of the nature of the activity or occupation of the person or people experiencing a view at a particular location and the extent to which their interest or attention is drawn to the view.

28. In general, it is considered that occupiers of residential properties and people using public rights of way (where enjoyment is primarily drawn from the view) have a high susceptibility to change. Users of roads, railways and open space or engaged in an activity where an appreciation of the view forms a part of the experience are considered to be of medium susceptibility. People engaged in formal sport or occupiers of commercial premises or in areas of employment, where the view has limited importance to the activity being undertaken, are considered to be of low susceptibility to change.

Table 10: Sensitivity of Visual Receptors

	VALUE			
SUSCEPTIBILITY		HIGH	MEDIUM	LOW
	HIGH	High	High	Medium
	MEDIUM	High	Medium	Low
	LOW	Medium	Low	Low

Magnitude of Change on Visual Amenity

29. Professional judgement has been used to determine the magnitude change on landscape character based upon the criteria outline in Table 11 but also considering the size and scale of change (including the loss or addition of features, changes in visual composition etc.) , the geographic influence of the change (orientation and angle of view in relation to the visual receptor, distance of the viewpoint from the main development, extent of area over which change would occur etc.) and, the duration and potential reversibility of any change (short term 0-5 years, medium term 5-15 years, long term 20 years +, temporary, permanent, intermittent, continuous and whether the views will be full, partial or glimpsed).

30. It is possible for the proposed development to bring about 'no change' to a particular view. There would correspondingly be 'no effect'.

Table 11: Criteria for magnitude of change for visual receptors

Negligible	No notable change in the view
Low	Some change in the view that is not prominent / few visual receptors affected
Medium	Some change in the view that is clearly visible and forms an important but not defining element in the view

High	Major change in the view that has a defining influence on the overall view / many visual receptors affected

Scale of Effects

31. The scale of the landscape and visual effects is determined by cross referencing the sensitivity of the landscape feature, landscape character or view with the magnitude of change. The scale of effects is described as major, moderate, minor or negligible.

Table 12: Scale of effect thresholds for landscape character, landscape elements/features and visual receptors

		Magnitude of Change			
Sensitivity		**High**	**Medium**	**Low**	**Negligible**
	High	Major	Major	Moderate	Minor
	Medium	Major	Moderate	Minor	Negligible
	Low	Moderate	Minor	Negligible	Negligible

Appendix 3 – Landscape Features Plan

Image: Google Earth - 16th June 2024

KEY TO PLAN

Site boundary

Revisions:

-

Briarwood
Landscape Architecture

DRAWING Site Location Plan			
PROJECT Bedwen Arial Solar PV and BESS			
SCALE NTS	DATE April 2025	DRAWN SW	
DRAWING NUMBER BLA402-02		REVISION -	

Appendix 4 – Context Views

For Context Only

Briarwood
Landscape Architecture

Context view 1 - View looking east across the site from along the existing site access track

Context view 2 - View looking north from within the site

For Context Only

Briarwood
Landscape Architecture

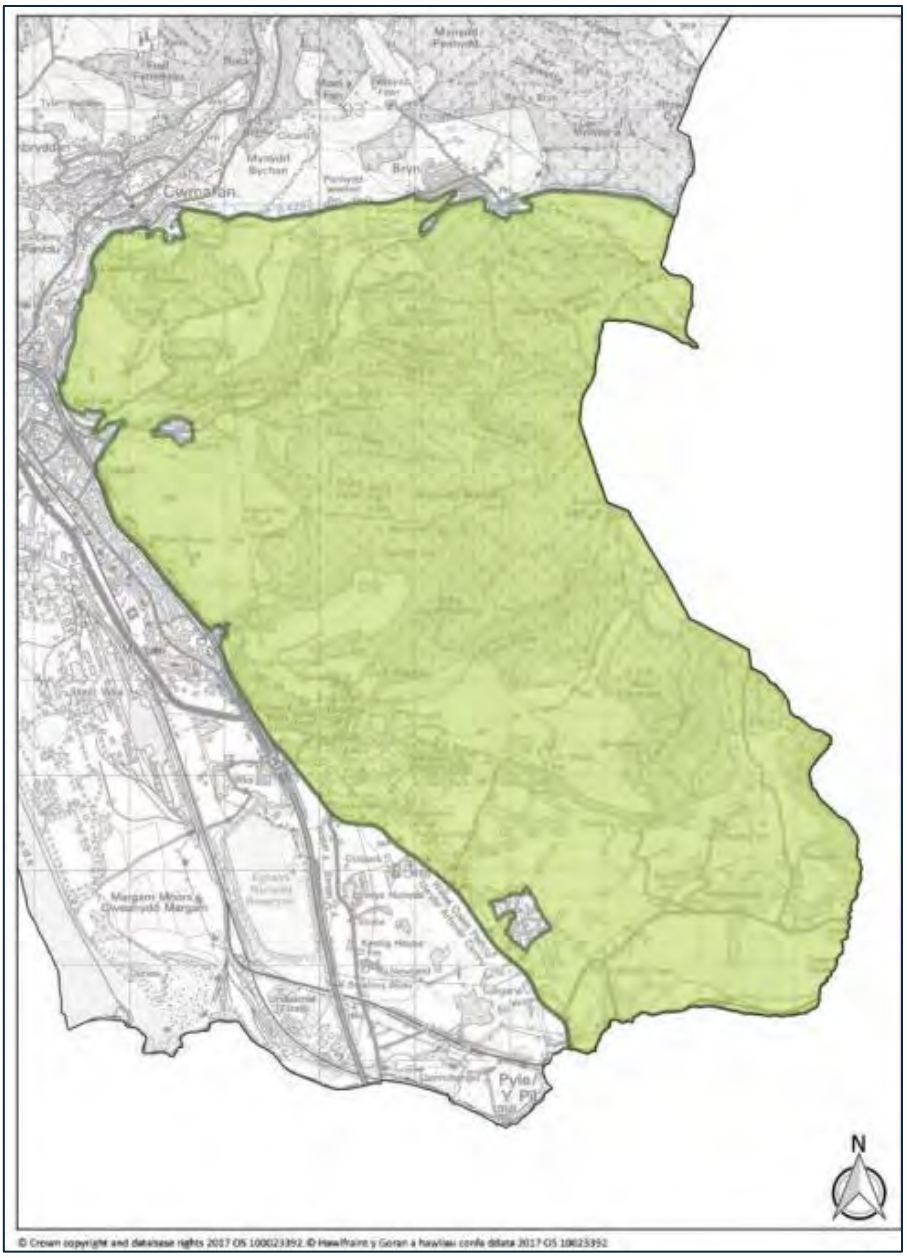
Context view 3 - View looking south from within the site close to the existng storage barn

Context view 4 - View looking west from the eastern edge of the site

Appendix 5 – Extract plan showing the extent of EN3/4 Margam SLA

4.3.4. EN3/4: Margam SLA

Figure 10: EN3/4: Margam SLA



Appendix 6 – Table 3.1 Filtering of LANDMAP Aspect Areas

Table 3.1 Filtering of Landmap Aspect Areas

Aspect	Aspect area within ZTV and 3km search area	Aspect area containing site i.e. areas most likely to undergo change	Aspect area with outstanding or high overall evaluation and/or with necessary filter elevation for relevant survey question number	Comment
Geology				
	NPTGL029 – Graig Goch		Q33	Glacial drift covered, dissected low plateau of Productive Coal Fm; coal mining including large opencast
	NPTGL030 - Kenfig			Filtered out of assessment
	NPTGL028 – Mynydd Margam			Filtered out of assessment
	CYNONGL039 – Llynfi Valley			Filtered out of assessment
	CYNONGL043 – Kenfig Hill			Filtered out of assessment
	CYNONGL04 - Tondu			Filtered out of assessment
	CYNONGL045 – Porthcawl/N Cornelly		Q33	Important area of Carboniferous limestone, uncomformably overlain by Triassic - includes nationally important site for Triassic geology at Stormy Down SSSI, also four RIGS for Carboniferous stratigraphy
	CYNONGL047 – Kenfig Burrows		Q33	Natural dune system in good condition
Cultural Heritage				
	NPTCLS058 - Coeadhiwaun			

Aspect	Aspect area within ZTV and 3km search area	Aspect area containing site i.e. areas most likely to undergo change	Aspect area with outstanding or high overall evaluation and/or with necessary filter elevation for relevant survey question number	Comment
	NPTCLS038 – Margam Country Park			
	NPTCLS090 – Margam Scarp			
	NPTCLS103 – Mymydd Bromi and Scarp Tops			
	CYNONCLS105 - Pyle			
	CYNONCLS123 - Cribwr			
	NPTCLS104 – Mymydd Bromi and Scarp Tops			
	NPTCLS105 – Mymydd Bromi and Scarp Tops			
	NPTCLS001 – Margam Opencast			
Landscape Habitats				
	NPTLH066			Improved grassland. Q42 – moderate evaluation. Q45 – moderate elevation.
	NPTLH069			Filtered out of assessment
	NPTLH067		Q45	Q42 – low. Q45 – high – uncommon habitat type
	NPTLH074			Filtered out of assessment
	NPTLH072		Q45	Coastal habitats. Q42 – low evaluation. Q45 – high – important minor estuary system

Aspect	Aspect area within ZTV and 3km search area	Aspect area containing site i.e. areas most likely to undergo change	Aspect area with outstanding or high overall evaluation and/or with necessary filter elevation for relevant survey question number	Comment
	CYNONLH034		Q42 and Q45	Coastal and marine habitats. Priority/Internationally important habitat supporting numerous key species
	CYNONLH026			Filtered out of assessment
	CYNONLH027			Filtered out of assessment
	CYNONLH021		Q42 and Q45	Mosaic habitat. A mixture of valuable habitats supporting a large number of key species
	CYNONLH010			Filtered out of assessment
	NPTLH071			Filtered out of assessment
Historic Landscape				
	NPTHL052 – Margam Rural		Q40	“This aspect area has been assessed as being of outstanding value, representing a rich, multi-period landscape with evidence of prehistoric, Roman, medieval and post-medieval activity. Of particular note are some extremely important medieval ecclesiastical sites, including the early medieval monastic site of Eglwys Nunydd and three later medieval

Aspect	Aspect area within ZTV and 3km search area	Aspect area containing site i.e. areas most likely to undergo change	Aspect area with outstanding or high overall evaluation and/or with necessary filter elevation for relevant survey question number	Comment
				granges belonging to Margam Abbey at Cwrt-y-defaid, Llanmihangel and Hafodheulog"
	CYNONHL818 – H22 Parc Slip Opencast			Filtered out of assessment
	CYNONHL973-H19 Cornelly to Laleston 1		Q40	"This area has been assessed as outstanding, based on the fact that it constitutes a remarkably rich multi-period landscape with evidence of human activity ranging from the Mesolithic period up to the present day, represented by prehistoric funerary monuments and hillforts, Roman occupation sites, substantial remains of medieval castles, monastic granges and relict settlements and field systems."
	CYNONHL576-H23 Pyle, Kenfig Hill and North Cornelly			Filtered out of assessment
	CYNONHL413-H26 Kenfig Burrows and Golf Course		Q40	"…The overall score for this area, given as outstanding, is based not only on the extensive nature of the recorded archaeological remains but the

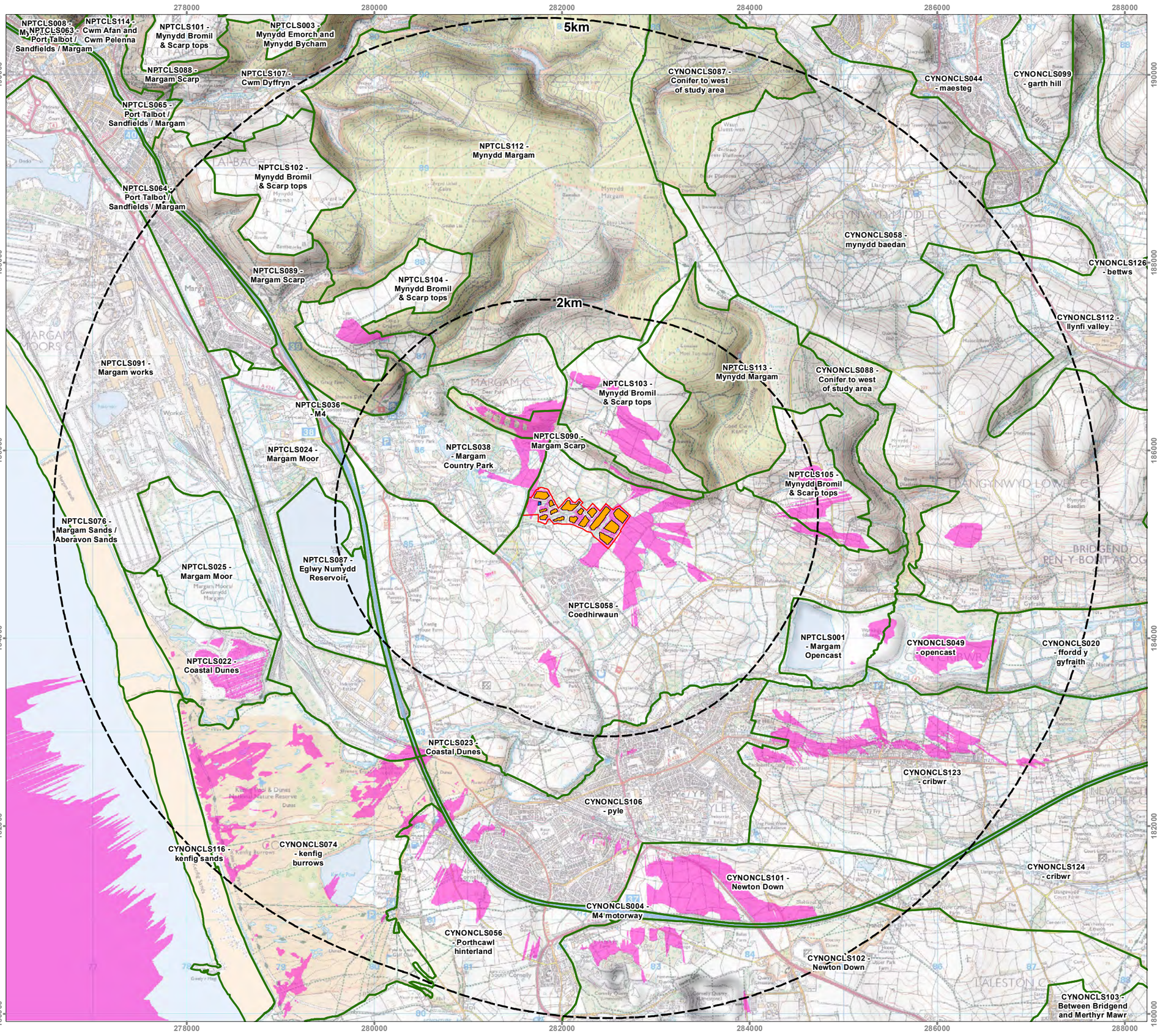
Aspect	Aspect area within ZTV and 3km search area	Aspect area containing site i.e. areas most likely to undergo change	Aspect area with outstanding or high overall evaluation and/or with necessary filter elevation for relevant survey question number	Comment
				significant potential for further discoveries."
	NPTHL00-Port Talbot Industrial		Q40	"The High value assigned to this area reflects the significance of the late 19th-20th century industrialisation … which are genuinely rare survivors of the heavy industries which once dominated Wales, and the later industrial estate. The area is also notable for its archaeological record, which clearly shows that this was once a rich, multi-period landscape, with evidence of human activity dating back to early prehistory."
	MPTHL069-Mymdd Brombil		Q40	"The value of outstanding assigned to this area reflects the fact that this is a well-preserved landscape of enclosed upland, untouched by modern forestry plantation, and the multi-period nature of the archaeological record, with evidence of Bronze Age ritual/funerary

Aspect	Aspect area within ZTV and 3km search area	Aspect area containing site i.e. areas most likely to undergo change	Aspect area with outstanding or high overall evaluation and/or with necessary filter elevation for relevant survey question number	Comment
				activity, Iron Age settlement, medieval upland pastoral settlement (including the remarkably extensive complex of rabbit warrens) and later post-medieval enclosure."
	MPTHL016-Margam Park		Q40	"The overall value of outstanding assigned to this area reflects its exceptional importance as a rich, multi-period landscape with evidence of a remarkable continuity of occupation from the Iron Age to the present day, with outstanding features/sites of national importance, including the hillfort of Mynydd y Castell, the collection of early Christian monuments (held in the Margam Museum), the remains of Margam Abbey, the extensive post-medieval landscape park and gardens (Grade I Listed) and the substantial early 19th century mansion of Margam Castle."
Visual and Sensory				

Aspect	Aspect area within ZTV and 3km search area	Aspect area containing site i.e. areas most likely to undergo change	Aspect area with outstanding or high overall evaluation and/or with necessary filter elevation for relevant survey question number	Comment
	NPTVS543-Coedhirwaun		Q50, Q46 and Q48	Moderate - "The area has high scenic quality to the east yet closer to the M4, from where the area is most prominent, the integrity of the rural character of the area has been affected through various developments. The majority of the area has an unspoilt character, more similar to the landscape to the east than the rest of the assessment area. This lowland agricultural character is rare within the assessment area."
	NPTVS001-Margam Opencast			Filtered out of assessment
	CYNONVS955-Cribwr		Q46 and Q48	Moderate – some attractive views
	CYNONVS847-Pyle			Filtered out of assessment
	NPTVS837-Margam works		Q48	High – strong sense of place and distinct character
	NPTHS403-Margam Country Park		Q50	High – "The scenic quality of the area is enhanced by the historic buildings of the park and the backdrop of scarp creates a suitable sheltered setting. The

Aspect	Aspect area within ZTV and 3km search area	Aspect area containing site i.e. areas most likely to undergo change	Aspect area with outstanding or high overall evaluation and/or with necessary filter elevation for relevant survey question number	Comment
				central historic core and deer park link visually and provide the integrity of the whole. The sense of place for the park is initially prompted with boundary walls and entrance gates. The historic core and deer park make this area unique within the county. The park is a significant visitor attraction which helps to confirm this classification."
	NPTVS897- Mynydd Bromil & Scarp tops		Q50, Q46 and Q48	Moderate – "Although the area itself demonstrates only minor scenic qualities, the vast panoramic views available from these areas are outstanding. The separate areas all relay a character of deteriorating upland grazing, but provide locally rare relief from the large scale forestry to the north and east. As a 'cap' to the scarp these areas are visible and are seen as part of an important landscape feature."

Appendix 7 – Aspect Areas ZTV



Key

- Option Area
- Proposed Solar Panel Areas (3.3m AGL)
- Proposed BESS (3.4m AGL) & Switchroom (5.9m AGL)
- ZTV - Development Theoretically Visible
- LANDMAP - Cultural Heritage Areas

Screened ZTV Production Information -
- DTM data used in calculations is OS Terrain 5 that has been combined with OS Open Map Local data for woodland and buildings to create a Digital Surface Model (DSM).

- Indicative woodland and building heights are modelled at 12m and 8m respectively.
- Viewer height set at 1.7m (in accordance with para 6.11 of GLVIA Third Edition)
- Calculations include earth curvature and light refraction

N.B. This Zone of Theoretical Visibility (ZTV) image illustrates the theoretical extent of where the development may be visible from, assuming 100% atmospheric visibility, and includes the screening effect from vegetation and buildings, based on the assumptions stated above.

N
GRID NORTH

0 0.5 1 1.5 2
km

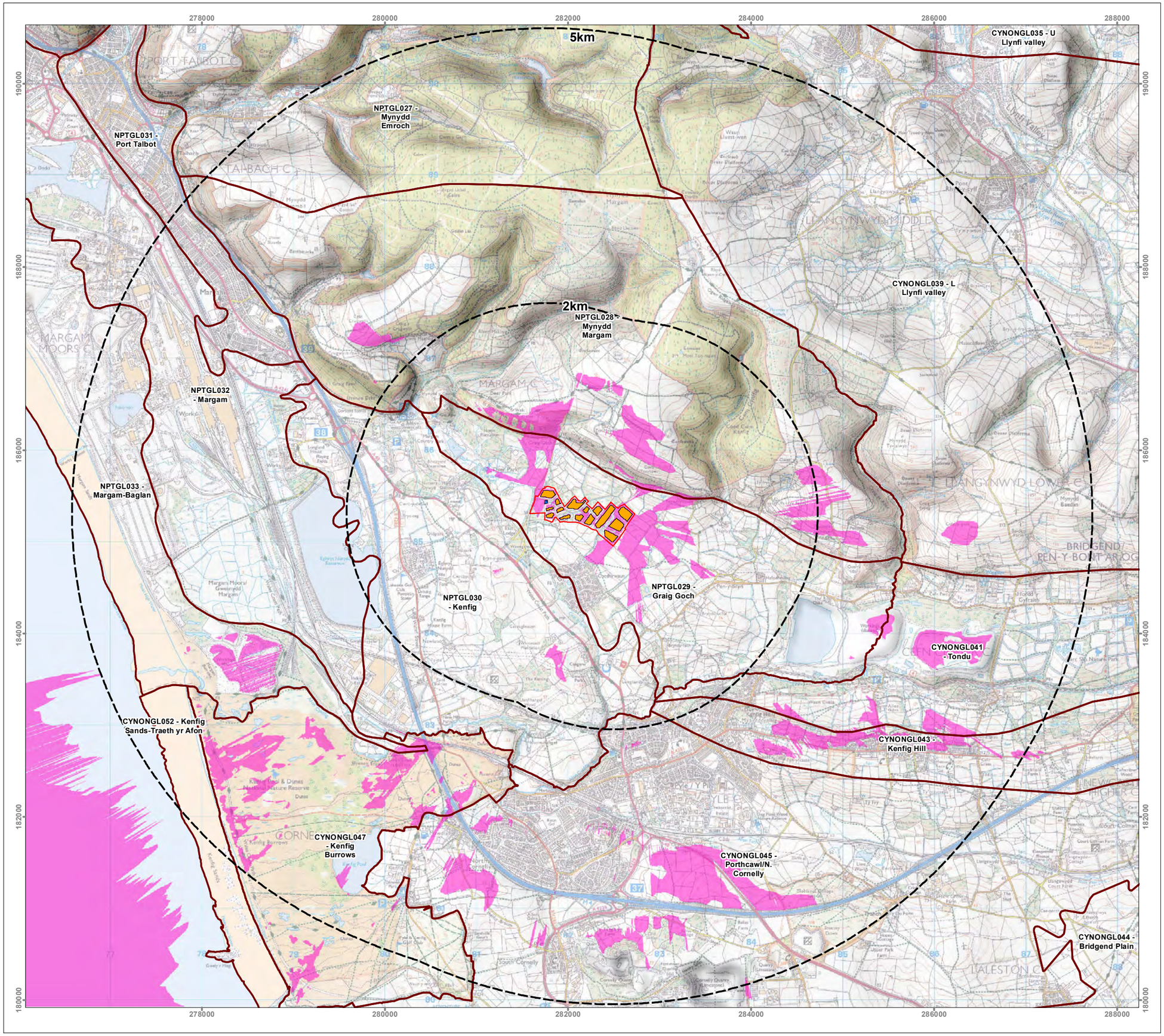
PROJECT TITLE
Bedwen Arian Solar PV & BESS

DRAWING TITLE
Zone of Theoretical Visibility Plan - LANDMAP Cultural Heritage

SCALE		DRAWING NUMBER		
1:40,000 @ A3		BWL_037_02		
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
AD	SW	-	-	29/10/2024

COORDINATE SYSTEM / DATUM
British National Grid / Newlyn Datum (AOD)

Briarwood
Landscape Architecture



Key

- Option Area
- Proposed Solar Panel Areas (3.3m AGL)
- Proposed BESS (3.4m AGL) & Switchroom (5.9m AGL)
- ZTV - Development Theoretically Visible
- LANDMAP - Geological Landscape Areas

Screened ZTV Production Information -
- DTM data used in calculations is OS Terrain 5 that has been combined with OS Open Map Local data for woodland and buildings to create a Digital Surface Model (DSM).

- Indicative woodland and building heights are modelled at 12m and 8m respectively.
- Viewer height set at 1.7m (in accordance with para 6.11 of GLVIA Third Edition)
- Calculations include earth curvature and light refraction

N.B. This Zone of Theoretical Visibility (ZTV) image illustrates the theoretical extent of where the development may be visible from, assuming 100% atmospheric visibility, and includes the screening effect from vegetation and buildings, based on the assumptions stated above.

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GRID NORTH

0 0.5 1 1.5 2
km

PROJECT TITLE

Bedwen Arian Solar PV & BESS

DRAWING TITLE

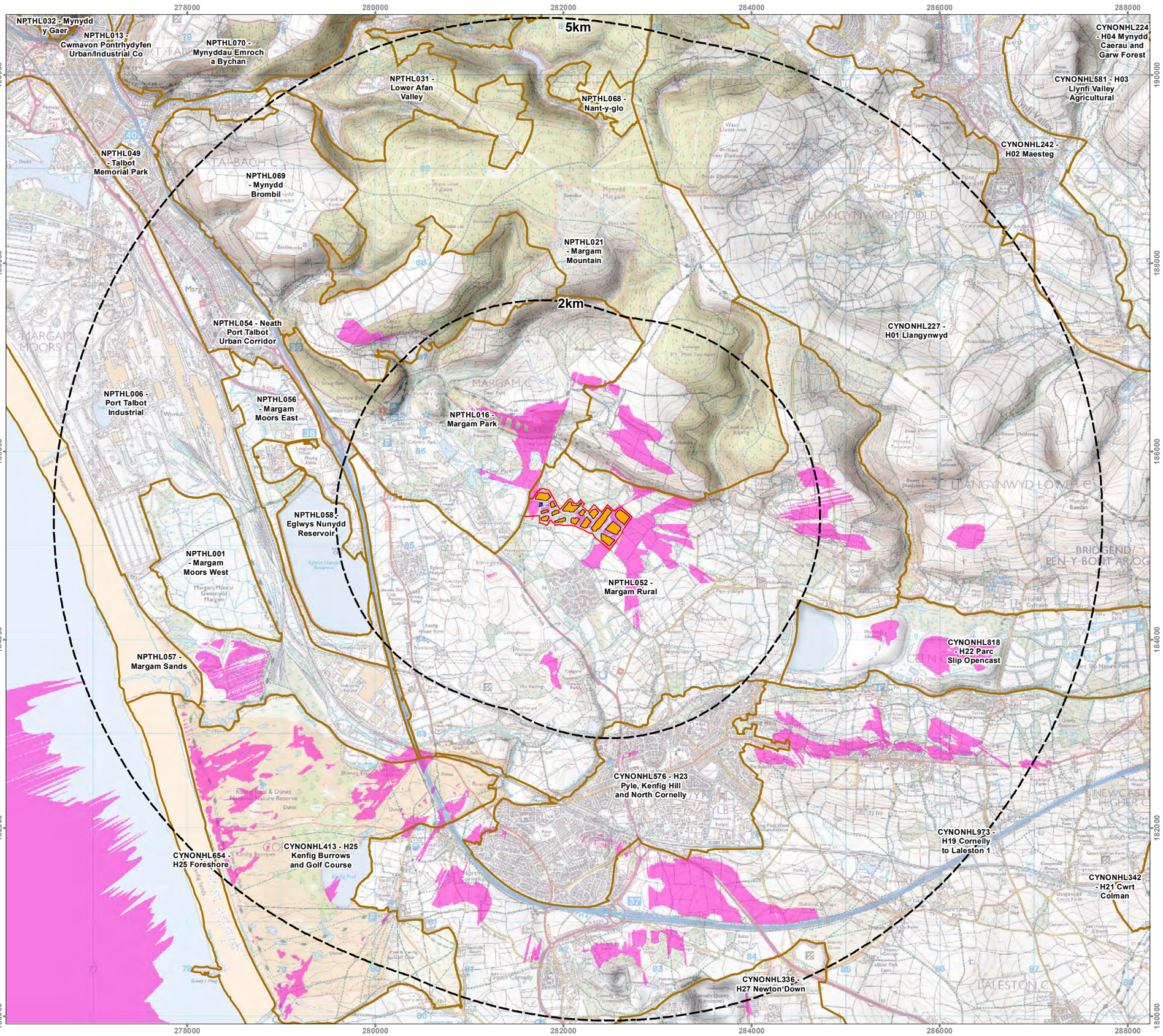
Zone of Theoretical Visibility Plan - LANDMAP Geological Landscape

SCALE		DRAWING NUMBER		
1:40,000 @ A3		BWL_037_03		
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
AD	SW	-	-	29/10/2024

COORDINATE SYSTEM / DATUM

British National Grid / Newlyn Datum (AOD)

Briarwood
Landscape Architecture



Key

- Option Area
- Proposed Solar Panel Areas (3.3m AGL)
- Proposed BESS (3.4m AGL) & Switchroom (5.9m AGL)
- ZTV - Development Theoretically Visible
- LANDMAP - Historic Landscape Areas

Screened ZTV Production Information -
- DTM data used in calculations is OS Terrain 5 that has been combined with OS Open Map Local data for woodland and buildings to create a Digital Surface Model (DSM).

- Indicative woodland and building heights are modelled at 12m and 8m respectively.
- Viewer height set at 1.7m (in accordance with para 6.11 of GLVIA Third Edition)
- Calculations include earth curvature and light refraction

N.B. This Zone of Theoretical Visibility (ZTV) image illustrates the theoretical extent of where the development may be visible from, assuming 100% atmospheric visibility, and includes the screening effect from vegetation and buildings, based on the assumptions stated above.

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GRID NORTH

0 0.5 1 1.5 2
km

PROJECT TITLE

Bedwen Arian Solar PV & BESS

DRAWING TITLE

Zone of Theoretical Visibility Plan - LANDMAP Historic Landscape

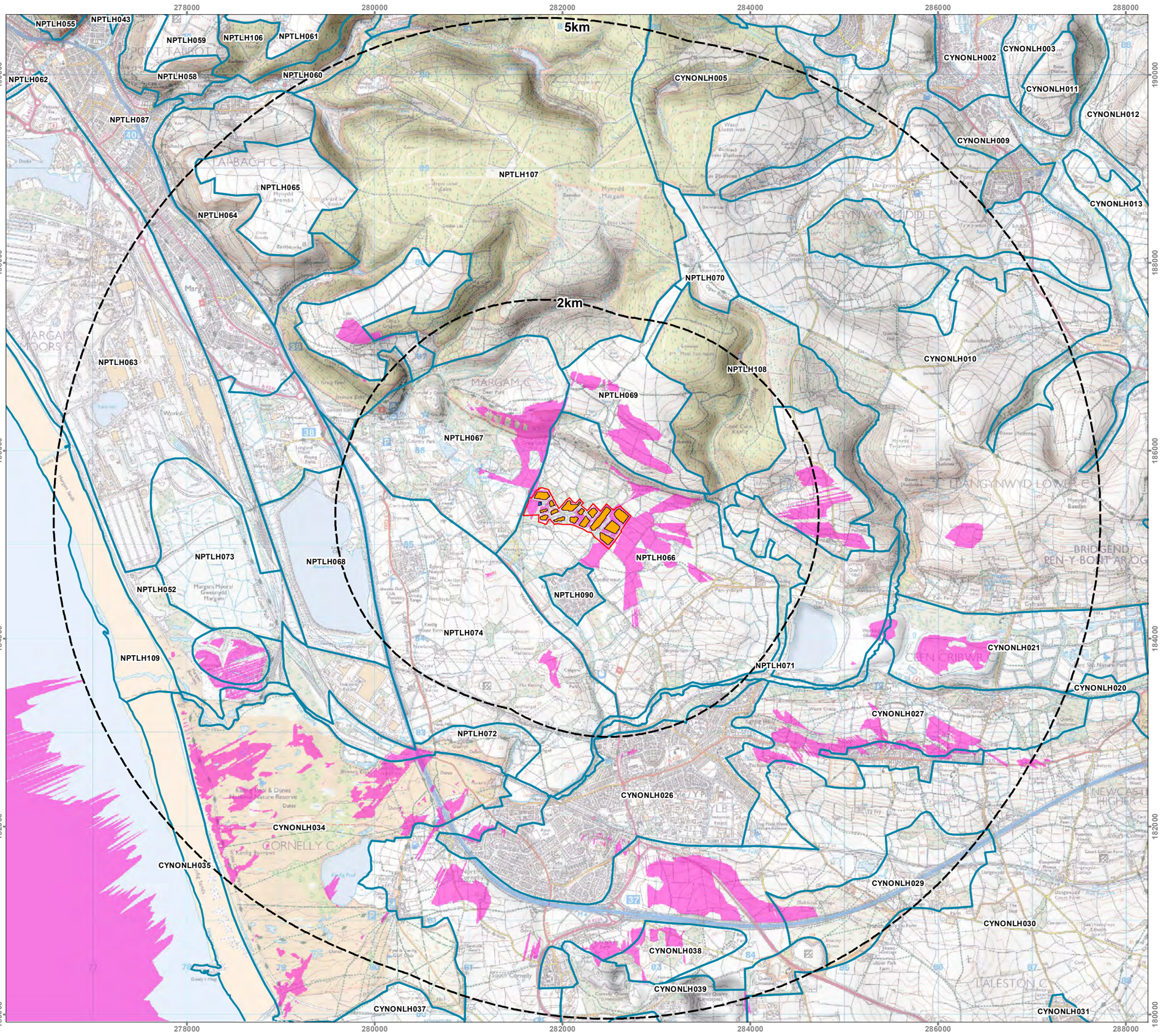
SCALE	DRAWING NUMBER
1:40,000 @ A3	BWL_037_04

DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
AD	SW	-	-	29/10/2024

COORDINATE SYSTEM / DATUM

British National Grid / Newlyn Datum (AOD)

Briarwood
Landscape Architecture



Key

- Option Area
- Proposed Solar Panel Areas (3.3m AGL)
- Proposed BESS (3.4m AGL) & Switchroom (5.9m AGL)
- ZTV - Development Theoretically Visible
- LANDMAP - Landscape Habitat Areas

Screened ZTV Production Information -
- DTM data used in calculations is OS Terrain 5 that has been combined with OS Open Map Local data for woodland and buildings to create a Digital Surface Model (DSM).

- Indicative woodland and building heights are modelled at 12m and 8m respectively.
- Viewer height set at 1.7m (in accordance with para 6.11 of GLVIA Third Edition)
- Calculations include earth curvature and light refraction

N.B. This Zone of Theoretical Visibility (ZTV) image illustrates the theoretical extent of where the development may be visible from, assuming 100% atmospheric visibility, and includes the screening effect from vegetation and buildings, based on the assumptions stated above.

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GRID NORTH

0 0.5 1 1.5 2
km

PROJECT TITLE

Bedwen Arian Solar PV & BESS

DRAWING TITLE

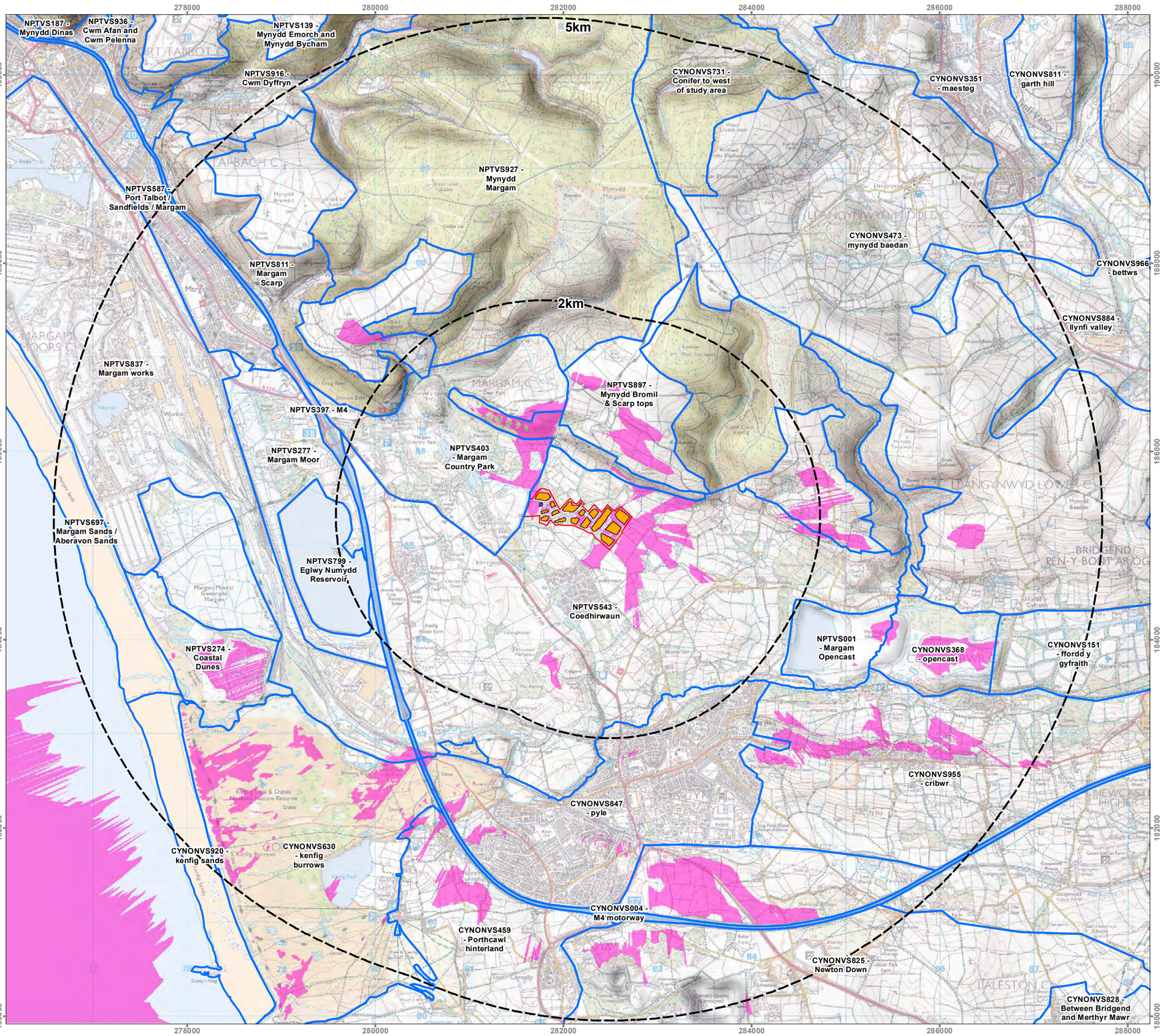
Zone of Theoretical Visibility Plan - LANDMAP Landscape Habitats

SCALE	DRAWING NUMBER
1:40,000 @ A3	BWL_037_05

DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
AD	SW	-	-	29/10/2024

COORDINATE SYSTEM / DATUM
British National Grid / Newlyn Datum (AOD)

Briarwood
Landscape Architecture



Key

- Option Area
- Proposed Solar Panel Areas (3.3m AGL)
- Proposed BESS (3.4m AGL) & Switchroom (5.9m AGL)
- ZTV - Development Theoretically Visible
- LANDMAP - Visual & Sensory Areas

Screened ZTV Production Information -
- DTM data used in calculations is OS Terrain 5 that has been combined with OS Open Map Local data for woodland and buildings to create a Digital Surface Model (DSM).

- Indicative woodland and building heights are modelled at 12m and 8m respectively.
- Viewer height set at 1.7m (in accordance with para 6.11 of GLVIA Third Edition)
- Calculations include earth curvature and light refraction

N.B. This Zone of Theoretical Visibility (ZTV) image illustrates the theoretical extent of where the development may be visible from, assuming 100% atmospheric visibility, and includes the screening effect from vegetation and buildings, based on the assumptions stated above.

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GRID NORTH

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PROJECT TITLE
Bedwen Arian Solar PV & BESS

DRAWING TITLE
Zone of Theoretical Visibility Plan - LANDMAP Visuals & Sensory

SCALE			DRAWING NUMBER	
1:40,000 @ A3			BWL_037_06	
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
AD	SW	-	-	29/10/2024

COORDINATE SYSTEM / DATUM
British National Grid / Newlyn Datum (AOD)

Briarwood
Landscape Architecture

Appendix 8 – 127XP_BA (Initial PV and BESS Layout)

127XP_BA (Initial PV & BESS Layout)

Map Projection: EPSG:27700 Scale: 1:2000 @ A3
Map Centre Coordinates : 281819 ,185377

Project: Bedwen Arian Solar PV & BESS
Purpose: Draft PV considering marked Tree ell map & BESS layout in Title CYM761890.

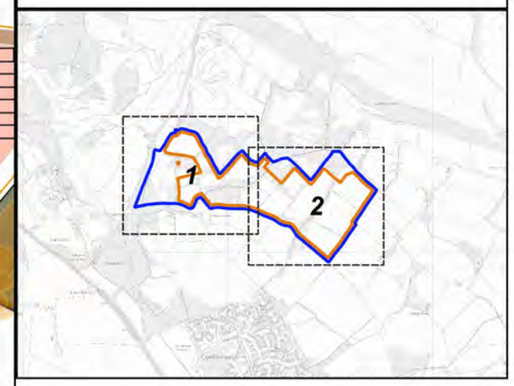
Legend

- Ownership (33.78 Ha)
- Option Site (27.99 Ha)
- PV Fence (V3) 13.95 Ha
- Internal Access Track (5m)
- CCTV
- 15m-Ancient Woodland Exclusion
- TREE_SURVEY_RPA
- 15m-AWL_10m-WATER-TOPO-n-OSMM_RPA
- PV-Panel Only-Area-V3
- 33kV DNO Switch Room 5.9m AGL
- BESS (4MW - 2hrs)

PV-Panel Only Area: 10.5 Ha
2P X Continuous Table
25 Degrees Tilt
4m Row Spacing:
19296 Panels X 630W = 12.16MWp
Pnom or DC/AC ratio = 1.39
35 String Inverter 250kW = 8.75MWac

AEP = 13873 MWh/yr
Specific Yield = 1141 kWh/kWp/yr

BESS -
Individual Skid (Containing 2 X 4MWh Battery inside 20ft container, 4.390 MVA PCSK and 4.3MVA 33kV/.69KV TRNFO[need confirmationation]) - Clearance needed 4m all-sides



FB
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Drain
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Hirwaun Farm
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Created by & on: Yogi Murthi & 28/04/2025
Verified by & on: Chase Lloyd & 28/04/2025
Version: 3.0

127XP_BA (Initial PV & BESS Layout)

Map Projection: EPSG:27700 Scale: 1:2000 @ A3
Map Centre Coordinates : 282432 ,185226

Project: Bedwen Arian Solar PV & BESS
Purpose: Draft PV considering marked Tree ell map & BESS layout in Title CYM761890.

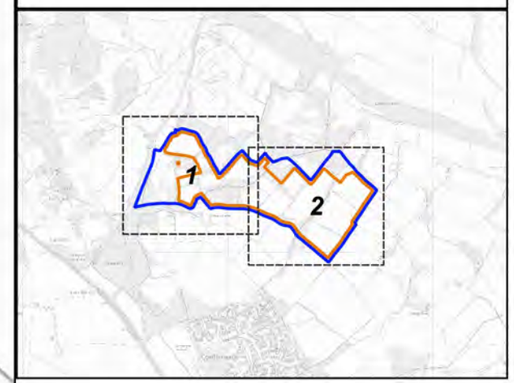
Legend

- Ownership (33.78 Ha)
- Option Site (27.99 Ha)
- PV Fence (V3) 13.95 Ha
- Internal Access Track (5m)
- CCTV
- 15m-Ancient Woodland Exclusion
- TREE_SURVEY_RPA
- 15m-AWL_10m-WATER-TOPO-n-OSMM_RPA
- PV-Panel Only-Area-V3

PV-Panel Only Area: 10.5 Ha
2P X Continuous Table
25 Degrees Tilt
4m Row Spacing:
19296 Panels X 630W = 12.16MWp
Pnom or DC/AC ratio = 1.39
35 String Inverter 250kW = 8.75MWac

AEP = 13873 MWh/yr
Specific Yield = 1141 kWh/kWp/yr

BESS -
Individual Skid (Containing 2 X 4MWh Battery inside 20ft container, 4.390 MVA PCSK and 4.3MVA 33kV/.69KV TRNFO[need confirmationation]) - Clearance needed 4m all-sides



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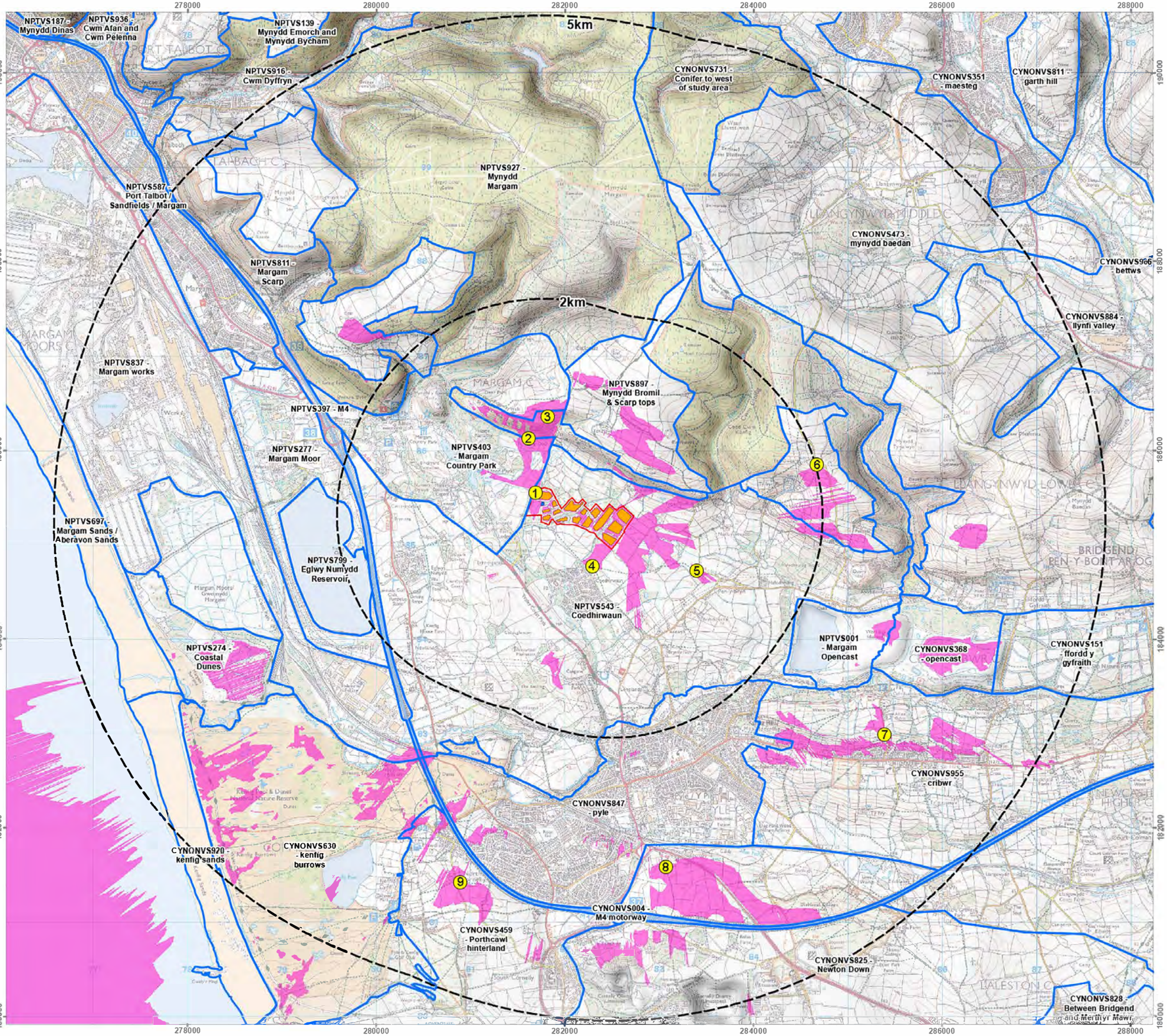
0 50 100 150 200 250 m

Created by & on: Yogi Murthi & 28/04/2025
Verified by & on: Chase Lloyd & 28/04/2025
Version: 3.0

Appendix 9 – Photoview Location Plan



Key

- Option Area
- Proposed Solar Panel Areas (3.3m AGL)
- Proposed BESS (3.4m AGL) & Switchroom (5.9m AGL)
- ZTV - Development Theoretically Visible
- LANDMAP - Visual & Sensory Areas

Screened ZTV Production Information -
- DTM data used in calculations is OS Terrain 5 that has been combined with OS Open Map Local data for woodland and buildings to create a Digital Surface Model (DSM).

- Indicative woodland and building heights are modelled at 12m and 8m respectively.
- Viewer height set at 1.7m (in accordance with para 6.11 of GLVIA Third Edition)
- Calculations include earth curvature and light refraction

N.B. This Zone of Theoretical Visibility (ZTV) image illustrates the theoretical extent of where the development may be visible from, assuming 100% atmospheric visibility, and includes the screening effect from vegetation and buildings, based on the assumptions stated above.

③ Viewpoint location and number

N
GRID NORTH

0 0.5 1 1.5 2
km

PROJECT TITLE

Bedwen Arian Solar PV & BESS

DRAWING TITLE

ZTV Landmap Visual and Sensory with Viewpoint Locations

SCALE		DRAWING NUMBER			
1:40,000 @ A3		BWL_037_07			
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE	
AD	SW	-	-	29/10/2024	

COORDINATE SYSTEM / DATUM

British National Grid / Newlyn Datum (AOD)

Briarwood
Landscape Architecture

Appendix 10 – Representative Views

Briarwood
Landscape Architecture

Camera make & model	- Canon EOS 5D	Viewpoint height (AOD)	- 69m	Visualisation Type	- Type 1
Lens make & focal length	- Canon EF 50mm, f/1.4 USM	Distance from site	- 56m	Horizontal Field of View	- 90˚
Date of photograph	- 13th November 2024	Projection	- Cylindrical	Height of camera AGL	- 1.5m
OS grid reference	- SS81682 85612	Sheet Size	- A1	Page size / Image size (mm)	- 841 x 297 / 820 x 240

VIEWPOINT 1 - 9

View from lane accessing Craig-Goch looking south-east

Briarwood
Landscape Architecture

Camera make & model	- Canon EOS 5D	Viewpoint height (AOD)	- 103m	Visualisation Type	- Type 1
Lens make & focal length	- Canon EF 50mm, f/1.4 USM	Distance from site	- 545m	Horizontal Field of View	- 90˚
Date of photograph	-14th November 2024	Projection	- Cylindrical	Height of camera AGL	- 1.5m
OS grid reference	- SS81612 86122	Sheet Size	- A1	Page size / Image size (mm)	- 841 x 297 / 820 x 240

VIEWPOINT 2 - 9

View from St Illtyd's Walk looking south-east

Briarwood
Landscape Architecture

Camera make & model	- Canon EOS 5D	Viewpoint height (AOD)	- 165m	Visualisation Type	- Type 1
Lens make & focal length	- Canon EF 50mm, f/1.4 USM	Distance from site	- 728m	Horizontal Field of View	- 90˚
Date of photograph	- 14th November 2024	Projection	- Cylindrical	Height of camera AGL	- 1.5m
OS grid reference	- SS81789 863318	Sheet Size	- A1	Page size / Image size (mm)	- 841 x 297 / 820 x 240

VIEWPOINT 3 - 9

View from upper deer park Margam looking south-east

Briarwood
Landscape Architecture

Camera make & model	- Canon EOS 5D	Viewpoint height (AOD)	- 66m	Visualisation Type	- Type 1
Lens make & focal length	- Canon EF 50mm, f/1.4 USM	Distance from site	- 264m	Horizontal Field of View	- 90˚
Date of photograph	- 14th November 2024	Projection	- Cylindrical	Height of camera AGL	- 1.5m
OS grid reference	- SS82331 84753	Sheet Size	- A1	Page size / Image size (mm)	- 841 x 297 / 820 x 240

VIEWPOINT 4 - 9

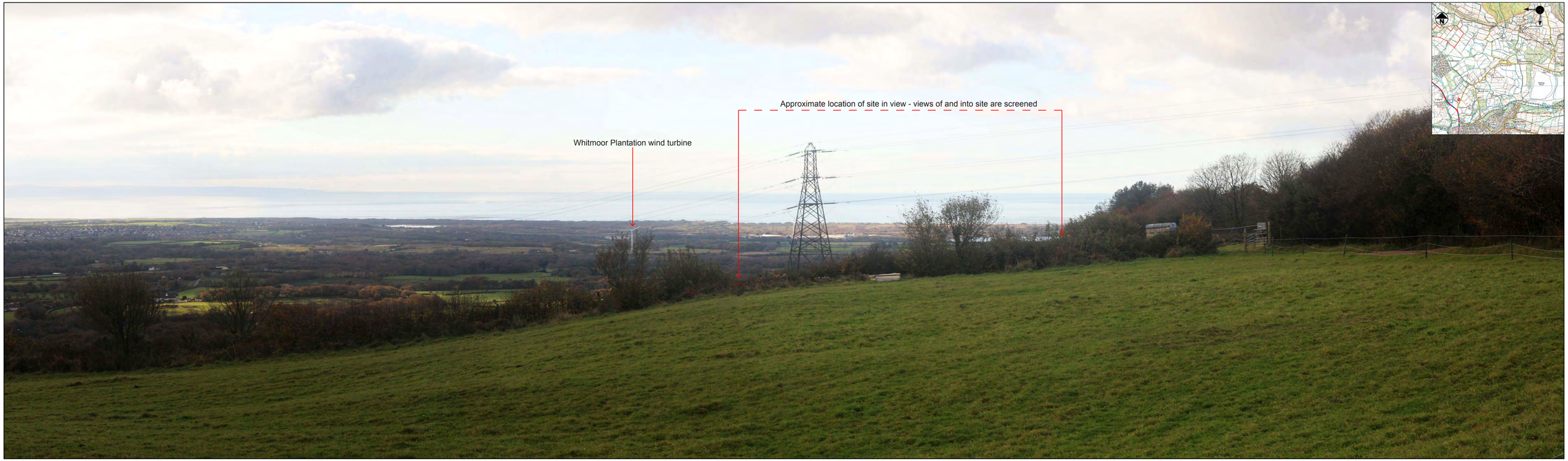
View from the junction of public rights of way 9/81 PT/1 and 9/82 PT/1 looking north

Briarwood
Landscape Architecture

Camera make & model	- Canon EOS 5D	Viewpoint height (AOD)	- 85m	Visualisation Type	- Type 1
Lens make & focal length	- Canon EF 50mm, f/1.4 USM	Distance from site	- 890m	Horizontal Field of View	- 90˚
Date of photograph	- 14th November 2024	Projection	- Cylindrical	Height of camera AGL	- 1.5m
OS grid reference	- SS83403 84725	Sheet Size	- A1	Page size / Image size (mm)	- 841 x 297 / 820 x 240

VIEWPOINT 5 - 9

View from public right of way 9/81 PT/1 looking west



Briarwood
Landscape Architecture

Camera make & model	- Canon EOS 5D	Viewpoint height (AOD)	- 216m	Visualisation Type	- Type 1
Lens make & focal length	- Canon EF 50mm, f/1.4 USM	Distance from site	- 2km	Horizontal Field of View	- 90°
Date of photograph	- 14th November 2024	Projection	- Cylindrical	Height of camera AGL	- 1.5m
OS grid reference	-SS84634 85878	Sheet Size	- A1	Page size / Image size (mm)	- 841 x 297 / 820 x 240

VIEWPOINT 6 - 9

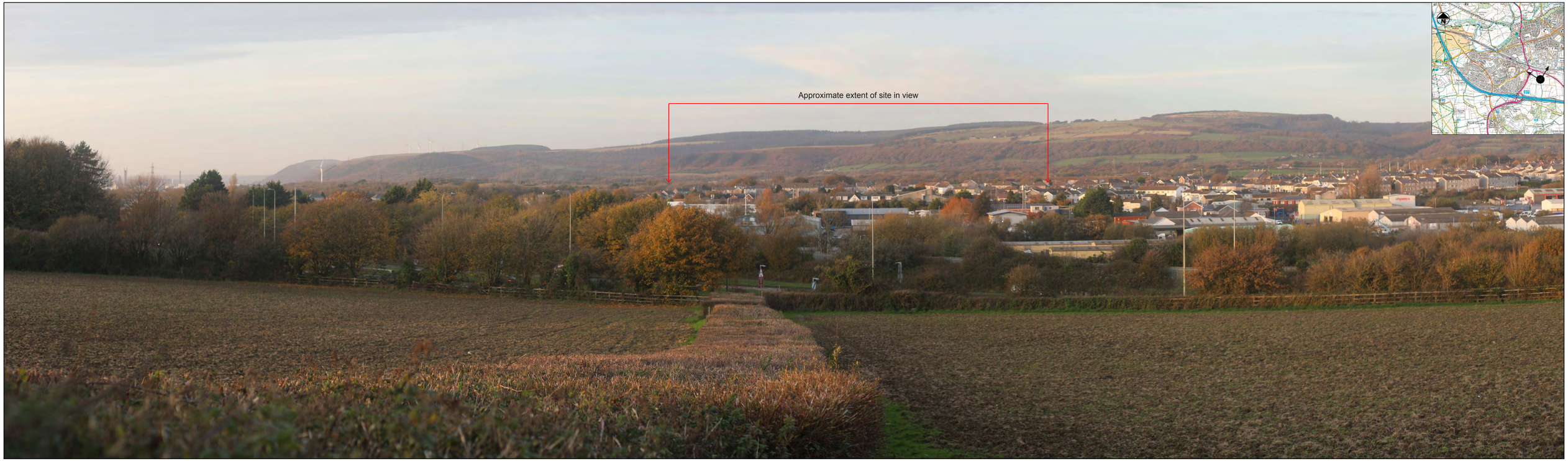
View from un-named lane near Ton Owen looking south-west

Briarwood
Landscape Architecture

Camera make & model	- Canon EOS 5D	Viewpoint height (AOD)	- 108m	Visualisation Type	- Type 1
Lens make & focal length	- Canon EF 50mm, f/1.4 USM	Distance from site	- 3.6km	Horizontal Field of View	- 90°
Date of photograph	- 14th November 2024	Projection	- Cylindrical	Height of camera AGL	- 1.5m
OS grid reference	- SS85403 82928	Sheet Size	- A1	Page size / Image size (mm)	- 841 x 297 / 820 x 240

VIEWPOINT 7 - 9

View from Bedford Road, Cefn Cribwr looking north-west

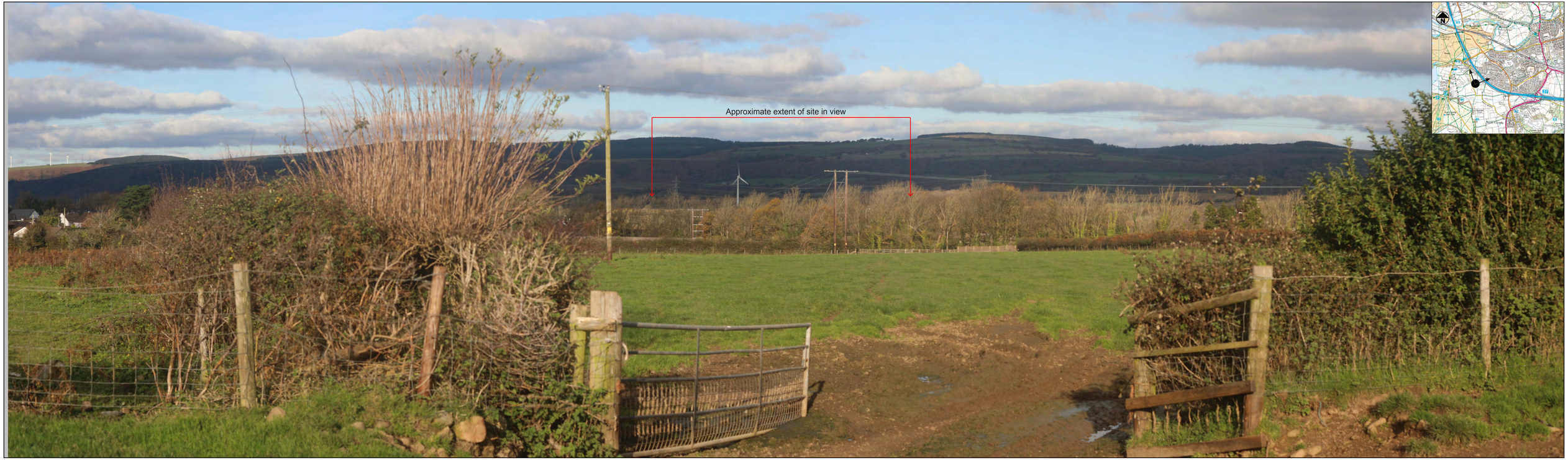


Briarwood
Landscape Architecture

Camera make & model	- Canon EOS 5D	Viewpoint height (AOD)	- 56m	Visualisation Type	- Type 1
Lens make & focal length	- Canon EF 50mm, f/1.4 USM	Distance from site	- 3.4m	Horizontal Field of View	- 90˚
Date of photograph	- 13th November 2024	Projection	- Cylindrical	Height of camera AGL	- 1.5m
OS grid reference	- SS83048 81621	Sheet Size	- A1	Page size / Image size (mm)	- 841 x 297 / 820 x 240

VIEWPOINT 8 - 9

View from public right of way COR/64/1 looking north



Briarwood
Landscape Architecture

Camera make & model	- Canon EOS 5D	Viewpoint height (AOD)	- 49m	Visualisation Type	- Type 1
Lens make & focal length	- Canon EF 50mm, f/1.4 USM	Distance from site	- 4km	Horizontal Field of View	- 90˚
Date of photograph	- 14th November 2024	Projection	- Cylindrical	Height of camera AGL	- 1.5m
OS grid reference	- SS80895 81362	Sheet Size	- A1	Page size / Image size (mm)	- 841 x 297 / 820 x 240

VIEWPOINT 9 - 9

View from public right of way COR/25/1 looking north-east