

Appendix G.1

Landscape and Visual Impact Assessment Baseline Part 1 of 3





Bodelwyddan Solar and Energy Storage

Appendix G.1: Landscape and Visual Baseline Report

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On behalf of:
**Bodelwyddan Solar and Energy
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Section 1

Introduction, Purpose and Methodology

INTRODUCTION

- 1.1 The Environmental Dimension Partnership Ltd (EDP) has been commissioned by Bodelwyddan Solar and Energy Storage Limited (hereafter referred to as 'the Applicant') to undertake a Landscape and Visual Impact Assessment (LVIA) for proposals to develop a solar farm and battery energy storage facility (collectively referred to as 'the Site') which is the subject of a Development of National Significance (DNS) application. This Baseline Report sets out the technical information pertinent to Chapter 11 of the Environmental Statement (ES).
- 1.2 EDP is an independent environmental planning consultancy with offices in Cardiff, Cheltenham and Cirencester. The practice provides advice to private and public sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website (www.edp-uk.co.uk). EDP is a Registered Practice of the Landscape Institute² specialising in the assessment of the effects of Proposed Development on the landscape.

THE SITE AND THE PROPOSED DEVELOPMENT

- 1.3 The proposed Solar and Energy scheme is comprised of three main components; the Solar Site; the Battery Energy Storage System (BESS) site; and the c.8km Cable Corridor that runs from the south-western part of the Solar Site via the land owned by the Kinmel Park before continuing south-east along Glascoed Road and onto the BESS site. The proposed solar development would generate up to 110 MW of electricity, the BESS would store up to 110 MW of electricity and the overall site boundary for the development measures c.183.77 hectares (ha). The proposal would have a construction phase of c.12-24 months and an operational period of up to 40 years. The Proposed Development is described in detail in Chapter 3 the ES.
- 1.4 **Figure 11.1** illustrates the location of the Site's boundaries and topographical relief. The Site falls within Conwy County Borough Council (CCBC) and Denbighshire County Council (DCC) Local Planning Authority (LPA) areas. The Solar Site extends to 168.95ha and the BESS Site extends to 6.52ha, and is described in **Section 2**.
- 1.5 The Site is located approximately 1.8km (at its closest point) to the north coast of Wales bordered by the Irish sea. The settlement of Abergele lies 1km north-west of the Site and the heart of Towyn is 1.3km north of the Site.
- 1.6 **Figure 11.2** is provided on an aerial photograph and shows the Site's local context and character and identifies nearby settlements, residents, roads and rights of way. The village

² LI Practice Number 1010

of Bodelwyddan lies c.500m south-east of the northern parcel (the Solar Site) and c.2km north-west of the southern parcel (the BESS Site).

Solar Site - c.168.95ha

- 1.7 The Solar Site is comprised of low lying, flat agricultural fields and dissected by the A547/Rhuddlan Road. There are hedgerows and ditches (wet and dry) which demarcate some boundaries, fencing is common throughout while Field 4 is delineated by a stone wall that fronts onto Rhuddlan Road. There are trees planted sparsely, mostly along hedgerow or field boundaries. The exception to this is the Kinmel Avenue which abuts Fields 4, 5 and 6 as well as Rhuddlan Road.
- 1.8 This avenue is a designated Restored Ancient Woodland Site (RAWS). An existing solar farm is situated adjacent to Field 3, to the north of Rhuddlan Road. There is also an existing public footpath, PRoW 31/12 which borders Field 3 on the eastern site boundary. This path connects Rhuddlan Road to Towyn and is separated from the Site by an existing hedgerow.

Battery Energy Storage System – c.6.52ha

- 1.9 The BESS Site is comprised of two agricultural fields (improved grassland) with no public access and lies south of St Asaph Business Park and west of Bodelwyddan substation. The boundaries are comprised of hedgerows of varying condition. There are numerous Category A and B trees planted within these field boundaries however, and of note, there is one veteran tree (T262) located on the south-western boundary.

Cable Corridor

- 1.10 The BESS Site and Solar Site would be connected to Bodelwyddan substation via underground cabling measuring a length of c.8km. The proposed cabling corridor overlaps with the Kinmel Park, Glascoed Road and a mineral safeguarding area for limestone. Sensitive receptors along the route include veteran trees.

PURPOSE AND STRUCTURE OF THE LVIA

- 1.11 This report is part of a suite of documents accompanying the DNS application for the Proposed Development and forms one of a number of documents comprising the full LVIA, as follows:
- Appendix G.1: (this report) Sets out the landscape and visual baseline of the Site and study areas and provides a summary of the Proposed Development and mitigation measures;
 - ES Chapter 11: The Landscape and Visual chapter of the ES, which sets out the significant effects as assessed in the LVIA;
 - Appendix G.2: Sets out the LVIA methodology used to guide the assessment;
 - Appendix G.3: Comprises the Schedule of Effects Tables;

- Appendix G.4: Details the Residential Visual Amenity Assessment undertaken to accompany the LVIA; and
- Supporting Figures: **Figures 11.1 to 11.10** provide figures in support of the baseline, assessment and ES chapter.

METHODOLOGY ADOPTED FOR THE ASSESSMENT

- 1.12 The Proposed Development is subject to an Environmental Impact Assessment (EIA) as confirmed by the scoping opinion in February 2025 (CAS-03950-F9K3T4). The baseline report and the assessment in the Environmental Statement, has been undertaken in accordance with the principles embodied in 'Guidelines for Landscape and Visual Impact Assessment – Third Edition (LI/IEMA, 2013)' (GLVIA3) and other best practice guidance insofar as it is relevant to EIA schemes. The criteria referred to, but not defined within the guidelines, has been defined by EDP as set out in **Appendix G.2** of the ES, with terms clearly defined within the Glossary at **Annex EDP 2**.
- 1.13 **Familiarisation:** EDP's study has included reviews of aerial photographs, web searches, LPA publications and Landscape Character Assessments. EDP has also obtained, where possible, information about relevant landscape and other designations such as National Landscapes, World Heritage Sites, Conservation Areas, Special Landscape Areas and gardens and parks listed on Cadw's 'Register of Parks and Gardens of Special Historic Interest in Wales' (RPG).
- 1.14 **Consultation:** EDP has consulted on the scope and method of assessment proposed. The Bodelwyddan Solar and Energy Storage EIA scoping report was submitted to the Planning Inspectorate under Regulation 33 of the 2017 Regulations (Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017) in December 2024. The opinions of statutory consultees such as Welsh Government, the host LPAs, Cadw, and Natural Resources Wales (NRW) was sought through this formal consultation processes. An EIA scoping direction (Document reference: DNS CAS-03950-F9K3T4 Bodelwyddan BESS and Solar Farm) was received in February 2025 which confirmed the scope of the assessment.
- 1.15 Feedback received via the Scoping Direction has been incorporated within with respect to the extent of study areas, the LANDMAP method of assessment, and additional suggested views.
- 1.16 **Field Assessment:** EDP has undertaken a comprehensive field assessment of local site circumstances, including a photographic survey of the character and fabric of the Site and its surroundings, using photography from a number of representative viewpoints. Numerous field assessments were undertaken by a qualified landscape architect between November 2024 and April 2025 in clear weather conditions.
- 1.17 **Design Inputs:** EDP's field assessment has informed a process whereby the development proposals have been refined to reinstate historic field patterns where possible, as well as avoid, minimise or compensate for landscape effects. Such measures are summarised in **Section 5**.

STUDY AREA

1.18 To establish the baseline and potential limit of material effects, the study area has been considered at two geographical scales:

- First, a broad 'study area' was adopted, based mainly on desk-based study, allowing the geographical scope of the assessment to be defined based on the likely extent of views to/from the Site, extent of landscape effects and the Site's environmental planning context; and
- Second, following initial analysis and subsequent fieldwork, the broad study area was maintained to incorporate more distant character areas which overlap with viewpoints in response to consultation. The extent of the broad study for visual and landscape receptors is 10km from the Site boundary and tailored appropriately to areas that overlap with the zone of theoretical visibility and various character assessments as appropriate. References may be made to features beyond this area where appropriate. This detailed study area is illustrated on **Figure 11.1**.

Section 2

Findings of EDP Data Trawl and Policy Review

- 2.1 The findings of EDP's data trawl of relevant environmental and planning designations are illustrated on **Figure 11.3**.

BACKGROUND PUBLISHED EVIDENCE BASE DOCUMENTS

- 2.2 The following documents are relevant and will be discussed as appropriate later in this report:

- Planning Policy Wales Edition 12 (PPW; 2024);
- Future Wales: The National Plan 20240 (2021);
- Conwy Local Development Plan 2007-2022 (adopted October 2013)³;
- Conwy Replacement Local Development Plan Preferred Strategy⁴;
- Supplementary Planning Guidance – LDP09 – Design (adopted July 2015)⁵;
- Supplementary Planning Guidance – LDP24 – Renewable Energy (adopted February 2017)⁶;
- Supplementary Planning Guidance – LDP40 – Trees and Development (adopted February 2017)⁷;
- Supplementary Planning Guidance – LDP14 – Conservation Areas (adopted July 2015)⁸;
- Conwy Deposit Local Development Plan 2007-2022 – Special Landscape Areas (adopted august 2012)⁹;
- Denbighshire Local Development Plan 2006 – 2021 (adopted June 2013)¹⁰;
- Denbighshire Replacement Local Development Plan Preferred Strategy¹¹;
- Supplementary Planning Guidance – Trees & Landscaping (adopted July 2016)¹²;

³ [Conwy Local Development Plan 2007-2022](#)

⁴ [Conwy Replacement Local Development Plan Preferred Strategy](#)

⁵ [LDP9 Design](#)

⁶ [LDP24 Renewable Energy](#)

⁷ [LDP40 Trees and Development](#)

⁸ [LDP14 Conservation Areas SPG](#)

⁹ [BP27 Special Landscape Areas](#)

¹⁰ [Adopted Local Development Plan 2006-2021](#)

¹¹ [Draft Preferred Strategy](#)

¹² [Supplementary Planning Guidance Note: Trees Landscaping](#)

- Supplementary Planning Guidance – Renewable Energy (adopted April 2016)¹³;
- Supplementary Planning Guidance Note Clwydian Range and Dee Valley AONB (June 2018)¹⁴;
- Guidance Note 46 Using LANDMAP in Landscape and Visual Impact Assessments (GN46 NRW)¹⁵; and
- Design Commission for Wales - Designing for Renewable Energy in Wales¹⁶.

FINDINGS OF EDP DATA TRAWL

Landscape-related Designations and Other Considerations

2.3 Landscape-related designations and policy considerations are shown on **Figure 11.3**. In summary:

- National landscape designations: The Site does not lie within a nationally designated landscape. The closest national designation is the Clwydian Range and Dee Valley (CRDV) National Landscape (NL) which lies c.5.98km to the east of the BESS Site and c.6.65km east of the Solar Site; and
- Local landscape designations: The Site does not lie within a locally designated landscape. Betws yn Rhos Special Landscape Area (SLA) lies 1.5km south of the Solar Site, and 3.1km west of the BESS Site. A second SLA, namely the Afon Aled Valley Mosaic SLA lies c.5.54km south of the Solar Site, and c.4.32km west of the BESS Site respectively.

Heritage Matters

2.4 Heritage assets can influence the visual character of the landscape and enrich its historic value. This LVA addresses heritage assets only insofar as they are historic components of the wider contemporary landscape – not in terms of their significance and value as heritage assets, which is a matter addressed by the separate Heritage assessment (prepared by Cotswold Archaeology).

2.5 Within the wider study area, the following heritage assets are components of the contemporary landscape:

- There are no designated historic assets within the Solar Site or the BESS Site. The indicative Cable Corridor partly extends through Kinmel Park Grade II* Registered Historic Park and Garden (RHPG). Kinmel Avenue/Coed y Drive (a part of the access drive of Kinmel Park) lies immediately east and west of the proposed Solar Site;

¹³ [Supplementary Planning Guidance Note: Renewable Energy](#)

¹⁴ [Supplementary Planning Guidance Note: Clwydian Range and Dee Valley Area of Outstanding Natural Beauty \(AONB\)](#)

¹⁵ [Guidance Note 46 Using LANDMAP in Landscape and Visual Impact Assessments](#)

¹⁶ [DCfW Designing for Renewable Energy in Wales](#)

- The southern section of the cable corridor is parallel to the southern boundary of Bodelwyddan Castle Grade II RHPG;
- The nearest Scheduled Monument is located within 350m of the Site. A total of 146 Listed Buildings are located within the 2km of the Site, of which two are Grade I Listed, 22 are Grade II* Listed and 122 are Grade II Listed. Several of these, including the Grade I Kinmel and Grade I Llwyni are located within Kinmel and Bodelwyddan Registered Historic Park and Garden;
- The most proximal listed buildings to the Site include:
 - Grade II* Morfa Lodge, 70m east and west of the Solar Site;
 - Grade II Listed Toll Bar Cottage, c.30m south of the Solar Site;
 - Grade II Listed Bodoryn Cottages, c.20m south of the Solar Site; and
 - Grade II Kinmel Park, gatepiers and railings, immediately south-west of the Indicative Cable Corridor.
- The most proximal Conservation Areas to the Site include:
 - St George, c.120m south of the Indicative Cable Corridor part of the Site;
 - Bodelwyddan, 1.3km to the south of the Site;
 - Abergele, 1.8km to the west of the Site; and
- The Vale of Clwyd Registered Historic Landscape lies c.800m south of the Site.

Ecology Matters

2.6 A separate Ecology Baseline report (prepared by EDP, report reference: edp8841_r003) considers the ecological assets on the Site and within the study area. The following matters are relevant to the scope of this LVA:

- Traeth Pensarn Site of Special Scientific Interest (SSSI) and Liverpool Bay/Bae Lerpwl Special Protection Area (SPA) located c.3km to the north-east and 2km to the north of the Solar Site respectively;
- Coed y Gopa SSSI lies 2.6km west of the Solar Site;
- Coedydd ac Ogofau Elwy a Meirchion SSSI is located circa 1.4km south of the BESS Site; and
- Two wildlife sites within the Site boundary which are located within Conwy LPA area.

Arboricultural Matters

2.7 A separate Arboricultural Assessment (prepared by EDP, report reference: edp8841_r007) considers the arboricultural assets on the Site and within the study area. The following matters are relevant to the scope of this LVA:

- 13 Veteran Trees were identified during the survey;
- Areas of Ancient woodland lie in close proximity to the Site, the closest being an area of restored ancient woodland site (RAWS) referred through herein as Kinmel Avenue which borders Fields 4 and 5;
- Two Tree Preservation Orders (TPOs) fall within the Site;
- Generally, the items identified across the Site are primarily of low quality, with the exception of 84 category A (high quality) items and 90 category B (moderate quality) items; and
- The most prevalent species on site includes common hawthorn (*Crataegus monogyna*), Prunus species (*Prunus sp.*) and English oak (*Quercus robur*).

Public Access and Rights of Way

2.8 A review of the definitive map reveals the following public rights of way (PRoW) and open access land (OAL) within the Study Area.

- There is a relatively infrequent network of OAL and PRoWs such as footpaths, bridleways, byways open to all traffic, cycle routes, promoted paths and national trails in proximity to the Site, and within the 'zone of theoretical visibility' (ZTV);
- There are no areas of OAL or PRoW within the boundaries of the Site, including the cabling route. One PRoW runs adjacent to the Site boundary of the Solar Site;
- The North Pilgrims Way is the closest promoted route to the Site, around 1km south-east. Offa's Dyke (c.6km east) and the Wales Coastal Path (<2km north) are also within the study area. National Cycle Routes 84 and 5 are located approximately 2km east and north, respectively;
- A number of PRoWs are in close proximity to the Site including one which borders the eastern extent of the Solar Site; PRoW 31/12 runs adjacent to the Site travelling north to connect into PRoW 31/11 which runs into Towyn;
- To the south-west of the Solar Site lies PRoW 01/30 which connects Rhuddlan Road to St Georges Road, passing under the A55. Beyond St George's road lies the Betws yn Rhos SLA which contains a number of PRoWs including 01/31, 01/25 and 01/27; and
- To the north of the Solar Site lies PRoW 31/14 which runs between Towyn Way East and Brock Avenue on the southern edge of Towyn. PRoW 01/05 travels south out of Towyn, crosses the A55 and joins into the PRoW network within Betws yn Rhos SLA.

PLANNING POLICY

Future Wales: The National Plan 2040

2.9 Future Wales: The National Plan 2040 (2021) is the national development plan which provides a strategic direction for all scales of planning and sets out policies and key issues to be considered. The relevant chapters and policies are listed below.

2.10 Policy 17: Renewable and Low Carbon Energy and Associated Infrastructure:

- States that *“the Welsh Government strongly supports the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs”* and *“new strategic grid infrastructure for the transmission and distribution of energy should be designed to minimise visual impact on nearby communities”*.

2.11 Policy 18: Renewable and Low Carbon Energy Developments of National Significance:

- States that DNS Applications will be permitted if Proposed Development does not have an unacceptable adverse impact on the surrounding landscape (particularly on the setting of National Parks and Areas of Outstanding Natural Beauty) and where there are no unacceptable adverse visual impacts on nearby communities and individual dwellings.

Adopted Local Plan (Published)

The Conwy Local Development Plan 2007 – 2022 (adopted October 2013)

2.12 The Conwy Local Development Plan (LDP) 2007 – 2022 (adopted October 2013) includes overarching development policies, against which the development proposals will be tested. The Conwy LDP emphasises conserving and enhancing distinctive landscape character through protection of nationally and locally designated landscapes (National Landscapes and SLAs), safeguarding natural features, and requiring thorough impact assessments for development proposals.

2.13 Current policies that are in place and relevant to the Site in landscape and visual terms are listed below.

Table EDP 2.1: Conwy Local Development Plan Relevant Policies.

Policy number	Title	Summary
NTE/4	The Landscape and Protecting Special Landscape Areas	Protects designated Special Landscape Areas; development must conserve/enhance character.
NTE/3	Biodiversity	Requires development to conserve/enhance biodiversity and landscape features.
DP/3	Promoting Design	Encourages high-quality design that respects local landscape and visual context.

The Denbighshire Local Development Plan 2006 - 2021 (adopted June 2013)

- 2.14 The Denbighshire Local Development Plan 2006 - 2021 (adopted June 2013) includes overarching development policies, to which the development proposals will be tested. The plan promotes landscape-sensitive design, biodiversity enhancement, and green infrastructure integration to maintain the county's distinct rural and visual character.
- 2.15 Current policies that are in place and relevant to the Site in landscape and visual terms are listed below.

Table EDP 2.2: Denbighshire Local Development Plan Relevant Policies.

Policy Ref.	Title	Summary
RD 1	Sustainable Development and Good Standard Design	Sets out criteria to ensure new development conserves/enhances local character, respects landscape and townscape context, and integrates well with its surroundings.
VOE 1	Key Areas of Importance	Safeguards the natural environment, biodiversity, landscape character, and historic environment from inappropriate development.
VOE 2	Area of Outstanding Natural Beauty (AONB) and Area of Attractive Landscape (AAL)	Protects nationally and locally designated landscapes (including the Clwydian Range and Dee Valley AONB); development must conserve/enhance scenic quality.
VOE 10	Renewable Energy Technologies	Supports appropriate renewable energy proposals while protecting landscape, residential amenity, biodiversity, and cultural heritage.

Planning Policy Wales

- 2.16 Planning Policy Wales Edition 12 (PPW) sets out planning policies for Wales and how these should be applied. At the heart of PPW is a presumption in favour of the delivery of sustainable development. Page 17 outlines the key principles for Wales, which states that:
- “the planning system has a vital role to play in making development resilient to climate change, decarbonising society and developing a circular economy for the benefit of both the built and natural environments”.*
- 2.17 Paragraph 6.0.2 highlights that *“the special and unique characteristics and intrinsic qualities of the natural and built environment must be protected in their own right, for historic, scenic, aesthetic and nature conservation reasons”.*

Section 3

Baseline Conditions: Landscape Character

- 3.1 This section provides an assessment of the ‘baseline’ (existing) conditions in respect of the character of the Site and its landscape context. It summarises any relevant published landscape assessments that contribute to a better understanding of the landscape context. Such assessments provide a helpful understanding of the landscape context, but rarely deliver sufficiently site-specific or up-to-date information to draw robust conclusions about the significance of any change proposed by the development. Accordingly, EDP has undertaken its own assessment of the Site itself, which is included in this section.

NATIONAL CHARACTER ASSESSMENT

- 3.2 At the national level, the character of Wales has been described and classified in the National Landscape Character Area (NLCA) profiles published by NRW. The Site and its surroundings fall within NLCA 8 North Wales Coast and NCLA 9 Rhos.
- 3.3 The Solar Site is within NLCA 8, and its key characteristics can be summarised as:
- A distinctive coastal landscape stretching along the northern edge of Wales, encompassing a large amounts of offshore wind farms and a variety of features including sandy beaches, dunes, saltmarshes, estuaries, and rugged cliffs;
 - The coastline includes natural sites such as Afon Conwy estuary, Colwyn Bay, and parts of Anglesey’s eastern shore, supporting important habitats for wading birds, seals, and other wildlife. The land is characterised by a network of drainage ditches and sea defences and the farmland around the estuary is predominantly comprised of intensive pastoral agriculture;
 - Settlement patterns vary from historic fishing villages and seaside towns to scattered rural farms, many with strong maritime connections and tourism economies;
 - The landscape is characterised by a dynamic interface between land and sea, with dramatic views and a strong sense of openness and natural change. The landscape is relatively flat, with hedgerows, small woodland copses, and occasional farmsteads breaking up the open fields;
 - It includes several SLAs and SSSIs, reflecting its high ecological and geological value; and
 - The area is valued for its recreational opportunities, cultural heritage, and scenic quality, but is sensitive to pressures from coastal erosion, development, and tourism.

3.4 The BESS Site is within NLCA 8, and its key characteristics can be summarised as:

- A flat, low-lying valley area in the Vale of Clwyd (~35–60 m above ordnance datum (aOD)), characterised by large sinuous pasture fields, drainage ditches, and hedgerows;
- There is evidence of historic settlement patterns with scattered early post-medieval halls and farms, supplemented by later small, nucleated settlement around Rhewl;
- It is a heritage-rich landscape shaped by historic drainage and enclosure, with features such as hollow-way lanes, stone bridges, parkland clusters, and former railway alignments; and
- It is recognised for its high visual sensitivity and scenic quality, with tranquil, intervisible ridgelines and inclusion within regional SLAs.

3.5 For the scale of the development proposed on the Site, it is considered that the description of landscape character undertaken at the sub-regional level is more relevant in establishing the landscape resource baseline. As such, of greater use are the more localised assessments described in the following paragraphs (i.e., LANDMAP).

LANDMAP

3.6 In order to assess the acceptability of development, in landscape terms at any specific location, it is important to understand the landscape and visual amenity circumstances against which any decisions are made, based on both published LCAs and more site-specific landscape assessment undertaken through field studies and site appraisal.

3.7 The landscape character of the Site and the surrounding area is defined within the LANDMAP¹⁸ resource managed by NRW. LANDMAP is the national information system used to undertake an assessment of the landscape character at a local scale.

3.8 LANDMAP data is the key tool recommended for use in decision-making in relation to landscape character. PPW Section 6.3.19 states:

“LANDMAP is an important information resource, methodology, and monitoring baseline for the landscapes of Wales, which can help inform planning for the sustainable management of natural resources in an area. LANDMAP describes and evaluates the physical, ecological, visual, cultural and historic aspects of the landscape of Wales, and provides the basis of a consistent, quality assured national approach to landscape assessment. LANDMAP assessments can help to inform green infrastructure assessments, SPG on landscape, development management decisions, landscape character assessment, special landscape areas (SLAs), local distinctiveness, design, and landscape sensitivity studies.”

¹⁸ Natural Resources Wales (NRW), LANDMAP – the Welsh national landscape assessment system, available at: <https://landmap.gov.wales> (Accessed: 21 July 2025).

- 3.9 LANDMAP is a digital mapping landscape resource where landscape characteristics, qualities and influences on the landscape are recorded and evaluated into a nationally consistent data set. Data is defined by five layers or themes; the Geological Landscape, Landscape Habitats, Visual and Sensory, Historic Landscape and Cultural landscape, forming the key landscape guidance for Wales.
- 3.10 LANDMAP is a whole landscape approach that covers all landscapes, designated and non-designated. It identifies key landscape characteristics and qualities that can be used to aid planning policy and decisions. The accompanying guidance states that is the use of all five layers of information that promotes sustainable landscape decision-making, giving all five layers equal consideration.
- 3.11 The Site is composed of a number of LANDMAP ‘aspect areas’, as summarised below in **Table EDP 3.1**. Each LANDMAP theme/layer is described, assessed and assigned one of four overall grades of value: low, moderate, high or outstanding. Summary LANDMAP descriptions are provided on the NRW website.

Table EDP 3.1: LANDMAP Assessment and Evaluation

Aspect Type	Area Name	Classification	Evaluation
Visual and Sensory	Abergele Coastal Plain	CNWVS070	Moderate The linear pattern of watercourses and field boundaries is pleasing although there are detractors adjacent. The integrity of the area is reduced by hedgerows in poor condition in parts, golf courses and visually intrusive development including the A55. The area has a distinctive levels character and some visual unity. Coastal levels are rare in the County although occur in several places along the North Wales coast.
	Coastal Fields-near Towyn	DNBGHVS013	Moderate No particular character evident but provides some continuity in its agricultural land use and transition zone between settlement and countryside. Also provides an important setting for the adjacent settlement and although not highly unique or apparently well managed has the potential to provide increased biodiversity and an improved the overall visual appearance with relatively little input.
	Area North and East of Bodelwyddan	DNBGHVS014	Moderate Despite the ongoing neglect in land management the aspect has the potential to improve through relatively simple changes in management and enhancement and still functions as an important transition between settlement, industrial and rural areas.

Aspect Type	Area Name	Classification	Evaluation
	Cefn Estate	DNBGHVS033	Moderate. The attractive landscape quality of the aspect area whilst high, does not enable the overall evaluation of the area to achieve more than Moderate due to the proximity of industrial development and frequency of this landscape type within the wider area.
Historic Landscape	Morfa Rhuddlan	CNWLH075	High. Area of reclaimed land with historic associations and high potential for environmental and waterlogged archaeology.
	Bodelwyddan	DNBGHHL043	Low.
	Pentre-mawr	DNBGHHL041	Moderate.
Landscape Habitats	Bodelwyddan fields	CNWLH033	Low. Productive and well-managed agricultural land, with little sign of any conservation headlands on the arable land. The habitat interest is limited to the small woodland patches, and the well maintained and trimmed hedges.
	Abergele grasslands	CNWLH032	Moderate. A much changed, well drained and well managed agricultural area of productive grassland, where the main habitat interest is in the drainage ditches and channels. Water voles (a BAP species) have been seen in the area.
	Clwyd Estuary and Floodplain Grassland	DNBGHLH011	High. This is a significant area of coastal floodplain grassland alongside a tidal river and other water features, with important species of waders and wildfowl.
	Cefn Improved Grassland	DNBGHLH023	Moderate. Although predominantly improved grassland, there is a good network of hedges with many mature trees, some parkland and plentiful cover of broadleaved woodland, including semi-natural woodland with a high biodiversity value.
Geological Landscape	Abergele	CNWGL048	Moderate. N-facing dip slope in Carboniferous Limestone draped by boulder clay.
	Towyn	CNWGL051	Moderate. Extensive tidal flat area at mouth of Afon Clwyd.
	Tytywyrch	DNBGHGL015	Moderate. Ancient alluvial fan.

Aspect Type	Area Name	Classification	Evaluation
	Bodelwyddan	DNBGHGL016	Moderate. Classic glacial terrain transition from limestone upland to estuarine/floodplain. Extensive drift cover.
	Cefn Meiriadog	DNBGHGL031	High. 1 RIGS for limestone pavement.
Cultural Landscape	Abergele Coastal Plain	CNWCLS103	n/a.
	Cefn Estate	DNBGHCLS030	n/a.

EDP SITE ASSESSMENT AND REVIEW OF SITE CIRCUMSTANCES AGAINST PUBLISHED DOCUMENTATION

- 3.12 Site visits took place between November 2024 and April 2025 in mostly clear weather conditions. The visits were complemented by a review of aerial photography, mapping and field assessments from publicly accessible locations (e.g. from local roads and PRowS). **Annex EDP 1** contains site photographs to aid the readers understanding of the Site character and context.
- 3.13 The Solar Site is the largest component of the Proposed Development and is comprised of low lying, agricultural fields north and south of Rhuddlan Road; hedgerows and ditches (wet and dry) demarcate boundaries, and fencing is common particularly on the northern edge. The Solar Site is c.550m from the North Wales Expressway at its closest point. A quality feature of the Site includes a field boundary demarcated by a stone wall that fronts onto Rhuddlan Road. Vegetation is sparse on-site but there is a sizeable woodland adjacent to part of the Site located to the south of Rhuddlan Road (namely Kinmel Avenue). Overall, the character of the Solar Site is defined by the topography and its placement along a Rhuddlan Road and Kinmel Avenue. There is some intervisibility with the existing solar farm, which the Proposed Development would wrap around.
- 3.14 The BESS Site is markedly smaller comprising two agricultural fields. The boundaries are comprised of hedgerows of varying condition and there are some high-quality tree stock in the field boundaries on site the Site's edge.
- 3.15 The Cable Corridor can be considered in two sections for the purposes of the character assessment; in general terms, the western section is within farmland and the eastern section is proposed along Glascoed Road. The Cable Corridor measures c.8km in length and 10m in width and connects the Solar and BESS Sites. The cable corridor passes through farmland and under the A55. It then runs east- and south-eastward through Kinmel Park and Bodelwyddan Park, passing through a mix of farmland, plantation woodland and open parkland habitats, before running along the Glascoed Road. It is likely that grounding the cable will impact c.2m of the 10m buffer strip.

3.16 The various dimensions of landscape character have been considered, and a summary of the Site is as follows:

- The physical landscape: the average area aOD across the Solar Site is 5m aOD with very little change perceptible across the Site whereas the BESS Site has a fall from south to north with levels of 43m found on the northern edge, rising to highs of 56m aOD on the southern edge. There are no hydrological features found on the BESS Site, but ditches are a key characteristic of the Solar Site;
- The visual and sensory character of the Solar Site is that of an intensely farmed estuarine/floodplain environment which is sparsely vegetated which differs from the LANDMAP evaluation of moderate. The BESS Site is a more enclosed verdant landscape with defined field boundaries and mature trees, however the hedgerows are a mix of defunct and intact and the Overhead lines (OHL) and adjacent substation detract from the character of the Site;
- Landscape fabric and habitats: hedgerows are present on the Solar Site and the BESS Site – they are all species poor and there is a mix of intact and defunct. Trees, scrub ditches (wet and dry) are present and there is a pond on the Solar Site; and
- Cultural/Historic landscape character: a review of LANDMAP's historic landscape character areas identified the Solar Site within an area denoted as having a high overall evaluation due to its farming history and the potential for waterlogged archaeology. An area adjacent to the Site forms part of a registered historic landscape and in the wider context, there is evidence of medieval settlers. The BESS Site is in an area classified as moderate which was also ascribed to past farming uses.

LANDSCAPE VALUE

3.17 Landscape value is the inherent value of the landscape resource irrespective of the type of development proposed and, as such, is determined within the baseline.

3.18 GLVIA3 and the 2021 Landscape Institute Technical Guidance Note (TGN 02-21)¹⁹ assist in delivering a framework for an objective landscape assessment of value. The criteria defined within TGN 02-21 is reproduced below in **Table EDP 3.2**, with EDP's observations alongside, based on published material and from EDP's field assessment. For each of the nine criteria, the Site and local area is judged on the basis of a range from 'good', through 'ordinary' to 'poor' in terms of the performance against these criteria.

¹⁹ <https://www.landscapeinstitute.org/publication/tgn-02-21-assessing-landscape-value-outside-national-designations/>

Landscape Value of the Site and Near Context

Table EDP 3.2: Consideration of landscape value.

GLVIA/TGN Factor	The Site and its Context
Natural Heritage: Landscape with clear evidence of ecological, geological, geomorphological or physiographic interest which contribute positively to the landscape.	Low. The Site or immediate context contains no sensitive features of natural heritage importance.
Cultural Heritage: Landscape with clear evidence of archaeological, historical or cultural interest which contribute positively to the landscape.	Medium. In its near context, the Kinmel Park RHPG provide historic interest.
Landscape Condition: Landscape which is in a good physical state both with regard to individual elements and overall landscape structure.	Low. The Solar Site comprises agricultural land, with average quality boundary vegetation. There are areas of wet and dry ditch boundaries, fencing and defunct hedgerows. The BESS Site has more intact boundaries with some quality mature tree stock on its edges.
Associations: Landscape which is connected with notable people, events and the arts.	Low. There are no associations relating to the Site.
Distinctiveness: Landscape that has a strong sense of identity.	Medium. The Solar Site's openness and low-lying nature has a relatively strong sense of place on the North Wales coast. The BESS Site has a lesser sense of distinctiveness in its context, and it doesn't differ greatly from to the agricultural land in close proximity to it.
Recreational: Landscape offering recreational opportunities where experience of landscape is important.	Low. No parts of the Site have access via PRoW or OAL therefore it has no recreational value.
Perceptual (Scenic): Landscape that appeals to the senses, primarily the visual sense.	Medium. The Site's characteristics are representative of the wider agricultural landscape and in this sense is an entirely 'ordinary' parcels of agricultural land in land use, topographical and hydrological terms.

GLVIA/TGN Factor	The Site and its Context
Perceptual (Wildness and tranquillity): Landscape with a strong perceptual value notably wildness, tranquillity and/or dark skies.	Low. The Solar Site is adjacent to the busy A547 road, and the wider network is also audible from parts of the Site. BESS Site has a better sense of tranquillity as it is more enclosed, and the landscape pattern includes smaller field parcels. It is adjacent to energy infrastructure which adds manmade elements into the immediate context; high voltage towers and lines are dominant in the area.
Functional: Landscape which performs a clearly identifiable and valuable function, particularly in the healthy functioning of the landscape.	Low. The Solar Site is an area of land which is currently used for predominantly grazing agriculture that is typical of the local area. Boundaries where vegetated are weak and often defunct. There are isolated dwellings scattered throughout the immediate site context. The Site is not accessible to the public and provides no form of recreation. The BESS Site has more mature vegetated boundaries which are intact and in good condition. The mature tree cover on the Site boundary contributes to the well-treed context in land and on more elevated land in the wider context. The arboricultural resource is neither rare nor unusual in this area.

3.19 Having assessed the Solar Site and the BESS Site in accordance with our methodology and TGN 02-21, overall, it is considered that the Solar Site is low value and the BESS Site is medium. The condition of the landscape within the Site is generally poor, with limited biodiversity and Green Infrastructure value. Beyond being adjacent to the Kinmel Park RHPG, and an area of arable land in close proximity to industrial development, the Site has no particularly strong sense of identity or distinctiveness and comprises unremarkable agricultural land. The inclusion of large OHL towers adjacent to the BESS Site, and the boundaries of the Solar Site being formed by Rhuddlan Road (national speed limit) also reduces the perceptual functional qualities of the landscape.

3.20 The immediate context of the Solar Site contains similar attributes as the Site (as described above), but the BESS Site's context also consists of several industrial and urban habitats, including an industrial estate and electricity substation.

Landscape Character Areas

3.21 The host national landscape character areas are NLCA 8 North Wales Coast and NCLA 9 Rhos. The landscape within the Site is considered a typical example of each corresponding NCLA, without any particular features or associations that would increase its landscape value above that of the surrounding landscape. The presence of landscape detractors in the form of high voltage OHL and substations detract from the value of the local landscape within the BESS Site and immediate context. Given the landscape variation

within the NCLA and the scale of the NCLA overall however, is considered to be of medium value and medium sensitivity. NLCA 8 North Wales Coast has been scoped in for further consideration, and NCLA 9 has been scoped out as the scale of the BESS Site in comparison to NLCA 9 is unlikely to yield notable effects such as those that would be considered significant in EIA terms.

- 3.22 The host LANDMAP character areas and those in the wider study area have also been considered herein. **Figure 11.4** and **11.5** includes the LANDMAP classifications and evaluations for the wider study area.
- 3.23 **Host Visual and Sensory Aspect Areas (VSAA):** each host VSAA scored a moderate evaluation overall in LANDMAP which aligns with EDPs evaluation of the Site as a whole, and its context. Abergele Coastal Plain, Coastal Fields-near Towyn and Area North and East of Bodelwyddan all host the Solar Site. The area containing the Solar Site is a transitional zone, and this is evidenced by the east-west arterial routes that link to the north coast. The integrity of the Green Infrastructure is noted as in poor condition and the lack of management presents an opportunity for future development to improve the character as well as biodiversity. The Cefn Estate hosts the BESS Site, and findings align with respect to the scenic value of the Site, although the immediate local site context is heavily influenced by industrial development.
- 3.24 **Host Historic Landscape Aspect Areas (HLAA):** the host HLAA scored a range of High to Low overall in LANDMAP. There is little detail on each of these areas however Morfa Rhuddlan scored High in LANDMAP due to the high potential for environmental and waterlogged archaeology. Any geological intrusions that could disturb potential archaeology as a result of the development proposed would be discussed in the heritage assessment included at Chapter 10.
- 3.25 **Host Landscape Habitat Aspect Areas (LHAA):** the host LHAA scored a range of High to Low overall in LANDMAP. The aspect areas hosting the Solar Site describes a much-changed landscape with little habitat interest beyond small patches of woodland and well-maintained hedges, both of which are lacking on-site. The main habitat interest, which aligns with EDP's assessment, is floodplain grassland in the wider area and the drainage ditches. Ditches on site are proposed to be retained, maintained and enhanced for biodiversity where currently dry. The BESS Site overlaps with Cefn Improved Grassland, an aspect area with a moderate overall evaluation. Mature trees and a good network of hedgerows is consistent with the findings at the Site level.
- 3.26 **Host Geological Aspect Areas (GAA):** the host GAA all scored moderate with the exception of Cefn Meiriadog hosts the BESS Site and scores high. The moderate host GAA all reference the fluvial/estuarine qualities which would be unaffected by the type of development proposed. It is likely that GAA can be scoped out from further consideration.
- 3.27 **Host Cultural Landscape Aspect Areas (CLAA):** there are two host CLAA, neither of which are evaluated in LANDMAP. EDP deemed the wider site context to have a medium value due to the Kimmel Park provide historic interest. The Cable Corridor passes through the estate; however, the grounding of the cable would enable full restoration of any ground disturbance, and mature trees and associated root protection areas would be avoided. It is likely that CLAA can be scoped out from further consideration.

Special Landscape Areas (SLA)

- 3.28 The Site is outwith and landscape designated areas such as SLAs. There are two SLAs in the study area, and both of these areas are largely outside of the ZTV owing to the local ridgeline that lies to the south-west of the Site. Betws yn Rhos SLA and Afon Aled Valley SLA mosaic and whose key characteristics are identified for the purposes of giving these areas due regard with respect to Proposed Development outside of these areas.
- 3.29 The Betws yn Rhos SLA is located c.1.5km to the south/south-west of the Solar Site at its closest point. The most north-easterly part of the SLA overlaps with the ZTV and a number of viewpoints have been included to represent views from rights of way and roads that are also within the SLA. It is considered a high value landscape with expansive views towards Yr Wyddfa, the coast and the CRDVNL. Development within the SLA is noted as having potential to undermine its visual integrity, although in the vicinity of the Site, there is a large quarry within this SLA designation itself. The SLA has been scoped into the ES and the landscape and visual effects will be reported.
- 3.30 The Afon Aled Valley SLA: This is a medium scale valley landform with a complex mosaic of land cover. The topography comprises a deeply incised river valley through the rolling uplands of the Rhos Hills; lower valley sized tend to be enclosed, limiting long distance views. Elevated slopes of the upland valleys are afforded panoramic views east and west, towards Eryri and the CRDVNL and human influence is recorded as limited. This is a high value landscape. Intervisibility with the Site was investigated using digital modelling, and owing to landform and vegetation, it is scoped out from further consideration. Perceptual change in the direction of the Site, if any, would be extremely limited and fleeting.

Clwydian Range and Dee Valley National Landscape

- 3.31 The Clwydian Range and Dee Valley National Landscape (CRDVNL) is a designated landscape that covers approximately 390 km sq., and it is c.5.9km to the east of the Site at its closest point. The national landscape is characterised by a distinctive chain of heather-clad hills, steep escarpments, and open upland ridges that form a strong visual backdrop across north-east Wales. This landscape is defined by its strong topographic structure, with prominent summits and a series of Iron Age hillforts that add both visual and cultural prominence. Key characteristics include are open moorland, pastoral farmland, wooded valleys and a sense of remoteness in places. There is also a high recreational value due to the scenic viewpoints and national trails that traverse this landscape.
- 3.32 The setting of the CRDVNL comprises the adjacent lowland areas that visually and functionally support its character. This includes the Vale of Clwyd to the west which hosts the Site. Parts of the Vale are recognised for its fertile farmland and dispersed settlement pattern, and the Denbigh Moors and upland fringes to the east and south. These surrounding areas often provide key foreground or middle-ground views from within the National Landscape and influence its sense of scale, contrast, and visual containment. The Site is considered to be situated in the background of available views looking west due to the distance between the Site and CRDVNL.
- 3.33 The CRDVNL has a high value and the indirect effects on character, as well as the change likely to be perceived by recreational users of this landscape is scoped into the ES.

- 3.34 The Clwydian Range and Dee Valley AONB Management Plan (2024) is a five-year strategy which has been developed collaboratively between the AONB Unit, its Joint Committee, local authorities (Denbighshire, Flintshire, and Wrexham), and key stakeholders to provide a shared framework for conserving and enhancing the natural beauty, cultural heritage, and environmental qualities of the CRDVNL.
- 3.35 The Management Plan (MP) sets out the CRDVNL statutory purposes to conserve and enhance natural beauty (encompassing scenic, cultural, geological and ecological values) and ensure sustainable social and economic development within the landscape and promote the quiet enjoyment of the area by residents and visitors.
- 3.36 The MP states that: *“It is also recognised that this special character is made up of the unique combination of all its Special Qualities and Features. This is a combination of the physical attributes (rolling hills, rushing rivers, heather topped moorlands) and non-physical attributes (tranquillity, community spirit, access to nature). These attributes are referred to within this Management Plan as “Features” and “Qualities” respectively.”*
- 3.37 The recognised special qualities and features include *“the distinctive upland character of the Clwydian Range, with its heather moorland and limestone features”* (p.12), and *“the steep-sided, wooded valleys of the Dee and its tributaries”* (p.13). The MP highlights *“diverse habitats supporting notable species such as the red kite and black grouse”* (p.14) and emphasises the area’s rich cultural heritage, with *“ancient monuments like Iron Age hillforts and historic settlements”* contributing to its sense of place (p.15). Additionally, the NL contains *“the Pontcysyllte Aqueduct, a UNESCO World Heritage Site, which is a key landmark within the landscape”* (p.16).
- 3.38 Together, these features establish the landscape’s *“outstanding natural beauty and cultural importance”* which the management plan seeks to conserve and enhance (p.10). Additionally, *“The long-distance views from the summits of the Clwydian Hills and the Dee Valley escarpment are dramatic and extensive, contributing to the sense of remoteness and openness”* (p.13). *“Views to the AONB from surrounding lowlands are equally important in defining the area’s character and in providing a backdrop to everyday life in North East Wales (p.14).”*

LANDSCAPE SUCCEPTABILITY TO CHANGE AND SENSITIVITY

- 3.39 The susceptibility of a landscape resource is defined as the ability of the receptor (whether the overall character, individual fabric elements or perceptual aspects) to accommodate the type of development proposed without undue consequences for the maintenance of the baseline situation.
- 3.40 The sensitivity of a landscape resource is the product of the inherent value attached to the landscape and its susceptibility to the type of development proposed in a particular location.

Sensitivity of the Character of the Site and Context

- 3.41 Sensitivity is derived from judgements about the value of the receptor, and it’s susceptibility to the type of development proposed.

- 3.42 From a sensory perspective, the Solar Site is consistent with its near, and more distant, Vale of Clwyd context, being relatively unremarkable within the landscape. It does in part contribute to the appreciation of the wider landscape, insofar as it is part of a wider estuarine landscape that is markedly different in character to the valleys and hills to the east, west and north. The Solar Site is as perceived as open agricultural landscape with a poor Green Infrastructure framework. It is bound by a main A road and dissected by a number of minor roads. There are some isolated residential properties bordering parts of the Solar Site. In terms of its susceptibility to change, physically the landscape is intensely farmed and features and field patterns are degraded. The pattern of the landscape in its immediate context is also relatively monotonous. It is low lying and open but there are very limited prominent landmarks (i.e. trig points) or PROWs in the study area that would be affected as a result. The flat nature of the land tends to limit views to close range and more elevated distant views, i.e., views are foreshortened. The most notable experience on, and adjacent to the Solar Site is the relationship to the road network. Rhuddlan Road is a national speed limit road, and the pace and frequency of traffic is a dominant aural intrusion. The North Wales Expressway is also audible from parts of the Solar Site. The value of the Solar Site in terms of character was deemed low and the susceptibility of the proposed Solar development to change is low at most. The landscape sensitivity of the Solar Site is considered to be low overall which is largely due to the lack of management, the immediate context and the degraded nature of the landscape features on the Solar Site itself.
- 3.43 The BESS site contains features of merit, and the enclosed nature of the BESS Site also has positive qualities. The BESS site is influenced by the OHL which traverse the BESS Site, in combination with the adjacent substation however and these are notable intrusive and detracting features experienced within, and in the immediate context of the BESS Site. The susceptibility of the BESS Site is considered medium and the value is judged to be medium. The overall sensitivity is therefore judged to be medium however the presence of the OHL and substation strongly influence the perceived character of the local area.
- 3.44 The character of both the Solar Site and the BESS Site is relatable to the character of the immediate surroundings or context, i.e. the areas where landscape character effects are most likely.

Landscape Sensitivity of Other Landscape Receptors

- 3.45 Non-host character areas and designations which have been scoped in due to their intervisibility with the Site include LANDMAP aspect areas that overlap with the photoviewpoint locations, Betws yn Rhos SLA, and the CRDVNL. The sensitivity of the landscape receptors scoped in typically ranges from high to very high, although the level of sensitivity can change within a given area depending on the perceptual qualities experienced at a given viewpoint, or from a particular part of a promoted route for example.

LANDSCAPE CHARACTER BASELINE SUMMARY

3.46 The landscape character receptors to be assessed within the ES have been summarised here as follows:

Table EDP 3.3: Landscape Character Receptor Summary

Receptor	Value	Susceptibility	Overall Sensitivity
The Site and its immediate Context (Solar Site)	Low	Low	Low
The Site and its immediate Context (BESS Site)	Medium	Medium	Medium
NLCA 8 North Wales Coast	Medium	Medium	Medium
LANDMAP Host Aspect Areas for Solar Site	n/a	n/a	Low – High
LANDMAP Host Aspect Areas for BESS Site	n/a	n/a	Medium – High
Non-host Visual and Sensory Aspect Area for Solar and BESS Site within 3km	n/a	n/a	Medium – High
Non-host Visual and Sensory Aspect Area between 3-10km	n/a	n/a	Low – Very High
Betws yn Rhos SLA	High	High	High
CRDLNL	Very High	Very High	Very High

Section 4

Baseline Conditions: Visual Amenity

INTRODUCTION

- 4.1 Visual amenity refers to the overall appreciation and pleasantness of views and people's visual experience. It also has to do with the number, distribution and character of views towards, from or within the Site. An analysis of visual amenity allows conclusions to be reached about who may experience visual change, from where and to what degree those views will be affected by the Proposed Development.
- 4.2 This section describes the existing views; changes to views wrought by the Proposed Development which are summarised in the ES. An analysis of existing views and the 'receptors' likely to experience visual change is conducted in three steps described in turn below:

STEP ONE: DEFINING ZONES OF THEORETICAL AND PRIMARY VISIBILITY

- 4.3 The starting point for an assessment of visual amenity is a computer-generated ZTV. The ZTV is derived using digital terrain data only and therefore it does not account for the screening effects of intervening buildings, structures or vegetation, but it does give a prediction of the areas that, theoretically, may be able to experience visual change.
- 4.4 The ZTV was then refined using LiDAR Digital Surface Modelling (DSM) which does account for the screening effects of vegetation and built form. Site visits included walking and driving local roads, rights of way and other publicly accessible viewpoints to arrive at a more accurate, 'field-tested' Zone of Primary Visibility (ZPV). The ZPV is where views of the Proposed Development would normally be close-ranging and open, whether in the public or private domain, on foot, cycling or in a vehicle. In this instance, the field assessment was undertaken by an experienced landscape architect and therefore predicts the extent of summertime/wintertime views of the Proposed Development with confidence.
- 4.5 Beyond the ZPV lies a zone of visibility that is less open, being either partly-screened or filtered. Views from within this zone would include the proposal – it may not be immediately noticeable due to distance and or intervening landform or vegetation intervening in views but once recognised would be a perceptible in the view.
- 4.6 The extents of the visual envelop for the Solar Site are as follows and shown on **Figure 11.6**:
- North: The visual envelope to the north is contained within 1km of the Site boundary, and this area comprises low lying fields with limited PRoW and residential dwellings on the edge of Towyn. The northern boundary of the Site is open and lacking vegetation. The boundary is mostly post and rail fences that run parallel to off-site ditches with the odd scattered tree. There is almost no level change between the Site and the Afon Gele and Towyn to the north but there are some intervening fields which provide separation from the Site. Hedgerows and trees are sparse but intermittently present and these

partially filter views from residential properties on the periphery of the town. These properties in turn curtail further views from the north;

- South: There are three minor roads and isolated groups of houses located between the Site and the North Wales Expressway; this area is flat and more vegetated, with the Kinmel RPG containing a distinctive tree lined avenue in the vicinity of the Site. Up to 1km from the Site to the south, there are open and close-range views from the boundary of the Site. Within this area, the main receptors are again road users and residential properties – there are no rights of way in this area. Beyond the North Wales Expressway, and rises up towards St George. Views north towards the Site are mostly screened by vegetation and local changes in landform and land use (quarry);
- East: This is the only direction to encompass long distanced views towards the Site, and close range views are almost exclusively limited to roads, residences and rights of way adjoining the Site boundary. There is unlikely to be any intervisibility beyond the Site boundary and the east until there's a level change c.6km to the west where the Clwydian Range and Dee Valley National Landscape starts. A number of viewpoints have been included in the visual assessment to demonstrating the types of views for receptors along the western edge of the escarpment; and
- West: The North Wales Expressway (and Junction 24) dissects the landscape to the east of Abergele, which is due west of the Site. The road itself comprises roadside vegetation which limits the extent of the visual envelope to the low-lying landscape to the east of the expressway only (no views from Abergele). Further south-east, land rises up and the network of rights of way increases in frequency. A large ridgeline c.1.8km from the Site curtails views from the south-west. There are fleeting opportunities for filtered and framed views from rights of way, road gates and residential properties within the area defined in between the ridgeline and the Site.

4.7 In proximity to the Solar Site there is a considerable amount of the Site that is adjacent or close to Rhuddlan Road. There are sequential views for users of the road travelling in both directions; views range from open, filtered and screened completely from this route. Minor roads, such as Gors Road, St Asaph Road and St George all connect to Rhuddlan Road and views are experienced at close and medium range from parts of these roads.

4.8 The BESS Site is in a smaller scale landscape, and it is more enclosed by layers of vegetation on the Site boundary and in the local site context;

- North: views are limited to a private road which provides access to the adjacent substation which associated with an offshore wind farm. The substation is adjacent to the Site's north-western edge. The private road is vegetated and there is a tree belt on its northern edge which demarcates the boundary of an industrial estate;
- South: views again are limited to the Site boundary which is bordered by an unnamed sunken road. Views are limited by the hedgebanks, but breaks provided by field gates permit clear views south. Field boundaries on the Site and in the local site context are common which reduces the sense of openness to the south also;

- East: there are no open views from the east and close to medium range views are difficult to discern due to the screening effects of vegetation, including woodland blocks in the local landscape in combination with the landform of the surrounding area. Partial filtered views may be experienced in long distanced views, however, the Site is likely to be difficult to discern, even from the most elevated ground in the study area; and
- West: the visual envelope is limited by hedgerows and mature trees. The most accessible views of the Site are from close range. There is a footpath less than 250m west that is permitted views towards the Site. Views from the roads in close proximity are a little harder to discern due to the narrowness of the lanes in the area, which are vegetated.

4.9 **Figure 11.6** illustrates the findings of the visual appraisal. The location of the photoviewpoints provides an indication of the direction and distance of views and the likely pattern and distribution of intervisibility with the Site. The ZTV is based on digital surface modelling that takes into account the screening effects of built form and vegetation.

VISUAL RECEPTOR GROUPS

4.10 Within the ZTV, the people ('receptors') likely to experience visual change can be considered as falling into a number of discernible groups.

Rights of Way Users

4.11 Users of PRoW are typically afforded a high sensitivity and users of promoted routes and national trails are typically afforded an elevated sensitivity. The sensitivity for each receptor group in the study area is summarised in the PVP **Table EDP 4.1**. Below is a summary of PRoW national cycle routes and promoted routes within the study area:

- PRoW 31/12 (**Photoviewpoint EDP 4**) runs adjacent to the Solar Site's western edge. It runs from Rhuddlan Road north to connect into PRoW 31/11 which runs into Towyn;
- PRoW 01/30 (**Photoviewpoint EDP 11**) is less than 100m west of the Solar Site and runs south from Rhuddlan Road. Views from the route are mostly curtailed by the roadside hedgerow;
- PRoW 31/14 (**Photoviewpoint EDP 13**) connects Towyn Way East and Brock Avenue on the southern edge of Towyn;
- PRoW 01/05 (**Photoviewpoint EDP 14**) progresses south-west from Towyn, crosses the A55 and joins into the broader PRoW; and
- PRoW 19/05, 19/06 and 10/29 link to join Fadre Hill to Tan y Fron Road;
- PRoW 01/25 (**Photoviewpoint EDP 17**) is located on Tower Hill;
- PRoW 01/28 (**Photoviewpoint EDP 18**) links Ton y Fron Road to Ffordd y Berth;

- PRoW 01/31 (**Photoviewpoint EDP 16**) is south of St George Quarry;
- PRoW (105/7) (**Photoviewpoint EDP 21**) which connects rural lanes;
- North Pilgrims Way (**Photoviewpoint EDP 23** and **30**) are within the study area, located approximately 1km south-east at its closest point but limited intervisibility in the close to medium distance;
- Offa's Dyke is c.6km east (**Photoviewpoint EDP 29**) and the Wales Coastal Path (<2km north) are also within the study area, and there is no intervisibility with the latter;
- National Cycle Routes 84 and 5 are located approximately 2km east and north, respectively – little intervisibility was found with national cycle routes owing to landform and distance.

Road Users

Rhuddlan Road (A547)

- 4.12 This is a national speed limit road with no adjacent footpaths. **Photoviewpoints EDP 1, 2, 3, 5** and **11** represent various views from Rhuddlan Road. The sensitivity of these road users is deemed to be low. Views are close range and mostly open from along this stretch of the road adjacent to the Solar Site.

Gors Road

- 4.13 This is a minor road that dissects the western part of the Solar Site. The sensitivity of these road users is deemed to be medium. Views into the Site are available to the east and west as it passes the Site. **Photoviewpoint EDP 12** represents a view from Gors Road.

St Asaph Road and St Asaph Avenue

- 4.14 St Asaph Road joins St George and runs parallel to the A55, as it passes close to Junction 24, and the road contains a footpath. The sensitivity of these road users ranges from low to medium. The Solar Site is located c.800 m to the north at its closest point. Views vary towards the Site. **Photoviewpoints EDP 8 - 10** represent views from St Asaph Road.
- 4.15 St Asaph Avenue is located c.160 m east of the Solar Site where it meets Rhuddlan Road. **Photoviewpoint EDP 5** (low sensitivity) represents a view from St Asaph Avenue roundabout. **Photoviewpoint EDP 6** represents a view from the minor road as it borders the eastern part of the Solar Site for approximately 950 m. The sensitivity of these road users is deemed to be medium. Open views into the closest field parcels are available.

Unnamed Roads

- 4.16 **Photoviewpoint EDP 6** represents a view from a minor road which borders the eastern part of the Solar Site for approximately 950 m. Views into the closest field parcels are open.
- 4.17 **Photoviewpoint EDP 7** represents a view from a minor road to the south which is removed from the Solar Site. The sensitivity of these road users is deemed to be medium. The road is mostly enclosed but there are field gates where views north towards the Solar Site are possible across intervening fields.

- 4.18 **Photoviewpoints EDP 20 and 22** represent views a minor road that wraps around the BESS Site to the west and south before progressing further south.
- 4.19 The list of roads above is not exhaustive and there are more roads within the study area that may have fleeting or glimpsed views towards the Proposed Development. Photoviewpoints in the wider area have been captured to show the range and extent of potential views, such as Cwm Road on the boundary of the CRDVNL and the Fadre Hill/Nant Ddu Road which is in a locally designated landscape (Betws yn Rhos SLA).

Residential Dwellings/Groups

- 4.20 Views from private residential properties are likely to be of high to very high sensitivity to changes depending on the context of the view and the part of the house it is experienced from. A Residential Visual Amenity Assessment has been prepared to accompany the ES to assess the changes to the character, 'quality' and nature of private views as they remain relevant to this review of the predicted extent and nature of visual change.

Clwydian Range and Dee Valley National Landscape

- 4.21 The CRDVNL is a key landscape receptor that will be assessed in the ES, as too will the visual effects for users of the national landscape which is located c.5.9 km to the west of the Site at its closest point. The sensitivity of these recreational users within CRDVNL is generally deemed to be very high. **Photoviewpoints EDP 24 - 29** represent views from within the CRDVNL.

Other Receptors

- 4.22 The Kinmel Park is not publicly accessible, nor is it traversed by any PRoW that would enable views from within the park to be captured. However key views associated with the park as documented have been reviewed and there are no likely significant effects considered likely as a result of the direction of the views in the receiving vegetated landscape therefore the park and garden are not considered further within this report. There are other parks and gardens within the study area, all of which were investigated where they overlap with the ZTV, however, none were found to have any intervisibility of note with the Proposed Development therefore they have been scoped out.
- 4.23 Areas of registered landscapes of outstanding historic interest have also been identified within the study area, the closest is c.1km to the south of the BESS Site, and the North Pilgrim's Way passes through this landscape in a north-easterly direction. There is limited overlap with the ZTV for the registered landscapes of historic interest within the study area, and where intervisibility was shown as potential, ground truthing showed that the layers of vegetation in the intervening landscape reduced the likelihood of view, and in particular, views of any consequence to this report therefore these have been scoped out from further consideration.

DEFINING REPRESENTATIVE VIEWPOINTS

- 4.24 Within the visual envelop, there are clearly many individual points at which views towards the Site are gained. EDP has selected a number of viewpoints that are considered

representative of the nature of the views from each of the receptor groups. The selection of the representative viewpoints is based on the principle that the assessment needs to test the 'worst case' scenario, and in selecting these viewpoints, EDP has sought to include:

- A range of viewpoints from all points of the compass, north, south, east and west;
- A range of viewpoints from distances at close quarters at the Site boundary and up to long distance viewpoints from the Site; and
- Viewpoints from all the above receptor groups.

4.25 The representation of views is supported by 30 photoviewpoints, the number and location of which has been influenced by statutory consultees at the screening stage. The photoviewpoint locations are shown on **Figure 11.6** and the corresponding photoviewpoint sheets are contained in **Figure 11.9**. A series on Photomontages have also been included at **Annex EDP 3**. The purpose of these viewpoints is to aid assessment of a visual receptor(s).

4.26 The representative photoviewpoints are listed in **Table EDP 4.1** below together with an appraisal of their sensitivity. The viewpoint selection was consulted on, and additional views have been incorporated to accord with statutory consultee comments and suggestions.

4.27 The sensitivity has been derived from the baseline knowledge of the viewpoints, a knowledge of the type of development proposed, and the criteria set out in the methodology at Appendix G.2 of the ES. The appraisal of sensitivity has been included in the baseline, rather than in the assessment, to maintain flow and avoid repetition.

Table EDP 4.1: Summary of Representative Photoviewpoints (asterisk denotes Photomontage*).

PVP No.	Receptor Group	Grid Reference	Distance to Site (closest point)	Direction to Site	Sensitivity of the receptor
1*	Road users	296711, 377233	14 m	W-E	Low
2	Road Users	297492, 377270	2 m	NE	Low
3*	Road Users	297690, 377238	10 m	E	Low
4	PRoW Users	298963, 377664	0 m	W	High
5	Road users	299377, 377570	45 m	W - SW	Low
6	Road users	299568, 376647	13 m	NW	Medium
7	Road users	298834, 376377	542 m	N	Medium
8	Road users	298136, 376188	590 m	N	Low
9	Road users	297712, 376404	460 m	N	Low
10*	Road users	297107, 376577	697 m	NE	Medium
11	PRoW and Road Users	296358, 377210	93 m	E	Low
12*	Road Users	297750, 377753	10 m	S	Medium
13	PRoW Users	298332, 378670	248 m	S	High
14	PRoW Users	295723, 377969	800 m	SE	High
15*	Road Users	296741, 376069	1.16 km	NE	Medium

PVP No.	Receptor Group	Grid Reference	Distance to Site (closest point)	Direction to Site	Sensitivity of the receptor
16	PRoW Users	296679, 375587	1.63 km	NE	High
17	PRoW Users	295402, 375922	1.66 km	NE	High
18	PRoW and Road Users	295559, 376246	1.34 km	NE	High
19*	Recreational users/ Scenic Viewpoint	305945, 380391	7.16 km	SW	Very High
20	Road Users	301272, 373664	117 m	SE	Medium
21	PRoW Users	301098, 373545	227 m	E	High
22*	Road Users	301092, 373405	123 m	NE	Medium
23	PRoW and Road Users	302444, 372761	1.14 km	NW	Very High
24	Road Users	306023, 378200	6.64 km	W	Medium
25*	Recreational users	306360, 378133	6.97 km	W	High
25a*	Recreational users	306360, 378133	6.66 km	SW	High
26	Recreational users	307224, 377813	7.76 km	W	Very High
26a	Recreational users	307224, 377813	7.06 km	SW	Very High
27	Road Users	306701, 376519	7.26 km	NW	Medium
27a	Road Users	306701, 376519	7.08 km	SW	Medium
28	Recreational users	308259, 374472	8.97 km	NW	High
28a	Recreational users	308259, 374472	6.77 km	W	High
29	PRoW Users	309532, 373047	10.62 km	NW	Very High
30	PRoW Users	305669, 373284	4.12 km	W	Very High

VISUAL AMENITY RECEPTORS AND SENSITIVITY

- 4.28 Visual receptors included in the visual appraisal encompass a diverse range of groups, including road users, PRoW users, and recreational users of national landscapes and users of promoted routes and visitors to scenic viewpoints for examples. The value of views is influenced by factors such as landscape designations, scenic quality, and popularity or frequency of use. Susceptibility to change is based on the receptor's primary activity and the extent to which attention is likely to be focused on the surrounding environment.
- 4.29 Road users and residential receptors the receptor groups most affected in proximity to the site. Road users are generally considered to have a low to medium susceptibility to visual change due to the transient and movement-focused nature of travel. Accordingly, the sensitivity of main roads in close proximity to the Site (e.g. **Photoviewpoints EDP 2, 3 and 5**) is low, while more minor and less busy roads with within more sensitive contexts (e.g. **Photoviewpoints EDP 6, 10, 15, 20 and 24**) are considered medium.
- 4.30 PRoW users, such as walkers and cyclists, are typically ascribed a high to very high susceptibility – particularly in more remote locations where the receptor is removed from the more transient low-lying landscape on the north coast, which is dissected by vehicular routes, settlements and industrial uses for example. PRoW users in more

elevated locations tend to have a higher sensitivity and susceptibility to change given the open nature of routes and the likelihood of prolonged engagement with the surrounding landscape. PRow receptors located immediately adjacent to or within direct views of the Site (e.g. **Photoviewpoints EDP 4, 13 and 14**) are assessed as having high sensitivity. More distant PRow users, particularly where panoramic or valued views are present (e.g. **Photoviewpoints EDP 16–18, 29 and 30**), are assessed as high to very high sensitivity due to elevated viewpoints or association with designated/scenic landscapes.

- 4.31 Recreational users at recognised scenic viewpoints (e.g. **Photoviewpoints EDP 19 and 25–28**) are assessed as having high to very high sensitivity, owing to the high value placed on uninterrupted views and visual amenity as a core part of the experience.
- 4.32 Overall, receptor sensitivity across the representative viewpoints ranges from low (e.g. local roads near the Site) to very high (e.g. distant scenic viewpoints or promoted recreational routes), reflecting the varying context, user expectations, and landscape value associated with each viewpoint.

Section 5

The Proposed Development and Landscape Strategy

- 5.1 Having defined the baseline conditions in the previous two sections, this report summarises the Proposed Development and describes the mitigation measures employed. It then describes the landscape strategy proposed and sets out the resulting landscape enhancement measures.

THE PROPOSED DEVELOPMENT

- 5.2 The Proposed Development is described in Chapter 3 of the ES, and the layouts appended to the chapter include; Proposed Solar Site Layout Reference 02; Proposed BESS Site Layout Reference 03; and Proposed Cable Corridor Reference 04.
- 5.3 The site comprises two separate parcels of land located to the north-west and south-east of Bodelwyddan, which are linked by an underground Cable Corridor. The grid connection point will be at Bodelwyddan Substation, directly adjacent to the eastern boundary of the BESS site. The overall site measures approximately 183.77ha. To summarise, the Proposed Development comprises:

“The construction, operation and maintenance of a proposed solar photovoltaic electricity generating system and battery energy storage system (‘BESS’), associated solar arrays, inverters, transformers, cabling, substations, access tracks, landscaping, ecological enhancement areas and associated ancillary development.”

- 5.4 The construction period is expected to last between 12-24 months. The scheme will have an operational lifespan of 40 years and the Proposed Development will be decommissioned in full thereafter.

PROPOSED LANDSCAPE MITIGATION

- 5.5 The principles of the landscape and ecology strategies described consciously embeds mitigation principles to reduce potential environmental effects and actively respond to the climate emergency through habitat restoration, creation and management. The evolution of the scheme has been guided by the step-wise approach widely accepted as the industry standard for mitigation hierarchy. A summary of these measures is considered in terms of:

- **Avoidance** - Site selection and layout: the development is within predominantly intensely farmed agricultural fields which is within a low-lying flood plain, away from key ecological corridors and set back from sensitive visual receptors. Internal networks are also retained except for minor breaks to facilitate access tracks. The Site selection and retention of vegetation reduces direct land take of high-value habitats and avoids severing key landscape features. It also preserves and enhances the baseline landscape character components and existing habitat value for the lifespan of the 40-year operation and avoids unnecessary clearance;

- **Mitigation** - incorporating buffers from existing vegetation, avoiding vegetation clearance and maintaining easements required for utilities constitutes sensible design. Strategic tree and woodland planting will reduce effects for visually sensitive areas and receptors (e.g. roads, dwellings); reduces landscape intrusion and enhances habitat diversity. Hedgerow gapping-up with native species is proposed also which will restore fragmentation of habitat corridors; reinforce historic field pattern while still maintaining permeability for wildlife. Hedgerows will filter views for road users, reduces visual impact, and enhance linear habitat connectivity along transport corridors. The vegetation on-site would also benefit from long-term management to reduce further decline of the Green Infrastructure network. Species-rich meadow grassland creation will replace low-diversity arable/pasture with high-value habitat for invertebrates and birds, reducing the ecological effect of (mostly reversible) land use change. Dry ditches enhanced to wet ditches for water vole will maintain and improve hydrological features for a key species of conservation concern, reducing the impact of ditch alteration or realignment. This is likely to contribute positively for surrounding land which is also within the flood zone; and
- **Compensation** – some vegetation loss is necessary to facilitate the Proposed Development, as is the reduction of open farmland and the current land use. Dedicated ecological enhancement and mitigation zone (west of Kinmel Avenue) will compensate for residual habitat loss by creating diverse new habitats (e.g. scrapes, wetland, fallow land) that target skylark, teal, and other birds. Elsewhere within the Site, the restoration of a wildlife pond and introduction of habitat diversity will provide new semi-natural habitat not previously on-site, supporting amphibians, wetland birds, and aquatic invertebrates. Long-term management and monitoring plans can be secured to ensure that new habitats thrive and deliver biodiversity gain in the long-term, compensating for time lag in habitat maturity.

ILLUSTRATIVE LANDSCAPE AND ECOLOGY STRATEGY

- 5.6 **Figure 11.7** and **11.8** contains the Illustrative Landscape and Ecology Strategy for the Solar Site, and BESS site respectively. These plans should be read in combination with this section.
- 5.7 The landscape and ecology strategy has been developed to respond to the environmental opportunities and sensitivities identified by the design team. The strategy proposed aims to respond to climate change through adaptation and resilience, provide mitigation to reduce visual effects and to provide betterment to the green infrastructure network of the local area.
- 5.8 The evolution of the scheme has been iterative, with data collected from survey efforts, site visits and baseline studies – all of which have been used to inform inputs. Although the strategy is landscape-led, co-ordination with the project engineers, ecologists, heritage consultants and drainage engineers has been instrumental in the development of a holistic strategy that seeks to put the best scheme possible forward based in the constraints identified by various disciplines.

5.9 The strategy responds to local context, policy, and ecological opportunity, seeking to deliver a robust, multifunctional green infrastructure network that minimises visual and environmental effects while providing opportunities to maximise biodiversity and landscape character enhancement in accordance with PPW.

5.10 Key Components of the Strategy for the Solar Site are as follows:

- **Enhancement of agricultural land to meadow grassland.** The entirety of the Solar Site which contains existing arable and pastoral land will be enhanced through sowing with species-rich meadow grassland mixes. Meadow management will support pollinators, ground-nesting birds, and invertebrates. Cutting and/or low-intensity grazing will maintain sward diversity and structure;
- **Ditch Restoration and Wetland Habitat Creation.** Existing dry ditches will be enhanced to form seasonal or permanent wet ditches, using minor re-profiling and hydrological intervention. These will be actively managed for water vole, with the inclusion of marginal planting and retained bankside vegetation. Where feasible, new scrapes and wetland fringes will be added to increase habitat heterogeneity;
- **Retained and Proposed Hedgerow and Tree Planting.** Retention of vegetation has been prioritised on-site, including suitable offsets from quality off-site vegetation such as Kinmel Avenue. Where there are opportunities or need to minimise views from roads and residences for examples, new native hedgerows will be planted along site boundaries and internal field edges. This will also reinforce the historic field pattern. Gapping-up of existing field boundaries using native whip planting (e.g., hawthorn, blackthorn, dogwood, hazel) and enhancement of linear features (green and blue) will provide a connected network for wildlife movement across the Site. This will also increase shelter, foraging and nesting opportunities. Where possible, connectivity with off-site woodland and open habitats will be enhanced through boundary planting and buffer zones;
- **Central Ecological Enhancement and Mitigation Area.** An ecological haven measuring 9 hectares will be created to the west of Kinmel Avenue area of restored ancient woodland site. This ecological area will be free from built panels and ancillary development, and it will be specifically designed to support breeding and foraging habitats for farmland and wetland birds such as skylark, teal, and other farmland and migratory species. Key components of this area will include fallow land, managed on a rotation to support ground-nesting birds; Shallow scrapes to create ephemeral wetland for amphibians and waders; Wildlife ponds with vegetated margins; and regenerative wetland areas suitable of slowing ruff off and providing water filtration. The management of this area will extend to the lifespan of the Proposed Development;
- **Net Benefit for Biodiversity and Sustainable Land Use.** A biodiversity assessment will be undertaken to quantify the ecological uplift achieved. The strategy aligns with the goals of PPW 12, promoting multifunctional land use that supports climate resilience, ecosystem services, and sustainable energy generation. The shift from intensive agriculture to diverse, semi-natural habitats will contribute to soil recovery, water retention, and long-term environmental resilience; and

- **Visual Integration and Landscape Character.** The Site design includes embedded mitigation measures, such as; offsets from the most sensitive receptors; panels with anti-glare finishes; avoidance of key view corridors identified within designated landscapes; strategic placement of planting zones to minimise visual impact; and the proposed planting reflects the local character and visual structure of the area, strengthening the sense of place and minimising landscape harm.

5.11 This integrated strategy represents a balanced approach to sustainable design, integrating renewable energy infrastructure which is future-proofed where necessary to accommodate climate events with enhancement of local landscape character, biodiversity, and ecological function. The proposed measures will ensure that the Site contributes positively to the local green infrastructure network, delivers a net benefit for nature, and remains visually sympathetic to the surrounding environment for receptors at close range.

PROPOSED LANDSCAPE ENHANCEMENT

5.12 The introduction of any built form, in this case a nationally significant solar PV array and battery storage site would inevitably result in adverse effects to landscape character and visual amenity through the introduction of manmade elements in an otherwise traditionally farmed landscape. The anticipated effects most pertinent to landscape and visual matters tend to be human focussed (the change in the landscape perceived by humans for example), however, there is potential for considerable landscape enhancements that in the medium-term to long-term that could have the potential outweigh the effects perceived by humans in the short-term. In addition, a more robust landscape framework, and in effect, local landscape character as perceived by humans would yield benefits in the medium-term. The landscape enhancements can be summarised as follows:

5.13 **Better Water Management** – by converting grassland to meadow there will be increased water infiltration and slower surface runoff, reducing flood peaks. Re-naturalised ditches and riparian buffers will help attenuate peak flows in flood zones also. Enhanced ditches can hold and slowly release floodwater, improving on-site water retention and while offering a national on-site solution to climate risks. Over 130ha grassland could benefit from enhancement if the strategy was implemented.

5.14 **Stronger Soils, Less Erosion** – farm diversification from pastoral/improved grassland to deep-rooted meadow species can improve soil structure and reduce compaction. Vegetated ditch banks prevent erosion and silt build-up, helping drainage features function effectively.

5.15 **Biodiversity Benefits** – Trees, hedgerows and species-rich meadows and wetter, more natural ditches will create habitat for pollinators, amphibians, birds, and water voles – enhancing ecological value across the floodplain. A dedicated ecological enhancement and mitigation area which measures approximately 9ha will become a rich reserve that will be managed as such in perpetuity.

5.16 Together, the enhancement measures listed above will create a multifunctional, climate-resilient landscape that provides ecosystem services like absorbing water, supporting wildlife, and restoring natural processes in a flood-sensitive area.

Annex EDP 1 Site Photos

Annex EDP 2 Glossary of Terms

TERM AND DEFINITION
Baseline
The existing (pre-development) landscape and visual context of a study area, including landscape fabric, landscape character and existing views. The landscape baseline is not static and may be changing for various reasons. The landscape baseline can also consider such factors and describe the likely future landscape character of the landscape, without the Proposed Development.
Effects
A predicted change in the environmental baseline as a result of the Proposed Development. Effects can be positive or negative.
Field Pattern
The pattern of hedges and walls that define fields in farmed landscapes (LI/IEMA 2002).
Intervisibility
Two points on the ground or two features are described as “intervisible” when they are visible from each other.
Landscape
Landscape results from the way that different aspects of our environment (physical, social, aesthetic and perceptual) interact together and are perceived by us: - Physical elements – e.g. geology, landform, soils, flora and fauna; - Social elements – e.g. land use, enclosure patterns, and the patterns, form and scale of settlements and other built development; - Aesthetic factors – e.g. colour, form, visual texture and pattern, sounds, smells and touch; and - Perceptual factors – e.g. memories, associations, stimuli and preferences.
Landscape Capacity
The degree to which a particular landscape character type or area is able to accommodate change without significant effects on its character. Capacity is likely to vary according to the type and nature of change being proposed.
Landscape Character
Landscape character arises from a distinct, recognisable and consistent pattern of physical and social elements, aesthetic factors and perceptual aspects in the landscape.
Landscape Character Areas (LCAs)
Single unique areas that are discrete geographical areas containing one or more landscape types.
Landscape Character Types (LCTs)
Generic units of landscape that display a distinct, consistent and recognisable landscape character.
Landscape Condition
Description of the maintenance and condition of landscape elements and the degree to which landscape elements are representative of the landscape character area.

TERM AND DEFINITION
Landscape Element
A physical component (both natural and manmade) of the landscape.
Landscape Fabric
The elements and features that constitute the physical components of the landscape, including ground vegetation, hedgerows, trees, shrubs, walls, fences and vernacular structures.
Landscape Units
An umbrella term for landscape character areas and landscape character types.
Landscape Value
The importance or value of the landscape to society, usually based on landscape designations or policies as indicators of recognised value.
Mitigation
Measures, including any process, activity or design that will avoid, reduce, remedy or compensate for the predicted effects of a development on the environmental baseline.
Public Access
Land with public access includes: • Definitive rights of way – public footpaths, bridleways, cycle routes, Byways Open to All Traffic (BOATS) and highways. Shown on Definitive Rights of Way maps held by the Local Authority; • Permissive paths and bridleways – routes where there is public access with the permission of the landowner. Such routes are usually closed at least one day a year to prevent establishment of a public right of way; • Public open space – areas designated for specified public uses, usually in the ownership of the Local Authority. Includes parks and recreation grounds. Shown on Local Development Plans; • Beaches – the public have permitted access to much of the foreshore (intertidal zone – between high and low tide marks) owned by the Crown Estate, and on land above high water mark owned by the Local Authority. Some beaches above high tide mark are privately owned and some beaches and foreshore have restricted access for military purposes; • Access land – land where public access is currently permitted with the permission of landowners. Includes land outlined in purple on the OS Explorer (1:25,000) sheets and with: • No symbol – land open to public with permission of owners; • White oak leaf in purple box – National Trust, always open; • Purple oak leaf in white box – National Trust limited access; • Tree symbols in purple box – Forestry Commission; • Single leaf in purple box – Woodland Trust; and • White “AL” in purple box – other access land. • Open access land – areas of mountains, moor, heath, down, common land and coastal foreshore that have been designated under Section 2 of the Countryside and Rights of Way Act 2000. The right of access is for walkers only and does not extend to cycling, horse riding or driving a vehicle, nor does the right of access apply to developed land, gardens or cultivated land. Under the CROW Act 2000, there was a process of consultation that allowed the right of appeal for those with a legal interest in the land, and for sensitive ecological or archaeological sites to be excluded. Conclusive maps showing the areas designated as open access land (Registered Common Land and Open Country) are now available from Natural England (in England) and the Countryside Council for Wales (in Wales).

TERM AND DEFINITION
Viewing Distance
That distance that a viewpoint illustration should be held from the eye in order for the illustration to match the scale of the actual view when used in the field to identify the location and scale of the Proposed Development.
Visibility
Visibility is a measure of the distance that can be seen by the human eye at any one time. Daylight visibility will depend on several factors, including: • Atmospheric transparency (governed by the solid and liquid particles held in suspension in the atmosphere); • Degree of contrast between an object and the background against which it is observed; • Position of the sun; and • Observer's visual acuity.
Visual Receptor(s)
An individual observer or group of observers who are capable of experiencing a change in the view.
Zone of Theoretical Visibility (ZTV)
The Zones of Theoretical Visibility (ZTVs) represent the maximum potential extent of visibility, based on computer modelling under ideal conditions. They are generated using either Digital Terrain Models (DTM), which represent bare ground, or Digital Surface Models (DSM), which incorporate 3D LiDAR data and account for the screening effects of buildings and vegetation. The modelling assumes clear atmospheric conditions with no visual obstruction from weather or haze, providing a worst-case scenario of theoretical visibility.

Annex EDP 3 Photomontages

Bodelwyddan Solar and Energy Storage

Document Reference No. V3D 250706

August 2025



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1.0 Introduction

- 1.1. Verified View / Accurate Visual Representation
- 1.1.1. A Verified View (VV) or Accurate Visual Representation (AVR) is “a still image, or animated sequence of images, intended to convey reliable visual information about a proposed development to assist the process of visual assessment”.¹

1.1.2. This document applies current good practice in preparing verified views of a proposed development. Views are from what is considered to be the most representative viewpoints in the area surrounding the site.

1.1.3. The current practice guides this process is informed by include:
 - The Landscape Institute’s, ‘Technical Guidance Note 06/19 : Visual Representation of Development Proposals’
 - ‘Guidelines for Landscape and Visual Impact Assessment’ Third edition April 2013, The landscape institute and Institute of Environmental Assessment and Management.
 - ‘London View Management Framework’, (March 2012) Published by Greater London Authority.

1.1.4. When displaying images taken with a 50mm lens at A3, It is advised (within the Landscape Institute’s Technical Guidance Note 06/19) that the viewing distance for the montages from eye to paper should be ‘at arms length’ between 50 and 55cm (Landscape Institute TGN 06/19 para 3.8.3) with a Horizontal Field of View of around 39.6°.

In this document, for practical tabled discussions, the viewing distance in some of the viewpoints has been set at 50cm so that the images display a wider HFOV of 90° when printed at extended A3. Extended A3 pages to be printed at 29.7x84.1cm (at 100% scaling) so that the image size width is 80cm.

2.0 Methodology

- 2.1. Overview
- 2.1.1. In preparing the verified views/photomontages, accurate photography is required, with survey information recorded, and an accurate model of the application parameters prepared. In simple terms, this allows a ‘virtual’ viewpoint to be constructed that accurately reflects an actual photograph, which in turn allows a wireline (representing the outline of the proposed development form) or fully rendered image of the proposed development to be accurately superimposed on the existing photograph.

2.2. Photography

2.2.1. In accordance with current guidance, on-site photography records the position (as a grid reference), height of camera lens, camera used, lens type and focal length, field of view, date and time. Photographs were recorded at 1.6 metres above ground level to reflect the pedestrian eye height. Photographs are taken with a fixed 50mm focal length lens attached to a SLR camera (Canon EOS R5).

2.2.2. In assessing the impact of development on the landscape it is often necessary to record a panoramic view. A panorama made up from planar photographs is not strictly a ‘true panorama’ due to distortion encountered from the rectilinear projection of the lens. This is best described by looking through the viewfinder as you rotate the camera, the objects near the centre get larger as they approach the edge of the frame. Accurate ‘stitching software’ overcomes this effect by distorting each image into a cylindrical projection before aligning and blending, to reflect as accurately as possible the experience of the human eye.

2.3. Survey Information

2.3.1. On site surveying is carried out at the same time that the photographs are taken to record the position and height (Above Ordnance Datum) of the camera and its tripod alongside a range of 6 to 10 physical reference points per viewpoint (such as telegraph poles, road signs, or in the absence of sufficient existing reference points, ranging poles). To ensure the accuracy, the surveyed data was cross-referenced against OS information as well as the topographical site survey. This data is subsequently transferred into computer modelling software to produce an accurate ‘virtual’ view reflecting the actual panoramic photograph. Reference points are captured by a Total Station (the surveyors on-site equipment) with an electronic distance meter (EDM) which reads slope distances from the instrument to a particular point. These points are used to align the computer image against the photography.

2.4. Scheme Parameters Modelling

2.4.1. The Illustrative Landscape and Ecology Strategy Plans on page 5, provides layouts that is reflective of how the proposed application could be realised, and is therefore considered to be an acceptable basis for verified view production. The solar arrays have been model as 4.5m (maximum tilt) from existing ground levels.

2.4.2. site planting has been drawn with reference to these plan and assumes the following heights.

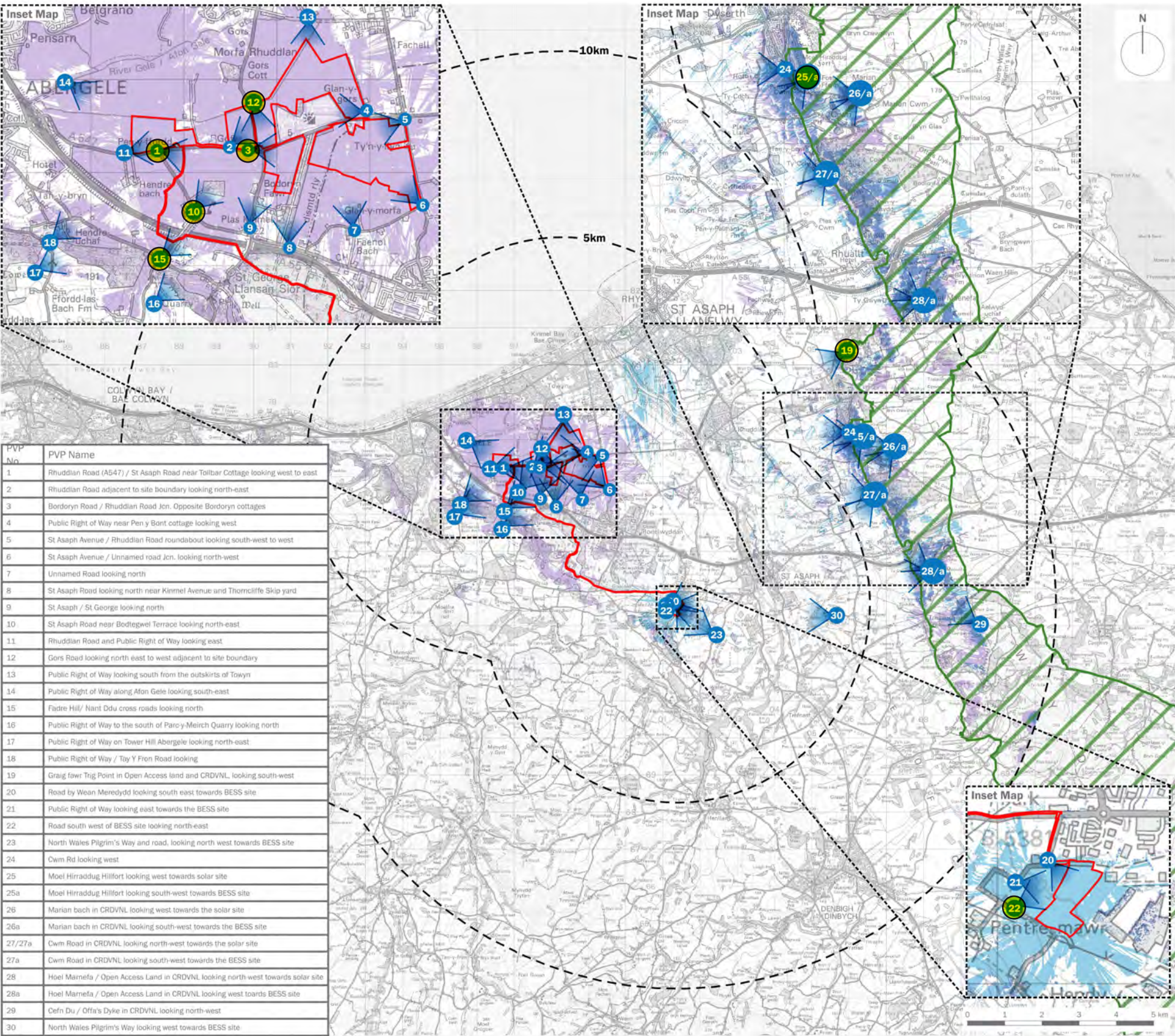
Yr1 - Tree planting shown as 4.5m
Yr15 - The mature trees and woodland are now shown as up to 8-10m with the new hedge planting maintained as 3m.

2.5. Camera Matching

2.5.1. Having accurately modelled the scheme, a series of computer generated images are constructed from the exact viewpoint locations and have cylindrical projection applied before photo-stitching to match the panoramic photographs, thus creating a ‘virtual’ panorama of the proposed development. With the virtual and photographic images overlaid with each other, common (surveyed) reference points are used to aligned both the virtual and actual images and the foreground clipping applied.
- ¹ London View Management Framework March 2012
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3.0 Viewpoint Location Plan



- Site Boundary
- Range Rings (at 5km intervals)
- Zone of Theoretical Visibility (ZTV) - Main Site (4.6m Proposed Panel Height)
- Zone of Theoretical Visibility (ZTV) - Battery Storage Site (5m Proposed Development Height)
- Photoviewpoint Location
- Clwydian Range and Dee Valley National Landscape
- Verified Views

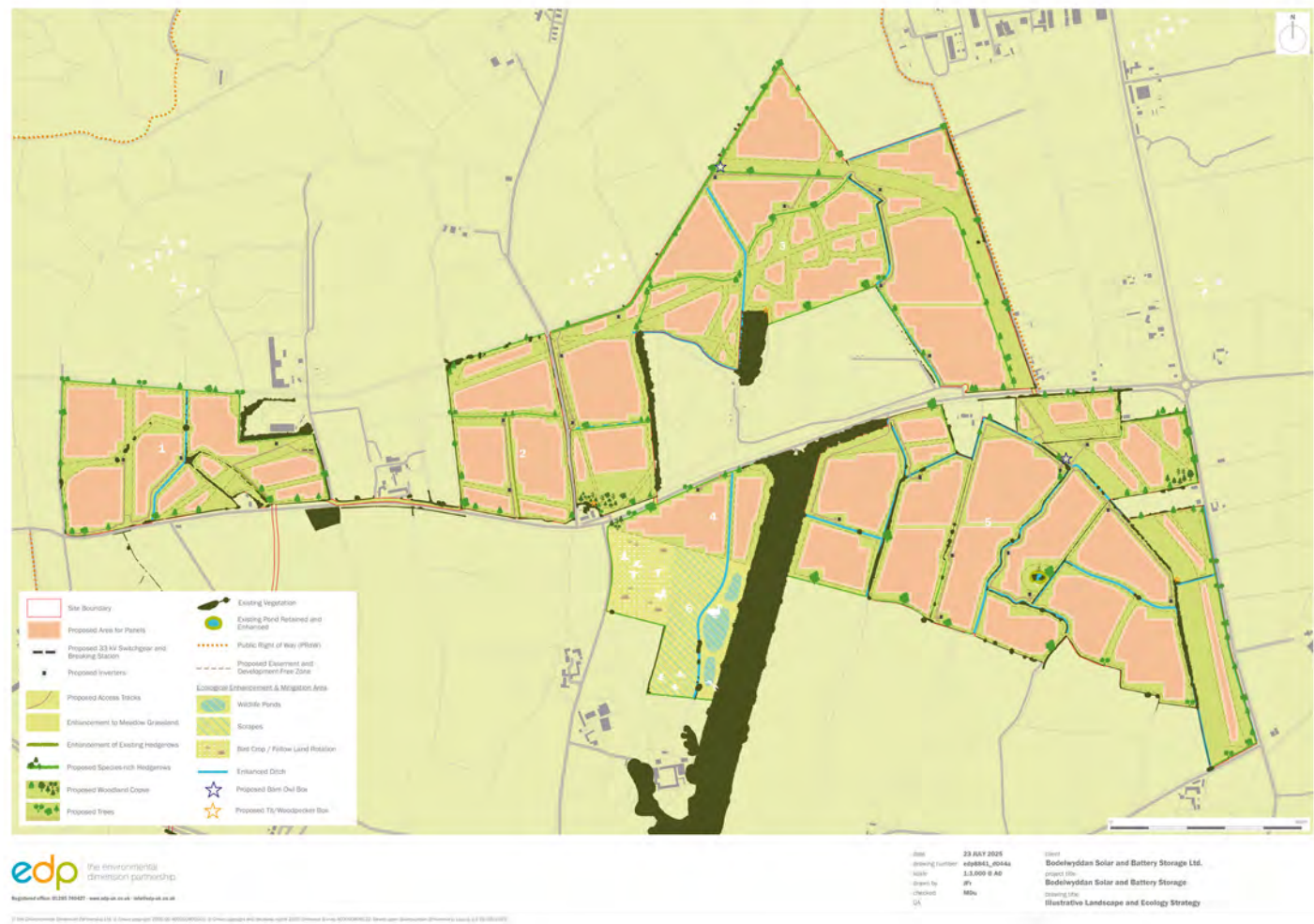
Zone of Theoretical Visibility (ZTV) was calculated using a spatial modelling algorithm which considers the following parameters:

- 1.6m Receptor Elevation (Observer Height)
- Proposed Development Heights as above
- 360 Degree Field of View
- LIDAR 1m Digital Surface Model (DSM) (vertical accuracy of +/- 5cm)

client	Bodelwyddan Solar and Energy Storage Ltd.		
project title	Bodelwyddan Solar and Energy Storage		
drawing title	Findings of Visual Appraisal and Viewpoint Locations		
date	19 MARCH 2025	drawn by	Gyo
drawing number	edp8841_d007a	checked	MDu
scale	1:100,000 @ A3	QA	JFr



4.0 Illustrative Landscape and Ecology Strategy





5.0 Viewpoint 1 - Rhuddlan Road (A547) / St Asaph Road near Tollbar Cottage looking west to east



National Grid Reference:
296712.778, 377231.031

Camera:
Canon EOS R5

Lens:
Fixed 50mm

Height of Camera Lens:
7.12 AOD

Horizontal Field of View:
90 °

Date:
31.07.25

Time:
12.57



Existing extended panorama



5.1. Viewpoint 1 - Existing baseline view



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



5.2. Viewpoint 1 - Proposed view at year 1



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



5.3. Viewpoint 1 - Proposed view at year 15



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



6.0 Viewpoint 3 - Bordoryn Road / Rhuddlan Road Jcn. Opposite Bordoryn cottages



National Grid Reference:
297844.979, 377221.324

Camera:
Canon EOS R5

Lens:
Fixed 50mm

Height of Camera Lens:
8.09 AOD

Horizontal Field of View:
90 °

Date:
31.07.25

Time:
13.43



Existing extended panorama



6.1. Viewpoint 3 - Existing baseline view



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



6.2. Viewpoint 3 - Proposed view at year 1



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



6.3. Viewpoint 3 - Proposed view at year 15



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



7.0 Viewpoint 10 - St Asaph Road near Bodtegwel Terrace looking north east



National Grid Reference:
297105.755, 376572.433

Camera:
Canon EOS R5

Lens:
Fixed 50mm

Height of Camera Lens:
24.06 AOD

Horizontal Field of View:
90 °

Date:
31.07.25

Time:
12.13



Existing extended panorama



7.1. Viewpoint 10 - Existing baseline view



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



7.2. Viewpoint 10 - Proposed view at year 1



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



7.3. Viewpoint 10 - Proposed view at year 15



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



8.0 Viewpoint 12 - Gors Road looking north east to west adjacent to site boundary



National Grid Reference:
297703.000, 377751.537

Camera:
Canon EOS R5

Lens:
Fixed 50mm

Height of Camera Lens:
5.95 AOD

Horizontal Field of View:
90 °

Date:
31.07.25

Time:
14.13



Existing extended panorama



8.1. Viewpoint 12 - Existing baseline view



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



8.2. Viewpoint 12 - Proposed view at year 1



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



8.3. Viewpoint 12 - Proposed view at year 15



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



9.0 Viewpoint 15 - Fadre Hill/ Nant Ddu cross roads looking north



National Grid Reference:
296741.183, 376073.060

Camera:
Canon EOS R5

Lens:
Fixed 50mm

Height of Camera Lens:
64.32 AOD

Horizontal Field of View:
90 °

Date:
31.07.25

Time:
12.04



Existing extended panorama



9.1. Viewpoint 15 - Existing baseline view



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



9.2. Viewpoint 15 - Proposed view at year 1



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



9.3. Viewpoint 15 - Proposed view at year 15



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



10.0 Viewpoint 19 - Graig fawr Trig Point in Open Access land and CRDVNL, looking south west



National Grid Reference:
305946.641, 380387.179

Camera:
Canon EOS R5

Lens:
Fixed 50mm

Height of Camera Lens:
151.62 AOD

Horizontal Field of View:
90 °

Date:
31.07.25

Time:
11.23



Existing extended panorama



10.1. Viewpoint 19 - Existing baseline view



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



10.2. Viewpoint 19 - Proposed view at year 1



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



10.3. Viewpoint 19 - Proposed view at year 15



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



11.0 Viewpoint 22 - Road south west of BESS site looking north east



National Grid Reference:
301095.904, 373402.523

Camera:
Canon EOS R5

Lens:
Fixed 50mm

Height of Camera Lens:
62.38 AOD

Horizontal Field of View:
90 °

Date:
31.07.25

Time:
08.18



Existing extended panorama



11.1. Viewpoint 22 - Existing baseline view



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



11.2. Viewpoint 22 - Proposed view at year 1



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



11.3. Viewpoint 22 - Proposed view at year 15



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



12.0 Viewpoint 25 - Moel Hirraddug Hillfort looking west towards solar site



National Grid Reference:
306376.128, 378115.143

Camera:
Canon EOS R5

Lens:
Fixed 50mm

Height of Camera Lens:
248.42 AOD

Horizontal Field of View:
90 °

Date:
31.07.25

Time:
10.24



Existing extended panorama



12.1. Viewpoint 25 - Existing baseline view



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



12.2. Viewpoint 25 - Proposed view at year 1



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)



12.3. Viewpoint 25 - Proposed view at year 15



Viewing Distance at **50cm** - This is the distance from eye to paper to gain a true representation of the image (extended A3 pages to be printed at 29.7x84.1cm)

Figures

Figure 11.1: Site Location and Topographical Relief
(edp8841_d003a 27 August 2025 GYo/MDu)

Figure 11.2: Site Character Plan
(edp8841_d004b 27 August 2025 GYo/MDu)

Figure 11.3: Environmental Planning Considerations
(edp8841_d005b 27 August 2025 GYo/MDu)

Figure 11.4: Published Landscape Character Classifications
(edp8841_d006b 27 August 2025 JCI/MDu)

Figure 11.5: Published Landscape Character Evaluations
(edp8841_d009b 27 August 2025 JCI/MDu)

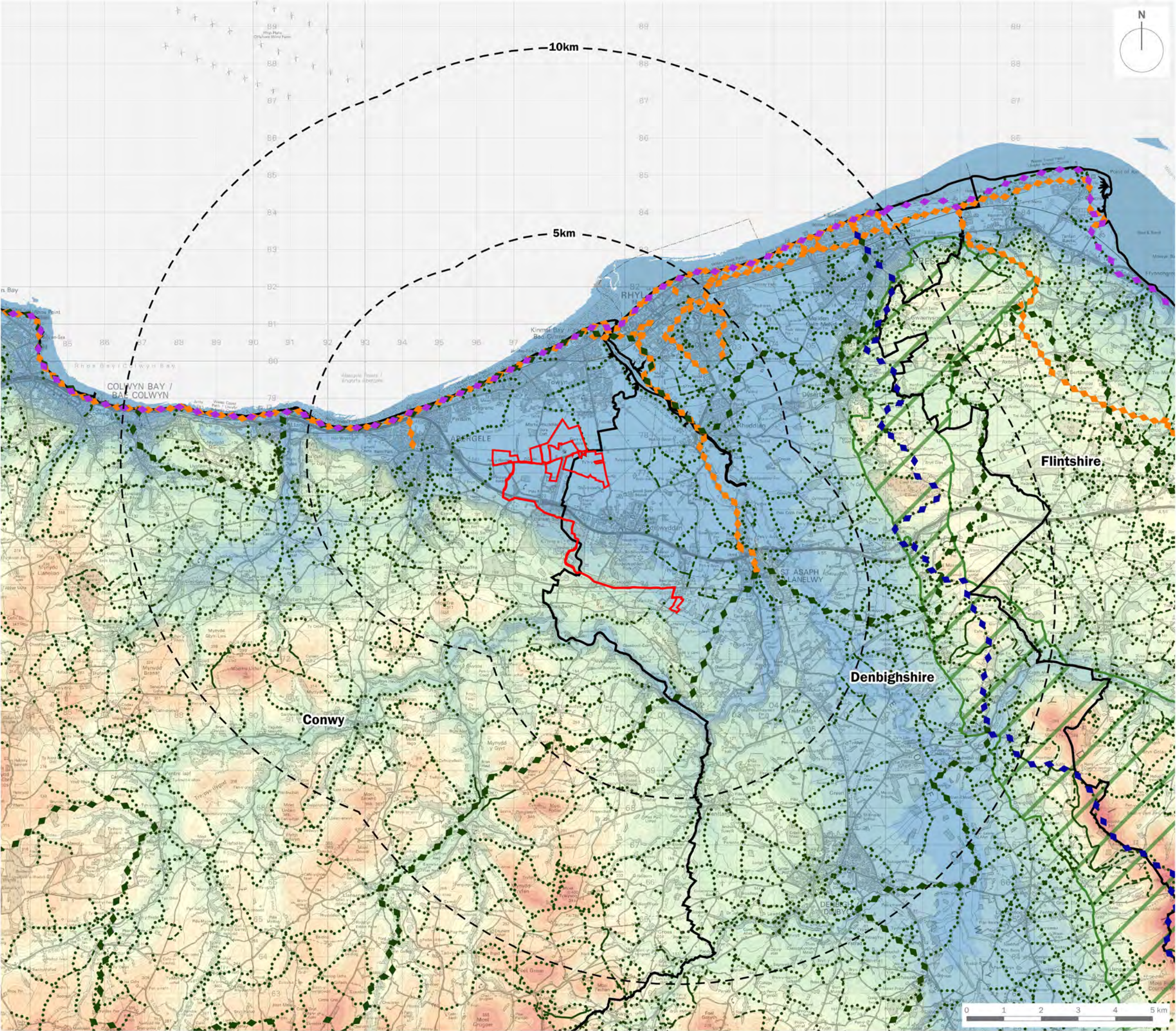
Figure 11.6: Findings of EDP's Visual Appraisal and Viewpoint Locations
(edp8841_d007b 27 August 2025 GYo/MDu)

Figure 11.7: Illustrative Landscape and Ecology Strategy (Solar Site)
(edp8841_d044c 27 August 2025 JFr/MDu)

Figure 11.8: Illustrative Landscape and Ecology Strategy (BESS Site)
(edp8841_d050b 27 August 2025 JHa/MDu)

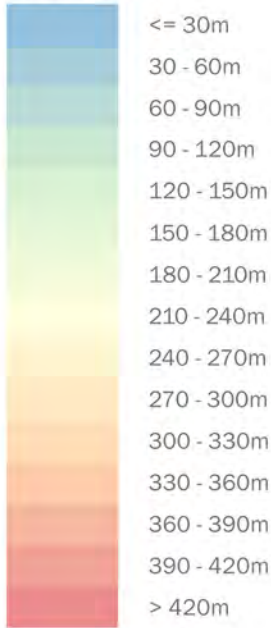
Figure 11.9: LVIA Photoviewpoints
(edp8841_d048a 27 August 2025 NWA/MDu)

Figure 11.10: RVAA Residential Groups (to follow)
(edp8841_d053a 27 August 2025 GYo/MDu)



- Site Boundary
- Range Rings (at 5km intervals)
- Local Authority Boundary
- Clwydian Range and Dee Valley National Landscape
- National Cycle Network
- Coastal Path
- National Trail
- Promoted Route
- Footpath
- Bridleway
- Byway Open to All Traffic

Elevation (aOD)



client
Bodelwyddan Solar and Energy Storage Limited

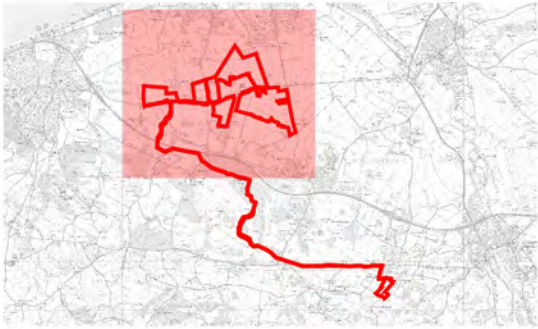
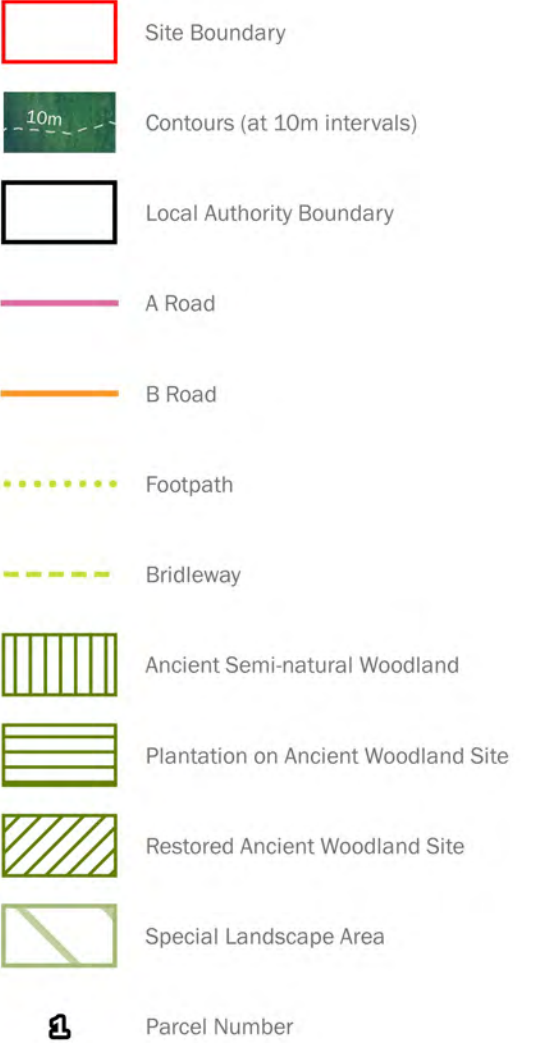
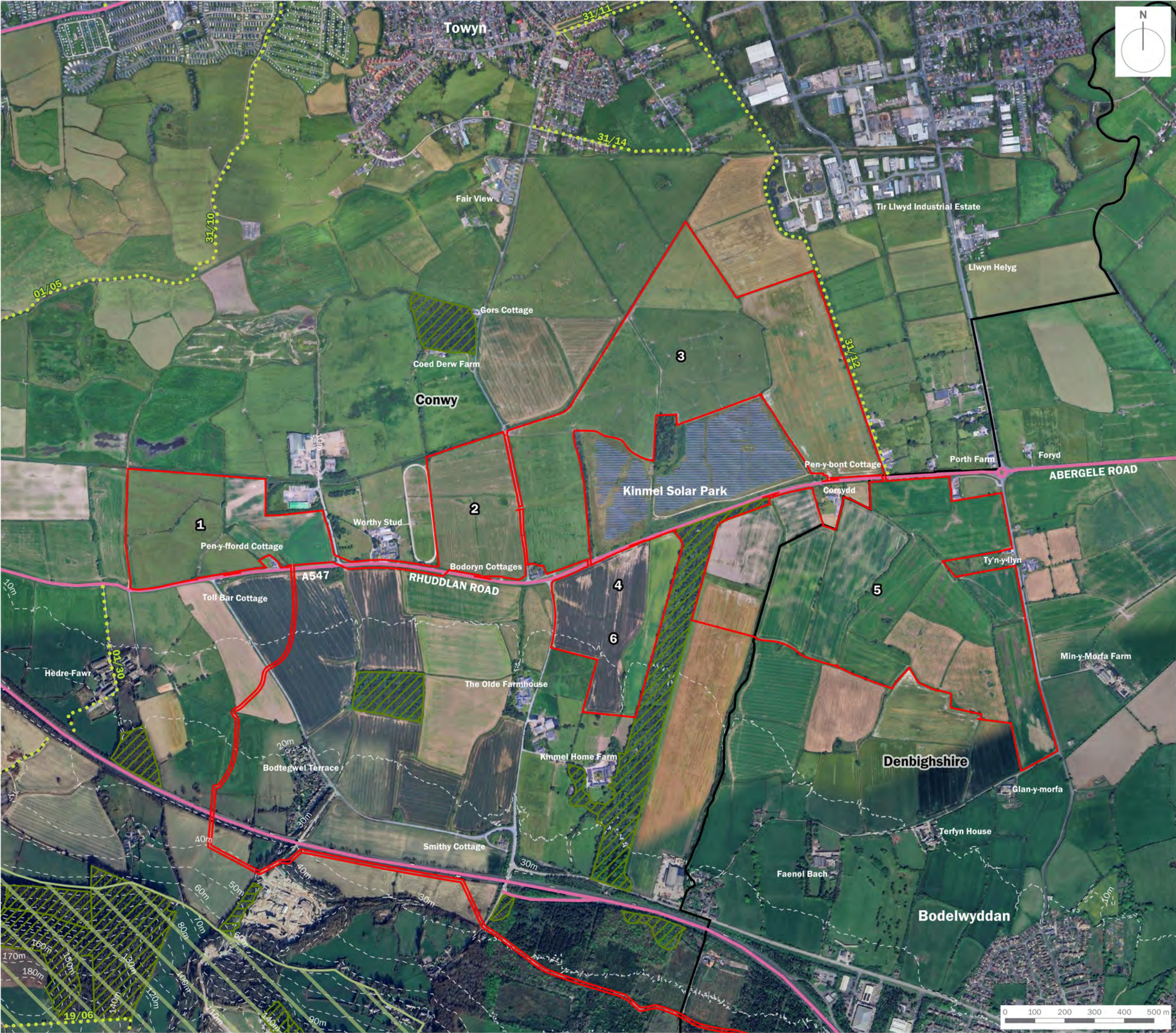
project title
Bodelwyddan Solar and Energy Storage

drawing title
Figure 11.1: Site Location and Topographical Relief

date	27 AUGUST 2025	drawn by	GYo
drawing number	edp8841_d003a	checked	MDu
scale	1:100,000 @ A3	QA	JFr



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client	Bodelwyddan Solar and Energy Storage Limited		
project title	Bodelwyddan Solar and Energy Storage		
drawing title	Figure 11.2: Site Character Plan (Sheet 1 of 2)		
date	27 AUGUST 2025	drawn by	GYo
drawing number	edp8841_d004b	checked	MDu
scale	1:12,500 @ A3	QA	JFr



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Site Boundary

10m

Contours (at 10m intervals)

Local Authority Boundary

A Road

B Road

Footpath

Bridleway

Ancient Semi-natural Woodland

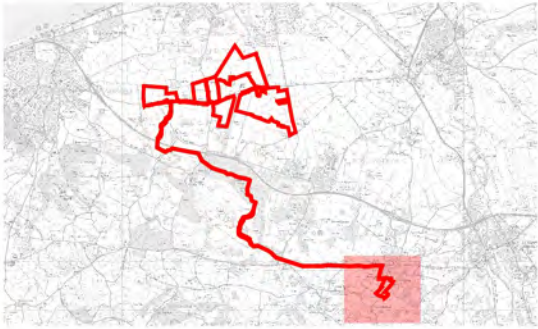
Plantation on Ancient Woodland Site

Restored Ancient Woodland Site

Special Landscape Area

1

Parcel Number



client

Bodelwyddan Solar and Energy Storage Limited

project title

Bodelwyddan Solar and Energy Storage

drawing title

Figure 11.2: Site Character Plan (Sheet 2 of 2)

date

27 AUGUST 2025

drawn by

GYo

drawing number

edp8841_d004b

checked

MDu

scale

1:5,000 @ A3

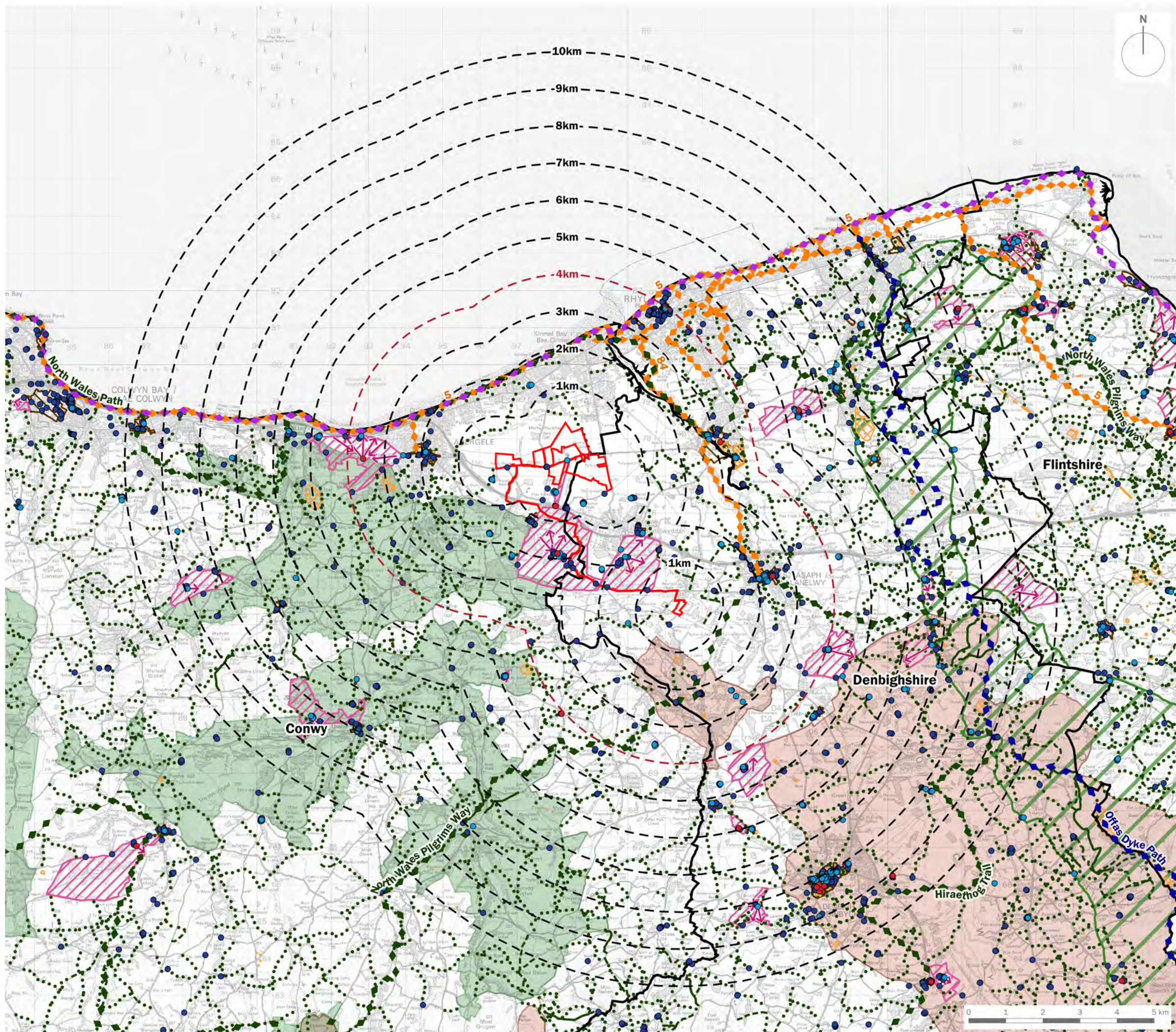
QA

JFr

edp

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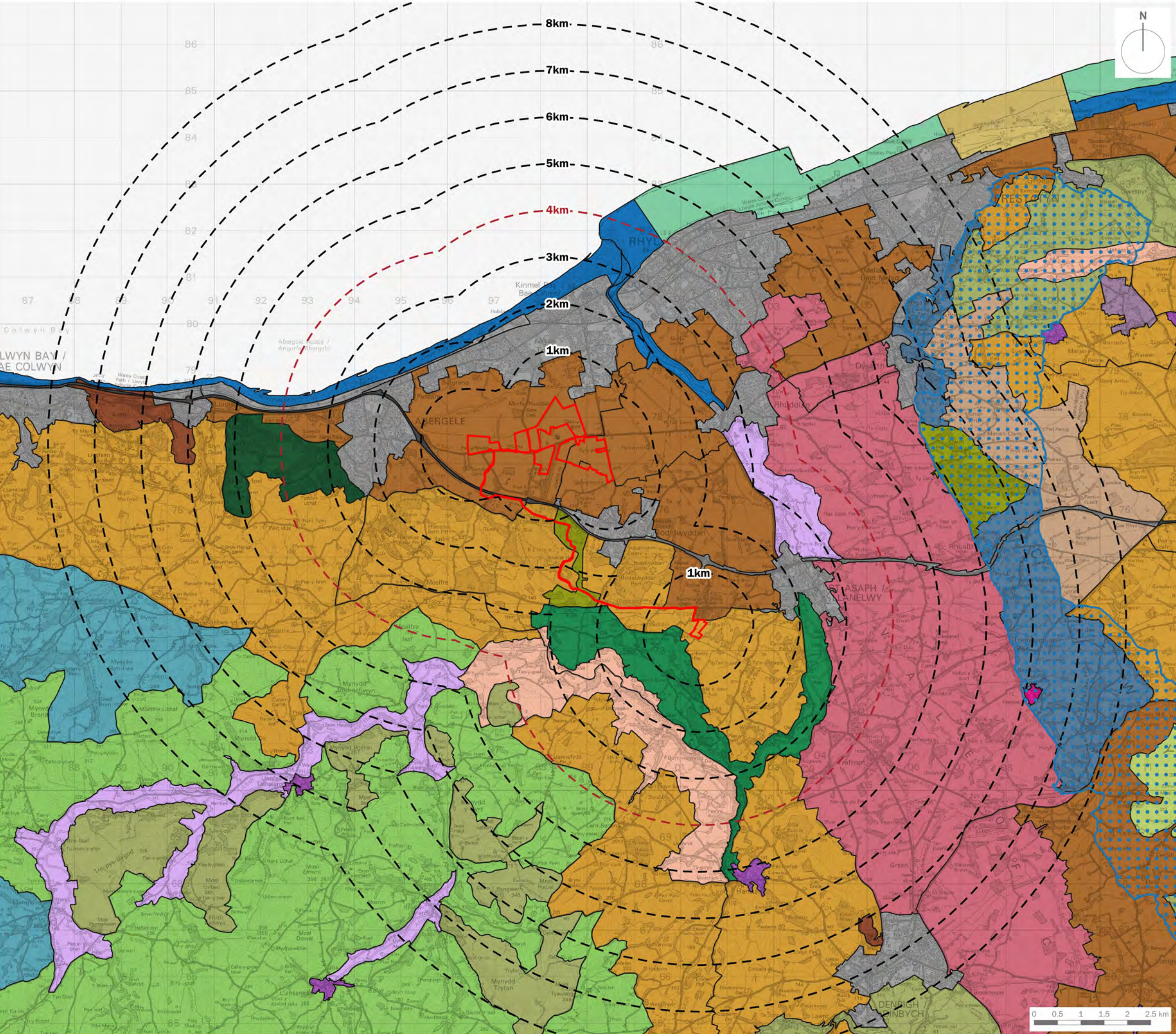
- Site Boundary
- Range Rings (at 1km intervals)
- 4km Detailed Study Area
- Local Authority Boundary
- Registered Historic Park and Garden
- Registered Historic Park and Garden Significant View
- Registered Landscape of Outstanding Historic Interest
- Conservation Area
- Scheduled Monuments
- Grade I Listed Building
- Grade II* Listed Building
- Grade II Listed Building
- Clwydian Range and Dee Valley National Landscape
- Special Landscape Area
- National Cycle Network
- Coastal Path
- National Trail
- Promoted Route
- Footpath
- Bridleway
- Byway Open to All Traffic

client
Bodelwyddan Solar and Energy Storage Limited

project title
Bodelwyddan Solar and Energy Storage

drawing title
Figure 11.3: Environmental Planning Considerations

date	27 AUGUST 2025	drawn by	GYo
drawing number	edp8841_d005b	checked	MDu
scale	1:100,000 @ A3	QA	JFr



- Site Boundary
- Range Rings (at 1km intervals)
- Clwydian Range and Dee Valley National Landscape

LANDMAP Visual and Sensory Aspect Areas

- Barren/Rocky Upland
- Dispersed Settlement
- Dunes & Dune Slack
- Estuary
- Excavation
- Flat Lowland Mosaic
- Flat Open Lowland Farmland
- Hill & Lower Plateau Grazing
- Hill & Lower Plateau Mosaic
- Hillside & Scarp Slopes Grazing
- Hillside & Scarp Slopes Mosaic
- Intertidal
- Mosaic Lowland Valleys
- Mosaic Rolling Lowland
- Open Lowland Valleys
- Open Rolling Lowland
- Road Corridor
- Upland Moorland
- Urban
- Village
- Wooded Hillside& Scarp Slopes
- Wooded Lowland Valleys
- Wooded Rolling Lowland

client
Bodelwyddan Solar and Energy Storage Limited

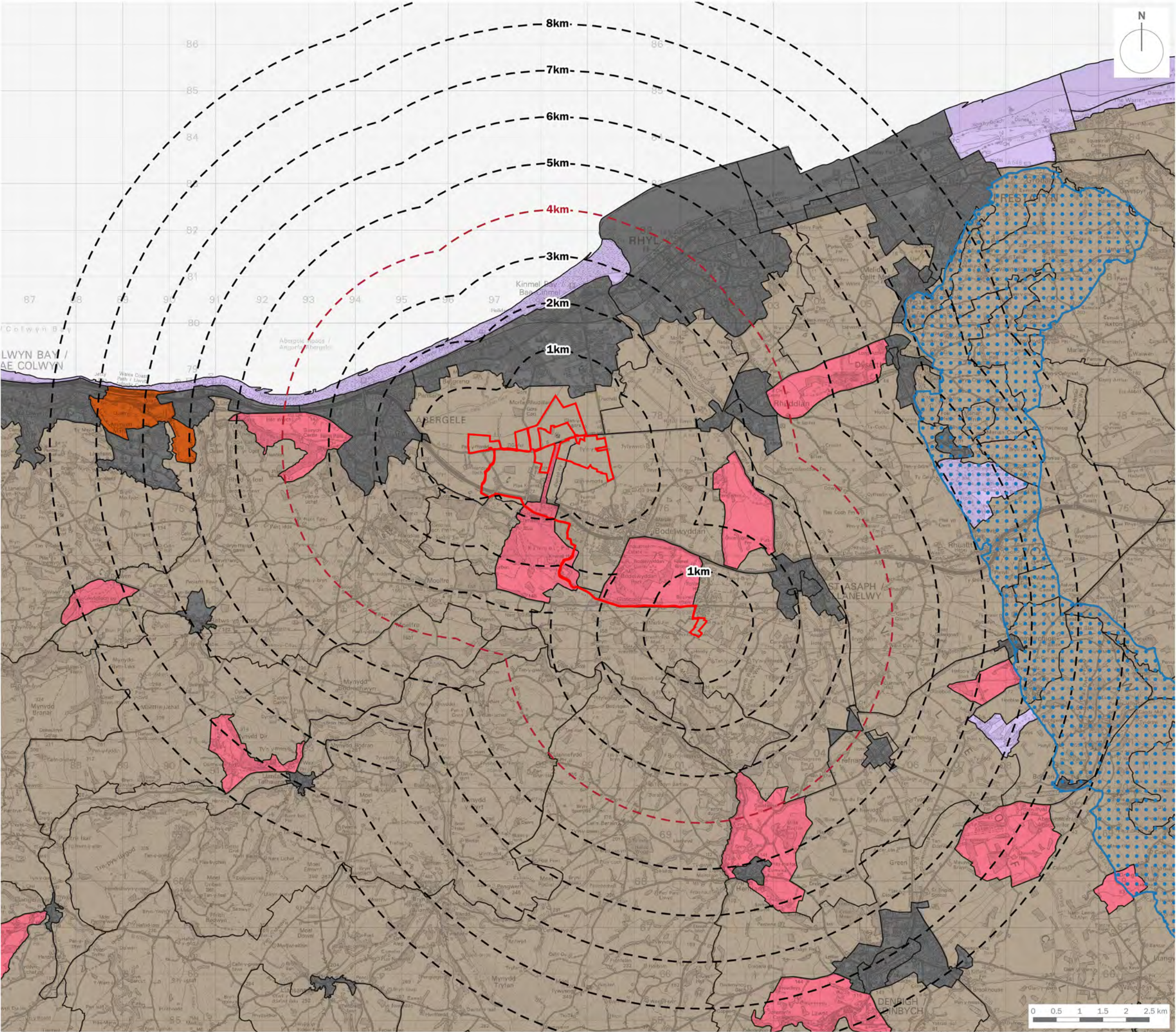
project title
Bodelwyddan Solar and Energy Storage

drawing title
Figure 11.4: Published Landscape Character - Classification (Sheet 1 of 5)

date	27 AUGUST 2025	drawn by	JCI
drawing number	edp8841_d006b	checked	MDu
scale	1:80,000 @ A3	QA	JFr



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- Site Boundary
- Range Rings (at 1km intervals)
- Clwydian Range and Dee Valley National Landscape

Landmap - Historic Landscape (Wales)

- Agricultural
- Industrial
- Non-agricultural
- Other Built Environment
- Settlement

client
Bodelwyddan Solar and Energy Storage Limited

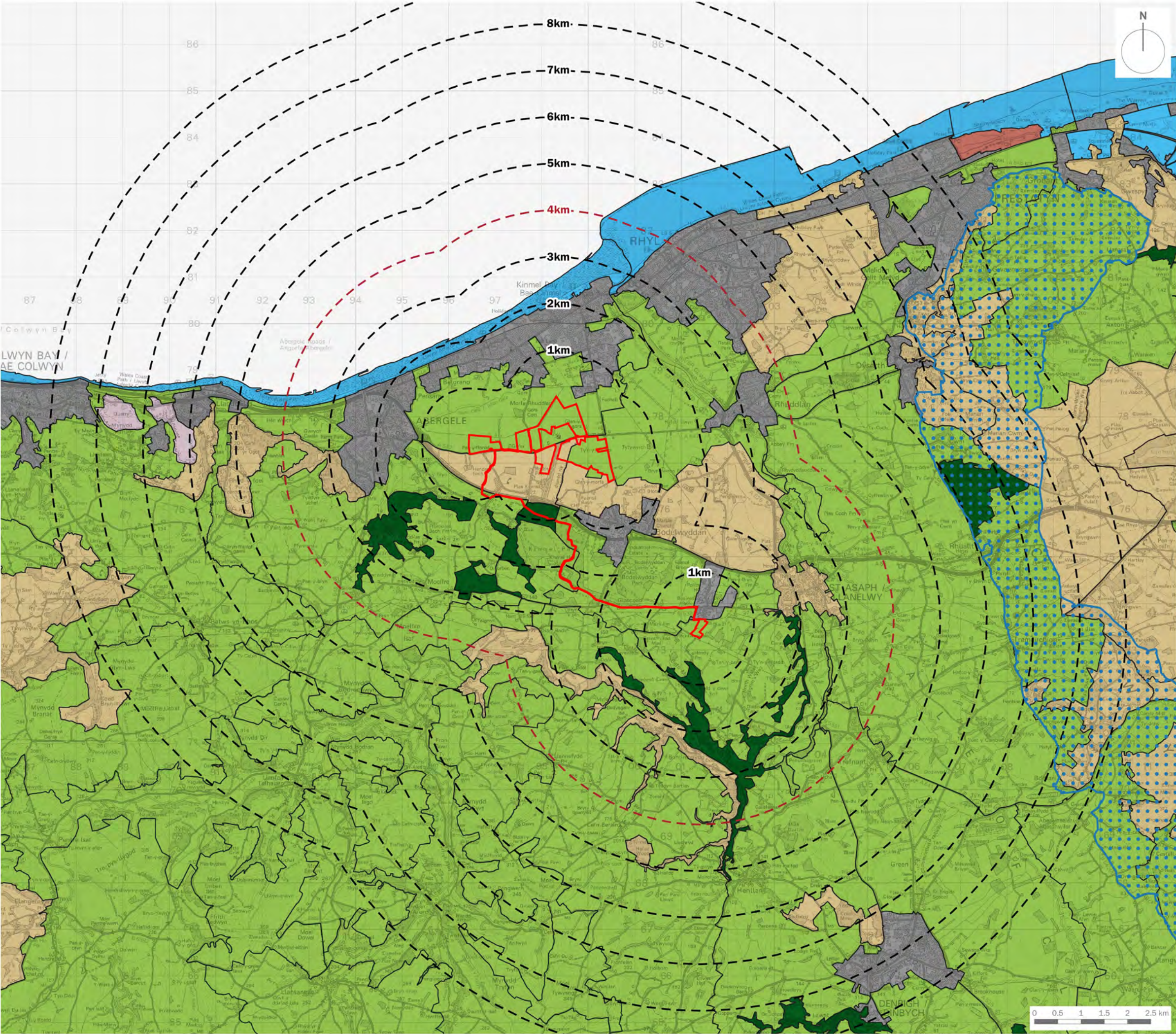
project title
Bodelwyddan Solar and Energy Storage

drawing title
Figure 11.4: Published Landscape Character - Classification (Sheet 2 of 5)

date	27 AUGUST 2025	drawn by	JCI
drawing number	edp8841_d006b	checked	MDu
scale	1:80,000 @ A3	QA	JFr



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- Site Boundary
- Range Rings (at 1km intervals)
- Clwydian Range and Dee Valley National Landscape

Landmap - Habitats (Wales)

- Built Up Areas
- Coastland
- Cultivated/Disturbed Land
- Grassland & Marsh
- Mosaic
- Rock Exposure & Waste
- Woodland & Scrub

client
Bodelwyddan Solar and Energy Storage Limited

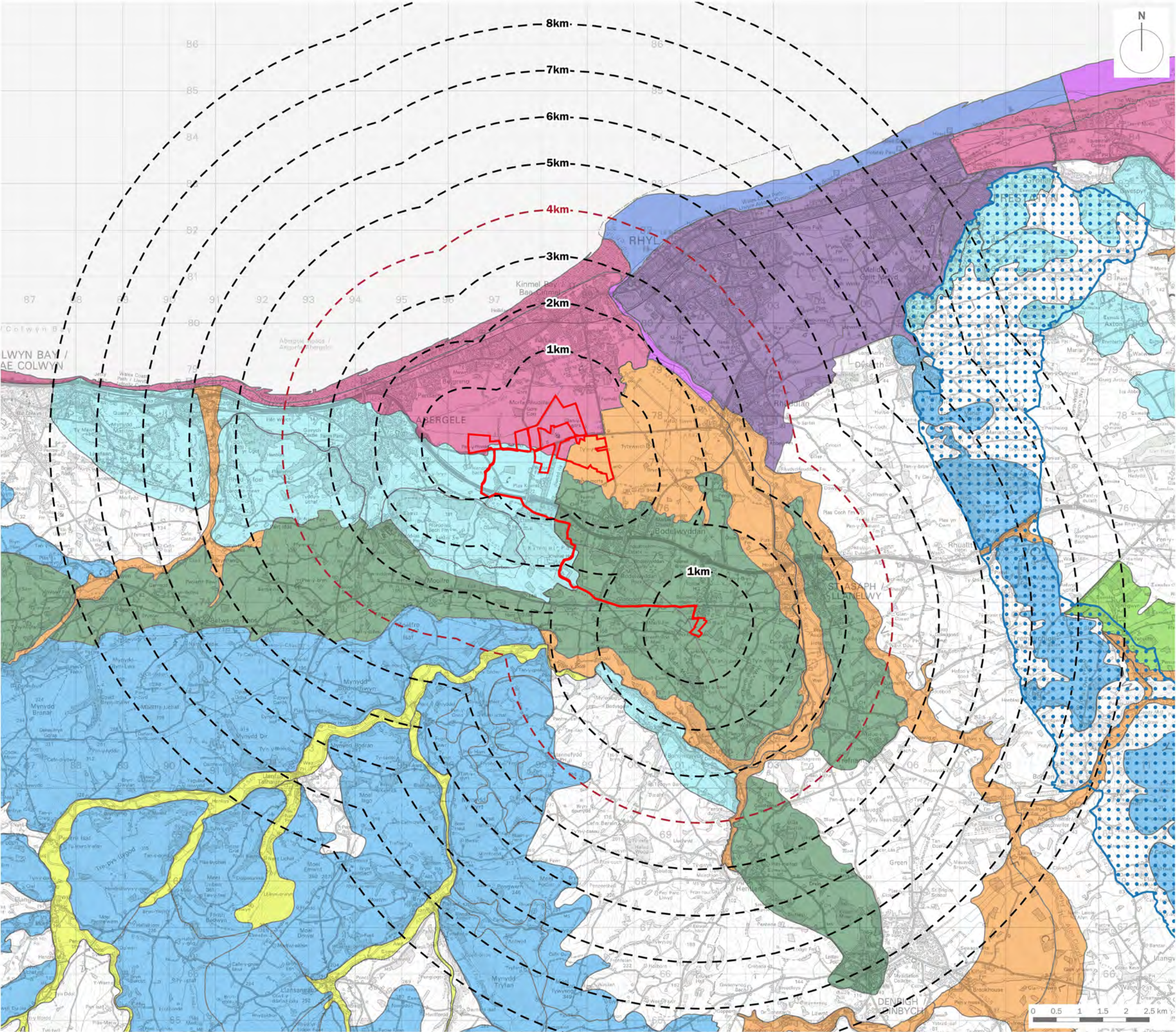
project title
Bodelwyddan Solar and Energy Storage

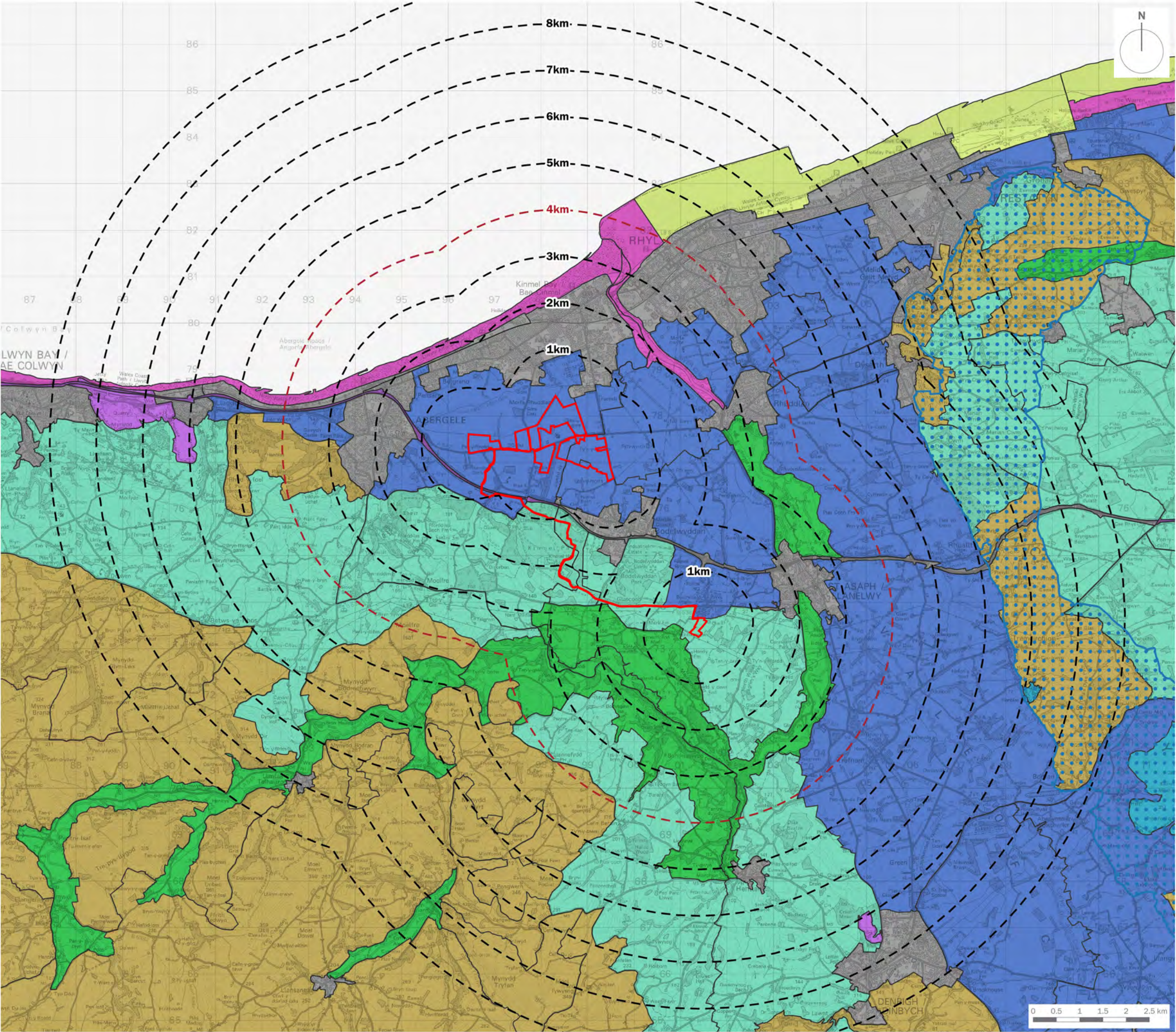
drawing title
Figure 11.4: Published Landscape Character - Classification (Sheet 3 of 5)

date	27 AUGUST 2025	drawn by	JCI
drawing number	edp8841_d006b	checked	MDu
scale	1:80,000 @ A3	QA	JFr

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- Site Boundary
- Range Rings (at 1km intervals)
- Clwydian Range and Dee Valley National Landscape

Landmap - Cultural Landscape Services (Wales)

- Built Land
- Coastal
- Coastal Waters
- Developed Unbuilt Land
- Exposed Upland/Plateau
- Flat Lowland/Levels
- Hills, Lower Plateau & Scarp Slopes
- Lowland Valleys
- Rolling Lowland

client
Bodelwyddan Solar and Energy Storage Limited

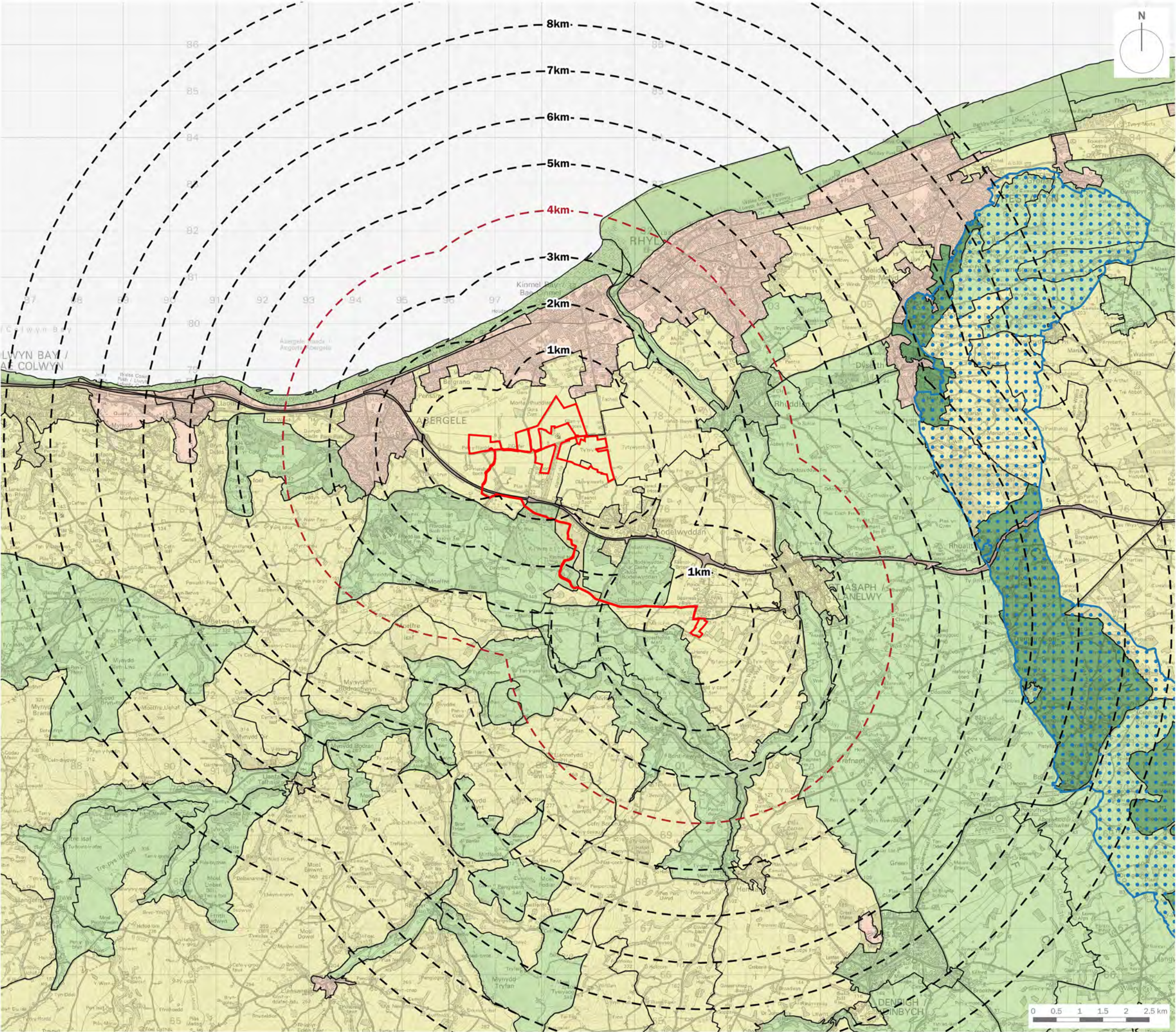
project title
Bodelwyddan Solar and Energy Storage

drawing title
Figure 11.4: Published Landscape Character - Classification (Sheet 5 of 5)

date	27 AUGUST 2025	drawn by	JCI
drawing number	edp8841_d006b	checked	MDu
scale	1:80,000 @ A3	QA	JFr



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- Site Boundary
- Range Rings (at 1km intervals)
- Clwydian Range and Dee Valley National Landscape

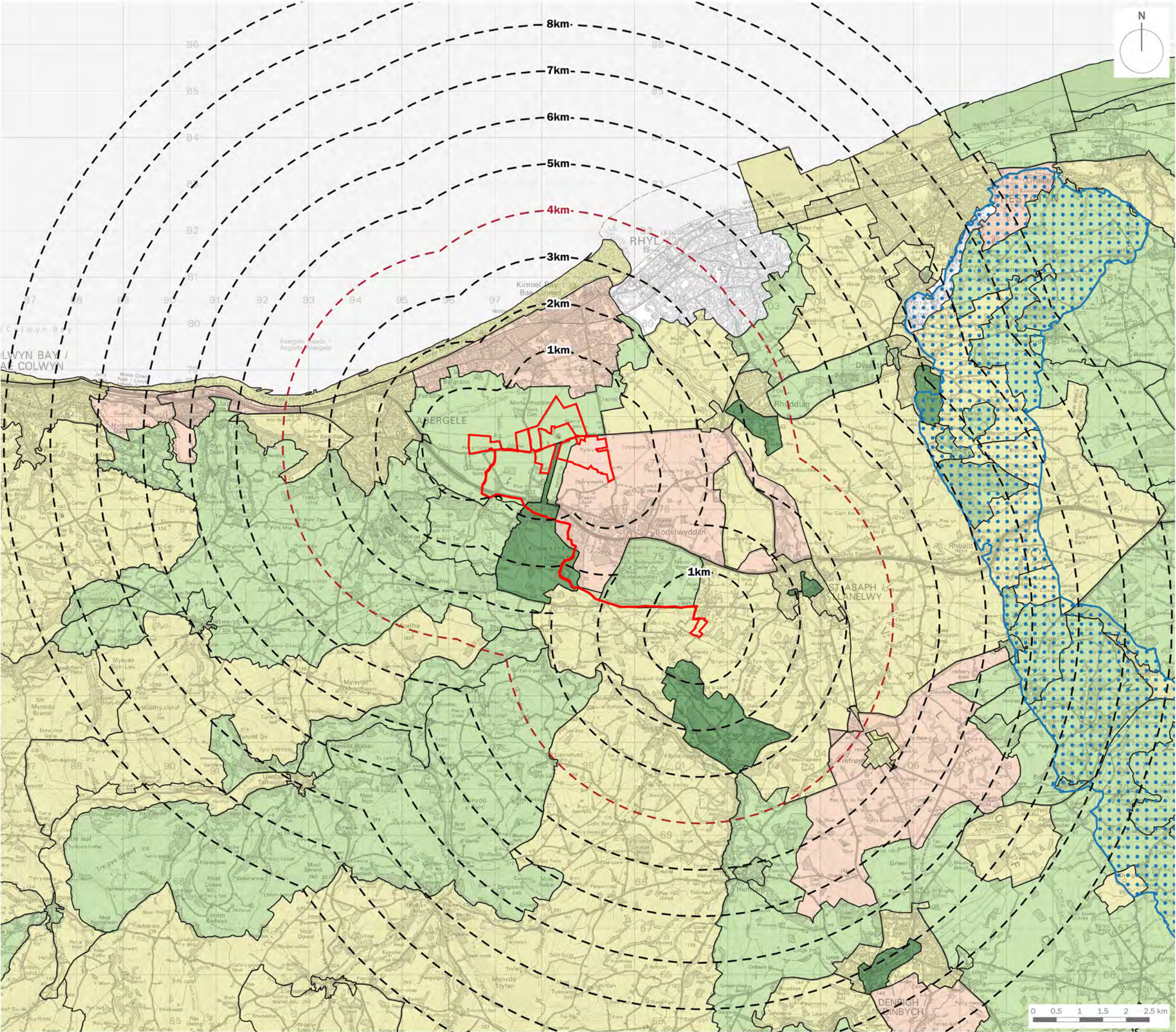
LANDMAP Visual and Sensory Aspect Areas:
Overall Evaluation

- Outstanding
- High
- Moderate
- Low

client	Bodelwyddan Solar and Energy Storage Limited		
project title	Bodelwyddan Solar and Energy Storage		
drawing title	Figure 11.5: Published Landscape Character - Overall Evaluation (Sheet 1 of 5)		
date	27 AUGUST 2025	drawn by	JCI
drawing number	edp8841_d009b	checked	MDu
scale	1:80,000 @ A3	QA	JFr



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- Site Boundary
- Range Rings (at 1km intervals)
- Clwydian Range and Dee Valley National Landscape

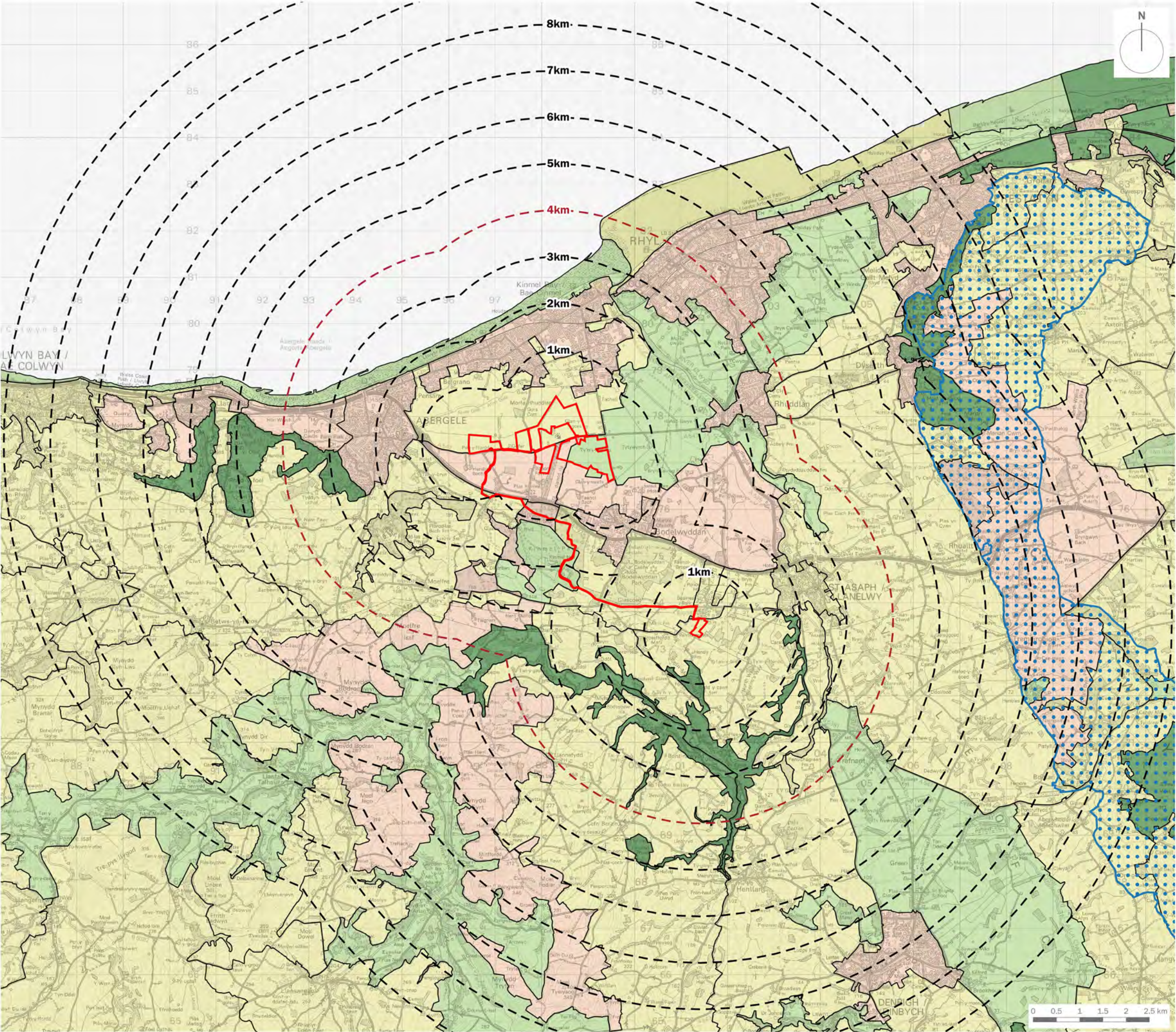
LANDMAP Historic Landscape Aspect Areas:
Overall Evaluation

- Outstanding
- High
- Moderate
- Low

client			
Bodelwyddan Solar and Energy Storage Limited			
project title			
Bodelwyddan Solar and Energy Storage			
drawing title			
Figure 11.5: Published Landscape Character - Overall Evaluation (Sheet 2 of 5)			
date	27 AUGUST 2025	drawn by	JCI
drawing number	edp8841_d009b	checked	MDu
scale	1:80,000 @ A3	QA	JFr



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- Site Boundary
- Range Rings (at 1km intervals)
- Clwydian Range and Dee Valley National Landscape

LANDMAP Landscape Habitats Aspect Areas:
Overall Evaluation

- Outstanding
- High
- Moderate
- Low

client
Bodelwyddan Solar and Energy Storage Limited

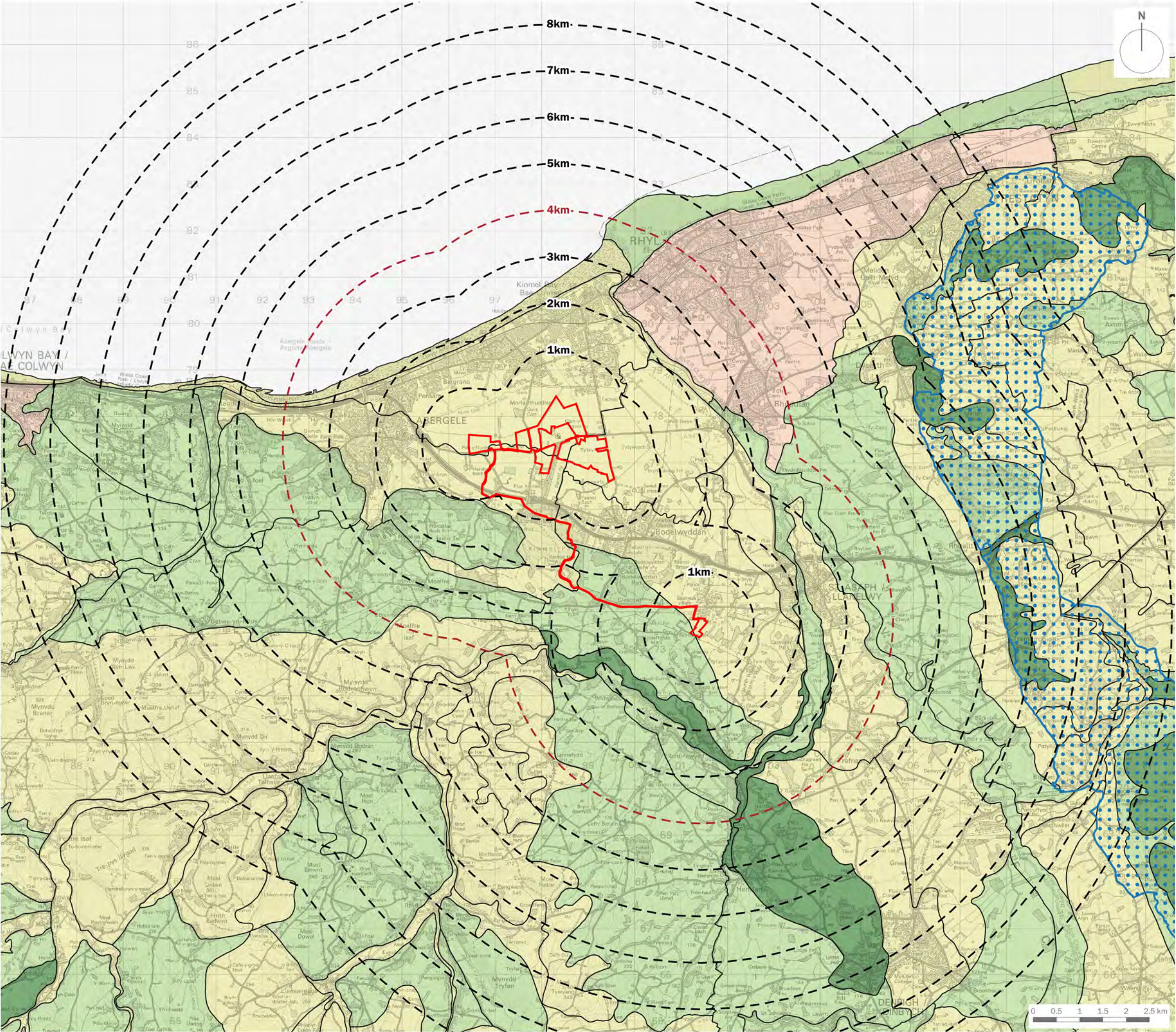
project title
Bodelwyddan Solar and Energy Storage

drawing title
Figure 11.5: Published Landscape Character - Overall Evaluation (Sheet 3 of 5)

date	27 AUGUST 2025	drawn by	JCI
drawing number	edp8841_d009b	checked	MDu
scale	1:80,000 @ A3	QA	JFr



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Site Boundary

Range Rings (at 1km intervals)

Clwydian Range and Dee Valley National Landscape

LANDMAP Geological Landscape Aspect Areas:
Overall Evaluation

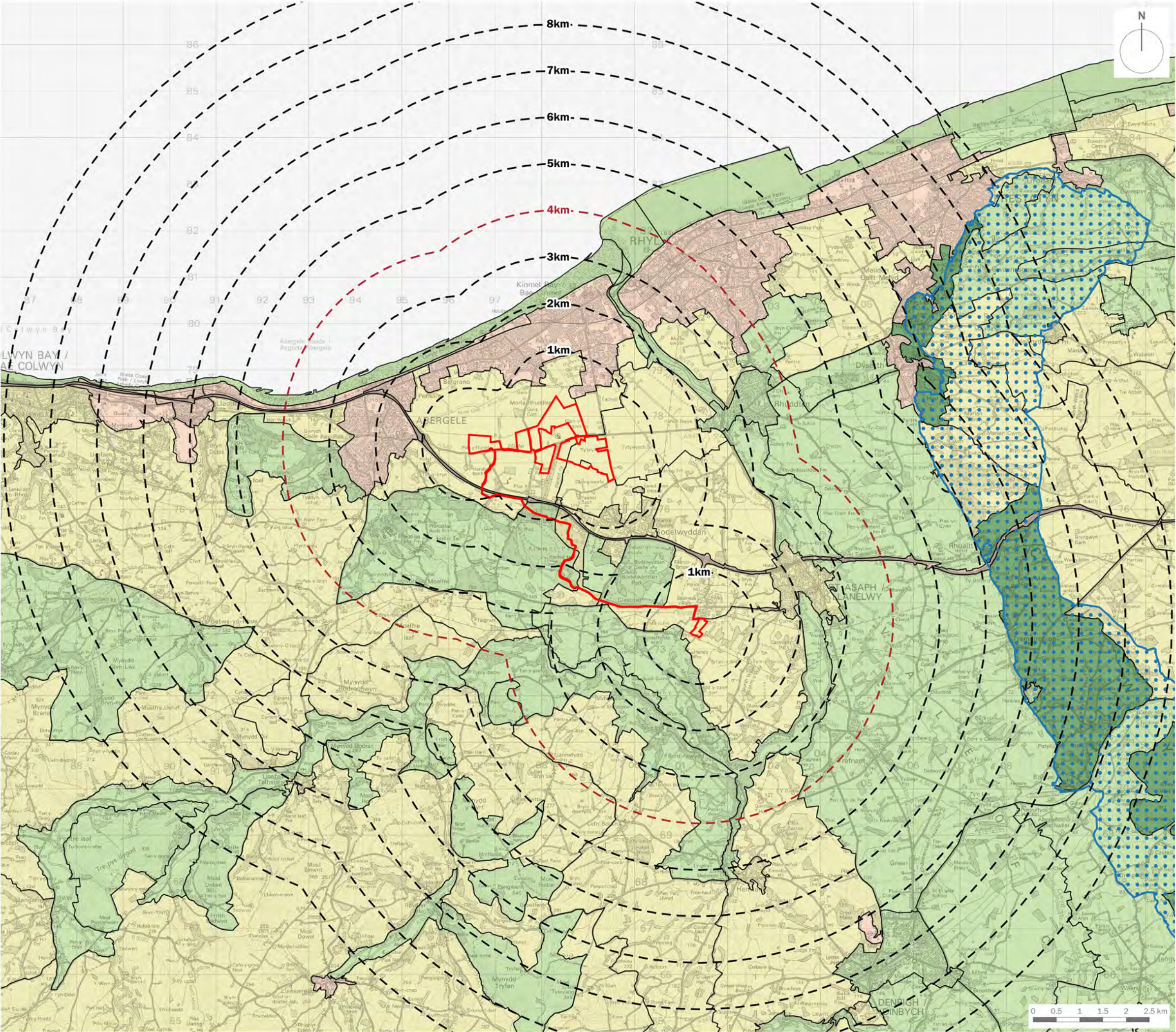
Outstanding

High

Moderate

Low

client	Bodelwyddan Solar and Energy Storage Limited		
project title	Bodelwyddan Solar and Energy Storage		
drawing title	Figure 11.5: Published Landscape Character - Overall Evaluation (Sheet 4 of 5)		
date	27 AUGUST 2025	drawn by	JCI
drawing number	edp8841_d009b	checked	MDu
scale	1:80,000 @ A3	QA	JFr



- Site Boundary
- Range Rings (at 1km intervals)
- Clwydian Range and Dee Valley National Landscape

LANDMAP Cultural Landscape Aspect Areas:
Overall Evaluation

- Outstanding
- High
- Moderate
- Low

client
Bodelwyddan Solar and Energy Storage Limited

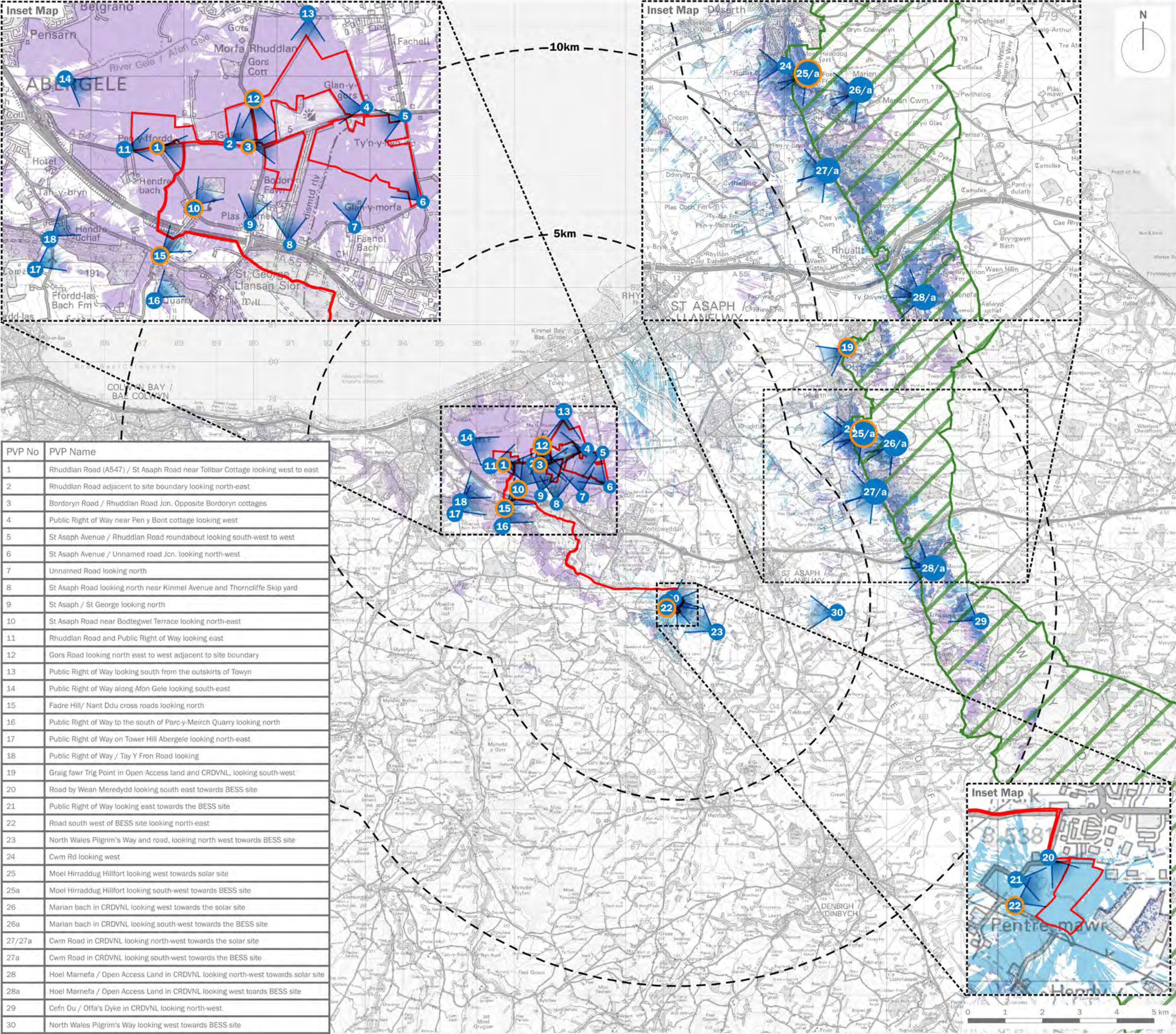
project title
Bodelwyddan Solar and Energy Storage

drawing title
Figure 11.5: Published Landscape Character - Overall Evaluation (Sheet 5 of 5)

date	27 AUGUST 2025	drawn by	JCI
drawing number	edp8841_d009b	checked	MDu
scale	1:80,000 @ A3	QA	JFr



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PVP No	PVP Name
1	Rhuddlan Road (A547) / St Asaph Road near Tollbar Cottage looking west to east
2	Rhuddlan Road adjacent to site boundary looking north-east
3	Bordoryn Road / Rhuddlan Road Jcn. Opposite Bordoryn cottages
4	Public Right of Way near Pen y Bont cottage looking west
5	St Asaph Avenue / Rhuddlan Road roundabout looking south-west to west
6	St Asaph Avenue / Unnamed road Jcn. looking north-west
7	Unnamed Road looking north
8	St Asaph Road looking north near Kinnel Avenue and Thornciliffe Skip yard
9	St Asaph / St George looking north
10	St Asaph Road near Bodtegwel Terrace looking north-east
11	Rhuddlan Road and Public Right of Way looking east
12	Gors Road looking north east to west adjacent to site boundary
13	Public Right of Way looking south from the outskirts of Townyn
14	Public Right of Way along Afon Gele looking south-east
15	Fadre Hill/ Nant Ddu cross roads looking north
16	Public Right of Way to the south of Parc-y-Meirch Quarry looking north
17	Public Right of Way on Tower Hill Abergele looking north-east
18	Public Right of Way / Tay Y Fron Road looking
19	Graig fawr Trig Point in Open Access land and CRDVNL, looking south-west
20	Road by Wean Meredydd looking south east towards BESS site
21	Public Right of Way looking east towards the BESS site
22	Road south west of BESS site looking north-east
23	North Wales Pilgrim's Way and road, looking north west towards BESS site
24	Cwm Rd looking west
25	Moel Hirraddug Hillfort looking west towards solar site
25a	Moel Hirraddug Hillfort looking south-west towards BESS site
26	Marian bach in CRDVNL looking west towards the solar site
26a	Marian bach in CRDVNL looking south-west towards the BESS site
27/27a	Cwm Road in CRDVNL looking north-west towards the solar site
27a	Cwm Road in CRDVNL looking south-west towards the BESS site
28	Hoel Marnefa / Open Access Land in CRDVNL looking north-west towards solar site
28a	Hoel Marnefa / Open Access Land in CRDVNL looking west toards BESS site
29	Cefn Du / Offa's Dyke in CRDVNL looking north-west.
30	North Wales Pilgrim's Way looking west towards BESS site

Site Boundary

Range Rings (at 5km intervals)

Zone of Theoretical Visibility (ZTV) - Main Site (4.6m Proposed Panel Height)

Zone of Theoretical Visibility (ZTV) - Battery Storage Site (5m Proposed Development Height)

1

Photoviewpoint Location

Photomontage Location

Clwydian Range and Dee Valley National Landscape

Zone of Theoretical Visibility (ZTV) was calculated using a spatial modelling algorithm which considers the following parameters:

- 1.6m Receptor Elevation (Observer Height)
- Proposed Development Heights as above
- 360 Degree Field of View
- LiDAR 1m Digital Surface Model (DSM) (vertical accuracy of +/- 5cm)

client

Bodelwyddan Solar and Energy Storage Limited

project title

Bodelwyddan Solar and Energy Storage

drawing title

Figure 11.6: Findings of Visual Appraisal and Viewpoint Locations

date

27 AUGUST 2025

drawn by

GYo

drawing number

edp8841_d007b

checked

MDu

scale

1:100,000 @ A3

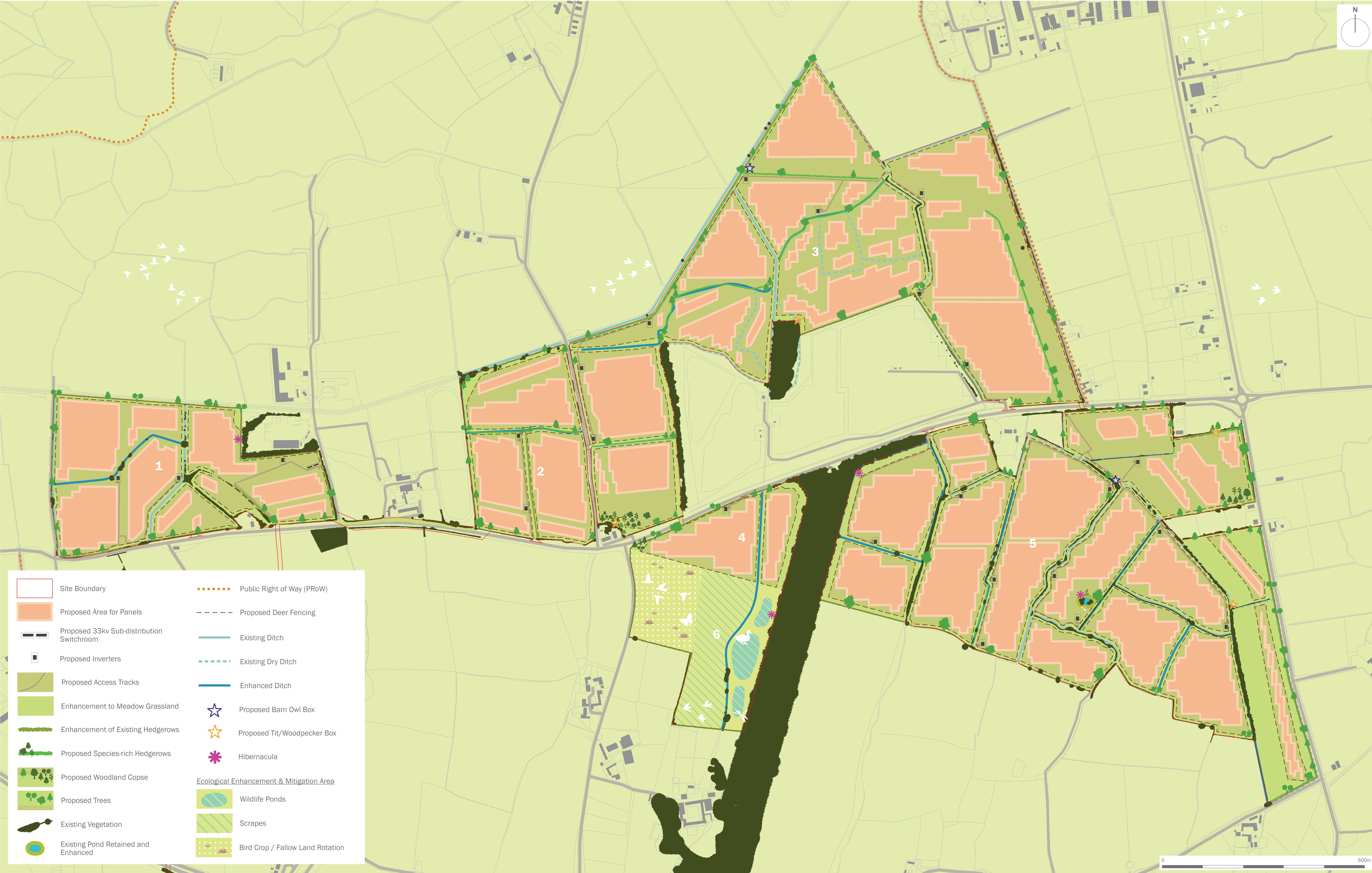
QA

JFr

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- Existing Trees
- Existing Tree Group/Woodland
- Existing Hedgerow
- Proposed Enhanced Hedgerow
- Proposed Species-Rich Hedgerow
- Proposed Tree Planting
- Development Access Track
- Enhanced Meadow Grassland
- Proposed BESS Compound
- Proposed Substation Compound
- Weldmesh Fence
- Noise Barrier
- Metal Palisade
- Existing Veteran Tree (T262)

client			
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project title			
Bodelwyddan Solar and Energy Storage			
drawing title			
Figure 11.8: Illustrative Landscape and Ecology Strategy (BESS Site)			
date	27 AUGUST 2025	drawn by	JHa
drawing number	edp8841_d050b	checked	MDu
scale	Refer to scale bar @ A2	QA	JFr

Photoviewpoint EDP 1A: Rhuddlan Road (A547)/St Asaph Road near Tollbar Cottage looking west to east





To be viewed at comfortable arm's length



To be viewed at comfortable arm's length



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Grid Coordinates: 296711, 377233
Date and Time: 27/11/2024 @ 14:05
Projection: Cylindrical
Visualisation Type: 1

Horizontal Field of View: 90°
Height of Camera: 1.6m
Make, Model, Sensor: Sony A7 MK2, FFS
Enlargement Factor: 96% @ A1 width

Direction of View: E
Distance: 14m
aOD: 5m
Focal Length: 50mm

date: 27 AUGUST 2025
drawing number: edp8841_d048a
drawn by: NWa
checked: MDu
QA: JFr

client: Bodelwyddan Solar and Energy Storage Limited
project title: Bodelwyddan Solar and Energy Storage
drawing title: Figure 11.9: Photoviewpoint EDP 1C

Photoviewpoint EDP 2A: Rhuddlan Road adjacent to Site boundary looking north east

Approximate extent of Site



To be viewed at comfortable arm's length



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Registered office: 01285 740427
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Grid Coordinates: 297492, 377270
Date and Time: 28/11/2024 @ 12:50
Projection: Cylindrical
Visualisation Type: 1

Horizontal Field of View: 90°
Height of Camera: 1.6m
Make, Model, Sensor: Sony A7 MK2, FFS
Enlargement Factor: 96% @ A1 width

Direction of View: NE
Distance: 2m
aOD: 22m
Focal Length: 50mm

date
drawing number
drawn by
checked
QA

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MDu
JFr

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project title
drawing title

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Figure 11.9: Photoviewpoint EDP 2A



To be viewed at comfortable arm's length

Approximate extent of Site



To be viewed at comfortable arm's length



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Registered office: 01285 740427
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Grid Coordinates: 297690, 377238
Date and Time: 28/11/2024 @ 12:15
Projection: Cylindrical
Visualisation Type: 1

Horizontal Field of View: 90°
Height of Camera: 1.6m
Make, Model, Sensor: Sony A7 MK2, FFS
Enlargement Factor: 96% @ A1 width

Direction of View: E
Distance: 10m
aOD: 5m
Focal Length: 50mm

date
drawing number
drawn by
checked
QA
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JFr

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drawing title
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Figure 11.9: Photoviewpoint EDP 3A



To be viewed at comfortable arm's length



Photoviewpoint EDP 4A: Public Right of Way near Pen y Bont cottage looking west



To be viewed at comfortable arm's length



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Registered office: 01285 740427
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Grid Coordinates: 298963, 377664
Date and Time: 28/11/2024 @ 14:45
Projection: Cylindrical
Visualisation Type: 1

Horizontal Field of View: 90°
Height of Camera: 1.6m
Make, Model, Sensor: Sony A7 MK2, FFS
Enlargement Factor: 96% @ A1 width

Direction of View: W
Distance: 0m
aOD: 3m
Focal Length: 50mm

date
drawing number
drawn by
checked
QA

27 AUGUST 2025
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MDu
JFr

client
project title
drawing title

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Figure 11.9: Photoviewpoint EDP 4A



To be viewed at comfortable arm's length